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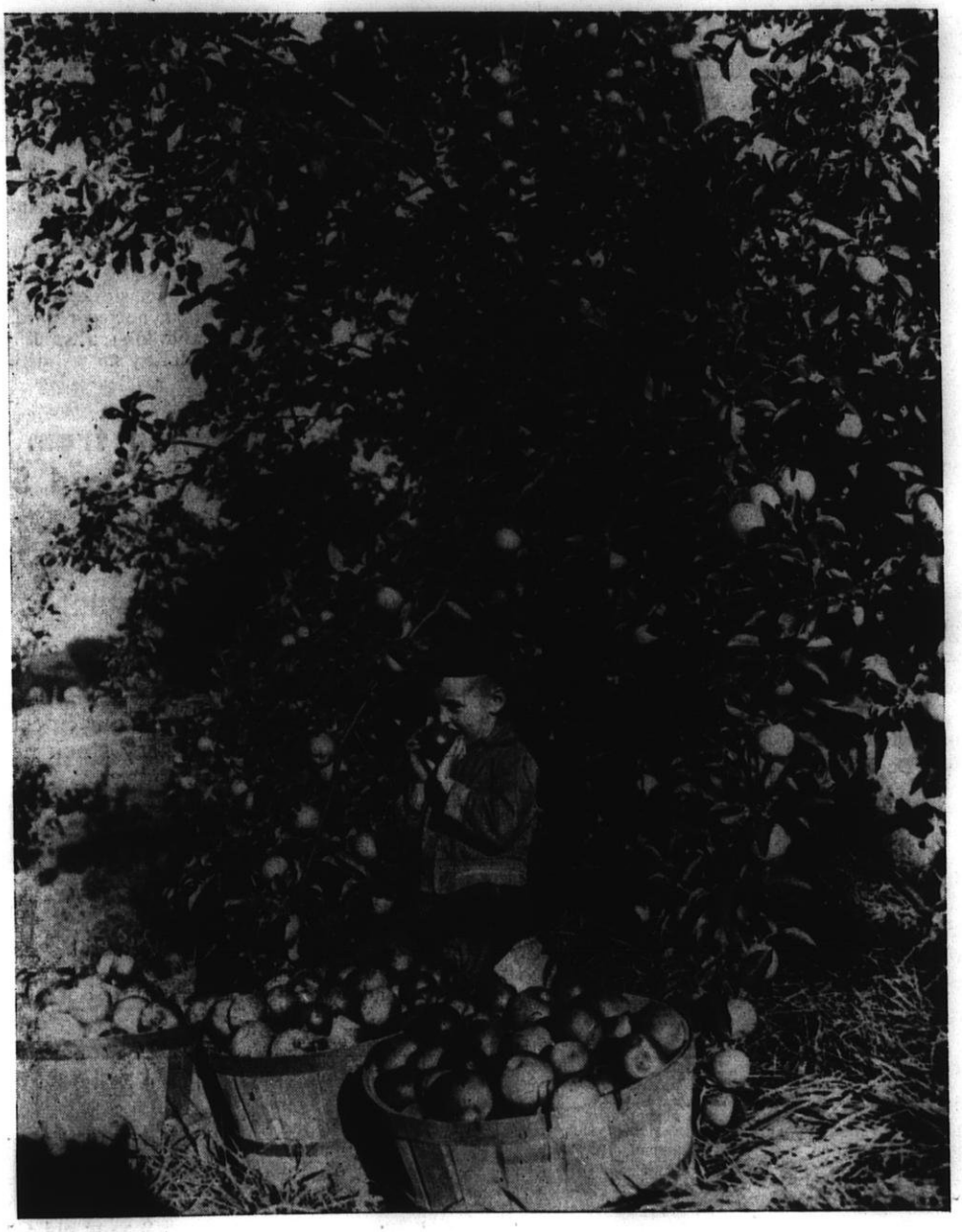
Wisconsin Horticulture



September, 1952

WISCONSIN HORTICULTURE

The Official Organ of the Wisconsin State Horticultural Society

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Subscription by membership in the Wisconsin State Horticultural Society. Annual dues are $1.25 per year. Organizations of 10 members or more may affiliate at special rates which will be sent on request.

The McGilvra's in the Orchard

Pictures on Next Pa

Linda Jeanne Schoephoerster, 2 year old Granddaughter of Mr. and Mrs. Earl McGilvra loves to come out to Grandpa's and eat some nice juicy apples. She knows where the apples are good too, and always picks the best ones.

Mr. and Mrs. McGilvra like to pick apples. Earl doesn't mind climbing the ladder and Mrs. McGilvra finds real pleasure in handling the large, colorful fruit.

From 35 Trees the McGilvra's of Baraboo Build

A Successful Orchard Venture

My First Crop Was 300 Bushels and I Didn't Know How to Sell Them, Writes Earl McGilvra

The McGilvra Orchard is located just off Highway 12 and 13 south of the city of Baraboo. The McGilvras have made a notable success of fruit growing. They operate the kind of orchard that makes a profit for years unless some type of misfortune overtakes them, which is rare. The key to their success is careful management and supervision in which both Mr. and Mrs. McGilvra take part. They have developed a home market and thereby control their sales and receive a major proportion of what the fruit brings from the consumer.

Finds Fruit Growing Interesting

Mrs. Caroline McGilvra says "I hear many comments as I meet folks coming to buy apples. There are always some who think apples should be had for the picking when September draws near. Others show a real appreciation for a good sound fruit and they aren't afraid to say so. One customer said, "I don't see how Earl stands that kind of work—I wouldn't handle that spray stuff and climb trees if I never had an apple'. However, we enjoy meeting people and everyone is made to feel welcome if he buys apples or not. I find that courtesy pays along with a good, honest pack."

McGilvras bought their present place in December, 1924. Writes Earl McGilvra. "It had 35 apples trees about 25 years old on it then. We had it sprayed three times the next summer and in the fall we had a heavy crop of fine, clean, McMahon, Wealthy, Greenings, Crabs and a few trees of very poor kinds.

"We were at a loss to know what to do to move this 300 bushel crop of apples so I loaded 50 bushels on a ton model-T truck I hired and started out to sell them. The result from that load was that there have been many loads of very nice apples to our customers. We are still selling apples today to quite a number of the people I sold to 27 years ago.

"Although we have a small orchard we try to grow choice apples and put up a good pack. Our customers know when they buy a basket that the apples are nice quality all the way through.

Began In 1938

"We started our present orchard in 1938 by buying 250 11/16 trees and by grafting 6 inch scions taken from older trees on under stock. We have several hundreds of these trees now. The orchard is planted on a north slope and the soil has some clay but is mostly a loam type. We have the standard varieties: Cortland, Snow, McIntosh, Jonathon, Greening, Wealthy, Tolman Sweet, Duchess, Whitney and several trees of the newer Minnesota varieties.

"We paid for our place and made all improvements and built a storage and warehouse 32 x 50 feet, three stories high and have one large modern 35 gallon pump with a Bes-blo on it.

"We controlled insects almost perfectly last year, even the apple maggot, with DDT and lead. We had a start of scab a few times but held it down pretty well with lime sulphur and ferbam, spraying only 8 times this past season.

"In 1950 we tried spraying two rows of Cortland with Nu-green on trees that had no other fertilizer. It made the foliage greener and I think we could see very little difference in the apples on the crop this year. Otherwise we use nitrogen spread around the trees at the rate of 4 to 5 pounds every other year.

Best Sellers

"Our best sellers are Cortland, McIntosh, Snows, Greening and Delicious and by putting out a good grade we have built up a nice trade here at the place and also on our routes. We run ads in several papers through the picking season and into the winter and by putting into the apple business a lot of hard work and effort we have mastered it in a small way. We have a nice living and a comfortable home for us all. Our children, a son and two daughters grew up here and now we have a fine place for the grandchildren to gather pleasant memories."

Orchard Notes

By C. L. Kuehner

Chemical thinning of apples was again carried on this year in a number of Wisconsin Orchards. Many orchardists again applied thinning sprays of one or another of the commercial preparations of napthalene acetic acid as a separate application either in the calyx or within the first week or ten days after petal drop. Results were satisfactory in most of the orchards particularly on Duchess, but apparently less consistently so in Wealthy. In some orchards Wealthy failed to respond satisfactorily even though in 1951 the same dosage at the same stage of fruit development as in 1952, gave very satisfactory results. This experience probably shows that factors such as temperature at the time of the spray application as well as the vigor of the trees affect the action of the thinning applications. Vigorous trees respond less readily than somewhat less vigorous trees.

Fire Blight

Quite a few orchardists reported fire blight infections during the months of July and early August but no real epidemic cases were brought to our attention. Much can be accomplished in the control of fire blight by a careful survey of all the trees in an affected orchard to locate and remove all fire blight cankers from the infected trees. This work should be done during the dormant season pruning. For more complete recommendations on fire blight control ask your County Agent or write the Agricultural Bulletin Mailing Room at the College of Agriculture, Madison, for Stencil Circular 200.

Mouse Control

A new method of mouse control is being tried in several different orchard areas of the country. Toxaphene as well as some other chemicals are being used as ground sprays in mouse infected orchards. According to William Fitzwater of Rodent Control Service, USDA these new ways of control are still in the experimental stage and need to be more fully tested before recommendations can be considered safe. It is possible that a limited number of tests may be carried on in a few Wisconsin orchards if we have orchardists who wish to cooperate in such an experiment. Interested growers should contact the Horticultural Department, U.W. at an early date so necessary arrangements can be made for mouse control testing plots.

Apple Cider

This is the time to be thinking about sweet apple cider. There is always a ready market for wholesome sweet cider made of apples which are clean and sound but do not make the grade to be No. 1's. Write your County Agent or the Agricultural Bulletin Mailing Room for Stencil Circular 141 — "How To Make Sweet Cider and Cider Vinegar."

New Early Apple

Mantet, a new early apple variety from Canada fruited this year. It is an excellent quality early apple of the Melba type. It is somewhat earlier than Melba and is a bit more acid. It's a delightfully juicy and crisp eating apple.

Hydrocooling of Apples

By George G. Jones and R. M. Smock,
N. Y. Experiment Station

One of the problems involved in the storage of fruit is the removal of field heat. In general, the more rapidly it can be removed the better the fruit will keep. With enough refrigeration capacity, good stacking, and good air distribution, field heat can be removed from apples in storage in 72-80 hours. More commonly, in actual practice it takes from 5 days to a week; in some storages, with poor refrigeration, stacking, and air movement, it may require 3 or 4 weeks.

Investigation at Cornell has been directed towards extremely rapid removal of field heat by means of bathing the fruit in ice water. This method of heat removal is called **hydrocooling.** Many vegetables are hydrocooled before shipment, but the method has not come into common practice on fruits.

Hydrocooling is approximately 150 times as fast as conventional air-cooling in the average apple storage.

Various Methods Tested

Various methods of hydrocooling 3 inch McIntosh apples were tested. When the apples were floated through ice water at 32 degrees F., core temperatures were reduced to 43 degrees F in 60 minutes. A faster method of cooling was to submerge the apples during the hydrocooling period. They were then brought to 37 degrees F in 60 minutes. Another rapid method was to float the apples through the ice water bath and spray them from overhead with ice water. The slowest method of hydrocooling was to submerge whole boxes of fruit. It was impossible to supply enough agitation of the water penetrating the boxes to keep it at 32 degrees F.

Use Of Well Water

One question frequently asked by growers refers to the possibility of using well water for hydrocooling. It is possible to do this but there are definite limitations. If well or spring water at 45 degrees F is available in large quantities, it requires 90 minutes to reduce core temperature of 3 inch apples to 45-46 degrees F. The amount of water required is almost excessive. For hydrocooling 3 inch apples, starting at 70-75 degrees F at the rate of 100 boxes per hour, and allowing no more than 1 degree temperature rise in the water, approximately 244 gallons per minute of 45 degree F water is required.—Condensed from Farm Research July; by New York Experiment Station.

Wisconsin Has a Nice Apple Crop

NATIONAL APPLE CROP SMALLEST IN YEARS

On August 1st the State and Federal Crop Reporting Service of the U. S. Department of Agriculture reported that the estimated apple crop for the U. S. was 98,122,000 bu., down from the July report of 101,767,000 bu. It is 12 million bu. under the 1951 crop of 110 million bu. and much less than the 1950 crop of 124 million bu.

Most of the leading apple states of the nation have a smaller crop this year than last year. This includes Illinois, Michigan, Minnesota, and New York.

Wisconsin Crop Normal

Wisconsin is one of the few states reported with an increase over last year. The August 1st estimate for the Wisconsin commercial crop was 1,238,000 bu., down 8% from July 1st report, but still larger than the 1951 estimated crop of 1,207,000 bu. Most growers think the crop this year is smaller than last year. This estimate is from the Crop Reporting Service's report of over 200 regular reporters.

THE PEAR CROP is about the same as last year with 30 million bu.

THE PEACH CROP is under last year—estimated on August 1st to be 61,347,000 bu. as against last year's crop of 63,627,000 bu. Georgia and California were much lower this year than last.

THE CHERRY CROP SUFFERED WIND DAMAGE. The Wisconsin crop for August 1, was reported as 10,900 tons, compared to the July 1 estimate of 13,900 tons. The 1951 crop was 14,500 tons. The Michigan cherry crop also took a heavy beating; on July 1, it was estimated at 80,000 tons, and on August 1, only 55,000 tons. Last year they had 84,700 tons. New York's crop is reported down from last year: 20,100 tons, with last year's crop 30,200 tons.

The great gift of conversation lies less in displaying it ourselves than in drawing it out of others. He who leaves your company pleased with himself and his own cleverness is perfectly pleased with you.

Honey apple crisp is the favorite dessert of the Don McDowell family. Mrs. McDowell, wife of the Director of the State Department of Agriculture, is showing Mrs. Marjorie Slaughter (left), Publicity Director for the Wisconsin Apple Institute a dish she has just baked. Picture was used for promotional purposes. Recipe will be found in this issue.

THE WISCONSIN APPLE CROP BY COUNTIES

Most interesting is the estimate of the apple crop in leading Wisconsin counties as given for the 1949 crop in the 1950 U.S. Census. The number of bushels produced in the 12 commercial counties from which the commercial crop is now being forecast were as follows: Crawford County 203,544 Bu.; Door, 194,487; Ozaukee, 95,652; Trempealeau 88,594; Waukesha, 73,018; Brown 70,037; Bayfield 69,842; Kewaunee, 54,415; Kenosha, 50,620; Chippewa, 42,619; Milwaukee, 39,720; and Dunn, 33,753 bushels.

The following counties are not considered commercial counties, perhaps because they do not have large commercial growers, but their production is still a factor in our total crop. Production (from 1950 census) Manitowoc County 65,000 bushels; Sheboygan, 58,000; Jefferson, 34,000; Racine, 31,000; Washington, 29,000.

WISCONSIN APPLE INSTITUTE'S NEW RECIPE BOOK OUT

The new Recipe Book USE WISCONSIN APPLES—52 NEW WAYS is now ready and available. It's a dandy. All growers should use it. Available at $4.00 per hundred.

Home agents, Radio stations and newspapers are now using news items about apples and recipes for cooking them sent out by Mrs. Marjorie Slaughter shown in the picture. It's a big program. Help the Institute.

The Latest Orchard News

APPLE PICKING MECHANIZED

An automatic fruit picker that works like a vacuum cleaner is reported. It is made by E. C. Brown Co. at Canadaigua, N.Y. The business end of the picker fits over fruits 2⅛ to 3¾" in diameter and pulls it off without damage to fruit spurs. The fruit travels down a rubber-lined tube and is deposited gently in a container, according to the manufacturer.

It is operated by a portable power unit that creates a suction with a 1 h.p. 2-cycle gasoline motor, weighing only 35 pounds.

From the ground you can pick apples up to 16 feet high, but for higher trees you will need a picking platform.

The unit costs about $700.00 F.O.B. Mr. Brown says that one man can harvest up to 300 bushels of apples per day with the picker.

THE FRANKLIN APPLE — NEW VARIETY FROM OHIO

The Franklin apple, named for Benjamin Franklin who initiated the export trade in apples is receiving favorable comments by the introducers at the Ohio Experiment Station.

The tree first flowered in 1936 and is a cross of McIntosh flowers fertilized with Delicious pollen.

The fruit is mild, moderately juicy, not quite as sweet as Delicious, but with more character than McIntosh. In appearance, so say the introducers, the fruits seem to excell both as grown in Ohio. They have a brilliant red over-color which resembles Delicious but distinctly brighter. Fruit is medium in size, oblong in shape with small pronounced points. As a dessert apple it is best from late October to late December.

The fruits are subpect to scab the same as most McIntosh seedlings. Also, like McIntosh, it requires careful handling and may not be suited for wholesale distribution. However, it is fully as firm as McIntosh.

NEW CONTROL FOR FIRE BLIGHT SHOWS POSSIBILITIES

Fire blight has long been a serious problem with apple and pear growers. Now the Missouri Experiment Station reports that low strength application of streptomycin and thiolutin caused a marked reduction in fire blight infection.

The disease has been quite serious in orchards that have been over-fertilized, over-pruned or on non-resistant varieties. The young growth is blackened and it has seemed impossible to control excepting by cultural practices aimed at making the tree more resistant.

MORE ABOUT MOUSE CONTROL IN THE ORCHARD

Mice ruined quite a few apple trees during the past fall and winter. Growers have become quite concerned about the problem and are looking for an easier method of control than poisoned baits.

In Better Fruit magazine, Mr. William Luce writes: "Perhaps some apple growers would like to know more about the use of toxaphene for mouse control. How it kills, and when the best results can be expected . . . This method of mouse control looks too good to be true."

We wrote to Mr. William D. Fitzwater of the U.S. Rodent Control Service, who has spoken to Wisconsin Fruit Growers several times, asking about the method. He writes that there has apparently been excellent results with toxaphene on the west coast. The U.S. Service has done some experimental work with sprays in orchards, using chiefly parathion, in the New England district. But to date the results have been inconclusive. Mr. Fitzwater plans to spend several weeks in Wisconsin this fall to carry on research with toxaphene, so we hope to have some favorable reports for our growers by October.

DO YOU KNOW?

How many apples in a bushel?—

Fresh—

2-2¼ inches—too many as production costs are high and selling price low. Larger apples are cheaper to produce, better buyer's market.
2⅝ inches—about 175 per bushel
2¾ inches—about 150 per bushel
3 inches—about 112 per bushel
3¼ inches about 100 per bushel
3½ inches—about 78 per bushel
3¾ inches—about 54 per bushel

Frozen—

I bushel makes about 32 pint packages if apples are fairly large.

Canned—

I bushel makes from 14 to 18 quarts if apples are large enough.
—By C. L. Kuehner, Madison.

PUBLIC AUCTION IDEAL ORCHARD LOCATION

Sale of land owned by the State of Wisconsin—a part of the Home for Women in Section 5 and 6, Town of Taycheedah, Fond du Lac, Wis.

The tract consists of approximately 77 acres south of the ledge road, Highway AA through to the golf course, outside of the high chain link fence. The land is offered subject to an easement on one acre and accessible roadway in favor of Fond du Lac County for permanent location of radio tower site.

The sale will be held at the front gate entrance at the Home For Women at 10:00 A.M. Thursday, September 18, 1952. Terms of sale are cash. John W. Tramburg, Director, State Dept. Public Welfare.

Are You Selling Fruit to Best Advantage?

WILL IT PAY TO PRE-BAG APPLES AT THE ORCHARD

From 11c to $1.49 premium per bushel was realized by a group of Ohio apple growers when they pre-bagged their apples. Among eight Ohio growers who were prepackaging part of their apple production, it was learned that they averaged nearly 99c more per bushel than for similar apples sold in bulk containers during the winter of 1950.

Prebagging Costs

It cost Ohio growers an average of 59.1c to prepackage a bushel of apples. This cost is estimated to be approximately 20c more per bushel than bulk packing. All of the operators were using hand methods of bagging fruit. In Washington State, research workers estimated that the extra cost of semi-mechanically prebagging apples would be approximately 20c to 30c per bushel in 1949. There has been reduction in costs of prebagging materials since that time.

The cost of master containers for the Ohio growers average only 8.7c, for they reused the containers an average of 6.5 times. They did this by picking up the empty containers at the store or at the warehouse where they delivered the fruit, or by having the store return them to the orchard.

Store Managers Interviewed

Twenty-four stores were visited and the managers interviewed in a group of Ohio towns during January and February, 1951. These stores had been handling prepackaged apples for an average of two years or more. They usually handled only one size package, with the 5-lb. size predominating.

OUTSOLD BULK. In approximately one-half of the stores Ohio prepackaged apples outsold bulk apples. The Ohio researchers state, "During the survey when prepackaged apples were available all the time, the farm prepackaged Ohio apples outsold all other apples by 753 pounds to 523 pounds or by 44% . . . "If store prepackaged apple sales were combined with the farm prepackaged apples, the prepackaged apples outsold bulk apples in 19 of the 24 stores. Where

store prepackaging was done, 41.9% of the apples received in bulk were packaged."

Size Of Sale Increases

Farm prepackaging in Ohio has had the effect of increasing the size of sale, for consumers bought on the average of 4.33 pounds in the prepackaged compared with 2.94 pounds for a bulk sale.

Smaller Margins

Prepackaged apples were sold on smaller margins—31%, compared with 53% for Ohio bulk apples. This lower margin on the prepackaged apples is an indication that risks of marketing Ohio grown fruit probably are being reduced by prepackaging.

Less Spoilage Loss

Spoilage losses on prepackaged apples were less than on bulk fruit. Prepackaged apples had only 1/5 the spoilage of all other apples. "Spoilage losses of those reporting loss were 2.2% for bulk apples and .44% for prepackaged apples."

Retailer's Opinions

The retailer's opinions can give a good indication of whether or not prepackaging is a profitable way of merchandising. "78% of the retailers stated that they liked the prepackaged farm apples. Only one retailer complained of poor quality in the packages. None stated any dislike for the farm prepackaged apples, but they did state certain things they thought would make for improvement in the prepackaged apples. Increases of apple sales from 50% to 300% were reported with the offering of the prepackaged units."

The reasons retailers liked prepackaging were given as uniformity, less spoilage, good quality, saving of clerk's time, convenience for the retailer and consumer, sanitation, and acceptance by consumers. For further improvements in prepackaging, retailers generally indicated that they would prefer two sizes of bags—three and five-pound packages were commonly requested. Thirty percent of the retailers wanted a more consistent supply. Five out of the 24 wanted all their apples prepackaged. Four wanted more varieties prepackaged. **Condensed from Apple Research Digest. By Wash. State Dept. Agric. & Apple Comm.**

WHEN TO PICK PEARS

By C. L. Kuehner

The time of picking is most important in pears. Most pears must be picked before they are "eating ripe" since they turn soft and brown at the core if allowed to ripen on the tree. This applies in particular to the early pears such as Tyson, Clapp Favorite, Patten, Lincoln, Bartlett, and Worden Seckel.

Pears should be picked while they are still largely green and before they develop the characteristic color and gloss of the ripe pear. When the deep green color begins to turn to a lighter green, particularly on those fruits which are exposed to the south and southwestern sun, it is time to pick them. Some growers pick pears as soon as the stem of the pear separates readily from the spur when lifted upward. In general, this is not as safe a time for picking as is the color change.

It is, of course, possible to pick pears too early. They should be allowed to remain on the tree until they attain full or nearly full size for the variety. Winter pears, such as Kieffer, Lawrence, and Winter Nelis, should generally be left on the trees as long as possible or until danger of freezing.

Berries and Vegetables

Wisconsin Berry and Vegetable Growers Ass'n.

STRAWBERRY GROWING

1952 Notes At The Thalman-Swingle Berry Farm, Door County

BY CHARLES F. SWINGLE

Irrigation

Irrigation was needed several times during May and June. On our soil we need about ¾ inch of rain or irrigation very 10 to 14 days.

Harvest

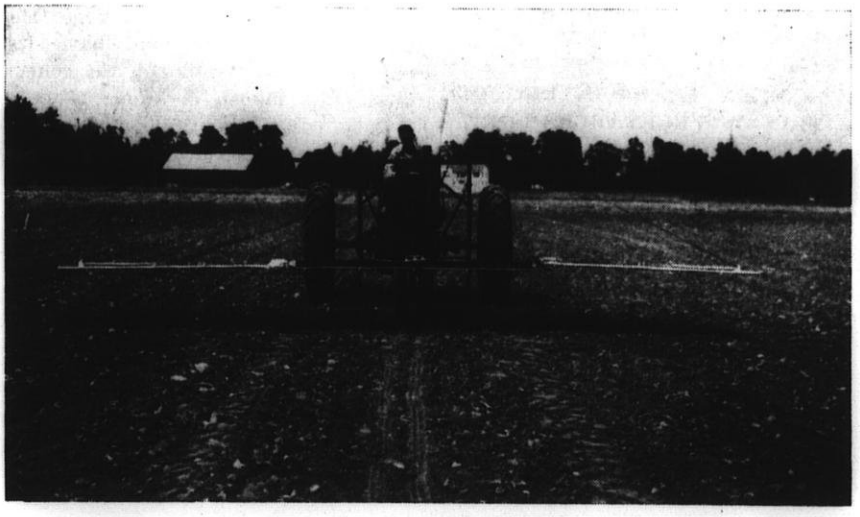
The harvest was not as good as promised and hoped for, due to showing up of winter injury (damage last November?) and to absence of sunshine during harvest. The latter was particularly bad on our berries which were well fortified and thick in the row. Three acres gave us about 17,000 quarts. Prices were generally satisfactory.

Strawberry Varieties, 1952 Harvest

Beaver: All our Beaver apparently turned out to be Dunlap, which did not size up, and gave us many soft berries, with the cloudy weather. **Wis. No. 537:** Quality perfect and greatly appreciated by the customers. Practically all our crop moved at a premium. Later pickings did not hold up to size, probably as a result of early November root injury, not previously apparent. **Wis. No. 261 and Wis. No. 2-14:** Quality good but definitely inferior to No. 537. Many nubbins, apparently due to cloudy weather and too thick stand. **Robinson** and **Thomas:** Promising but not exceptionally so, based on few plants in fruiting. **Premier:** Mostly disappointing in later pickings because of lack of size, but some exceptions. We wonder if we have virus in the general run of our Premier.

Nectarina: Very disappointing until the end of the harvest, when a fairly good picking was obtained. Plants were badly attacked by leaf spot; low growing; too thick; hard to pick; soft and lack of color. Very high quality but definitely not a commercial berry for us. **Sparkle:** Seems to have high promise.

Varieties in addition to the above, planted for the first time in 1952; Empire; Erie; Eden; Marshall; Great Bay; Dorsett; Fairfax; Lindalicious; Catskill and everbearers.



Chemical weed control on the Thalman-Swingle Berry Farm, Sturgeon Bay. Crag Herbicide is being used shortly after the plants were set out in June. Crag controls weeds germinating from seed and is effective for about one month.

Everbearers: Started fruiting the last of July from this Spring's planting. **Red Rich:** Outstanding in plants and promise, but up to middle of August, still mostly promise, with very slow ripening of fruit, and many nubbins. Quality tops, with large, dark red berry, red fleshed and firm. **Gem:** Has given best yields so far. **Superfection** and **Streamliner** only fair. **Evermore** and **Bruns Marvel** poor results to date. Everbearers have been grown in definite hills for bearing, with runners removed except enough to fill misses. To get runners for next year's planting, separate rows were put out and flowers kept removed. Market is good on everbearers and we are able to get rid of all the crop at 50c per quart.

Planting Machine

The New Idea Cabbage Planter gave us better planting than hand planting. It was necessary to use a tractor geared to go only about ½ mile per hour.

Weed Control

A two-row cultivator on our F-12 was very satisfactory, permitting one man to cover our entire 9 acres of 1952 plantings in less than one day. The bad feature about it is that it is difficult to follow rows completely, when these were planted with a single row planter. Therefore, we have sometimes had to use a one-horse cultivator pulled by the F-12, thus using two men to get half the area cultivated in a given time.

Crag No. 1 Weedkiller

We used Crag No. 1 two times on the new plantings, June and July, and will use it a third time the last of August. It was very satisfactory except for the difficulty in calibrating the weed sprayer. The cost for materials was $7.00 per acre per application. It was effective for about one month. It was used just after uncovering on old plantings, and again after renovating the middle of August. There was no indication of any injury. It is certain that this has greatly reduced our weeding costs.

Geese A Headache

Geese are a headache from start to finish. With weed control adequately cared for with herbicide and cultivation, we did not have enough weeds in the new plantings for the geese to eat. They cannot be allowed in old plantings from blossom time until after renovation. Geese do not eat

strawberries, they do eat grasses and many weeds, but only in special cases would they be worth their trouble. They must be confined, watered, fed, and guarded against foxes and other predators. They cost $1.75 each as day-old goslings. We ended up with 53 of our original 100.

WISCONSIN LEADS IN PRODUCTION OF VEGETABLES FOR CANNING

In addition to its leadership in dairying and dairying products Wisconsin leads the nation in the production of canning crops, such as peas, beets and sweet corn. Last year we produced an estimated 160,000 tons of canning peas and 239,000 tons of sweet corn went into cans.

The state was in second place in cabbage for kraut, cabbage for fresh market, cranberries and cucumbers for pickles.

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THE ROADSIDE STAND WILL PAY IF WELL MANAGED

Rule For Success Laid Down By Growers

If you are on a well traveled highway, a roadside stand may be a profitable venture. The following are some secrets of success as laid down by some who have made it pay.

1. Package fruit and vegetables every day — customers expect freshness.

2. Provide different grades of produce. Have something that will fit every customer's purse.

3. Package in fairly large quantities such as apples in peck, half-bushel and bushel sizes. Remember that if you feature "2 pounds for 25c" customers will probably buy only 2 pounds.

4. Make it easy for buyers to drive in and find a parking place, or else they will probably wave "good-bye."

5. Keep the whole place neat and clean at all times—you are competing with some mighty fine looking stores in town these days.

6. Have freshly painted and eye-catching signs down the road.

7. Send postcards to former customers to let them know when your produce is ready.

8. Be fair in your prices. Already many consumers pass by roadside stands because they feel they can do better in a big super market.

ANNUAL CONVENTION WISCONSIN BERRY AND VEGETABLE GROWERS

Courthouse, Oshkosh
Monday, November 3, 1952

The Wisconsin Berry and Vegetable Growers Association will have its regular annual meeting at the courthouse in Oshkosh on Mon., Nov. 3. County Agent Peroutky is again making arrangements for a noon luncheon. The entire day will be devoted to strawberry and raspberry growing subjects.

All berry growers are invited to attend. On the program will be reports of research on berry varieties and culture at the Branch Experiment Station at Sturgeon Bay, and experience of leading growers.

FALL PLANTING OF FRUITS NOT ADVISED

Wisconsin Winters Are Too Severe And Losses Too Great

"Plant Fruits This Fall" is the heading of an article in a national magazine. The article was written by an authority in a state having a much milder climate than that of Wisconsin. Fruit trees, strawberry plants, roses, grapes and even perennials can be planted in the fall in some states, but sad experience has taught us **not to do it in Wisconsin.**

If you purchase roses this fall, bury them and cover all the plants with about 3 or 4 inches of soil. Our experience with planting strawberries in the fall has not been at all good, so don't try it. Raspberries have been planted with success in some sections of the state, such as Bayfield, and may be an exception to this rule.

There is, of course, a wide variety of nursery stock that can be planted in the fall, especially lilacs and hardy trees. Peonies are best planted in fall.

ONION BAGS FOR SALE

For sale. Used onion bags, 50 lb. in good condition. 4,000 @ .05½c each. REGAL BOX CO., 1835 No. 30th St., Milwaukee 8, Wisc.

IN THE AUTUMN WATCH FOR DISEASES ON RASPBERRIES

In many areas in Wisconsin raspberry canes and fruits showed ill effects of disease this year. Inspect your canes this fall to determine how extensive anthracnose and cane blight have become. It may be advisable to adopt a better system of spraying next spring for a profitable crop.

The most serious disease is anthracnose. Look for light colored sunken spots surrounded by red rings, chiefly on the canes, especially on the black raspberries. These spots on red raspberries are usually quite small. When the disease is serious the fungus grows extensively throughout the bark producing so-called "gray bark" in autumn. Perhaps you noticed, during the picking season, that individlal drooplets of the red raspberry fruit were infected, giving it a one-sided deformed appearance with grayish drooplets.

Spray next spring with a 1% elgetol in water just before the buds show green; or dormant lime sulphur can be used.

Serious infection from anthracnose may result in heavy winter injury the next winter.

Cane Blight

Cane blight may be recognized by smoky colored, cankered areas on the canes in which the wood and bark are dying. This can be reduced by cutting out weak canes and removal of old canes soon after harvest to provide better aeration.

Spur blight may be recognized by dark reddish discolorations in the bark at the base of the leaf petiole and death of the leaf and bud. Providing better circulation of air will help. Drainage is important, as is the control of tall weeds. Spraying as for anthracnose will control the disease.

Cutting out old canes after the picking season and removing spindly new canes is always helpful in reducing disease because it promotes better air circulation and drying of leaves and canes during damp weather—the kind of weather in which diseases thrive.

MORE ABOUT GEESE IN THE STRAWBERRY PATCH

We have just read with considerable interest and humor as well, a paper by Melvin Andrus of South Haven, Michigan. "Experience With Geese in Strawberry Plantations" is the title of this paper which was presented at the Michigan Horticultural meeting in January. The article is too long to be given more than a sketchy treatment here. Melvin goes into the history of geese, giving them a few more pats on the back than I have ever been inclined to give them. He extolls the merits of goose feathers for mattresses and comforters and the value of goose grease for the "croup" or as the shortening for pie crust. He points out that geese are long-lived, citing the case of a Massachusetts goose, who was going strong at the age of 101 years and only folded up when kicked by a horse. He warms up to his subject by pointing out that geese will get a large share of their diet from good pasture, grass and weeds, that is.

To get around to the main point suggested in the title, Mr. Andrus sez a good fence is needed to keep the geese in the strawberry patch. 32 inch hog wire and short steel posts should suffice. They can be turned in to graze as soon as the new strawberry planting has become established. He figures on eight geese per acre. Geese should be watched because when they eat all the grass and weeds they may trample the strawberry plants. The important point is that geese will not eat strawberry plants. The geese are removed when the buds begin to form and kept out of the patch until the crop is picked. The geese are then turned into the patch until the end of the season. (We guess he refers to June bearing varieties.) Geese do not care for lambsquarter or red dock. These weeds will have to be hand pulled, if present. By H. A. Groves in North and South Dakota Horticulture, 1951.

Only the tips of stems on New Zealand spinach should be cut for use. New tips will grow, so that a few plants will supply the average family with greens all summer long.

Do Vegetables Mix?

By C. C. Turnquist
Minnesota Extension Horticulturist

If two varieties such as yellow and white corn are planted beside each other the pollen of the white corn will cause some kernels on the yellow variety to be white. Similarly yellow corn pollen will cause white corn to be spotted with yellow kernels. Outside of the effect on the kernel color there is no effect on the eating quality of the corn.

Pop Corn

If pop corn is planted adjacent to other corn, crossing will occur and color may be affected, but the popping ability or eating quality of the pop corn is not affected the year the cross occurred. If such pop corn, however, were planted as seed the following year the resulting crop of pop corn would be very badly mixed and would not be good quality for popping.

Vine Crops

With the vine crops there is the perennial question of planting muskmelons next to cucumbers, watermelons, pumpkins or squash. There is no basis for the often made claim that poor quality in muskmelons is the result of cross pollination with cucumbers. Melons ripening during periods of cloudy, rainy weather are often insipid and may resemble a cucumber in flavor. Cucumbers and muskmelons do not pollinate one another, nor do any of the abovementioned vine crops have the ability to "mix" with the other.

It is only when seed of vegetable plants is to be saved for planting again that the gardener must pay attention to contamination by crossing. Generally it is wiser to buy fresh seed each year than to try to save seed from your garden. Many of our garden vegetables like corn, melons, cucumbers, pumpkins, squash, onions, spinach, radishes, beets, turnips and cabbage are cross pollinated. Seeds saved from these crops will not produce true to type unless the crop is isolated from any other variety.

During late summer and early fall gardeners often find clusters of small green tomato-like fruits on their potato plants. The immediate thought is usually that crossing or contamination has occurred with tomatoes in the garden. This is usually not the case, but when conditions are favorable some potato varieties will develop these fruits or seed balls. Inside each ball are several hundred seeds no two of which are alike. If planted all plants resulting from these seeds would be different potato varieties. Usually these varieties are inferior to the variety from which the seed came.—Condensed from the Minnesota Horticulturist.

HISTORY OF RED RICH STRAWBERRY

RED RICH (Red-Glo. Hagerstrom's Everbearing).—Originated in Enfield, Minnesota, by Marion Hagerstrom. **Introduced commercially in April 1949** Patent 993; assigned to Marion and Carl R. Hagerstrom; November 28, 1950. Parents—Wayzata x Fairfax; selected in 1940. Fruit: shape conical-wedge; flesh red, firm; good quality for freezing. Plant: everbearer; hardy; good runner formation; productive.

WHAT TO DO FOR BETTER QUALITY SWEET CORN

Have you picked sweet corn one day, found it to be delicious, but the next day to be woody and tasteless? If so, the corn has matured too rapidly by having been kept in a warm place. The sugar changed to tasteless cellulose which robbed the corn of its good flavor.

However, this change can be slowed up by cooling the corn. As much sugar is lost in 3 to 4 hours at 86 degrees as in 22 hours at 50 degrees, or as in 4 days at 32 degrees.

From the Editor's Desk

FRUIT SHOW
ANNUAL CONVENTION
WISCONSIN STATE HORTICULTURAL SOCIETY
RETLAW HOTEL, FOND DU LAC, NOVEMBER 17-18

Save out some plates of apples for the Fruit Show at the Annual Convention of the Wisconsin State Horticultural Society at Fond du Lac November 17-18.

The classes will be published in our next issue and will be similar to those of the past several years. The standard varieties, McIntosh, Cortland, Red Delicious, Golden Delicious, N.W. Greening and Snow will be featured, while ALL NEW VARIETIES of importance will be listed for prizes.

Premium list in our next issue.

OUR COVER PICTURE

Douglas Schoephoerster, grandson of the Earl McGilvra's at Baraboo doesn't usually sit down when he eats apples—he is too active for that. He did it because we asked him to so we could take his picture. He does eat lots of apples and Grandma and Grandpa don't mind at all—there are plenty of them, as our cover picture shows. We took his sister Linda's picture too, but it's inside with the story about the orchard. The reason she didn't make the front page was quite by accident, as such things often are—when we took her picture it just happened to be horizontal in form and so it didn't fit the cover as well as Douglas'.

Mrs. McGilvra writes: "Our children, a son and two daughters, grew up here and now we have a fine place for the grandchildren to gather pleasant memories".

A modest girl, asserts a national magazine, never pursues a man. Nor, it continues, does a mousetrap pursue a mouse.

COMING EVENTS

September 19. Annual Convention, Garden Club of Wisconsin, affiliated with the Wisconsin State Horticultural Society. Athearn Hotel, Oshkosh.

November 6-7. Joint Fruit Growers Meeting. Minnesota Fruit Growers Association—Wisconsin State Horticultural Society. Winona Hotel, Winona, Minnesota.

November 17-18. Annual Convention, Wisconsin State Horticultural Society. Retlaw Hotel, Fond du Lac.

STATE FAIR FRUIT SHOW EXHIBITORS

The apple exhibit at the State Fair was staged by Mr. Frank Meyer of Milwaukee, Meyer Orchards of Hales Corners, and Henry Mahr of Caledonia. They exhibited some excellent quality plates and trays with various varieties.

In addition Mr. Frank Meyer staged a very interesting exhibit of old time apple cider production. The exhibit contained an apple cider press of the vintage of 1879. The grinder and feeder were made in 1870 and attracted a great deal of attention.

Good will, like a good name, is won by many good acts . . . and lost by one bad act.

HORTICULTURE AT OUR STATE FAIR

The Horticultural Building at the Wisconsin State Fair this year was again the most beautiful building on the grounds. Orchids are due Mr. Ted Osmundsen of Sturtevant, florist who succeeded E. L. Chambers as superintendant of the building. He did an excellent job and his friendly attitude towards exhibitors and visitors is bound to increase cooperation.

The most colorful part of the building was again the exhibits and booths staged by florists. The Wisconsin Gladiolus Society and gladiolus growers provided a wonderful display. Dahlia growers took up their position in the center of the building with beautiful blooms. The rooms through the center of the building were given over to furniture settings. We suggested competitive displays of flower arrangement in these rooms to create more interest.

Change Needed

Amateur flower arrangement exhibits were outstanding, and there were many of them. Table arrangements were beautiful. Exhibits of flowers in perfection of bloom classes of small annuals and perennials leave much to be desired unless some credit is given for arrangement and suitability of container. We suggest a change in this section.

There were a number of trays of apples shown but not many plates. Mr. Henry Mahr of Caledonia prepared a fine demonstration booth of apples for the Wisconsin Apple Institute.

Mr. Osmundsen is concerned because more apple growers do not exhibit plates and trays of apples and would like to know why. Do you know why? Changing times is the only answer we can think of. To meet changing times, it is necessary to change plans and methods, much as we would like to retain what has been popular in the past.

The fruit industry should give Mr. Osmundsen help in solving this problem.

Here's How to Use Fluorescent Lights and Make

The Poor Man's Greenhouse

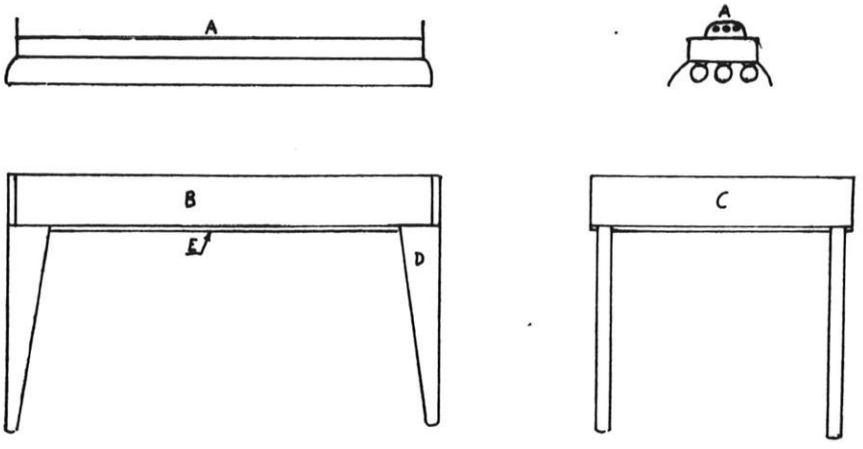
By Albert A. Weiner, Milwaukee

If you are one of those poor lost souls whose pocketbook can not keep up with your ambitions for a greenhouse, I have good news for you! Stop dreaming—get yourself a few dollars worth of wood, a couple of used fluorescent fixtures, place a claim on a corner of your basement—and you're in business.

The Basic Unit

The appended sketch shows a basic unit—a 4 foot bench with either a bottom made of a sheet of ¼ inch tempered masonite braced every 16 inches with a 1 X 2 inch strip or (if you expect to put heavy potted plants in the bench) with standard 6 inch pine siding. The fluorescent unit is a four foot, two or three tube industrial fixture with a reflector. The two tube fixture is adequate for shade and semi-shade flowering plants; the three tube fixture allows the use of a wider bench and more flexibility in the choice of plants. To further the convenience and efficiency, a time switch should be placed in your circuit and a heating cable with thermostat might be added to provide bottom heat. The latter should be on a second circuit since the heat is required at night when the lights are off.

Experiments show that best growth is attained with **daylight or cool white tubes.** Warm white will give a more rapid but more spindly growth. The **daylight** tube gives the slowest but sturdiest growth. The intensity of the light is another factor since each type of plant has its own requirements. To provide maximum flexibility fixtures should be hung on pulley arrangements, or by means of "S" hooks, on a link chain. Raising the fixtures lowers the light intensity at plant level, lowering the fixture increases the intensity. Thus for starting seedlings of sun-loving vegetables or flowers, you may have to bring the 2-tube fixtures to within 6 inches of the plants; for African violets a height of 11-12 inches is ample; for forcing spring bulbs the height will be 18-24 inches depending on the variety.



Requirements For Lighting

A. Industrial fluorescent fixture, 2 or 3 tubes, 48 inch, 40 watt. B. Sides (2), Pine or Pecky Cypress, 48"x6"x1". C. Ends (2), Pine or Pecky Cypress, 30"x6"x1". D. Legs (4), Pine, 30"x2"x4" (Trim bottom 24" as shown for appearance). E. Bottom: 1 sheet tempered masonite, 49½"x30"x¼", braced every 16", or 9 pieces tongue-and-grooved siding 30"x6"x¾".

Because of low light intensities, temperatures should be kept at minimum for each type of plant. The following chart shows approximate temperatures and daily light periods for various plants:

PLANTS	Duration	Temp. F.
African Violets	12-18 hrs.	60-65
Begonias	15 hrs.	60-65
Cineraria	15 hrs.	40-50
Cyclamen	15 hrs.	50-60
Geranium	15 hrs.	55-65
Gloxinia	15 hrs.	55-60
Houseplants	12-18 hrs.	60-65
Tulips	12 hrs.	50-60

CUTTINGS & SEEDLINGS	Duration	Temp. F.
Alyssum	15 hrs.	65-70
Chrysanthemums	15 hrs.	55-65
Dahlia	15 hrs.	60-70
Marigold	15 hrs.	60.70
Petunia	15 hrs.	60-70
Stock	15 hrs.	55-65
Tomatoes	15 hrs.	65-75
Zinnia	15 hrs.	65-70

A general rule is to imitate the normal blooming time and location of the plant. Thus spring bulbs are forced at low intensities, low temperatures and short light periods. (See Preliminary Results on "Effect of Low Intensity Light on Forcing of Tulips", Packer, Stuart and Borthwick, The Florists Review, November 30, 1950).

African Violets do best at 300-600 foot candles for periods ranging from 12 to 18 hours, depending on variety (See Ohio Florists Association Bulletin, April, 1952).

You will find plants will require more watering because of the low humidity in the house. A four inch layer of sand kept moist will help maintain proper humidity. However, because of lower metabolism rates, feeding should be lighter and less frequent than in the outdoor garden.

In general you will find your blooms as nice in size and color as in the greenhouse bred plants. Leaves will be larger and darker green. You will have less disease and fewer insects because of the drier atmosphere.

(Continued on Page 16)

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

President
WALTER A. KURTZ
Chilton

Vice President
JOHN GATES
Two Rivers

Secretary
MRS. A. E. PIEPKORN
613 N. Mil. St., Plymouth

TREASURER
MRS. LEONARD WIGHTMAN
Rt. 3, Plymouth

DIRECTORS
John Gates, Two Rivers
Gordon Shepeck, Green Bay
Walter A. Kurtz, Chilton
Dewey Sleezer, Lake Geneva
Cecil McAdams, Mosinee
Walter Axel, Sheboygan
Dr. R. H. Juers, Wausau
Raymond Kasimir, Spaulding, Mich.
Dave Puerner, Milwaukee
Leland Shaw, Milton
Otto Kapschitzke Jr., Sheboygan
Walter Krueger, Oconomowoc
Jerry Merchart, Marinette
John W. Perkins, Neillsville
Archie Spatz, Wausau
H. J. Rahmlow, Madison, Ex-Officio

Did You See the Gladiolus Shows?

THE SO. WIS.—NO. ILL. GLADIOLUS SOCIETY SHOW

The 3rd annual Seedling and Recent Introduction Show of the Southern Wisconsin-Northern Illinois Gladiolus Society was held in Jefferson, Wis., on Sunday, August 3. Probably because of the extreme heat coupled with excessive rain in recent weeks, most newer varieties in many gardens were through blooming, so the R.I. divisions were less filled than usual. The seedling and basket divisions were well supplied with outstanding blooms. More than 35 exhibitors from three states competed.

Excellent Seedlings

The seedling judges scored 44 spikes, after a very careful screening of the seedling tables. A splendid ruffled yellow with 8 florets open by Flad & Torrie of Madison emerged with a score of 89 to win the seedling and grand champion rosettes. They won 8 placings of "excellent" on seedling spike entries, and Etlar Nielson won 4.

Bridal Orchid and King David captured championships in the recent introduction divisions; the former with a single, and the latter with three spike and basket entries.

Melk Bros. rose seedling, Margery (46-168) repeated its winning pattern of previous years by taking the trophy awarded to best seedling basket.

Other outstanding seedlings, all scoring from 83 to 85, included; Welty's splendid white (3247) which won the three spike award; Melk's dark blue, 48-10; Armstrong's pink, 1-69-1; Neilson's dark red, 84-32-4; Axel's yellow, 10-47; and several Flad-Torrie comers: 55-48-1B, a creamy white; 47-33-9, large burnt-orange; and 50-46-13, a yellowish pink.

In addition to the above, blue ribbons were awarded to the following new varieties: In basket classes; Golden Crown, Pink Classic, and Edgewood. In single and three spike classes: One Alone, Helios, Daybreak, Teah Gorham, Thorose, Linda B., Smyrna, Cupid (section champion for Burdick), Dresden, Little Gold, Peter Pan, Honey, Golden Dawn, Benjamin Britten, and Skippy.

Although a heavy rain fell during the afternoon the show room was crowded with visitors much of the time. Dr. and Mrs. Henderson from Murfreesboro, Tenn., came the greatest distance, but many attended from all over central and southern Wisconsin and from northern Illinois. It was a good show. **By Leland Shaw, Milton.**

THE MADISON GLADIOLUS SOCIETY SHOW

The Madison Gladiolus Society held its 11th Annual Show at the First National Bank in Madison August 3-4. There were more than 1,000 entries and over 10,000 persons viewed the show. It is an outstanding show from the standpoint of interesting the public.

The Winners

Top honors for gladiolus of superior quality were won by John Flad and Ted Woods of Madison. The grand champion single spike was "Falcon" shown by John Flad. Reserve champion, single spike was Seedling 3-28-48 by Ted Woods who also had the seedling champion, 4-100-47. Other winners by Ted Woods of Madison were: Division champion, single spike on Seedling 3-28-48; Division champion, three spike on Falcon. Rating of Excellent on the following seedlings: 4-100-47; 40-90-50; 28-48-L; 2-30-48. Ted was also the high point winner on seedlings.

Mr. Flad also won the following awards: Division champion single spike on Falcon and high point winner on recent introduction classes. High point winner in the open class was E. M. Knudson and for amateurs, Peter Sandwehr, Madison.

Mr. R. B. Russell of Madison had the division champion three spike—Spic and Span; the best seedling basket, a lavender 84-46-2 and an apricot 73-46-1. Also the second prize seedling basket, 84-46-2 and the third prize on a white seedling 85-46-39. He also showed the best recent introduction basket of Edgewood, Ted Woods winning second in this class with Madeline Hefty. Mr. Russell had the best open class basket of Spic and Span and the open class vase of Wedgewood and second on Pandora.

Mr. Paul Hendrick won the section champion in 500-400 series with a single spike of Spic and Span and Miss B. E. Struckmeyer showed the best in the 300-100 series with Charmouny. Jane Sulzer won the section champion three spike class with Burma. Dr. F. X. Graf of Freeport won on a seedling, "Fort Knox," by Torrie and Flad.

Special trophy winners in artistic arrangements for advanced amateurs were: Miss Adeline Lyster of De Forest, First; Miss Burdean Struckmeyer of Madison, Second; Miss Fay Wisniewski, Third, and Mrs. A. C. Garnett, Honorable mention.

SUMMARY, GRAND AWARDS, SHEBOYGAN AND MANITOWOC COUNTY GLADIOLUS SHOW

Sheboygan, August 9-10

Artistic Arrangement: High point winner, Toughy Gardens, Manitowoc, 41 points.

Grand champion spike: single section champion; and "400" division champion: John Bayless, Two Rivers, on Sunspot.

Champion seedling, single spike: Walter Axel, Sheboygan, on Yellow 10-13.

Division champion, single spike, Class 500: Jacob Kertz, Elkhart Lake, on Elizabeth the Queen.

Division champion, single spike, Class 300: O. Kapschitzke & Son, Sheboygan, on Crusador.

Three spike section champion, and division champion Class "400": Walter Axel, on Spic & Span.

Three spike division champion, Class 500: Jacob Kertz, on Elizabeth the Queen.

Three spike division champion, Class 300: Toughy Gardens, on Ataturk.

(Continued on Page 16)

AT THE GLADIOLUS SHOWS

Upper picture: At the Seedling, R.I. show of the S. Wis. — N. Ill. show at Jefferson: From left, Lloyd Bateman, Dousman; Oren Baxter, Janesville; Walter Krueger, Oconomowoc; Dewey Sleezer, Lake Geneva; Charles Melk, Milwaukee; Everett Van Ness, Clinton; Carl Christensen, Rockford; Ralph Burdick, Edgerton; Leland Shaw, Milton; Anton Koepke, Elkhorn; and Dave Puerner, Milwaukee.

Center picture: At the Madison Gladiolus Society show. Holding winning spikes are from left, L. V. Tucker, with 3-spike Grand Champion, Falcon; Earl Hovey, Ted Woods, Miss Burdean Struckmeyer, John Flad and James Torrie.

Below: At the Wisconsin Gladiolus Society Show at the State Fair. From left, Judge Everett Van Ness; State President Walter Kurtz; Judge Dewey Sleezer and clerk Otto Kapschitzke, Jr., Sheboygan.

Three spike division champion, Class 200-100: John Bayless, on Airy Fairy.

Recent Introduction, single spike section champion, and division champion Class 400: Jerry Merchart, Marinette, on Helios.

Recent Introduction, single spike division champion, Class 500: Jerry Merchart, on Nordic Queen.

Recent Introduction, single spike division champion, Class 300: O. Kapschitzke & Son, on Crusador.

Point Winners

High point winner: Toughy Gardens, 191.

Other high point winners as follows: John Bayless, 67; Walter Axel, 55; William Banonse, Sheboygan, 51; O. Kapschitzke & Son, 41; Jacob Kertz, 36; Sylverius Schinabeck, Sheboygan, 33; William Hochman, Two Rivers, 32; Jerry Merchart, 30; Emil Jaschinski, 27; Harvey Pierce, Sheboygan, 22; and John Gates, Two Rivers, 14.

The show was attended by 1,000 people; 800 gladiolus spikes were exhibited. The banquet was attended by 40 members.

STATE FAIR GLADIOLUS SHOW

Three separate and distinct gladiolus shows were staged at the Wisconsin State Fair this year. According to observers the last show was the best, due to weather conditions. Some of the larger exhibitors showing in the display covering 75 square feet were Walter Krueger, Oconomowoc, Leo Toughy, Manitowoc, Dave Puerner, Milwaukee, Melk Brothers, Milwaukee, and Harold Janes, Whitewater. Other exhibitors and winners included Otto Kapschitzke and Son, Sheboygan; Harold Van Buren, Hartland; T. E. Popp, West Allis; Mrs. Joseph Monfre, West Allis.

WINNERS AT THE STATE GLADIOLUS SOCIETY SHOW AT WIS. STATE FAIR

High point winner, M. T. Armstrong, Evansville, 102 points. Special ribbon.

Champion spike of the show, M. T. Armstrong on Sierra Snow.

Champion Seedling No. 19-54-83 by John Flad, Madison. Best seedling basket, 7-3-4-53 by John Flad. Three Spike seedlings, 50-46-13, by John Flad.

American Home Achievement exhibit of three spikes, John Flad on 33461, yellow seedlings, one almost perfect spike.

The seedling class was excellent, John Flad winning most of the ribbons. **Excellent** ribbons were given to Anton Koepke, Elkhorn; Walter Axel, Sheboygan; Kapschitzke & Son, Sheboygan, and Melk Brothers, Milwaukee.

In the **Open division** Ralph Burdick, Edgerton, won: three spike section championship on Osage; One spike class, on Pelletier D'oisy; section and division champion.

In 300 Class single spike, Blondie was Section champion by M. T. Armstrong. In the 400 Class, single spike, Anton Koepke won on Polynesia, Section and division champion. Three spike, by John Bayless, Two Rivers, Section champion on Sunspot. In the 500 class, single spike, Irene Van Ness, Clinton, won on Sherwood, Section Champion. In three spike, J. Bayless won Section and division championship on Pride and Joy.

Recent Introduction, one spike section champions: J. Bayless on Pride and Joy. In 400 class, M. Armstrong, Sierra Snow. Section, Division and Grand champion. In 300 Class, M. Armstrong on Cupid. In 500 Class, J. Bayless on Pride and Joy. In 200 Class, M. Armstrong on Statuette.

Special Awards: Longest flower head, Kapschitzke & Son; Largest Floret, E. Van Ness; Most open florets in good condition, Cosmopolitan Gladiolus Gardens; and the Illinois Trophy to M. Armstrong.

A Favorite Apple Dessert

HONEY APPLE CRISP

4 cups sliced apples
¼ cup sugar
1 tablespoon lemon juice
½ cup honey
½ cup flour
¼ cup brown sugar
¼ teaspoon salt
¼ cup butter
¼ cup nuts meats, finely cut

Spread sliced apples in a shallow baking dish, sprinkle with sugar and lemon juice and pour honey over all. In a bowl, mix flour, brown sugar and salt; work in the butter, as for biscuits, making a crumbly mixture. Spread the crumb mixture evenly over the apples, top with nut meats, and bake in a moderate oven, (375°) for 30-40 minutes, or until apples are tender and crust crisply browned. Serve warm with light cream, ice cream, whipped cream with a dash of cinnamon, or a lemon sauce. May also be served cold as cookies. Serves 6-8.

The Poor Man's Greenhouse

(From Page 13)

You may not be able to grow quite as large a variety of plants—but that is mainly because this is a very new field and the intensity—duration—temperature rates for many plants are not known. As this type of equipment goes into greater and greater use, more and more plants will be found growable under fluorescents. And one of these days you will have a summer garden in the yard,—and a winter garden in the basement.

SEE WHAT SOIL CONDITIONER DID!

A New York County Agent reported that FLOWERS ARE NOW BLOOMING IN CONCRETE SIDEWALKS as a result of the dust of a soil conditioner blowing over the area. State extension specialists say that they don't doubt the county agent's observations for one minute but they do urge caution in repeated trials — at least until there is more CONCRETE evidence. **From Bull. Extension Service, USDA, Washington, D.C.**

The reason some jobs take so long to finish is because the gang at work consists of six foremen and two laborers.—**Menomonee Falls News.**

Garden Club News

THIRD ANNUAL MEETING CENTRAL REGION, GARDEN CLUB OF WISCONSIN OGDENSBURG, WEDNESDAY, OCTOBER 22, 1952

A fine program is being prepared by the officers and committees of the Central Region for the annual meeting. Details will be given in our October issue.

Reserve the day.

THE HONOR ROLL

Garden Club Members Pass Flower Arrangement Examination

The following garden club members passed the examination following the course in Flower Arrangement given by Dorothy Biddle of New York, sponsored by the Garden Club of Wisconsin, affiliated with the Wisconsin State Horticultural Society.

We congratulate these members for their excellent work. They will receive a certificate at the completion of the course as advanced judges.

Miss Lydia Pahl, Mrs. Ray Luckow, Mrs. Robert LaPhilliph, Mrs. A. R. Leidiger, and Mrs. Chester Thomas, all of Milwaukee; Mrs. Fred E. Ericksen, Mrs. George R. Koch and Mrs. C. F. Bierman of Wauwatosa; Mrs. L. M. Sweeney, Mrs. A. J. Merickle, Mrs. Arnold Dietrich, Mrs. Frank Wittberger, Mrs. Val Suttinger and Mrs. J. W. Dooley of West Allis; Mrs. Robert Fisher, Whitefish Bay and Mrs. Peter Colosimo, Shorewood.

Mrs. Myron Erickson, Iola; Mrs. Orin Anderson, Scandinavia; Mrs. Charles J. Smith, Mrs. Fern Sexton and Miss Johanna Roth of Mauston, and Mrs. John Coates of Colby.

Miss Agnes Phillipson, Miss Bessie Pease, Mrs. John Rasmussen, Mrs. Alice Cook and Mrs. Edward Brismaster all of Oshkosh; Mrs. Hiram J. Eubank, Westfield, and Mrs. R. B. Locke, Omro; Mrs. Laura G. Willett, Iola.

PROGRAM

Third Annual Convention, Garden Club of Wisconsin

Affiliated with The Wisconsin State Horticultural Society

ATHEARN HOTEL, OSHKOSH, FRIDAY, SEPT. 19, 1952

9:30—10 A.M. Registration (Fee 50c)

10 A.M. Greeting. By Mr. Ward Schroeder, president, Oshkosh Horticultural Society.

10:15 A.M. "New African Violets" By Mrs. Glen Fisher, Oshkosh.

10:40 A.M. "Basement Gardening with Fluorescent Light" By Mr. Albert H. Weiner, Milwaukee.

11:15 A.M. "Wildlife Habitat," with pictures. By Mr. Frank King, Wisconsin Conservation Department, Oshkosh.

11:45 A.M. Business Meeting.

12 M Luncheon in English Room (Price $1.50). Mr. E. L. Chambers, Treasurer, Wisconsin State Horticultural Society, Master of Ceremonies. Honorary Recognition Certificate to three outstanding garden club workers.

1:45 P.M. "How We Grow 12,000 Geraniums" By Mr. B. Wood, Wood Greenhouse, Oshkosh.

2:15 P.M. "Autumn Adventures In Flower Arranging" By Mrs. Victor H. Schmitt, Milwaukee.

THE FLOWER SHOW

Flower arrangements and exhibits by Oshkosh Horticultural Society, Oshkosh Garden Club and garden clubs of surrounding neighborhoods.

ZINNIA SHOW

One bloom of large zinnia and three blooms of small type zinnias to be shown in your own container. All garden club members attending are urged to bring their favorite variety for exhibit. Give name if possible.

COMMITTEES

General Chairman, Miss Bessie Pease; **Co-Chairman,** Mrs. Marvin Haller; **Registration Chairmen,** Mrs. Oral Bloom and Mrs. Marvin Haller; **Hospitality and Welcoming Chairmen,** Mrs. Ward Schroeder, and Mrs. Clarence Bursack of Oshkosh; Mrs. R. H. Sewell and Mrs. Chester Thomas of Milwaukee; Mrs. George Willett, Iola, and Mrs. S. S. Moore, Jefferson; **Luncheon Chairman,** Mrs. Gordon Carey; **Ticket Chairman,** Mrs. Frank Volkman; **Exhibit Chairmen,** Mrs. Arthur Laabs and Mrs. Olin Geiger; **Publicity Chairman,** Mrs. H. R. Cook, Oshkosh.

Members, State Garden Club Advisory Board: Miss Bessie Pease, Oshkosh; Mrs. S. S. Moore, Jefferson; Mrs. Chester Thomas, Milwaukee, and Mrs. George Willett, Iola.

Regional Presidents: Milwaukee Region, Mrs. S. Swenson, West Allis; Central Region, Mrs. Marlin Steinbach, Clintonville; Region 1, Mrs. S. S. Moore, Jefferson; and Winnebagoland Region, Miss Bessie Pease, Oshkosh.

ORCHIDS TO COUNTY FAIR FLOWER SHOW COMMITTEES

Orchids are due a number of County Fair Flower show chairmen and committees who have made their shows the most beautiful feature of the Fair.

We can write only about the shows we have seen and judged, and congratulate those in charge of flowers at the County Fairs at Chippewa Falls, Westfield, Amherst, Rosholt, Baraboo and Weyauwega.

County Fair Secretaries and Boards are recognizing the value of flower shows when well staged, and are providing better locations and more room for staging them. Some are beginning to recognize that farmers are no longer interested in exhibiting in some departments and prize money listed for classes that have not been filled for years is being transferred to flowers.

It has been a pleasure to judge these shows. At most of them we were asked to talk to the exhibitors and visitors present during the early afternoon on how the arrangements were judged. While this discussion, especially if it is done while judging is some what difficult the interest expressed by the listeners made it worthwhile. At most of these Fairs the committees were composed of garden club members.

The new idea idea for exhibiting perfection of bloom classes of the smaller kinds of flowers, as petunias, salvia, pansies, verbena, etc., by requiring that a "bouquet" be made, is meeting with favor where tried. A bouquet is "an arrangement of one kind of flowers, round in form, without other flowers, foliage or accessories", and is judged by this scorecard:

Quality of flowers .....50 points
Arrangement of flowers 30 points
Suitability of
container .....20 points

Varieties of flowers such as gladiolus, dahlias, roses and perhaps the larger zinnias may be shown for quality only and the number, as 1 spike, 3 blooms, etc., designated, but the schedule term "Best Petunias"; "Display of Phlox"; or even just listing varieties without any specification is what has made this section of our shows so unattractive.

We also recommend this idea for all garden club flower shows.—H.J.R.

SPECIAL—CHRISTMAS SHOW MILWAUKEE, DECEMBER 1-6, 1952

The garden club members in the Milwaukee Region of the Garden Club of Wisconsin will stage a Christmas Show at the T. A. Chapman Company Department store. The show will run from December 1st through the 6th.

WAUWATOSA GARDEN CLUB NEWS

The Wauwatosa Garden Club held its annual picnic at the Fred Thwait's residence, Dousman, Wis., on June 22. About 35 members and families including several young people attended. Picnic supper was eaten from card tables nestled in the nearness of Mock Orange blossoms. Everyone went home happier for having gone to the picnic. —By Mrs. Martha Getzloff Koch.

IRON RIVER GREEN THUMB GARDEN CLUB

Our garden club prepared a booth for the County Fair in August featuring educational gladiolus exhibits, also an exhibit showing good and poor flower arrangement.—By Mrs. Leonard Riedl, Pres.

DRIED FLOWER ARRANGEMENTS

A new book entitled "The Complete Book Of Dried Arrangements" tells how to prepare and use dried materials. Author is Raye Miller Underwood. It has 193 pages and is published by M. Barrows & Co., New York. Price $4.95. Contains 69 pictures, 16 in color.

NEW HOLSTEIN GARDEN CLUB REPORTS

The New Holstein Garden Club had a very successful flower show on July 12-13. There were 30 potted plants exhibited and about 180 arrangements. A new exhibit was a flower tree consisting of single blossoms of different flowers put in small bottles of water wired into a tree form.

We have had two bird tours during the month of June—we were out at 5 A.M. visiting parks and watching the birds after which we had breakfast in one of the member's homes. **By Mrs. William A. Schmidt, Sec.**

REGION 1 ELECTS OFFICERS

Officers of Region 1, Garden Club of Wisconsin, were elected in August. They are:

President: Mrs. S. S. Moore, Jefferson.

Vice-President: Mrs. H. C. Poyer, Fort Atkinson.

Secretary: Mrs. W. E. Klug, 610 North Street, Jefferson.

Treasurer: Mrs. Sylvester Froelich, Sullivan.

State Garden Club Advisory Board to the Wisconsin State Horiticultural Society: Mrs. S. S. Moore.

CLINTONVILLE GARDEN CLUB STAGES FLOWER SHOW

Congratulations to the Clintonville Garden Club on a splendid flower show staged in connection with the Annual Harvest Festival, August 23-24.

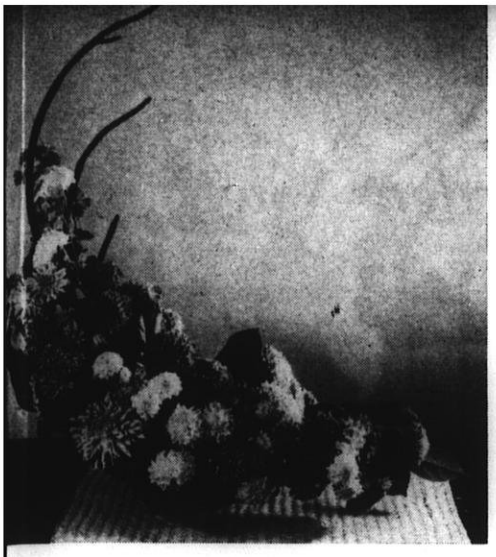
The Harvest Festival has become a colorful event. This year Clintonville was celebrating its Centennial. Store windows were filled with exhibits of antiques.

As a part of the festivities, the flower show by the Clintonville Garden Club is an important feature. Hundreds of exhibits of annuals, perennials, house plants and flower arrangements were shown by a large number of garden club members and Clintonville residents. A steady stream of Festival visitors passed through the show room.

AMOUNT OF LIGHT EFFECTS TUBEROUS BEGONIA BLOOMING

Tuberous rooted begonias planted in heavy shade will not bloom well. That is the opinion of scientists who have studied the subject.

These begonias like sunlight until about 9 A.M. and again late in the afternoon. During the day they like filtered sunlight or light shade. In the fall when the days shorten the plants may become dormant and stop blooming.



Now Is the Time to Try New Arrangements of

The Golden Flower

By Elizabeth G. Stewart, West Allis

Figure 2. Dry pine branches add structural line to this crescent design of chrysanthemum. Value interest is created by the contrasting light and dark flowers. Photo by J. J. Krebs, West Allis.

Since the beginning of time the word "golden" has been synonomous with something precious in worth. Treasures of the land have often been portrayed as golden fruit and golden harvest. Ancient Roman and Greek mythology tells of the glory of the golden age and the golden fleece. More familiar is the rule of life given in Matt. VII, 12, — the golden rule.

War of the Chrysanthemums

The single-petaled flower of golden yellow which grew wild in China at least two thousand years ago, could scarcely have been given a more appropriate name. Its lengthy name of Chrysanthemum was derived from two Greek words meaning golden flower.

Destiny held much in store for this little flower. At least ten centuries ago it was chosen to play a regal role as Japan's national flower. It was to know of strife during Japan's War of the Dynasties which began in 1357 and lasted for 55 years. Ironically, it was also known as the War of the Chrysanthemums because the yellow flower was worn as a golden badge of courage by each warrior of the South.

Hybridizers Create New Colors

Hundreds of years later it was to become the subject of much hybridization, the result of which would seem to cause its very name to become a misnomer. The golden flower of the past became the contemporary flower of many colors, sizes and shapes.

The chrysanthemum, being the versatile flower it is, can be combined harmoniously with many different types of material in various formal or informal designs.

Centuries ago, the Japanese imperial emblem was designed to include Paulownia leaves and buds with the national flower. Sanseverria and salal leaves are used in combination with the golden flower in Figure 1.

Dry pine branches add structural line to the crescent design of Figure 2. A static or stylized effect is often achieved when a crescent or segment of a circle is used as a basis for design. The spiral lines usually found in growing plants creates a more interesting and dynamic effect as seen in Figure 1.

These are but two combinations of materials. There are endless other possibilities, a few of which may be colorful autumn foliage, ivy, philodendron, evergreen, dried material such as scotch broom, luscious green or purple grapes, vegetables or candles. Suitable foliage for larger mums might be selected from laurel, rhododendron, mahonia or magnolia leaves.

The ancient flower has lived up to its name at least in part. It is still something precious in worth. The chrysanthemum has indeed won a choice place in the gardens and in the hearts of flower lovers throughout the world.

A flower which no insects bother is pyrethrum, a hardy perennial daisy. From plants of the same family one of the most effective insecticides is prepared. They grow from seed sown in August, flowering the following year and living many years, through the coldest winters.

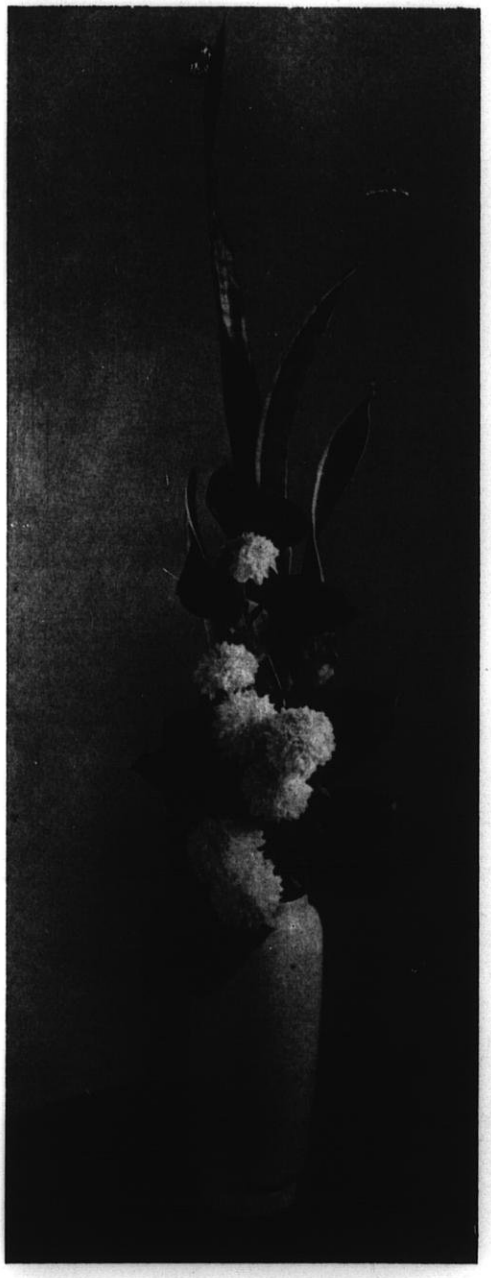


Figure 1. Yellow chrysanthemum were combined with sanseverria and salal creating an interesting and dynamic effect. Photo by L. J. Krebs, West Allis.

Plan Next Year's Garden Now

We Want the Grass to "Grow Under Our Feet"

ANNUALS ARE BECOMING POPULAR

Many New Varieties In Test Gardens

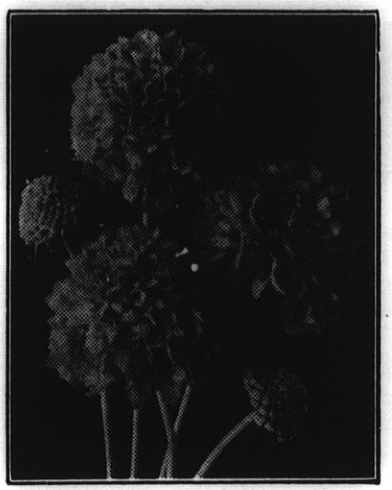
On August 12, Professor Gail Beck, Mr. George McLean, flower grower near Madison, and the Editor accepted the invitation of the Vaughn Seed Company, Chicago, to view the trial gardens at Western Springs. Several hundred flower growers were present.

Very impressive was the large collection of petunias in colors ranging from white through pink, red, and blue. Outstanding new petunia is a red variety to be named **Comanche**, a vigorous grower and of better color than its counterpart, Firechief. It will doubtless receive recognition this coming year and we recommend it for trial. Other outstanding varieties were Pink Sensation; Silver Medal, a nice pink; Ballerina, a glowing salmon; Snow Queen, one of the best whites; Violet Purple and Celestial Rose, still a good variety to grow.

ZINNIAS. We can see why zinnias are becoming so popular throughout the nation. Some of the new hybrids are excellent. A hybrid red, F-2-3 was so glowing that it attracted attention when we were some distance away. It will no doubt receive recognition. Persian Carpet and Peppermint Stick, those small, colorful varieties are excellent for cut flowers. We believe they will always appeal to women if not to men. Red Riding Hood is a real red, an older variety of small size, and very attractive.

In the Lilliput zinnias, these attracted us: Canary Yellow; Rose Bud; Deep Flesh; Salmon Rose and Pinky. Among the larger zinnias were some excellent colors; Riverside Beauty which is large and shaggy; Lavender Gem; Miss Willmot; Canary Bird, a brilliant yellow, and Exquisite, a charming rose color.

In the Salvias, the two varieties that were most striking were a dwarf, St. John's Fire, and a taller one of about the same brilliant color, Blaze of Fire. Salvia plants suffer from "damping off" in the spring and it



is difficult to grow them. Growers said, however, that St. John's Fire was the most resistant.

A New Blue Grass For Your Lawn

A new variety of Blue Grass called Merrian is quite outstanding. In a test plot of a dozen or more different mixtures for the lawn, this was the only one that was near perfect. The grass was very green, very dense—in fact so dense that it had crowded out crab grass and dandelions. The seed is difficult to obtain at present and the Vaughn Seed Company is practically sold out of this year's seed supply which is grown for them in Oregon. One pound of the seed is enough to sow 2,000 square feet. It is a selection from a Blue Grass sod found on a golf course in the East. It was noted that one particular area had a sod far superior to any other. It was then tested all over the United States and proved to be a very worthwhile selection. To replant an old lawn, Mr. Vaughn suggested that we mow the grass of the old lawn as short as possible; then cover it with about ½ inch of good soil, roll it and sow on Merrian Blue Grass Seed. That will eliminate competition from the grasses and weeds already present.

SOME TIPS FOR THE LAWN

Frequent Rolling Is Detrimental

When the nights become cool and the days less hot in Autumn, there is a revival of growth of our lawn grasses. June grass or Kentucky Blue grass, the most common grass in our lawns, becomes more or less dormant during the hot days of mid-summer.

One of the obstacles to a successful lawn is the compaction of the soil. Frequent rolling with a heavy roller, especially when wet, will force the air out of the soil and then the plant roots will "starve."

Dandelions May Be Controlled By Late Mid-Summer Spraying With 2-4-D.

Dandelions are biennials—excepting that some vigorous plants may live more than two years. Seeds fall onto the lawn in May. In a "thin" lawn these seeds have a good chance to germinate and produce small dandelion plants. These are best controlled by "spot" spraying with 2-4-D during the late summer months when the days are still warm. Plantian can also be controlled that way.

Perhaps the best way to improve an area of lawn that is "thin" and poor looking is to dig it up, rake it and sow lawn seed during September. While the ground should be firm, it should not be rolled.

The one important requirement for success is to water lightly after the seed has been sown and raked into the soil to prevent the surface from drying out and the seedlings from being killed. Remember that when the seeds germinate they do not yet have a root system and are very easily dried out. Sprinkle lightly several times each day to keep the surface of the soil looking damp. The grass should grow green in less than a week if this is done.

The only sure way to double your money is to fold it and put it in your pocket.—**Milwaukee Sentinel.**

Wisconsin Beekeeping

Official organ of the Wisconsin State Beekeepers Association

OFFICERS:

Henry Schaefer, Osseo, President
Wm. Judd, Stoughton, Vice-President
Mrs. Louise Brueggeman, Box 60, Menomonee Falls, Recording Secretary-Treasurer.

DISTRICT CHAIRMEN:

Newton Boggs, Viroqua
Wm. Judd, Stoughton
Robt. Knutson, Ladysmith
Len. Otto, Forest Junction
Herbert Reim, Watertown
E. Schroeder, Marshfield

SEPTEMBER IN THE APIARY

September is the month in which to provide conditions for maximum brood rearing if our colonies are to winter well. It is also the month to provide for enough stores to last a large colony until spring — a job so often neglected by beekeepers.

Dr. C. L. Farrar in the bulletin "Productive Management of Honeybee Colonies" writes: "A colony to be over-wintered must rear sufficient brood to provide a cluster of 8 to 10 pounds of young bees which emerge between August 20 and the early part of October." It takes a good queen to accomplish that. This is the month, then, to examine colonies to see if any have poor queens and small populations. If, by October 1st, the colony is "weak" in number of bees, it is best to kill them with cyanide and save the honey and pollen in the combs for package bees next April. Those of us who cannot requeen all colonies having mediocre queens in August should practice far more "culling" than we have been doing. After all, even a small colony will use more than 40 pounds of honey by spring, which will easily pay for a new package.

One of our greatest sources of losses is to have a queen fail during late winter after the colony has consumed more than 40 pounds of honey and then have its population dwindle away until finally we unite it with another colony, thereby losing the honey they consumed and the colony as well.

Colony Make-Up Important

Colony make-up is more important than protection. A colony of 40,000 bees with 75 pounds of honey and pollen **in the right place will survive anywhere in Wisconsin.** Most colonies that die in February and March, do so because the honey has become inaccessible to the cluster during periods of very cold weather. Few colonies die in our coldest month, January, compared to those that die a month later after they have consumed the stores that they have been covering.

"The upper story" writes Dr. Farrar in Circular 70., "should contain not less than 40 pounds of honey, preferably in dark brood combs. There should be three or four full combs of sealed honey on both sides of the hive. The remaining combs toward the center should contain approximately 10 pounds of honey, as much pollen as possible and a small area of empty cells for the active center of the cluster. The second hive body should have 20 to 30 pounds of honey with the heaviest combs near the outside and combs of pollen in the middle.

"The bees will occupy the upper story during the coldest part of the winter. The cluster will cover considerable honey providing there is an open center 3-5 inches in diameter nearly free of honey. The bees will move honey to the upper combs when the temperature permits."

If you haven't been doing so, plan now to study the make-up of your colonies and provide sufficient stores in the right place so your bees will survive.

ANNUAL CONVENTION
WISCONSIN STATE BEEKEEPERS ASSOCIATION
GREEN BAY, OCTOBER 28-29

The Program

Beekeepers: What would you like on the program for the annual convention.

President Henry Schaefer, Osseo, Wis., would like you to write to him about it. What topics should be discussed; who do you want for speakers.

Write him at once! Copy for program for the October issue must be sent to the printers by September 20.

How about honey exhibits?

HONEY IN THE SCHOOL LUNCH PROGRAM

Beekeepers please contact your school lunch program cook or other official and find out how honey is being used in your school. Is it being used in such a way as to further the use of honey. This appeal is made by State Association President, Henry Schaefer, Osseo. Write him your findings.

Some Facts

The Wisconsin School Lunch Program has on hand now 6,500 cases of 5 pound cans, 6 to the case, for use in the schools. It was purchased by the Commodity Credit Corp., USDA. It is distributed to all schools having a program. Recipes are furnished—a new one on baking ham with honey will be featured this fall. Schools are urged to use honey in recipes and serve in paper cups by the State Office.

State school luncheon officials say that cooks and officers in schools tell them that "children don't go for honey" in school. Why is that? Will you find out. What can we do about it.

There is nothing noble in being superior to some other man. The true nobility is in being superior to your previous self.

Be master of petty things and devote your energies to the big things. The mountain does not wear you out, but the grain of sand in your shoe might.

How's Beekeeping Over Your Way?

BEEKEEPERS REPORT ON CONDITIONS

Inspectors Tell About The Honey Crop, E.F.B., Fall Requeening And Interest In Beekeeping

From J. A. Killion, Dancy, Wis. Up until mid-August there has been a very small crop of honey here and unless we get a fall flow there will be no surplus. I have found more E.F.B. in bees this year than in any previous year. Some of it has cleared up but I found two cases August 11th. Not many beekeepers requeen in the fall. I have requeened several colonies by raising my own queens, but most beekeepers depend on supercedure. We are having good exhibits at our Marathon County Fair this week put on by the same beekeepers as it is at our picnic—not many new faces.

From Lloyd B. France. The crop in Kenosha County was good, over 100 pound average; in Rock County almost as good, but in Grant County fair to good—less than 100 pounds surplus. We have seen no E.F.B. in these three counties. Most beekeepers do not do any regular requeening. A few watch for advanced queen cells and use them when found to replace queens that seem to be failing. The comb with the queen cell capped is usually transferred to the failing queen colony without shaking the comb. The failing queen is usually found and killed before exchanging the combs. Other beekeepers keep a few nuclei in which to put capped queen cells to produce young queens until mated and used, and then unite these with a colony having a failing queen as needed. Interest in beekeeping is not too good, but the bee fever or love of bees just keeps up anyway in those who have it in spite of not too good prices or market and A.F.B. We find considerable A.F.B. where there has not been any inspection for a few years.

From Gerald J. Wentz, Sheboygan Falls. The honey crop here in Sheboygan County is good but not as good as in 1951. There is very little E.F.B. A few colonies in Manitowoc County had a considerable amount, however. Beekeepers here do not do any regular requeening. Interest in beekeeping is low. There is fair interest by some of the larger beekeepers. Among smaller beekeepers, more are quitting than in any time in 15 years. Contributing factors: age; price and time.

From Fred Matson, Owen. The honey crop is very short in sections where I have been. I have found no E.F.B. Most beekeepers I have visited let their bees swarm and requeen themselves the natural way. Seems as if interest is picking up a little this year in beekeeping.

From Leonard Otto, Forest Junction. The crop in this section is very disappointing. Most bees are requeened every other year, but we requeen every year. Interest in beekeeping is much the same as it has been through years gone by.

From H. C. Rodeske, Fountain City. Our honey crop is poor to very good. Where beekeepers take care of their bees in spring—feed and so on, the crop is good. Found some of E.F.B. on a package on drawn combs. Beekeepers are doing quite a bit of requeening by raising some brood above the brood nest. The better beekeepers are continuing and are interested, but some others are very shiftless.

NEWS ABOUT BEEKEEPING

BEES IN THE POLAR REGION. The BEE WORLD (England) reports a Soviet experiment on keeping bees in the Kola Peninsula in the Polar Region. It was found that increased pollination was necessary to produce crops such as cucumbers in hotbeds. Bees were brought from Moscow and good crops resulted. In 1949 it was decided to try wintering them and two colonies were kept—one in the open warmly wrapped, and one under ground. Both survived.

The pleasantest things in the world are pleasant thoughts; and the great art of life is to have as many of them as possible.

BEES STARVE IN SOME DRAUGHT AREAS

"Many colonies have not secured sufficient honey for winter stores in some states (draught areas) and in a few areas colonies have starved if not furnished supplemental food," reports the U.S. Department of Agriculture in its semi-monthly honey report on August 1. The dry, hot weather seriously reduced the honey flow in the area of Ohio, portions of Indiana, Michigan and through Kentucky. On the other hand, too much rain hurt the honey flow in some sections, particularly parts of Wisconsin.

For Wisconsin, the USDA gives this report: "The main honey flow turned out far below early expectations. Some aparies have secured a normal crop but many others have little in the supers. Frequent rains caused too much interruption and very heavy rains practically stopped the flow."

CAN BEES CONSUME GRANULATED HONEY

In a report in the BEE WORLD (England) for July, 1952, we find this paragraph on the subject of bees consuming granulated honey.

"Bees can injest finely granulated honey as a whole, taking the crystals along with the liquid. This was shown by microscopic examination of the honey-stomach contents of the bee which had been fed granulated honey. Observation of the bee while feeding showed its mouthparts were widely separated, and the honey entered in a broad stream. However, honey in the comb frequently granulates in **large hard masses** which the bees cannot break up, and they therefore throw them out of the hive. The bees first consume the surrounding liquid which, through loss of the crystalized glucose, has a higher water content than the original honey."

With all this money floating around, inflation would be a wonderful thing if it just weren't for the high prices.

—Monroe Co. Democrat.

Foritfy yourself with contentment for this is an impregnable fortress.

INTRODUCTION OF QUEENS

It is claimed that it is not the acquiring of the same odour as the colony, but the behavior of the queen being introduced, which determines her acceptance or rejection; and also that her behavior depends on her condition: If she is fully mature and starts laying as soon as she is released (which is usually the case ir she has been laying about 4 weeks before being substituted for the old queen), she will certainly be accepted. —By Bro. Adam, St. Mary's Abbey, Great Britain. Reported by M. D. Bindley in The Bee World.

BEEKEEPERS ARE QUITTING

It May Now Be A Good Time To Hang On To Your Bees

Reports from all over the country indicate that few young men are going into beekeeping and many beekeepers are selling their bees or quitting due to several factors—old age, health, more profitable jobs or because their work requires too much of their time.

There was a time when beekeeping was a profitable sideline. Perhaps a factor is that most jobs pay quite well these days and a sideline bringing in some revenue is not as necessary as it used to be.

However, as always happens in cases of this kind, production goes down to a point where prices go up. An illustration at the moment is that of potatoes. If production goes down and the demand for honey remains the same or improves then prices will go up naturally due to the old law of supply and demand.

However, we must not let consumer interest in honey go down as fast or faster than production. If we do, then prices will continue to sag and more of us will have to quit beekeeping.

However, as Mr. Lloyd France points out in this issue, those who have the bee fever or really love their bees will keep them anyway.

THE IMPORTANCE OF PERFUME IN DISCOVERY OF FOOD. In an English experiment it was concluded that untrained bees depend upon sight to find the flowers from a distance, but on close approach, will enter flowers more readily if they are attractively scented.

THE HONEY EXHIBIT AT THE STATE FAIR

A sales booth; a ten-frame observation hive; and exhibit showing the value of bees in pollination were the features of the Bee & Honey Exhibit at the Wisconsin State Fair this year. Mr. Art. Kehl of Watertown worked hard to make the exhibit successful and had the assistance of a number of beekeepers and their wives. From comments heard we know there is increasing interest among beekeepers on the value of the State Fair to promote sales of honey. Out of it will come greater knowledge of the kind of location and the kind of exhibit that will do the industry justice.

What is needed at the State Fair is a Central Exhibition Hall to provide a glamorous setting for Agricultural Exhibits. Let's help the management get it.

WINTERING BEES IN RUSSIA

In **The Bee World**, England, we find a review of some articles from a Russian beekeeping magazine and the following statement in regard to wintering:

"Investigations on the temperature and gas concentrations in brood chambers during winter, and on the comparative effectiveness of wintering in sheds and in the open with hives well covered, have shown that bees winter better in the open. It is known that colonies also winter successfully buried in trenches or in snow: it is clear that bees can stand a high concentration of carbon dioxide and a low oxygen concentration."

The article also states, "the CO2 concentration is dependent on the numbers of bees and the tightness of the cluster. The CO2 surrounds the cluster like an envelope and has somewhat the effect of a shell or skin. It prevents the cold air from reaching the bees."

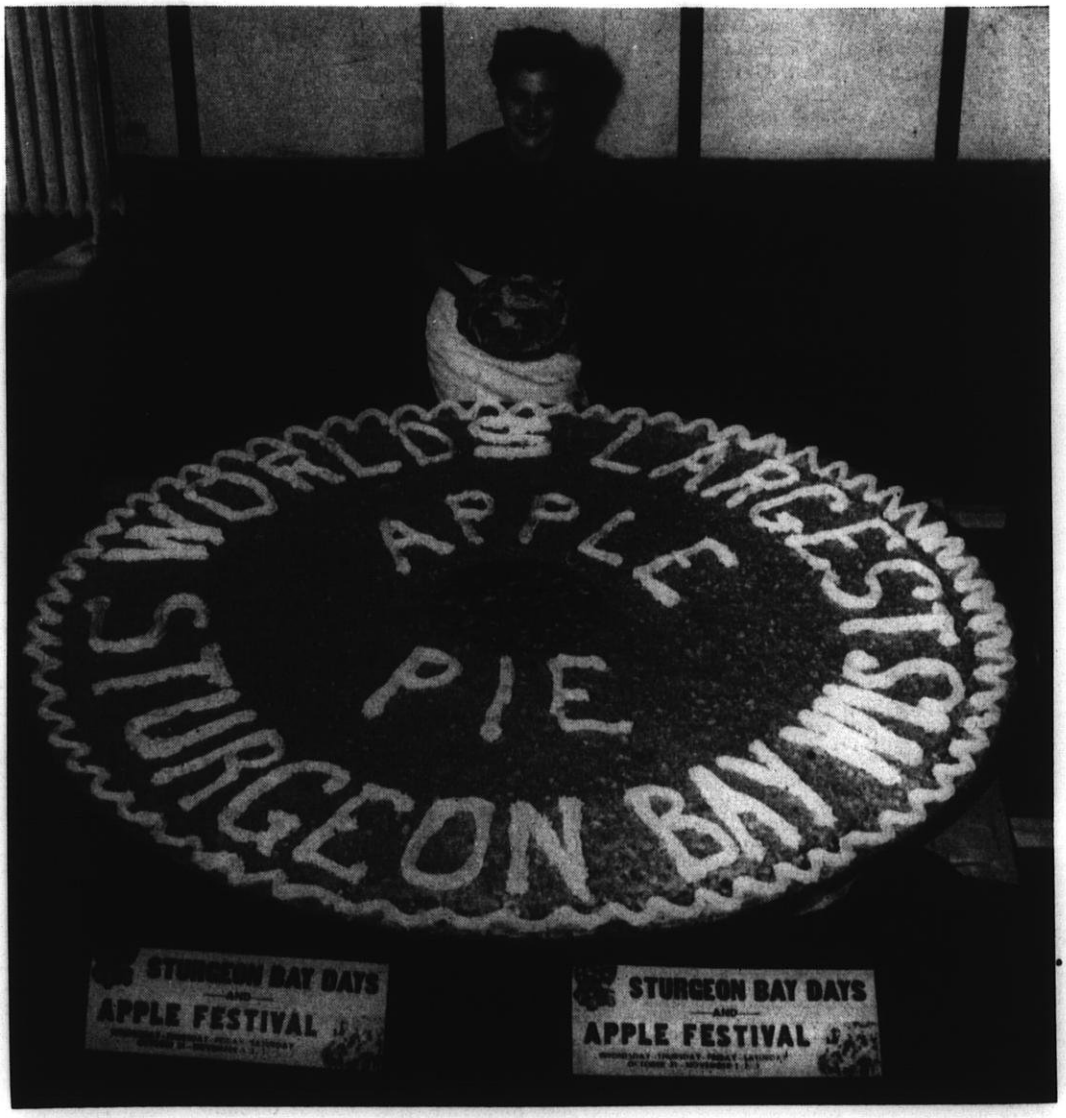
HONEY WANTED

State amount you have at your place, what flavor it is and prices in 60's. Will pick up and pay cash. M. H. Lyons, Loganville, Wis.

HONEY WANTED

WANTED Wisconsin honey in all grades. Submit samples. Highest prices paid. Schultz Honey Farms, Ripon, Wis.

Wisconsin horticulture



October, 1952

IN THIS ISSUE

Annual Convention Programs

WISCONSIN HORTICULTURE

The Official Organ of the Wisconsin State Horticultural Society

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Subscription by membership in the Wisconsin State Horticultural Society. Annual dues are $1.25 per year. Organizations of 10 members or more may affiliate at special rates which will be sent on request.

THE BIGGEST BUTTERNUT TREE

The state of Illinois got into the record books as having the country's largest butternut tree with a circumference of 5'8" and here sits Wisconsin with a butternut tree that measures 8'5" around. Both trees were measured 4½' from the ground.

The conservation department's Forester P. S. Mackie measured the Wisconsin tree found in the Flambeau state forest, Sawyer County. It has a height of 83 feet and a spread of 54 feet.

The American Forestry association has been advised as to Wisconsin's big butternut and the conservation department's Walter Scott has also advised the association that Wisconsin has red pine that are larger than any recorded. An official report awaits measurements.—**From the Wis. Conservation Dept. Bulletin.**

New and Scientific Methods Are Used By Growers To Improve

Quality Fruit Production And Use

ORCHARD TOUR HELD BY RACINE COUNTY FRUIT GROWERS ASSOCIATION

"Seeing is believing," was the decision of growers who attended the Orchard Tour of the Racine County Fruit Growers Association, organized by Mr. H. Hugo of the County School of Agriculture, County Agent Edwin Leet and officers, President Jerome Schelling, Vice-President Marvin E. DeSmidt and Secretary Ben Ela.

Scab Control

At the first stop, the Lee Orchard on Highway 41, scab control was studied. Fungicides had been omitted during hot weather because Mr. Lee feared burning. Wet weather caused late scab and considerable loss. Ferbam or a mild sulphur should have been used during the entire season.

Other observations: Golden Delicious needs thinning on older trees or fruit will be small. "End pruning" may be the coming thing for it. Will start new, vigorous shoots which may bear annually. Chemical thinning should help the Goldens.

Bees In The Orchard

In both orchards visited there were bees belonging to the growers. They are convinced of the need for pollination.

At the Erwin DeSmidt orchard a demonstration was given with a Hardy Spray Mast mounted over the rear tractor wheel and operated by the driver with one hand. At 600 lb. pressure good results were obtained, Mr. DeSmidt said. He filled the 200 gal. spray tank in 4 minutes, using a sump pump in a water tank.

Likes Concentrate Sprayer

Mr. R. L. Marken of Kenosha remarked that he was very much pleased with their new concentrate sprayer. Using a 5X concentrate of lime sulphur in hottest weather he found no injury when it was applied properly—as a mist, and never so heavy it would drip. The spray dried in about in about one minute, which

Next Page Please

"What's new in the kitchen—with apples" was the title of this TV demonstration on the Breta Griem program, September 12. Above from left: Carol Sutherland, Ass't. to director; Mrs. Marjorie Slaughter, Promotion Director of the Wisconsin Apple Institute; and Mrs. Breta Griem, director of the Homemakers' Program. The use of apples was demonstrated during the 50 minute program, using three main recipe ideas.

Below: Assistant Co. Agent; E. B. Stiefvater, Milwaukee, talks about best vegetable values on the market during his "market basket" topic.

is no doubt the answer. Mr. Marken remarked they had to learn spraying all over again at the Thompson & Marken Orchards after buying the new sprayer but were very happy about it.

At the DeSmidt farm a very pleasant pot-luck luncheon was enjoyed, the DeSmidts' furnishing coffee and delicious melons. Talks were then given by H. J. Rahmlow on the apple crop situation and promotion, and C. L. Kuehner on orchard practices as seen on the tour. He also showed new varieties of fruit and discussed their possibilities.

APPLESAUCE-NUT BREAD APPEALS TO FRUIT-GROWERS

Fruit growers taking part in the orchard tour put on by the Minnesota Fruit Growers Association and the Wisconsin Horticultural Society, partook of a very hearty chicken dinner served by the ladies of the Cottage Grove Congregational Church, Minnesota. At the close of the meal the men, who had eaten large numbers of slices of a delicious bread served family style, began to ask about its ingredients, and "did it have apples in it"? They were informed that it was an applesauce-nut bread. The church ladies volunteered to send out cards containing the recipe, which is given below.

Ladies! — try this on your husband. He'll be as pleased as the men at the church dinner. Here it is:

Applesauce-Nut Bread

Combine:
1 beaten egg
1 cup applesauce
2 tablespoons melted butter

Sift:
2 cups sifted flour
¾ cup sugar
1 teaspoon cinnamon
3 teaspoons baking powder
½ teaspoon soda
1 teaspoon salt

Stir into applesauce mixture.

Add:
1 cup chopped walnuts.

Pour into greased 5x9-inch loaf pan.

Bake at 350° F. for 45 minutes.

There isn't any map of the road to success; you have to find your way.

6TH ANNUAL FRUIT GROWERS MEETING
Wisconsin State Horticultural Society
Minnesota Fruit Growers Association
HOTEL WINONA, WINONA, MINNESOTA
November 6-7, 1952

Program—Thursday, November 6

9:30 A.M. Registration. Setting up fruit exhibits.

10 A.M. Call to order by William A. Benitt, President, Minnesota Fruit Growers Association. Announcements.

Orchard practices in Washington State, of interest to our growers. By H. J. Schubert, Madison; Henry P. Vollenweider, LaCrescent; R. B. Graves, Dakota; and J. D. Winter, St. Paul.

11 A.M. Experiences with concentrate spraying. By Arnold Nieman, Nieman Brothers Orchards, Cedarburg, Wis.

11:30 A.M. Question and answer period on concentrate spraying.

11:45 A.M. Business meeting, Minnesota Fruit Growers Association.

AFTERNOON PROGRAM

Program Topic: Insect and Disease Control

1:30 P.M. Meeting opened by Arnold Nieman, President of the Wisconsin State Horticultural Society Presiding.

The 1953 Apple Spray Program For Insect Control. By Dr. C. L. Fluke, Dept. of Entomology, U. W.

2:15 P.M. Insects and Disease Problems in Minnesota Orchards. By W. O. Bulger, Minnesota Dept. of Agriculture.

2:45 P.M. Why Some Growers Failed To Control Scab In 1952. By Dr. T. H. King, U. Minnesota.

3:15 Experiences With Certain Fungicides in Scab Control. By Dr. H. W. Thurston, Jr. Dept. of Plant Pathology, Pennsylvania State College.

4:15 P.M. Apple Defect's Contest, in charge of Dr. L. C. Snyder and Professor C. L. Kuehner. How many defects on display can you identify.

Meeting of Directors. Minnesota Fruit Growers Association.

6:30 P.M. Annual Banquet. Hotel Winona.

Friday, November 7

PROGRAM TOPIC: ORCHARD MANAGEMENT

9:30 A.M. Meeting opened by Arnold Nieman, presiding.

New Ideas about pruning. By Dr. R. H. Roberts. Dept. of Horticulture, U. W.

10:30 A.M. Grower experiences. Discussion led by H. J. Rahmlow, Secretary, Wisconsin State Horticultural Society.

(a) air-powered pruners, (b) chemical thinning, (c) harvest sprays.

12 M. Luncheon for officers and directors of Minnesota and Wisconsin Organizations with Agricultural Committee, Winona Association of Commerce. Hotel Winona.

AFTERNOON PROGRAM

PROGRAM TOPIC: MARKETING

1:45 P.M. Meeting opened by F. F. Isaacs, Vice-President, Minnesota Fruit Growers Association, presiding.

Our Apple Market and What We Have Done To Improve It. By Arnold Ulrich, Rochester, Minn.

2:15 P.M. What Can We Do To Improve Apple Marketing. A Round Table, free-for-all. Moderator, Professor Harold Pederson, Univ. Minnesota

Door County Has Fine Fruit Crop

Meetings Held To Show Results Of Research On Disease And Insect Control

Some very interesting observations were made by Fruit Growers fortunate enough to be able to attend the orchard demonstrations held in Door County on September 26.

In the forenoon session Dr. J. D. Moore and Don Dever showed and explained to growers the results of apple disease and insect control with the use of 12 different materials and combinations. More details will be given by both men at our Annual Convention and we would like to suggest that growers study carefully the results they obtained by the use of several new materials, especially liquid Dithane plus iron sulphate. This material is low in cost—about the same as lime sulphur, is easy to handle and gave excellent control without injury to the leaves or fruit.

The trees sprayed with liquid lime sulphur, (2 gal. to 100 gal. of water before bloom, and 1⅛ gal. after bloom) showed the usual foliage injury. Manzate used 9 times gave beautiful scab control and the best mite control of the fungicides but left the fruit slightly russeted.

While the standard spray of lime sulphur and ferbam gave good scab control on the fruit, it was not quite as effective in controlling scab on the leaves as some of the other materials and did not control red mite. Lime sulphur used 3 times, with mike sulphur plus lime used 6 times gave good control of scab on leaves but was not quite as good as ferbam for control of scab on fruit. Mike sulphur is slightly cheaper than ferbam.

At the afternoon meeting held at Horseshoe Bay Orchards, we saw cherry trees with large healthy leaves as compared with the almost leafbare trees seen in some nearby orchards. It is important that the leaves be kept on the trees as long as possible. Years ago it was found that trees which lost their leaves early due to leaf spot had smaller cherries the following year and if leaves drop right after harvest the trees will usually winter kill the following winter.

From the standpoint of cost Bordeau Mixture is the cheapest material, but from the standpoint of the maximum size of cherries, some other materials are better.

A new antibiotic called Actidione is remarkable. A tiny bit of powder—¾ gram in 100 gal. of water controlled cherry leaf spot after it had gotten a start on the leaves. Dr. Moore said he may recommend it next year in situations where leaf spot has become established, to stop its spread.

FRUIT SHOW — ANNUAL CONVENTION WISCONSIN STATE HORTICULTURAL SOCIETY

Retlaw Hotel, Fond du Lac
NOVEMBER 17-18, 1952

Committee in charge: Prof. C. L. Kuehner, Madison, chairman, assisted by William Meyer, Waldo; E. E. Skalisky, West Bend; Harold Reineke, Fond du Lac, and Wayne Chapman, Fond du Lac.

NEW APPLE VARIETIES
PLATE OF 5 APPLES

1. Macoun
2. Haralson
3. Secor
4. Fireside
5. Prairie Spy
6. Lobo
7. Beacon
8. Victory
9. Any other new variety properly named

To be judged by Danish or Merit System. All plates scoring "Excellent" to receive $1.00; "Very Good", 75c and "Good", 50c. Number of prizes in each rating limited to ⅓ of the number of entries.

STANDARD VARIETIES
PLATE OF 5 APPLES

10. Wealthy
11. McIntosh
12. Cortland
13. Red Delicious (any strain)
14. Golden Delicious
15. Jonathan

Premiums on each class, 1st prize, $2.00; 2nd prize, $1.50; 3rd prize, $1.00.

Premiums on Wealthy, McIntosh and Cortland offered by J. Henry Smith, Niagara Chemical Division, Waupaca.

Premiums on Red Decilious, Golden Delicios and Jonathan offered by Lester Tans, Southeastern Supply Company, Waukesha.

Judges: R. L. Marken, Kenosha; C. L. Kuehner, Madison.

SEEDLING APPLE EXHIBIT
FIVE APPLES NOT PREVIOUSLY SHOWN

Prizes: 1st, $3.00; 2nd, $2.00; 3rd, $1.00.

Only seedlings of real merit will be awarded prizes. Bring in person or mail to Retlaw Hotel, Fond du Lac, to arrive November 16.

APPLE PACKING

Packed bushel basket of apples of any variety packed and faced with the cover in place. Apples must be of good quality. To be judged on packing only.

Prizes: 1st, $10.00; 2nd, $7.00; 3rd, $4.00; 4th, $3.00. Each additional entry, $2.00. Prizes for this class will be given by the Wisconsin Apple Institute.

Prize winning bushels will be offered at auction at the annual banquet. Proceeds will be used for the apple advertising program of the Wisconsin Apple Institute. Owners will be given the market value of the apples in addition to the premiums excepting for 1st and 2nd prize winners.

WINTER PEAR VARIETIES—Plate of 5

1. Lawrence
2. Vermont Beauty
3. Bosc
4. Kieffer
5. Winter Nelis
6. Any other variety properly named

Premiums: 1st prize, $1.50; 2nd prize, $1.00; 3rd prize, 75c.

FRUIT SHOW

Growers are invited to bring plates of new or old varieties of apples, pears, and other fruits for display.

A prize of $10.00 is offered for the best bushel basket of apples. Best entries will be auctioned at the banquet, the grower of the best basket to receive $10.00 prize and growers of other bushel lots auctioned to receive $5.00 for each bushel. Other auction receipts to be credited to the annual meeting fund. Bids limited to $15.00 for any one basket.

COMMITTEES

Banquet: E. V. Johnson, County Agricultural Agent: **Exhibits:** E. M. Hunt; **Judging:** C. L. Kuehner, Leon C. Snyder; **"Apple Defect" Contest:** L. C. Snyder, C. L. Kuehner; **Program:** J. D. Winter, H. J. Rahmlow; **Registration and Publicity:** E. V. Johnson.

WISCONSIN APPLE INSTITUTE NEWS

Fourteen Memberships Gained Since Last Listing

Fourteen more Wisconsin fruit frowers paid their dues to the Wisconsin Apple Institute during August and September.

Those joining: H. Russel Smith, Waupaca; Thompson and Marken, Kenosha; John C. Bremer, Adell; Harold Steffen, Cedarburg, John Fromm, Cedarburg; Virgil Fieldhouse, Dodgeville; Hipke Orchards, New Holstein; Harry Brunn, Milwaukee; J. R. Writt, Rolsen Orchards, Inc., Ellison Bay; Alfred J. Meyer, Meyer Orchards, Milwaukee; Manitowoc County Fruit Growers, E. W. Tuma, treas., Cato; Wm. Connell, Sun Ridge Orchards, Menomonie; Jefferson County Fruit Growers, Carroll Krippner, Sec., Ft. Atkinson; and Dawson Hauser, Bayfield.

All Wisconsin apple growers who have not already done so are urged to send dues to Armin Frenz, treasurer, Route No. 2, Cedarburg. Membership dues are $5.00 plus 50c per acre of bearing orchard.

NEW RECIPE BOOKLETS ALMOST GONE

Over 13,000 of the new book, USE WISCONSIN APPLES — 52 NEW WAYS have been sold or sent out. After Mrs. Marjorie Slaughter appeared on the Homemaker's Hour, state radio stations, on September 11, station WHA, alone received 130 requests for the recipe bulletin, the following day; with almost as many on succeeding days. Sorry we haven't enough recipe booklets to continue offering them. Only 15,000 were printed this year.

CRAG 341 GAVE GOOD FINISH TO HARALSON APPLES

Mr. Virgil Fieldhouse, of Fieldhouse Fruit Farms, Dodgeville, writes: "Crag No. 341 used on Haralson apples gave us exceptionally clear beautiful skin to the fruit and we intend to try it again next year. This may be the answer to the problem of growing No. 1 Haralson. In the past we have been troubled much with russeted skins on this variety. We have also found Crag successful on Wealthy.

The Cost Of Growing Apples

By Carroll Miller, Appalachian Apple Service

Cost of production for apples, picked but not packed, in Appalachian averaged about $1.02½ per 45-lb. bushel for the 1951 crop, according to the comprehensive study for Appalachian Apple Service by our Public Accountant. The Accountant visited personally and got actual costs from 28 orchard operations, some of which included more than 1 orchard. These 28 operations produced 1,692,284 bushels in 1951. All had two-thirds or more of a crop. That $1.02 is on the conservative side. Average for the 28 is 60,000 bushels. The study seems representative; is uniform and thorough. The $1.02½ cost per 45 lb. bushel, picked only, is 2.28 cents per lb. or $2.28 per cwt.

To recover his cost-of-production alone (no profit) the average grower must average this $1.02 bu. ($2.28 cwt.) from all his fruit, from Fancy to Cider grades. Any profit, and all grading, orchard hauling, delivery and other handling costs must come from beyond the $2.28 per cwt.

The 1951-crop average costs are lower, by almost 14 cents per bushel, than the 1950 costs as determined by a similar, but smaller, cost-study. Three reasons explain the lowered 1951 cost: (1) Per-tree yield was ½ bushel (1/7) greater in 1951 than in '50; (2) The money a grower spends on his crop is governed sharply by the money available to him; and (3) some of the orchards added to the 1951 survey happened to have lower "capital investment" costs (in buildings, equipment etc.) than the 1950 group averaged. Biggest drop is in "Return on Investment (5%)" and "Other Expenses". (See table).

The 1951-crop cost of $1.02½ per bushel fits into the pattern that is being established; — $1.16 for 1950; and $1.08 for 1949 from a smaller, less-standardized study made by this office. New York state growers' costs in 1949 were $1.07 per bushel ($2.38 cwt.) according to Cornell University's study.

Costs Itemized

Costs of each grower will range above or below these averages, depending upon many factors. But except for a few growers, costs will come close to the average **when computed according to standard accounting practice,** as in these: — around or above $1 per bushel, picked only. Findings from the 28 operators are: (and comparison with 1950's findings):

	1951	1950
Orchard Operations Reported	28	24
Tree-Run Bushels Produced	1,692,284	1,125,546
Bearing Trees	223,410	177,916
Per Tree Production, Bushels	7.575	7.056
Production Labor	$ .2381	$ .2556
Harvest Labor	.1858	.1800
Management Salaries	.0563	.0631
Fertilizer	.0313	.0375
Spray Material	.1632	.1671
Return on Investment (5%)	.0845	.1289
Depreciation	.0815	.0933
Other Expenses	.1845	.2365
TOTAL	$ 1.0252	$ 1.1620

Production and harvest costs consist of directly related expenses. No allowance has been made for profit to the owner or for income taxes.

Editors Note: Cost of baskets and delivery to market is not included. The cost of a packed basket of No. 1 apples would therefore be over $2.00 per bushel.

APPLE EXPORTS WILL BE SMALL

There is little chance for improvement in the exporting of our apples to European countries according to Fred A. Motts, Government Marketing Specialist. Reasons given are the absence of an export payment program and lack of dollars. It appears that very few apples will be sold to Europe under existing conditions.

Notes On Fruit Growing

SONG OF THE ORCHARD MOUSE

O, I am the happy orchard mouse
Who shuns the barn and scorns the house.
The harm I do is termed terrific
And best of all, boy, I'm prolific!
The farmer plants his little trees
With loving care and bended knees,
While I sit back and laugh with glee
Well knowing it's duck soup for me.
The fruit tree grows, so does the grass
And through this copse I safely pass.
No cultivator harms my nest
Conditions are for me the best.
When winter comes my clan is legion
We appropriate the whole darned region.
What chance has then a little tree
Thus accessible and for free?
The farmer knows a lot of things
Concerning worms and bugs with wings.
A saw and axe for fire blight,
A different spray for every mite.
Each year a system, new, expensive—
The cost, my lads, can be extensive.
Problems plague him by the score
He solves them quick and asks for more.
All this he does with open eyes
But somewhere still a weakness lies.

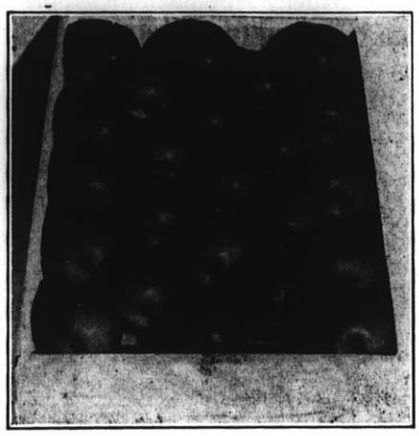
—Eino Annala—
(In American Fruit Grower)

WISCONSIN APPLE PIE AND CHEESE FEATURED ON BILLBOARDS

Wisconsin apple pie and tasty cheese are being featured on about 300 billboards of the Wisconsin Dep't. of Agriculture during the harvest season—September and into October.

The Wisconsin Apple Institute members and all apple growers appreciate the cooperation of the Department. Featuring apple pie was suggested by Officers of the Wisconsin Apple Institute last spring.

Only by drawing the attention of consumers to our farm products repeatedly and constantly can we maintain our market. Our thanks go to Mr. Don McDowell, Director; and members of the Farm Products Promotion Section: Don Wilkenson, Chmn., Frank Wing, W. L. Witte, C. L. Jackson and Cliff Hutchinson.



WHEN SHOULD APPLES BE SOLD

New Bulletin By Michigan State College Gives A Summary Of A Study On Prices Of Apples, When To Sell, And Relationship Between Size Of The Crop And Prices.

When should apples be sold? That is the question many growers would like to have answered. L. L. Boger of the Department of Agricultural Economics, Michigan State College, with the assistance of Prof. R. E. Marshall and others made a detailed study of apple prices in Michigan as related to size of the crop and other factors. In the summary and conclusions in the bulletin this information is given.

The farm price of apples has fluctuated widely from month-to-month in recent years. In some years those fluctuations have resulted in huge losses to growers who have stored apples.

About three-fourths of the price fluctuations of apples by months can be explained by 1) size of crop, and 2) income of persons in the United States. Those relationships, together with a knowledge of the historical pattern of monthly apple prices should help growers decide whether to store apples.

For the 23 years included in the study, the recommendations to a grower in September would have been for him to sell his apples at harvest for 10 of the years, and store for 13. The recommendations would have been correct in all of the years except two, 1935 and 1947. In each of those two years the recommendation would have been to store when, in reality, it would have been more profitable to sell.

For any given change in the size of crop, prices changed slightly more percentage-wise and in the opposite direction. For example, a 10-percent increase in the size of crop from one year to another resulted in an average drop of 8.8. percent in the Michigan farm price.

It is emphasized that certain circumstances can upset all calculations. The results herein presented are not fool-proof. They have been yielding remarkably good results in recent years that have been particularly hazardous. They fall short in accurately predicting how much it will pay a particular grower to store.

BEACON APPLE SELLS WELL

At the orchard tour of the Minnesota Fruit Growers Association, September 3, it was reported that the Beacon apple outsold any other variety in late August. More than $5,000 worth of Beacon apples were sold to apple hungry visitors to the Minnesota State Fair. The price ranged from 5c to 10c each, and disposed of almost all of the Beacons available in Minnesota. It's the red color that attracts consumers because the Beacon is not a high quality eating apple.

MORE ABOUT TOXAPHENE FOR MOUSE CONTROL

Fruit Growers are anxious to know if toxaphene can be used as a ground cover spray for mouse control. In the August Iowa Fruit Growers Association News Letter we find a letter from P. C. Crandall, Department of Horticulture, Pullman, Washington, which reads:

"The material is still in a semi-experimental stage, that is, many growers are going to use it commercially, but there are still a number of questions yet to be answered regarding its effect on the trees and the proper concentration to use. They seem to feel that about six pounds of toxaphene per acre is necessary for good control. Rates as high as 12 pounds per acre were used but at that rate it killed rabbits and some game birds and would be dangerous to dogs and cats."

Berries and Vegetables

Wisconsin Berry and Vegetable Growers Ass'n.

FALL VEGETABLE GARDEN QUESTIONS

Answered By John A. Schoenemann, Extension Specialist, Vegetable Crops, U.W.

Question. Fall Care of Asparagus. What shall we do with our asparagus this fall? Is it best to remove the tops and will it help any for weed control?

Answer: Asparagus beds should be disced either late in the fall or early in spring before growth begins. At such time the asparagus tops should be worked into the soil with a liberal application of manure or compost, if available. The chief advantage, if any, to leaving this operation go until early spring would be that the old asparagus tops help catch and hold snow cover during the winter. This is of limited value in Wisconsin. On the other hand, getting the job done in the fall means that only a light discing would be required before the cutting season starts in spring. This means less work for the grower during the busy spring season.

The late fall or early spring discing operation is a vital part of a good weed control program for established asparagus beds.

Question: Vegetable Storage. What is the best way to store carrots? I have heard that they can be placed in an earthenware jar and covered. Won't they get moldy that way? Can we store our onions in our root cellar with potatoes? Also what is the best way to store squash and cabbage?

Answer. Carrots and other root vegetables are best stored for home use in large crocks, metal cans or light wooden boxes and barrels. These containers should be lined with paper, with layers of crumpled paper between each layer of vegetables. Maintaining a storage room temperature of 35 to 40 degrees will prevent spoilage provided only sound produce be used for storage purposes.

Onions require cool, dry storage conditions while potatoes keep best in a cool, moist, dark atmosphere.

Squash and pumpkins should be well matured and stored under dry

conditions in the warmer parts of the storage room. Cabbage heads should be individually wrapped in paper and stored under cool temperatures.

Question: Saving Vegetable Seed. Is it all right to save my old seed from seed of beans, peas, sweet corn, etc.? I have some vegetable seed left over from last spring. Will that be all right next year?

Answer: Saving vegetable seeds from the garden is a questionable practice. Good commercially grown seed is actually only a very small part of gardening costs. Home-saved seeds are often infected with troublesome seed-borne diseases. Also varieties of certain crops may become badly mixed through crossing.

Unused seed from this past spring should be stored in a cool, dry place and protected from rodents. Most seeds will germinate satisfactorily the second season; however, they should be sown somewhat thicker since percentage of germination decreases with age.

(Continued on Page 34)

ANNUAL MEETING

Wisconsin Berry and Vegetable Growers Association

Affiliated With the Wisconsin State Horticultural Society

COURT HOUSE, OSHKOSH—MONDAY, NOVEMBER 3

HOSTS: THE OSHKOSH ORCHARD AND GARDEN GROWERS ASSOCIATION

10 A.M. Call to order by Harry Barlament, Green Bay, President. Announcements. Welcome by County Agent Verne Peroutky, Oshkosh.

Strawberry variety trial report from Peninsula Branch Experiment Station at Sturgeon Bay. By Frank Gilbert, Superintendent.

10:45 A.M. What we learned about strawberry varieties and culture this year. By Dr. Charles Swingle, Sturgeon Bay, and Mr. Harry Barlament, Green Bay.

11:30 A.M. Round table on strawberry and raspberry varieties and culture. Reports from growers. Conducted by Prof. C. L. Kuehner, Extension Horticulturist, U. W. Madison.

12 M. Noon luncheon served in Court House by 4-H Clubs of Winnebago County. Price $1.00.

1:30 P.M. Annual business meeting. Election of officers. Discussion of consumer promotion.

2:00 P.M. Report of experiments on weed control in strawberries. By Frank Gilbert, Sturgeon Bay.

2:30 P.M. What's new in insect and disease control of raspberries and strawberries. By H. E. Halliday, Ass't Chief, Plant Industry Division, Madison.

3:00 P.M. Round table discussion by growers. How to prune raspberries. New varieties. Led by H. J. Rahmlow, Secretary, Wisconsin State Horticultural Society.

Officers and Directors, Wisconsin Berry and Vegetable Growers Association: President, Harry Barlament, Green Bay; Vice-President, Dr. Charles Swingle, Sturgeon Bay; 2nd Vice-President, Cris Olson, Berlin; Secretary-Treasurer, E. L. White, Fort Atkinson. Roy Rasmus, Mrs. Charles Braman, Waupaca; F. W. Van Lare, Oconomowoc, and Glen Swartz, Kenosha.

Question: Are Parsnips Poisonous. We have a row of parsnips in our garden. I have heard that it is all right to leave them in the ground over winter. When can we pick them and are they ever poisonous at any time?

Answer: Parsnips can be left in the garden over winter for early spring harvest. Placing a light mulch of hay or straw over the row is a good idea. Contrary to popular belief, parsnips do **not become** poisonous if they should begin to grow again in the following spring. However, their flavor will decrease, since sugars from the roots are used up when top-growth is resumed.

Question: Handling the Compost Pile. In the fall we have a lot of leaves, vegetable tops and refuse. What is the best way to handle this material in a compost? Can we hasten decomposition in any way and how long will it take before it can be used in the garden?

Answer: Compost can be prepared from leaves and garden refuse gathered in the fall. These materials should be piled together, kept moist, and occasionally turned and mixed as they decay. Small amounts of soil, lime and commercial fertilizer sprinkled between layers of plant refuse as the pile is built up will hasten decay. A compost pile prepared in the fall should be ready for use late the following summer.

2,4-D DANGEROUS FOR GRAPES

A news item from Pasco, Washington, from the **Chicago Packer** states that the Church Grape Juice Company has asked the State Department of Agriculture to ban the use of 2-4-D in sprays within a radius of ten miles from its vineyard. Regulations now ban spraying within two miles.

The juice company claimed loss of grape vines from sprays applied to kill weeds in nearby wheat fields and has filed suit for damages.

NATIONAL VEGETABLE GROWERS CONVENTION

December 2-6, 44th National Convention, Vegetable Growers Association of America will be held in Tampa, Florida. Dr. H. D. Brown, Ohio State University, Columbus 10, Ohio, is secretary.

December 7-11, National Junior Vegetable Growers Convention will be held in the Henry Hudson Hotel, New York City.

MULCHING STRAWBERRY PLANTS FOR WINTER PROTECTION

"Mulch strawberry plants just before the first heavy freeze" is the advice which has long been given to Wisconsin strawberry growers. It has been shown experimentally that sudden low temperatures of 15 to 20 degrees F., coming early in November before the strawberry plants are fully dormant and if unprotected by snow, mulch or heavy foliage, will injure the crowns and roots to an extent that the crop will be greatly reduced the following year.

The South Dakota Agricultural Experiment Station at Brookings, carried on an extensive experiment in late years, "in order to find out why the mulching practices are so unreliable". Results are published in a new bulletin entitled "Mulching Strawberry Plants For Winter Protection." The bulletin states that the experiment is not completed. The following is a summary of the findings.

Summary of Bulletin

In the absence of a strawberry variety hardy enough to tolerate all winter conditions without loss, the practice of mulching for winter protection is desirable.

So far, mulching has not proved entirely satisfactory, as the same practice that offered good protection one year failed to do so in another year.

In an attempt to find out what causes the mulching to be so undependable, the study was undertaken and the following facts were brought out.

1. Marsh hay or straw is satisfactory as a mulch. Snow covering alone is not dependable.

2. The thickness of the mulch should not exceed 2 inches. Heavier covering is conducive to ice formation in the mulch; the ice layer tends to lower the temperature under the mulch cover and by doing so defeats the purpose of the mulch.

3. The time of mulching is of the greatest importance to insure maximum plant survival. No definite date can be given. Different varieites respond to different mulching dates. In this connection it should be remembered that the ability of plants to prepare themselves for winter is associated with weather conditions. Hardiness in turn is influenced by the accumulation of plant carbohydrates.

4. The weather plays an important part in inducing the plants to store carbohydrates. The experiment showed that cool and sunny weather checks plant growth and is conducive to the development of hardiness. On the other hand, a short period of warm weather may cause a plant to lose its hardiness. Therefore mulch should be applied after a week or more of near freezing temperatures, and not after a few days of warm weather.

By watching the weather reports and having the mulch readily on hand, a planting can generally be covered in time to prevent injury.

STRAWBERRY GROWING EXPERIENCES

By Virgil Fieldhouse, Dodgeville

At the Fieldhouse Fruit Farm this year our experience with Crag Herbicide No. 1 was the same as last year. We used one application in early July that gave very good weed control with a little weed pulling again in late August. Variety Wis. No. 214 could have had another application and still have made plenty of runners, but other varieties have a more satisfactory set of plants with the treatment given.

The variety grown in most places as Wis. No. 261 is really Wis. No. 235, we think—because of an error in naming. We have dug plants from the original plot of No. 261 at Madison and it is definitely a different berry than what most people call No. 261. Our state plant inspector checked on plants dug directly from the original plot and agreed with us.

Knowing the interest in mulching both for orchards, gardens and berry plants, our readers may be interested in this: this year there was such an abundance of spoiled 1951 haystacks that it is nothing unusual for a farmer to offer us a baled stack very cheaply. Besides using the material for orchard mulching and for strawberries we mulched tomato patches to keep the fruit out of the mud and for organic matter in the soil.

Tips For The Gardener

QUESTION: Is it all right to set out strawberry plants in the fall of the year?

ANSWER: Plants may be moved with a clump of soil to a nearby location successfully but it is best not to set out bare-root plants in the fall, because there is usually considerable winter loss. This also applies to a number of varieties of perennials.

QUESTION: I have grown some poinsettia plants in my garden, but on bringing them into the house, many leaves turn yellow and in past years the plants have not bloomed. What is the trouble?

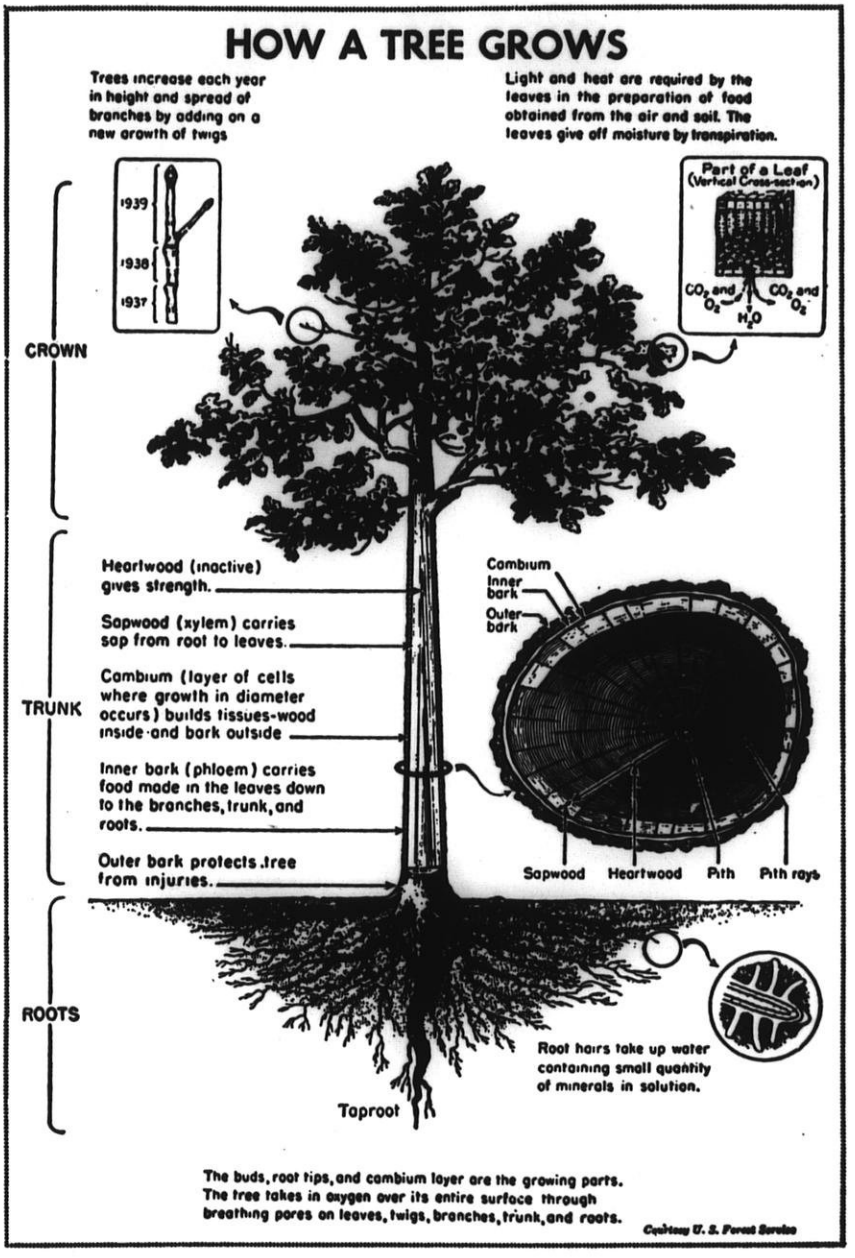
ANSWER: The change of location from the garden to the home means a change in the humidity of the air. Atomize the leaves with water several times a day to keep them from drying out. Also set the plants in a cool room, such as a bedroom and in good light. Be careful about electric lights as they will not bloom if the hours of daylight and darkness do not correspond with those out-of-doors in the fall.

QUESTION: How can I hasten the decomposition of my compost pile?

ANSWER: Keep it well watered, in fact wet during the summer. During the years when we have had a great deal of rainfall in summer compost piles decomposed rapidly, but in dry years this was not the case, and frequent watering will help.

QUESTION: Why is it necessary to plant tulip and daffodil bulbs deep in the soil?

ANSWER: The deeper they are planted the less they will split up and the longer they will continue to bloom well in the garden. If planted 3 or 4 inches deep in rich soil you will have an increase in bulbs which will mean dividing and transplanting them frequently which is not always successful. By deep planting they often remain in the same spot and bloom well for a number of years.



NEW TRACTOR FOR GARDENERS

"Engine-In-The-Rear" is the slogan for a new tractor put out by the Allis Chalmers Company of Milwaukee. Their Model G, Engine-In-The-Rear, is claimed to save valuable plants and flowers. The tractor can creep along at ¾ m.p.h. for power cultivation which is as gentle as hand hoeing, and up to six rows at a time.

From the Editor's Desk

ANNUAL CONVENTION
WISCONSIN STATE
HORTICULURAL SOCIETY

Retlaw Hotel, Fond du Lac
November 17 - 18

The Program

Complete details in November issue.

Program for Monday: The 1953 Apple Spray Program for Disease and Insect Control.

The latest in apple thinning with chemicals.

New methods of orchard mouse control.

Program for Tuesday: New ideas about pruning: harvest sprays.

Air powered pruners. Apple marketing. Annual meeting, Wisconsin Apple Institute. At the annual banquet two outstanding horticulturists will be honored.

ARE YOU INTERESTED IN CONSERVATION

Conservation Notes And Bulletin Available

The Wisconsin Conservation Department, State Capitol Annex, Madison 2, Wis., is doing an outstanding job. Those who are interested in the subject of conservation should write the Department to be put on the mailing list to receive their mimeographed "Conservation Notes" and also their monthly bulletin entitled "Wisconsin Conservation Bulletin". You will be pleased with the sound, interesting and factual information in these two publications. From them material may be obtained for interesting programs for your garden club or other organization meetings given by your own members.

ABOUT OUR SEPTEMBER COVER PICTURE

Mrs. L. K. Schoephoerster, mother of Douglas (who was eating one of Grandpa's apples on our September cover picture), writes: "We were pleased beyond words at the nice showing given the pictures and the

excellent write-up. Douglas was visiting at his grandparents' the day their copy arrived in the mail. He recognized the picture immediately and was thrilled. Our sincere compliments."

IMPORTANT COMING EVENTS

October 28-29. Annual convention Wisconsin Beekeepers Association. YMCA, Green Bay.

November 2. Annual meeting. Wisconsin Gladiolus Society. Medford Hotel, Milwaukee.

November 3. Annual meeting. Wisconsin Berry & Vegetable Growers Association — Small fruit section. Court House, Oshkosh.

November 4. National Election Day.

November 6-7. Annual joint convention. Minnesota Fruit Growers Association—Wisconsin State Horticultural Society. Winona Hotel, Winona, Minnesota.

November 11. Armistice Day.

November 17-18. 84th Annual convention. Wisconsin State Horticultural Society. Retlaw Hotel, Fond du Lac.

November 27. Thanksgiving Day.

Pastor to new usher: "Please, Mr. Doe, we refer to the cntribution as the collection—not the take."—**Tri-Town News.**

STORY OF PASSENGER PIGEON HANDICAP TO CONSERVATION

We've all heard stories about how destructive man can be, illustrated by the story of the passenger pigeon and the buffalo. We were therefore pleased to read in "Conservation Notes" by the Wisconsin Conservation Department the following:

"The stories about the passenger pigeon and buffalo continue to be a **handicap** to modern conservation in that they give undue weight to the danger of overshooting as a means of game eradication. Where there may be a species on the way out now it is certain that the cause **lies elsewhere than with the gun.** A bird or animal species presses toward maximum production in every environment and that maximum may be 10 or a thousand depending on environmental conditions. A changing environment is apt to squeeze out some species and advance others. The buffalo is not a good example of game eradication because in a matter of years they **could be restored** to their former abundance if they **could be tolerated economically.** The disappearance of the passenger pigeon is believed due to two variety factors. Wherever a country stays to the liking of a bird or animal it is difficult to kill it off. The fox and the coyote are doing all right in spite of a bounty stimulated slaughter. If the country ceased to fit their needs they would disappear in spite of any rigid protection. The number of deer this state will have continues to depend on how many deer the land will support regardless of hunting seasons or protection."—**From Conservation Notes, Wis. Conservation Dept., Madison 2, Wis.**

Life is a tragedy wherein we sit as spectators awhile, and then act our own part in it.

The man who is too busy to worry in the daytime, and too tired to lie awake at night, need not worry about being able to grow old gracefully.

OUR COVER PICTURE
THE WORLD'S LARGEST APPLE PIE

The **World's Largest Apple Pie** was the feature attraction of Sturgeon Bay's first apple promotion days, October 31 through November 3, 1951.

For years the apple growers and packers in the area felt the necessity of local apple promotion. Last year several of the promotionally minded local merchants got together and conceived the idea of tying locally grown apples in with their fall sales and displays.

The idea worked. Growers and packers were contacted and they brought in various varieties and made displays. The sidewalk shoppers were soon looking into the shop windows, and before long were inside the stores, discussing the merits of the different apples.

Prizes were awarded to the packer of the best commercially packed bushel of apples, as well as many honorable mentions for retail packages, complete assortment by an individual grower, best color, and best window display.

Apple Pie Contest

Tying in with the displays, the Sturgeon Bay business men's association promoted a county wide apple pie baking contest, awarding four prizes. The four winners were then required to bake apple pies before qualified judges for the final selection of a County Champion.

The grand champion received a $25.00 purse, a Mix-Master, and possession of the Championship Apple Pie Baking Cup for one year. The cup, known as the "Don Reynolds Apple Pie Baking Championship Cup" was donated by Don Reynolds, in the hope that it would tend to encourage the continuance of the apple promotion in future years.

The Largest Pie

The climax of the entire stunt was the baking, displaying, and final eating of the **World's Largest Apple Pie.** Two commercial bakers combined their talents and efforts in baking the most spectacular apple pie ever displayed. They used 13 bushels of Door County Wealthy apples, 100 pounds of crust ingredients, 40 pounds of sugar, 2 pounds of butter, and a half pound of cinnamon. The pie tin, specially built by local tinsmiths, was 6 feet across the bottom plus the flare at the top. The depth was approximately 12 inches.

Four giant pieces of the pie were cut and weighed, and placed on mammoth-sized pie plates. There to be devoured by 4 teen-aged boys, who had previously won their spurs in a preliminary apple pie eating contest. That is, almost devoured. The boys were allowed to eat as much of the pie as they could within a given period of time. Then the remains of the pie left on the plate was weighed back. The boy eating the most pie was declared Champ and received a beautiful billfold.

The balance of the pie was cut in small pieces and served to the tremendous crowd of spectators.

WOMENS AUXILIARY PROGRAM

ANNUAL CONVENTION

Wisconsin State Horticultural Society

Retlaw Hotel, Fond du Lac, November 17-18, 1952

Program, Monday, November 17

10 A.M.—Call to Order by President Mrs. Arnold Nieman, Cedarburg. Announcements. Topic: What To Plant Around The Home Grounds. Illustrated. By Prof. George Ziegler, Department of Horticulture, Madison.

11 A.M.—How To Grow Gladiolus. By Walter Krueger, Oconomowoc.

11:30 A.M.—Annual Business Meeting.

12 M.—Luncheon. No plans.

1:30 P.M.—How exhibits were judged. Comments on recipes by the judge.

2:30 P.M.—Festive Lighting, Featuring Thanksgiving and Christmas Arrangements. By Mrs. Roy H. Sewell, Milwaukee.

4 P.M.—Tea For Members And Guests.

6:30 P.M.—Annual Banquet, Crystal Ballroom. See Horticultural Society program for details.

PREMIUM LIST
WOMEN'S Auxiliary Exhibits

Apple dishes: Bring a pie or apple dessert made from the **new Wisconsin Apple Institute recipe bulletin, "Use Wisconsin Apples 52 New Ways".**

Recipe must be shown—either copied or in marked copy of bulletin. If you have not received a copy of the bulletin, write Wisconsin State Horticultural Society, 424 University Farm Place, Madison 6, Wis., for one.

Arrangements: Fruit and/or vegetables with or without other accessories for holiday season.

Premiums: Judging will be by the Merit System. Awards: Excellent, $1.00; very good, $.75; good, $.50.

Notice: All food entries will be served at the tea at 4 P.M.

COMMITTEES

BANQUET TABLE. Mrs. Arthur Bassett, Jr., Baraboo, Chm.; Mrs. Earl McGilvra, Baraboo, and Mrs. Dawson Hauser, Bayfield.

EXHIBITS. Mrs. Lolla Meyer, Hales Corners; Miss Bessie Pease, Oshkosh; Miss Agnes Phillipson, Oshkosh; Mrs. Armin Frenz, Cedarburg, and Mrs. Wallace Freund, West Bend.

AFTERNOON TEA. Mrs. R. L. Marken, Kenosha, Chm.; Mrs. C. J. Telfer, Green Bay; Mrs. M. Pennebecker, Waupaca; Mrs. Gilbert Hipke, New Holstein, and Mrs. Marshall Hall, Casco.

WELCOME. Mrs. Charles Braman, Waupaca; Mrs. Irwin Lorenz, Milwaukee; Mrs. Gilbert Hipke; Mrs. Don Reynolds, Sturgeon Bay; Mrs. Marshall Hall, and Mrs. E. L. White, Fort Atkinson.

RESOLUTIONS. Mrs. Dawson Hauser, Mrs. Marshall Hall and Mrs. Arno Meyer, Waldo.

NOMINATIONS. Mrs. Oscar Conrad, Milwaukee, Mrs. R. L. Marken and Mrs. William Connell, Menomonie.

THE OLDEST TREE

Science News Letter reports the recent uncovering in the English County of Yorkshire of what is thought to be the oldest tree ever felled by man. It has been identified as a birch, cut down over 7,000 years ago and preserved till now because it was left lying in a permanently water-logged area.

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

President
WALTER A. KURTZ
Chilton

Vice President
JOHN GATES
Two Rivers

Secretary
MRS. A. E. PIEPKORN
613 N. Mil. St., Plymouth

TREASURER
MRS. LEONARD WIGHTMAN
Rt. 3, Plymouth

DIRECTORS
John Gates, Two Rivers
Gordon Shepeck, Green Bay
Walter A. Kurtz, Chilton
Dewey Sleezer, Lake Geneva
Cecil McAdams, Mosinee
Walter Axel, Sheboygan
Dr. R. H. Juers, Wausau
Raymond Kasimir, Spaulding, Mich.
Dave Puerner, Milwaukee
Leland Shaw, Milton
Otto Kapschitzke Jr., Sheboygan
Walter Krueger, Oconomowoc
Jerry Merchart, Marinette
John W. Perkins, Neillsville
Archie Spatz, Wausau
H. J. Rahmlow, Madison, Ex-Officio

The Pink, Buff And Yellow Gladiolus

THE PINK GLADIOLUS

By Walter Krueger, Oconomowoc

Since the back-bone of any gladiolus planting is made in that range of color called pink it might be well to consider this group of gladiolus, leaving the "rose pinks" for comment at another time.

This past growing season has been an ideal one from the standpoint of moisture, and that of temperature, serving as another "experience" in the evaluation of the product of the hybridists, one in contrast to the previous summer's cold.

Salmon Pinks

In the area of salmon pinks, no gladiolus can match **Spic and Span** with its long tapering spikes, ruffled florets, and much bud color. "Spic" is the only ruffled gladiolus that has achieved true commercial success. The European **Polynesia** is its chief competitor. It too is capable of a "ribbon of bloom", and in winning at the shows. **Sparkle** is the giant in salmon pinks, though it lacks in grace.

The smooth buff pink **New Yorker** is an outstanding glad which combines "arty flowers" and consistent superlative performance.

Many persons prefer the "Burma type" spike, and if you are among them, then **Pink Classic** with its fluted petals and many open giant florets is supreme. This one will get the "Blue" easily.

Deep Pink

Deep salmon pink is ably represented by **Fashion.**

The so-called "Picardy shade" has an excellent representative in **Cooney Miss,** a giant of flower in average height spikes.

ANNUAL MEETING
WISCONSIN GLADIOLUS SOCIETY
SUNDAY, NOVEMBER 2, 1952
MEDFORD HOTEL, MILWAUKEE

10:00 A.M. — Board of Directors Meeting.

12 M.—Luncheon—No plans.

1:00 P.M.—Business meeting. Election of Directors. Discussion on change in constitution.

1:45 P.M.—Chemical weed control in gladiolus, illustrated with colored slides. By Dr. L. G. Holm, Department of Horticulture, U. W.

2:30 P.M.—Gladiolus diseases: botrytis, curcularia, dry rot and leaf spot. By H. E. Halliday, Madison. Exhibit of diseased bulbs and material.

3:00 P.M.—Good varieties of gladiolus seen this year. By Ralph Burdick, Edgerton.

The "peaches and cream" salmons are headed by **Heart's Desire.**

True Pinks

The true pinks have two outstanding varieties—**Rosa Van Lima** and **Tivoli.** The giant **Evangeline** might even be included in this general group though it is a more subdued colored pink, with some buff tones.

In the smaller sized floret varieties in this group none can exceed **Variation** with its long spikes, and **Honey** in round florets. **Friendship** has many supporters.

Strictly for the ribbon potential is **Queen Mary.**

If I would know of any other gladiolus in this color area, I would be certain to add it to my planting.

BUFF AND YELLOW VARIETIES OF GLADIOLUS

By John W. Perkins, Neillsville

The following comments on buff and yellow varieties of gladiolus are based on personal observations made in my garden. I shall evaluate the varieties for show purposes and home use. Since I do not grow all of the buff and yellow varieties, comments on some satisfactory varieties may be omitted due to the lack of information.

Buff Varieties

Patrol has been best in this class for me. This fine show variety will open 8 to 11 florets, with good placement. The spikes are very uniform. The foliage has a tendency to show some yellow discoloration by late summer.

Sunspot is a good grower and a heavy winner at the shows. However, the florets do not open wide enough when grown in my heavy soil.

Pactolus is the favorite of the garden visitors. It certainly does attract attention with its vivid throat marking. The variety opens a very nice flower head that can win at the shows. However, I dislike the tendency some plants have to emerge from soil at an angle giving troublesome leaning plants.

Helen Of Troy can still be very good but seems to have shorter flowerheads in recent years.

Color Marvel is the most consistent winner in the 316 class.

Yellow Varieties

Gold is one of the most beautiful varieties of gladiolus I have grown. The color and beauty of floret is outstanding. It has been criticized for lack of length of flowerhead but I have not observed this fault in my garden.

Catherine Beath has been very fine for me. It will open 8 to 9 florets with good placement and the spikes have plenty of stretch. It should become a heavy winner in the 312 class.

Lodestar made very nice show spikes for me this summer. The variety appears to be real consistent but seems to be a little small for the 412 class.

Aureole is a beautiful ruffled yellow and is a heavy winner at shows. The bulbs have a tendency to split and send up several sprouts.

Spotlight is still one of the leading yellows. It is the most healthy variety I grow. It is one of the few varieties of glads that does best if it is not pampered.

Golden Flute is very large and I like the color but the placement is not always good.

Keepsake and Golden Crown — I have not grown these varieties but have heard very good reports from other growers.

Growing conditions have been almost ideal for glads in this area this past summer. An abundance of rainfall and favorable temperature have helped to produce fine spikes for most gardeners. The bulblet plantings also look good and many No. 1 size bulbs should be harvested this fall.

I used a Parzate spray for disease control for the first time this summer and feel it was very worthwhile.

MARATHON COUNTY CHAPTER MEETING

A report of the Marathon County Chapter Glad Show was given by Lloyd Prahl, society president, and show ribbons were distributed at the September 11th meeting of the Marathon County Gladiolus Society. An active discussion followed on Glad

(Continued on Page 40)

REPORT SOUTHERN WISCONSIN-NORTHERN ILLINOIS GLADIOLUS SOCIETY SHOW AT ELKHORN, AUG. 29–SEPT. 1, 1952

The Grand Champion spike was a beautiful **Evangeline** shown by Roland Peterson, and the Champion 3 spike entry was Mrs. Koepke's **Spic and Span.** The best vase was shown by Mrs. Schollmeyer with well-arranged **Spic and Span,** which was a heavy winner throughout the show in this territory where its introducer, Mr. Puerner, and nearly every other grower can cut blue ribbon spikes almost any day of the season.

Shopier Gardens displayed **Spic and Span** to good advantage in winning the award for best basket.

Anton Koepke set up the finest commercial display yet seen in an Elkhorn show, and it may very well have established a standard by which commercial exhibits of future years will be evaluated.

Blue ribbons went to the following varieties in single, 3 spike, vase, or basket entries: Florence Nightingale, White Goddess, Cupid, White Satin, Welty's creamy-white seedling No. 3227, which won both in single spike and basket entries and was awarded the Wisconsin Trophy for being the best seedling in the show. Yellow Bird, Yellow Paradise, Oh! Oh!, Filigree, Sun Spot, Little Gold, Boldface, Victory Queen, Boise Belle, Dieppe, Red Wing, Osage, Atom, Evangeline, Variation, Spic and Span, Birch Red, Maurrie Trevan, Nocturne, Burma, Chamouny, Little Pal, Bridal Orchid, Poet's Dream, Lavender and Gold, King David, Sherwood, Linda B., King Tan, R.B., Stormy Weather, and Okinawa.

The arrangement classes were well-filled with attractive creations and proved to be very popular with the thousands of visitors. Mrs. Van Ness won the arrangement championship with a collection of 3 corsages. 29 of the 32 exhibitors won cash prizes, but no special award was made to the lavender seedling which won over several popular varieties in a popularity contest in which hundreds of visitors participated. We were glad to welcome Pres. George Lasch of NAGC on Sunday morning.

By Leland C. Shaw, Milton, Wis.

MARATHON COUNTY GLAD SHOW

The annual show of the Marathon County Chapter, Wisconsin Gladiolus Society, was held in the YMCA gym, Wausau, on August 23-24. There were exhibits from more than 15 other communities, including some from Minocqua, Elcho, Two Rivers, Manitowoc, Menominee, Edgerton, Evansville, Marshfield, Antigo, Merrill, Stevens Point, Medford, Neillsville and Mosinee.

About 1,100 spikes of gladiolus, 65 arrangements, floral arrangements and table arrangements were featured. The children's section drew a large number of outstanding exhibits. There were two commercial exhibits.

Mid-season and late mid-season varieties were predominate due to the early start of gladiolus last spring.

John Perkins of Neillsville showed a variety of entries. His spike of Evangeline was awarded a rosette for second day champion. He also received a rosette for a spike with "longest flowerhead" on Stormy Weather.

Show sweepstakes in the open section, receiving a rosette and the D.C. Everest perpetual trophy was Matt Britten, Marshfield. John Bayless, Two Rivers, placed second and G. H. Thompson, Manitowoc, third.

Ed Schoepe, Wausau, won the Grand Champion spike award on Noweta Rose, the Perske perpetual trophy.

Reserve champion was Sunspot, shown by John Bayless.

Novice sweepstakes were won by Dr. George Schroth, Wausau, the Alexander perpetual trophy.

Artistic arrangements trophy went to Mrs. Mary Rezek, Manitowoc who received the Dr. Lemke trophy.

John Rezek, Manitowoc, won the most ruffled bloom on a spike of Skippy.

Lloyd Prahl, Wausau, showed the spike with the smallest floret, Dracocephalus.

Ed Howland, Rothschild, showed the spike with the largest floret, Mid America.

Dr. R. H. Juers was awarded a rosette for best recent introduction, Red Wing, and Pope's Glad Gardens of Elcho, showed the spike with the most florets open, Phantom Beauty.

Leslie Brown was general chairman

of the show, assisted by Albert Scholtz. Supervisor of judges, Dr. R. H. Juers, and supervisor of clerks was Mrs. Archie Spatz assisted by Ed Schoepe. Mrs. John Perkins of Neillsville was supervisor of arrangements assisted by Mrs. Albert Scholtz. Mrs. Ed Kramer was publicity chairman.

Ribbons and trophies were distributed at the September 11th meeting. — **By Mrs. Ed Kramer, Publicity Chairman.**

MARATHON MEETING

(Continued from Page 39)

Show policies and improvements. A committee composed of Val White, Ed Schoepe and Mark Splaine was appointed by the President to contact the Wisconsin Valley Fair Officials in regards to holding the show in connection with the Fair next year.

Mr. Prahl also outlined plans for the formulation of a Junior Gladiolus Club.

Mrs. Marvin Baeseman was appointed to complete arrangements for the society's annual banquet to be held November 13. Election of officers will be held and two directors will be elected to succeed Elmer Sorges and Julius Birr whose terms expire.—**By Mrs. Ed Kramer, Publicity Chairman.**

AWARDS—REGIONAL GLADIOLUS SHOW

Twin City Chapter, Daggett, Michigan

The Regional Gladiolus Show of the Twin City Chapter was held at Daggett, Michigan on Sunday, August 17.

The **grand champion spike** was a **Yellow Seedling** shown by Ray Casimer of Spaulding, Michigan.

In the Open Division, Section champion, 300 class: Mrs. H. E. Krubsack won with **Alpine**; 400 class: Mr. Arnold Sartorius with **Ariadne**; 500 class; Mr. Jerry Merchart with **Heart's Desire. Alpine** by Mrs. Krubsack won the division championship.

The three spike section and division champion was **Spic & Span,** shown by Arnold Sartorius. Jerry Merchart won the Recent Introduction, Section and division champion with **Mother Fisher.** In the amateur division the champion spike was **Burma** by Mrs. H. Del Santo.

Carol Masey won the grand champion of a special section for the 4-H Club with **Red Charm.**

Point winners were: Arnold Sartorius, Porterfield, 78 points; Mrs. Hugo Krubsack, Peshtigo, 49; Jerry Merchart, Marinette, 45; Berg Brothers, Escanaba, 43; and Al Olson, Escanaba, 41.

Special awards went to Mrs. A. Koslowski on, **Piccola,** for the smallest glad; Arnold Sartorius on **Chantanay,** the largest glad, and Jerry Merchart on **Eunice Ewing,** the novelty glad.

Mrs. Ralph Garland of Marinette, as high point winner for artistic arrangement with 23 points.

The show was well attended and well over 300 spikes were exhibited. **By Jerry Merchart, Chairman.**

NEW BOOK ON AFRICAN VIOLETS

Montague Free has written a new book on African Violets entitled "All About African Violets." Publishers: The American Garden Guild and Doubleday and Company, New York. Has 304 pages with illustrations, price, $3.50. One of the best on the subject.

AFRICAN VIOLETS

The new and beautiful African Violet PINK CHEER (true deep rose pink) ready after October 15. Also new violets such as Alma Wright, Ruffled Queen, Fluffy Double, Sir Lancelot and the red flowering Episcia (trailing type, metallic foliage in bronze and silvery green). Home sales only. Visitors welcome. Mrs. O. F. Isenberg, 433—3rd St., Baraboo, Wis.

PEONIES FOR SALE

We have roots of the better varieties of peonies for sale. Plant any time from September 1st until the ground freezes. Peonies in white, pink and red colors; double, single and Japanese types. Healthy, inspected stock. Standard three to five eye divisions.

Have a surplus of 500 Festiva Maxima; the reliable, white fragrant peony that is so nice for cut flowers. $60.00 per 100 clumps or $40.00 per 100 standard divisions. Burr Oak Gardens. Box 147, Fort Atkinson, Wis. E. L. White, Prop.

Garden Club News

GARDEN CLUB CONVENTION OUTSTANDING SUCCESS

With an attendance of over 100, an excellent program and a fine feeling of good will, the Garden Club of Wisconsin, affiliated with the Wisconsin State Horticultural Society, held its 3rd Annual Convention in Oshkosh, Friday, September 19.

Excellent talks were given by Mrs. Glen Fisher, Oshkosh, on new African Violets; Mr. Albert H. Weiner, Milwaukee, on Basement Gardening with Fluorescent light, Mr. Frank King, Oshkosh, on Wildlife Habitat; Mr. B. Wood, Oshkosh, on How We Grow 12,000 Geraniums, and then the closing number—a very fine demonstration by Mrs. Victor H. Schmitt, Milwaukee, on Autumn Adventures in Flower Arranging.

During the luncheon hour Mr. E. L. Chambers, Madison, Treasurer Wisconsin Horticultural Society, presented honorary recognition certificates to three outstanding gardeners on behalf of the Garden Club of Wisconsin and the Society. Those receiving them were:

Miss Carrie O. Rode, Ogdensburg, whose certificate read: "The Garden Club of Wisconsin and the Wisconsin State Horticultural Society Presents this Distinguished Service Award to Miss Carrie O. Rode in recognition of Her generous assistance to the Ogdensburg Garden Club and for substantial and lasting contribution to the field of community service."

To Mr. Ernest Lefeber, Milwaukee, whose certificate stated it was presented: "In recognition of his 20 years of service to the Wauwatosa Garden Club and for his interest in growing flowers and gardening."

To Miss Agnes Phillipson, Oshkosh, whose certificate read: "In recognition of her continuous devotion and service to the Oshkosh Horticultural Society and lasting contribution to the field of gardening."

Year Book Contest

Mrs. R. H. Sewell, Milwaukee, Chairman, committee on the Year Book Contest, reported during the business meeting that the contest was very successful and will be continued for next year. Eighteen year books were scored by the committee and awards were given to the following: Rating of Excellent to the Antigo Garden Club; North Prairie Garden Club; Colby Garden Club; Green Thumb Garden Club of Jefferson; Home Gardeners, West Allis, and the Lodi Garden Club.

Ratings of Very Good were given to the following garden clubs: Berlin; Fort Atkinson; Clara Larson, Iola; Green Thumb, Iron River; Lincoln Manor, Milwaukee; Oshkosh; Poynette; Scandinavia; Tess Corners; Wauwatosa and Hillcrest.

Special mention was given the Antigo Garden Club for the year book with the highest score and to North Prairie for the next highest score.

Zinnia Show

A number of wonderful arrangements of zinnias were displayed by members of the Oshkosh Horticultural Society and some very fine specimen bloom of new varieties of zinnias were shown.

The Garden Club Advisory Board expresses appreciation to the speakers and the members of the various committees for helping make this meeting an outstanding success.

Details about the program and what the speakers said are being written for our November issue by Mrs. Martha G. Koch, of the Wauwatosa Garden Club.

COMING GARDEN CLUB EVENTS

October 17, 18, 19. Annual flower show by the Plymouth Garden Club.

October 20. Annual meeting. Region 1. Garden club. Wisconsin Hotel, Jefferson. (Pot Luck supper, 6:30 p.m.)

October 21. Annual meeting. Wauwatosa Garden Club.

October 22. Third annual meeting. Central Region Garden Club. Ogdensburg.

REGIONAL GARDEN CLUB MEETING

Region I. Wisconsin Hotel, Jefferson
Monday, October 20, 6:30 p.m.

The annual meeting of Region I will be held with a 6:30 p.m. pot luck supper at the Wisconsin Hotel on Racine Street, Jefferson, on Monday, October 20.

THE PROGRAM

6:30 p.m. Pot luck supper. Bring a dish of food. Coffee furnished.

7:30 p.m. Business meeting.

8:00 p.m. The new zinnias and petunias. Illustrated with colored slides. By H. J. Rahmlow, Madison.

8:30 p.m. How to have an indoor garden this winter. Care of houseplants. By Prof. G. E. Beck, Department of Horticulture, Madison.

BEAUTIFUL SLIDES OF BEGONIAS AVAILABLE

46 Slides Of Indoor Begonias Now Ready For Garden Club Programs

A bowl or orchids to Mrs. R. E. Kartack of Baraboo, who spent considerable time in preparing a lecture and description of 46 colored slides of indoor begonias which she grows. The slides are now available for your garden club program. The name of the varieties is on a card in each picture, taken by the Editor in the home of Mrs. Kartack.

Mrs. Kartack writes this about the begonias: "From tiny leaves, measuring no more than ½ inch across to those almost 1 foot long, begonias are not only a joy to the window gardener, but a constant inspiration to the collector, as there are countless varieties available in species and hybrids.

"Foliage, texture and color is quite varied in begonias as a class. Leaves can be rough or smooth, shiny or dull and velvety. They can be downy or hairy, felty and scurry. Many begonia leaves are mottled in several colors, or beautifully veined in two shades of green. Some are heavily silver-spotted.

"In flower colors, there is also a lot of variation in begonias. From pure-white, through all the color range of pink, to salmon and also orange. In reds there are rosy-reds, the scarlet shades and very deep, dark reds. Begonias that have hairy leaves usually have hairy flowers."

We appreciate 25c to cover postage when ordering slides.

ELLSWORTH GARDEN CLUB HOLDS SUCCESSFUL FLOWER SHOW

The Ellsworth Garden Club's first annual flower show and kiddie parade on September 6th drew an unprecedented number of entries and brought comments of praise from onlookers. Mrs. Arnold Lunde of Trimbelle Township, took the lion's share of the honors, winning two grand championships, one on the dahlia, Pirate Treasure, and another on the gladiolus, Dolly Varden.

The children of Ellsworth and vicinity were all steamed up over the doll buggy, tricycle and bike parade as a school promotion program.

According to County Agent H. G. Seyforth, there were 52 exhibitors and 336 exhibits. The flowers were all of very good quality.

The Ellsworth Garden Club affiliated with the Wisconsin State Horticultural Society last spring and we wish them continued success. It is gratifying to see the organization of more garden clubs in the western part of the state.

3rd ANNUAL MEETING
Central Region—Garden Club of Wisconsin

Affiliated with the Wisconsin State Horticultural Society

Odd Fellows Hall, Ogdensburg, Wednesday, October 22

10 A.M. Registration. Call to order by Regional Chairman, Mrs. Marlin Steinbach, Clintonville. Announcements.
10:15 A.M. "Varieties Of Vegetables I Like Best And How I Grow Them" by Charles Braman, Waupaca.
10:30 A.M. "Varieties Of Flowers I Like Best And How I Grow Them". 8 minute reports from a representative of each garden club in the Central Region.
11:20 A.M. "Best Varieties of Strawberries For Wisconsin As I Saw Them In 1952" by H. J. Rahmlow, Madison.
11:30 A.M. Business meeting. Report of Nominating Committee. Election.
12 M. Luncheon in the Lutheran Church Parlors. Price $1.00.
1:30 P.M. "How To Judge Annuals And Perennials At A Flower Show" by H. J. Rahmlow, Madison.
2:00 P.M. "How To Use What We Have In Making Arrangements For The Home And For Special Occasions" by Mrs. Garrison L. Lincoln, Madison.

Registration fee—25c.

Committees

Nominating Committee: Mrs. George Hathaway, Waupaca; Mrs. Jake Rosholt, Iola, and Miss Carrie Rode of Ogdensburg.

Registration Committee: Mrs. E. Lightfuss, Mrs. E. Herbert, Mrs. C. Porter, and Mrs. J. Asman.

Luncheon Committee: Mrs. R. Schramm, Mrs. T. Lamkins and Mrs. H. Clapps.

Hospitality Committee: Mrs. R. Doughty, Mrs. W. Tanner, Mrs. W. Thompson and Mrs. C. Rasmussen.

Regional Officers: President, Mrs. Marlin Steinbach, Clintonville; Vice-President, Mrs. Jack Olson, Amherst; Secretary, Mrs. Harold Smith, Amherst; Treasurer, Mrs. F. C. Wipf, Iola.

FORT ATKINSON GARDEN CLUB HOLDS WONDERFUL AFRICAN VIOLET SHOW

"It's Violet Time" was the theme of the African Violet Show staged by the Fort Atkinson Garden Club on Friday, September 12. The show was most successful, with an attendance of more than 800 (at 35c ea.) and an unusually large number of exhibits. Thirty-seven members of the club took part, exhibiting more than 200 plants of named varieties and a wonderful array of screens and features.

The theme "Violet Time" was illustrated with a clock under floodlights, each number on the clock being represented by a floret of violets. At the base of the clock the grand champion plants of the show were displayed.

The following three-sided screens of various themes were made by using African Violet plants or flowers: a Christmas screen—the Nativity, and one showing angels. Easter theme—a dress parade and a child's thought of Easter. May Day—a maypole; Valentine's Day; St. Patrick's Day; Mother's Day; a baby shower; Humpty Dumpty, a fantasy, Elfinland; a Holland scene; a Dutch Mill; a desert scene; a jungle scene; a sea shell scene. There was a shadow box; parade of bonnets with figurines wearing hats made of African Violet plants and another shadow box scene, a painter's easel with an African Violet painting.

Congratulations to show chairman Mrs. Harold Poyer, Co-chairmen Mrs. John Kiesling, Sr., and Mrs. Ray Breitweiser, and the members of their numerous committees.

Rambling In The Flower Garden

Annuals and perennials grew luxuriantly in our flower garden this summer. Copious rains produced a lush growth — with some varieties too much growth resulting in flowers that were taller than normal but which, nevertheless, seemed to stand up very well.

Favorite Varieties

PETUNIAS. Three varieties of petunias were grown on four sides of our flower border—**Ballerina, Rose Charm,** and **Silver Medal.** We planned to have a white—La Paloma, but were not able to get the plants. All these F-1 Hybrids are profuse bloomers. Ballerina was the honorable mention All-America Selection for 1952. It's a large single, fringed flower of soft salmon and the blooms are large —3½ to 4 inches across. However, while some visitors liked its color better than Rose Charm, it didn't begin to make the showing in the garden. Individual flowers of Ballerina were large and beautiful but the stems laid on the ground and spread, with fewer flowers than Rose Charm. The later is an old favorite, a clear, rich rose with a mass of blooms during the entire summer. Silver Medal bloomed almost as profusely and is of a lighter shade, a bright salmon pink. Our choice of white, La Paloma is a large well fringed flower of pure white with yellow throat. Petunias are a must in any mid-summer garden for profuse bloom.

Zinnias Were Wonderful

We sowed zinnia seed in a little plot in the garden and the plants were ready for transplanting when the tulip leaves had dried down. They bloomed later than early plants grown in flats, but it meant they bloomed during late August and September. Our favorite variety is a Fantasy zinnia—Rosalie. It is an intense rose shade and well formed. We had it scattered throughout the center of the flower border and it produced constant bloom of a very rich color.

For cutting and for creating interest we liked the Persian Carpet and the Peppermint Stick. The Persian Carpet, honorable mention All-America variety of 1952, has flowers about

the size of a silver dollar resembling tiny dahlias, each with pointed petals of contrasting colors. Peppermint Stick comes in the striped type which includes red and white, red and yellow, pink and white, orange and white and purple and white—a very fascinating flower.

CLEOME. Our Giant Pink Queen cleome was most attractive this year in the background of the flower border. It grew to a height of about 4 feet with huge heads of a refreshing pink. It branched out well this year and kept on blooming for many weeks.

PERENNIAL PHLOX. This is a must in any garden in which we desire mid-summer bloom. Due to weather conditions, some of our clumps reached a height of over 5 feet, but again we had difficulty in controlling red spiders. It is important to divide these plants every few years so that the clumps are small. Then the red spider is more easily controlled. Try Aramite in your spray next year.

MARIGOLDS. Our choice of varieties this year was Glitters, the All-America Bronze Medal winner of 1951 and a very sturdy and bushy variety. The flowers are large and a clear yellow, double chrysanthemum type. The foliage is a dark green and provides a nice background for other flowers. It blooms late.

ALYSSUM SNOW CLOTH. This is one of the nicest varieties of Sweet Alyssum we have ever grown. It is a special selection and the plants grow quite flat and produce a compact mass of white flowers. It blooms quite early. This year we tried sowing the seed in the flower border as an edging plant and were very much pleased with the results. We found it easier to thin out the little plants than to transplant them.

PINK LYTHRUM-MORDEN PINK. For more than ten years we have had almost a dozen plants of the Morden Pink Lythrum growing in the border. For hardiness, easy culture, freedom from disease and insects and showiness in the garden it has few equals. Some years ago a half dozen roots were donated to us by Superintendent Leslie of the Morden Experiment Station near Winnepeg, and they have grown there ever since without the slightest care. This year they bloomed somewhat early; best in late July and through blooming by late August.—**By H. J. R.**

OLD HERBACEOUS — A NOVEL ABOUT A GARDENER

We recommend for a few evenings of very pleasant reading a novel by Reginald Arkell, **Old Herbaceous.** If you love a garden, you will love this story, because wherever there is a garden there is an "Old Herbaceous".

It is the story of a gardener from the day he won a prize for wildflowers at the village show to the day when he, himself, judged flower shows all over the country. From the day he refused to follow his school mates to a job as a farm hand and won the post of garden boy at the big house, and until he could sit back in his little cottage and criticize the younger generations attitude towards tulips. Publishers, Harcourt, Brace & Co., 383 Madison Avenue, New York 17, N.Y. ($2.00).

ARE YOU PLANNING AN AFRICAN VIOLET SHOW

The Wisconsin State Horticultural Society will be glad to help committees or clubs planning an African Violet Show, by sending premium lists and a set of slides showing special features at the 1952 National African Violet Show from which ideas may be obtained for features and staging. Entry tags and award cards are also available.

A Page Of Garden Notes

THE JUDGING SCHOOL FOR HORTICULTURE AT FLOWER SHOWS

Whitnall Park at Hales Corners is a beautiful location for holding a meeting. Friday, September 12th was a perfect day: the flower gardens were beautiful and the meeting room in the Administration Building just cool enough to make the meeting enjoyable. Four very beautiful arrangements had been placed on the long tables in front of the room, prepared by the committees.

The forenoon was devoted to discussion of how to stage a flower show. Speakers were Mrs. Elizabeth Stewart, Mrs. V. H. Schmidt, Mrs. Val Suttinger, Mrs. J. W. Dooley, Mrs. Henry Moody, Mrs. E. H. Bergmann, Mrs. L. Sweeney and Mrs. Otto Burgemeister.

The talks covered all details of flower show organization from show furnishings and schedules through publicity.

Following a luncheon at the Park Club House the afternoon meeting was devoted to discussion of the culture and judging of dahlias, gladiolus and annuals.

Mr. Everett Loder, President, Wisconsin Dahlia Society, gave a very instructive talk on the culture and judging of dahlias.

Mr. Dave Puerner, Milwaukee, talked on the culture of gladiolus, and Mr. Ralph Burdick told how to score and judge gladiolus.

Mr. H. J. Rahmlow, Madison, discussed and demonstrated judging small annuals. He asked the help of garden club members in modernizing the method of exhibiting in "Horticultural" Classes. He said it is possible to put as much "glamor" and interest in an exhibit of one variety as in an arrangement. This plan will be discussed at garden club meetings by Mr. Rahmlow during the year.

"The way to get along with a woman is to let her think she is having her own way," observes the Algoma, Iowa, Advance. "And the way to do that is to let her have it."

STARTING HOUSE PLANTS

If you like to raise your own flowering plants for winter use in the home, now is the time to start. Rather than dig up old, bloomed out stock and pot it, you will have much better success if you start fresh plants for this purpose.

It is a good idea to root cuttings of geranium, fuschia, winter flowering begonias, etc.

When the cuttings are rooted put in 2½ inch pots in a good mixture of potting soil. Sink the pots in the soil, preferably in a coldframe. When growth starts, pinch the plants back to make them more compact.

As soon as these small pots are well filled with roots, repot in 3-inch pots. When these are filled with roots, shift to 4-inch pots, meantime, if growth becomes leggy, pinch again.

WAUSAU GARDEN CLUBS ARRANGE FOR HIGHWAY MARKER

This past summer the garden clubs of Wausau have erected a flag pole given them by the Employers Mutuals Liability Insurance Company on the side of the Blue Star Memorial Highway located in Rothschild. The American Legion Post of Rothschild will fly the flag on special occasions. The flag pole has been painted and erected in a concrete base and so, through cooperation from many sources, they now have a very fine memorial at Rothschild.—**Information submitted by Mrs. C. H. Brimmer of Wausau.**

WHEN TO COVER ROSES

The time to place a mound of soil around the canes of your hybrid tea roses is before there is a heavy frost. Remember the experience of last year when we had very low temperatures the first week in November.

Don't worry about the fact that they may be in bloom in late October. Get the soil from wherever convenient before frost makes it difficult and place it around the canes to a height of at least 8 to 10 inches. If rains wash some of this soil away, renew it so that when frost come it will protect the canes. After the ground is frozen and danger of mice getting under the cover is at a minimum, place about 8 inches of marsh hay or straw over the mound of soil to give further protection. Mice will not do much harm to roses, however, because the canes that are above the mound of soil will be dead next spring..

TWO NEW MUMS

Two outdoor chrysanthemums are being named and introduced by the University of Minnesota. They are **Prairie Sunset**, with large double rose-pink flowers, and **Harvest Bronze**, also double which changes from red-mahogany to yellow. The former begins blooming in early September. **Harvest Bronze** starts in mid August and reaches full development a month later. **Capper's Farmer.**

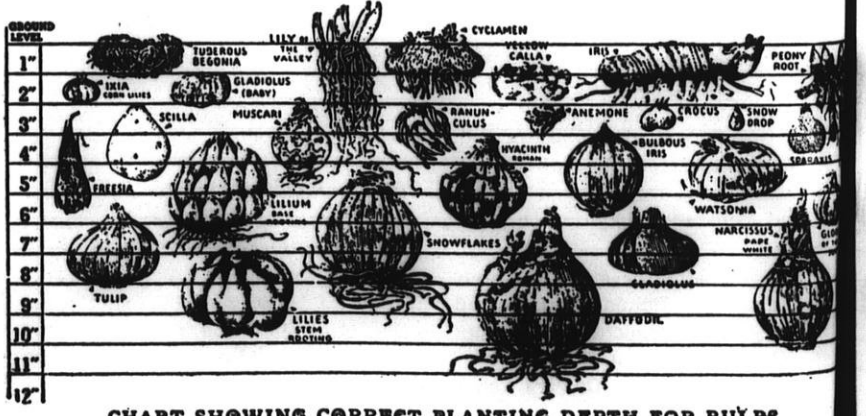


CHART SHOWING CORRECT PLANTING DEPTH FOR BULBS

Wisconsin Beekeeping

Official organ of the Wisconsin State Beekeepers Association

OFFICERS:

Henry Schaefer, Osseo, President
Wm. Judd, Stoughton, Vice-President
Mrs. Louise Brueggeman, Box 60, Menomonee Falls, Recording Secretary-Treasurer.

DISTRICT CHAIRMEN:

Newton Boggs, Viroqua
Wm. Judd, Stoughton
Robt. Knutson, Ladysmith
Len. Otto, Forest Junction
Herbert Reim, Watertown
E. Schroeder, Marshfield

BEEKEEPING IN OCTOBER

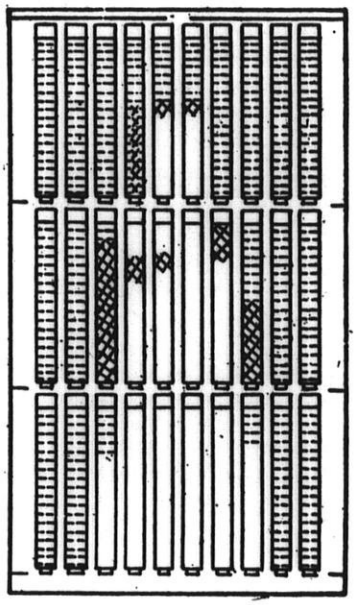
October is the time to check all colonies carefully to determine whether they are strong enough in population to survive our Wisconsin winters, and to determine if the queens are still in good condition.

What shall we do if we find weak colonies or some in such poor condition they may not survive the winter. The best method is to unite them with fairly strong colonies. Uniting two weak colonies usually doesn't work well because the same factors that caused them to be weak in the first place will continue and they may not survive. Old, worn out bees, resulting from a colony having laying workers or a drone laying queen should be killed with cyanide.

Cull your colonies very closely. Destroy those that will not be profitable next year. The honey and pollen from such colonies is worth more than the bees. Combs of honey and pollen will be valuable for starting package bees next spring, and should be placed where there will be no robbing and where the wax moth cannot get into them—keep them out of heated buildings or basements in winter.

The Mouse Problem

Field mice migrate in the fall of the year, coming in from grain and corn fields where they have been active during the summer, building nests for winter in the grass of orchards and apiaries. When the weather is cold enough so that the bees no longer use the lower entrance, a beehive seems an ideal place for mice to build their nest and two or three combs are destroyed in the process. There are two things we can do. One is to kill the mice by placing poisoned oat bait in their runways, especially under the hives, and then see that all entrances are closed and made mouse-proof.



An ideal winter brood nest. A few center combs are empty, for bee clustering and brood rearing in January. Plenty of honey (shown by—) and pollen (by xx) is available in combs so strong colonies will not starve before spring. Cut from Circular 702, U.S.D.A. Good colonies, having stores arranged as shown here will survive any Wisconsin winter, whether wrapped or unwrapped.

Pollen In Combs Means Heavy Brood Rearing

Many Wisconsin Beekeepers report finding more pollen than usual in the brood combs this fall. That, of course, is desirable, for without a diet of pollen and honey the bees cannot rear brood in the spring.

However,—and this is important: brood rearing starts in late January and gradually increases in February and March during which time the bees consume honey in increasing amounts. They may consume all the honey within the winter cluster, and in cold weather, when unable to move in any direction excepting upward, will starve unless there is honey present.

An abundance of pollen means the **brood combs will be heavy** from the pollen and we may be mislead in the amount of honey present by "hefting" or weighing the brood chambers.

Briefly stated—be very careful in checking your colonies for stores this month and feed if necessary so that your bees won't starve during the winter.

Starvation is still the number one cause of winter loss. Often it is the most vigorous colony, with the best queen that starves—because the bees stored the honey they produced above the brood chambers instead of in them.

INTEREST IN HONEY STRONG

Honey sales are good, according to reports from beekeepers. The steady work of the American Honey Institute and the additional promotion by the U.S.D.A. and beekeepers is gaining new customers. Every beekeeper can be of help in this program, if only by encouraging friends and relatives to use more honey. If each of our 10,000 beekeepers gives a relative 10 lbs. of honey we have increased the use of honey by 100,000 lbs.; if we sell only 100 lbs. to new customers we have disposed of 1,000,000 lbs.

HOW CONSUMERS USE HONEY

A most interesting survey was made by the Oklahoma State Marketing Board in that state to learn how consumers use honey. Workers interviewed 2,110 housewives and visited 828 retail stores. Out of this comes some interesting information which was published in the News Letter of the American Beekeeping Federation.

The answers given in percentage to two questions asked housewives who said they used honey are as follows:

Question: At what meal is honey used by your family?

Breakfast	37.6%
Lunch	22.0
Supper	20.8
Between Meals	14.0
Any or all times	3.4
No answer	2.2

Question: What is the favorite way honey is used by your family?

As a spread	64.6%
With other spreads	0.5
On sandwiches	0.3
School lunches	0.1

Just any way, 5.0%; in baking, 4.8; in cooking, 4.6; on cereals, 2.3; as a substitute for sugar, 1.9; as a sweet, 1.1; as a dessert, 1.8; on pancakes, 1.4; on bread, 1.2; on fruit, 1.2; for flavoring, 0.9; on biscuits, 0.8; on waffles, 0.5; in coffee, 0.5; cough syrup, 0.4; on desserts, 0.4; on ice cream, 0.3; for canning fruit, 0.3; medicinal purposes, 0.3; on pastries, 0.2; on meats, 0.1; in tea, 0.1%.

Other uses given but having less that 0.1% were: with snacks, in beverage, making preserves, eat it for health, once daily for heart trouble, before breakfast to empty gall bladder, mix with liquor to stop asthma.

Since only 63.6% of the housewives interviewed reported they used honey, and, of these, only 66.3% said they had honey in the house at that time, it seems that added emphasis and promotion of the most popular form and time of use, that is, honey as a spread for breakfast, should offer the best chance for a rapid increase in consumption, which is the immediate intent of the promotional program.

HONEY WANTED

State amount you have at your place, what flavor it is and prices in 60's. Will pick up and pay cash. M. H. Lyons, Logansville, Wis.

ANNUAL CONVENTION
WISCONSIN BEEKEEPERS ASSOCIATION
Y. M. C. A. — Green Bay, October 28 - 29

The board of managers will meet Monday evening, October 27 at 8:00

PROGRAM: Tuesday, October 28

9:30 - 10:00 a.m.—Registration. Fee to cover convention expenses—50c.

10:15 a.m.—Call to order by the president. Announcements. Crop report and prices. Report from Beekeepers in various parts of the state. Conducted by H. J. Rahmlow, Madison.

10:45 a.m.—What is happening in bee disease control in Wisconsin, by John Long Chief Division of Bees and Honey, Madison.

11:15 a.m.—Effect of the Newer Pesticides on Bees. By E. L. Chambers, Chief Plant Industry Division, Madison.

12:00 m.—Lunch. Cafeteria in YMCA building.

1:30 p.m.—Can an Extension Specialist help Wisconsin Beekeeping? By Mr. Newman I. Lyle, Sheldon, Iowa, former Extension Specialist.

2:30 p.m. Group Discussion. Leaders to be announced. **Topics: Pollination. Wintering** in N.W., N.E., Madison and other areas of Wisconsin. **Marketing.** Tie-in with Institute, with Federation and Wisconsin Dep't. of Agric. Marketing Program.

3:15 p.m.—Business Meeting. Election of Officers. Committee Reports.

4:00 p.m.—Federation Membership Meeting.

6:30 p.m.—**Annual Banquet.** County Agent J. N. Kavanaugh, Toastmaster. Welcome to Green Bay by Mayor Olejniczak. Barbershop quartette. Movie—"By Jupiter".

Wednesday, October 29

9:30 a.m.—Refinements in Beekeeping by Mr. Newman Lyle, Sheldon, Iowa.

10:30 a.m. New Developments Regarding Bee Diseases—Nosema, A.F.B., E.F.B., and Paralysis. By Dr. C. L. Farrar, Central States Bee Culture Lab., Madison.

11:30 a.m.—Summary by Discussion Leaders on Pollination, Wintering and Marketing.

12:00 m.—Luncheon

1:30 p.m.—Unfinished Business—Close Convention.

THE DRIFTING OF BEES
By V. U. Nekrasov, In Russia

Experiments were carried out in six apiaries, containing a total of about 1,000 colonies. Counts of colony strength showed that when the bees were taken from their winter quarters and made their first flight, the hives **in the center** of the apiary received bees at the expense of the outer rings. The center colonies gained about 5% bees, the outer colonies lost about 5%.

However, the strength of the colonies **had become equalized** again by June. During the nectar flow it was the hives **nearest to the flight line** which increased their population. The increase was found to vary from 3 to 42%. The difference in the increase is dependent on whether the forage is entirely in one direction or in several. Of the drifting bees about 50% remained in the colony where they deposited their nectar; the rest either returned to their original hive after the next flight, or drifted to still other hives.

The drifting has many disadvantages. The flying population becomes too large in some colonies, and others are unable to collect sufficient nectar because of lack of bees. It also makes it difficult to obtain reliable data about the relative performance of colonies for the purpose of choosing the best queens and drones for breeding.

It is emphasized that the hives should not be arranged in regular lines or blocks, and that they should be painted in different colors; bushes should also be planted to provide landmarks for the bees. **By M. Simpson, In Bee World.**

HONEY WANTED

WANTED Wisconsin honey in all grades. Submit samples. Highest prices paid. Schultz Honey Farms, Ripon, Wis.

WOMEN'S AUXILIARY MEETING
Wisconsin Beekeepers' Association
Y.M.C.A., GREEN BAY
October 28-29

PROGRAM TUESDAY, OCTOBER 28

10:00 A.M. Call to order by the president, Mrs. Emerson Grebel, Beaver Dam. Announcements.

Good lighting demonstration, by the Wisconsin Public Service Corporation. Green Bay.

11:00 A.M. Round Table. Ways to use honey differently each day for the home and in the lunch box. Led by Mrs. Harold Knight, Dalton.

11:30 A.M. Business Meeting. Election of officers.

12 M. Luncheon. No plans.

Afternoon Program

1:30 P.M. How exhibits were judged. Discussion of exhibits and recipes, by Miss Bertha Schoonover, County Home Agent, Green Bay.

2:15 P.M. Tour to points of interest.

4:00 P.M. Tea for Auxiliary members and guests. Samples of honey cookery will be served.

Committee for Tea: Wives of Brown County Beekeepers.

Banquet Program

6:30 P.M. Annual Banquet, in Y.M.C.A. See Beekeepers program.

Banquet Decoration Committee: Mrs. Walter Diehnelt, Menomonee Falls; Mrs. Joe Mills, Ripon; Mrs. Harold Knight, Dalton.

PREMIUM LIST
WOMEN'S AUXILIARY EXHIBIT

Class 1. Honey fruit and nut bread, 1 loaf. Prizes: 1st prize, $2.00; 2nd prize, $1.50; 3rd prize, $1.00. Every other entry, $.50.

Class 2. Honey cake, any kind, not less than 50% honey. 1st prize, $2.00; 2nd prize, $1.50; 3rd prize, $1.00. Every other entry, $.75.

Class 3. One dozen honey cookies not less than 50% honey. Prizes: 1st prize, $1.50; 2nd prize, $1.00; 3rd prize, $.75. Every other entry, $.50. Cookies and nut breads will be served at the tea at 4 p.m.

Exhibit Committee: Mrs. Henry Piechowski, Red Granite; Mrs. Wallace Freund, West Bend; Mrs. Art Schultz, Ripon.

Officers, Women's Auxiliary: Mrs. Emerson Grebel, Beaver Dam; President; Mrs. Wallace Freund, West Bend, Vice-President; Mrs. Ray Gibbons, LaValle, Secretary-Treasurer.

FINANCIAL STATEMENT
WISCONSIN STATE BEEKEEPERS ASSN.
State Fair Display—1952

Receipts

Honey Sales	$1,231.30
State Fair Contribution	500.00
G. B. Lewis Co. Recipe Books	51.50
O. J. Gunderman Rec. Books	3.00
	$1,785.80

Paid Out

For Meals of Workers	$ 65.50
Ben Gertsner, Honey	13.30
Paper Bags, Tape, etc.	17.00
W.T.T.N. for Records	17.00
Chas. David Sons, Glass	15.50
Jansky Print Co., Membership Lists	113.80
Robert A. Johnston Co., Crackers Sold	9.50
Jane Johannsen, Painting Map	45.00
Milwaukee Cash Register Co., Rental of Cash Register	10.00
Wm. Judd, Comb Honey	16.80
American Honey Institute, Literature	211.00
Johnson Sign Shop Signs	109.55
Clean Towel Service, Jackets	4.96
Honey Acres, Honey	854.21
Total Paid Out	$1,509.54
Balance	$ 276.26
Due from Winnebago Co. Assn. for recipes	20.00
	$ 296.26

Wisconsin Horticulture

November, 1952

WISCONSIN HORTICULTURE

The Official Organ of the Wisconsin State Horticultural Society

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VOL. XLIII NOV. 1952 NO. 3

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Subscription by membership in the Wisconsin State Horticultural Society. Annual dues are $1.25 per year. Organizations of 10 members or more may affiliate at special rates which will be sent on request.

FLOWER OF THE MONTH
CHRYSANTEMUM

Greenhouse grown chrysanthemums are our flower of the month for November. Either as cut flowers or as pot plants, they're tops for beauty as well as for keeping quality. These interesting "spider" varieties are becoming very popular once more. It was many years ago that this type of chrysanthemum was last in popular demand.

If your chrysanthemum is a potted plant it's important that the soil be kept moist. Remember to chec the soil at least once every day to s whether or not it needs watering. the soil feels dry, a thorough wate ing is the order.

Chrysanthemum cut flowers w last better if they're placed whe bright sunlight and drafts wo reach them. A daily change of t water and a fresh cut at the base the stem assist in prolonging th life too.

By G. E. Beck, Dept. of Hortic ture, U. W.

Orchard Visits

The Albert A. Ten Eycks' Make Fruit Growing Profitable

On a visit to Pine Bluff Fruit Farm, south and west of Brodhead, owned and operated by Mr. and Mrs. Albert A. Ten Eyck, one is impressed with the efficiency of operation, such an important factor in making fruit growing a profitable venture.

The Pine Bluff Fruit Farm consists of 200 acres of land of which 100 is under cultivation and 20 acres in a relatively young orchard. The main varieties are Jonathan, Golden Delicious, Cortland and McIntosh and some Fireside, Haralson, Red Delicious and a few others.

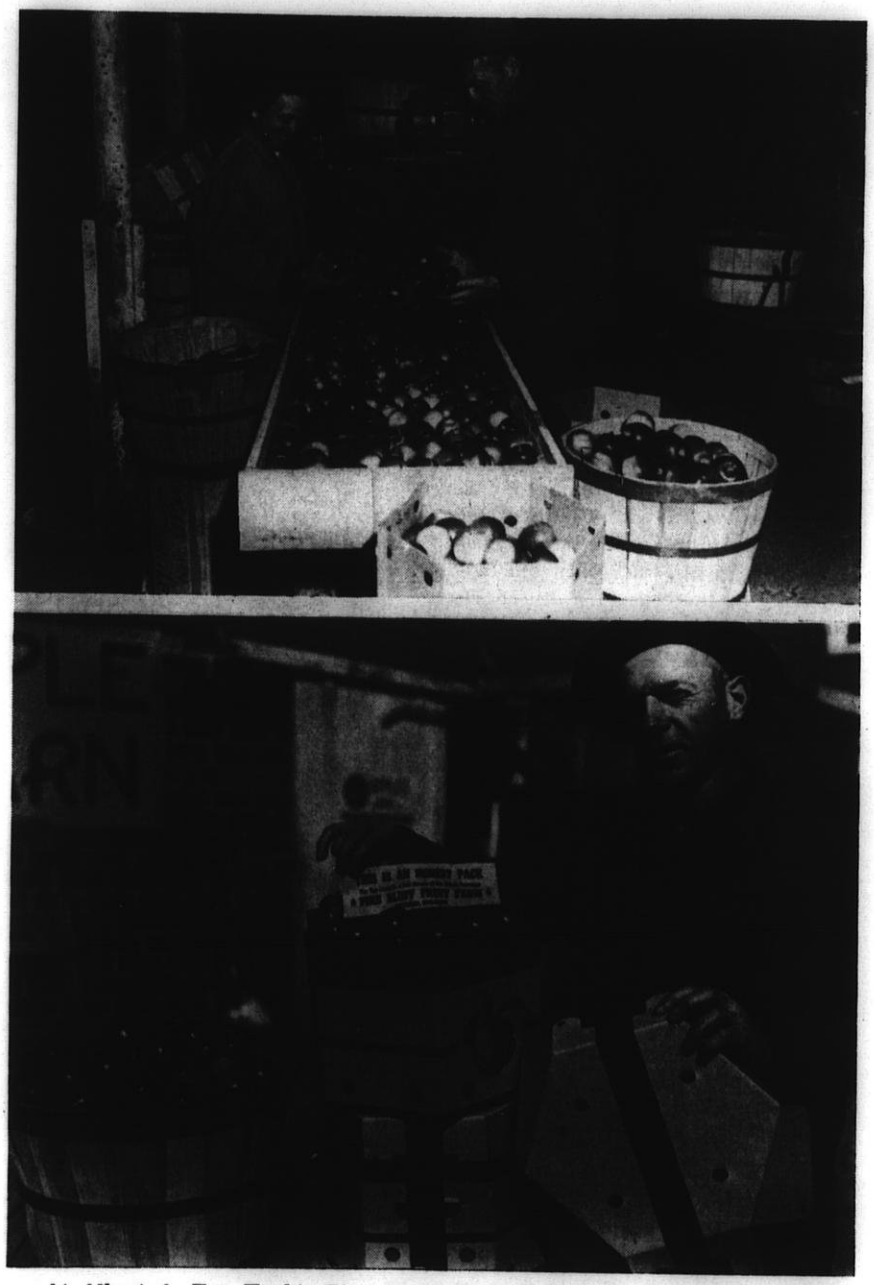
In early October we were impressed with the nice looking Jonathans on sale in Madison supermarkets in the containers shown in the picture on this page. Quite unusual, too, was the little slip at the top of each box with the statement that the apples in the bottom of the box were as good as the apples on top — and they were, too! the Ten Eycks do not put a better apple on the top of any container than in the bottom.

What Is The Best Package

The half-bushel package shown in the picture is called "boxket". It has met with a good reception from retail stores but the bushel size has not. Mr. Ten Eyck says that the common bushel **basket** still sells best to the stores because they feel that it is a utility package — they can use the basket for other things. Some stores won't buy apples in a cardboard box. One store refused to buy any saying they could not sell any out of a cardboard box. This half-bushel boxket costs about 30c in small quantities which does add considerable to the cost of the apples. However, he had sold a large number of fine Jonathans to stores in Madison in this container and they were selling at a very good price.

Keep Your Baskets Filled

Mr. Ten Eyck made the observa-



At Albert A. Ten Eyck's Pine Bluff Fruit Farm near Brodhead. Above: Mr. and Mrs. Ten Eyck grading some of their beautiful red Jonathans being harvested. Apples are sorted by hand so they will not be bruised but Mr. Ten Eyck says he wouldn't be without the brusher. Below: Albert Ten Eyck with the two types of packages he uses. Left: standard bushel baskets. Right: half-bushel carton. The leaflet states "the top layer is a fair sample of the whole container."

tion that customers will not buy apples from a box or basket that is only half full. The reason may be that consumers still think that the poor apples are all on the bottom of the basket, and so want them only from the top. He says that quite often folks refuse to buy apples from a half-full box, so he keeps filling the containers. Many customers who come to the farm for fruit are looking for cheap apples. However, it is one way of disposing of the off-grade fruit which cannot be sold at a profit to stores.

"We can't make money on off-grade fruit, and we must grow a bigger percentage of Number 1 apples," observed Mr. Ten Eyck.

Most of the trees in the Ten Eyck Orchard are about ten years old and are now in excellent bearing: in fact, they were a sight to behold just before picking time in September — the trees were loaded with beautiful red apples. In pruning Mr. Ten Eyck plans to keep his trees open and will cut many of the tops this winter. He likes to keep the trees low so fruit can be picked with an 8 ft. ladder. Some of his pickers have difficulty with taller ladders and refuse to use them.

Nu-Green was used to give the trees nitrogen this past spring. Mr. Ten Eyck added Nu-Green to four spray applications; the last in the calyx spray. He thinks his excellent set of fruit might have been due, in part, to this nitrogen application. He also used about 1½ pounds of nitrogen fertilizer per tree, leaving a portion of the orchard unfertilized with only the Nu-Green spray fertilizer. He said he could see no difference between the two plots, so that the Nu-Green gave good results.

There was some burning from lime sulphur this past season and Mr. Ten Eyck feels he will use some thing else this coming year. He used Crag 341 with good results and had little trouble with red mite. In 1951 he had considerable trouble with mites and blames it on DDT killing off parasites.

The most popular labor-saving device for women is still a husband with money.—**Sparks.**

84th ANNUAL CONVENTION
Wisconsin State Horticultural Society
Wisconsin Apple Institute
Retlaw Hotel, Fond du Lac, November 17-18

Program Monday, November 17

8:30 to 10:00 a.m. Set up fruit exhibit. See October issue for premium schedule.

10:00 a.m. Call to order by Pres. Arnold Nieman. Announcements.

Report on control of plum curculio and apple maggot by soil treatment. By C. L. Fluke, Dept. of Entomology, U. W.

10:30 a.m. Apple insect control recommendations for the 1953 season. By Don A. Dever, Dept. of Entomology, U. W.

11:00 a.m. Is the concentrate sprayer the coming thing? Our experiences with it. By R. L. Marken, Kenosha, and Arnold Nieman, Cedarburg. Round table on concentrate spraying. Conducted by Marshall Hall, Vice Pres. Wis. State Hort. Soc.

11:45 a.m. Opening of business meeting. Wisconsin State Horticultural Society. Nomination and election of members, Board of Directors.

12:00 M. Luncheon meeting. Board of Directors, Wisconsin State Horticultural Society. Also Board of Directors, Wisconsin Apple Institute.

1:45 p.m. Chemical thinning of apples as carried on in Michigan. By Dr. A. E. Mitchell, Dept. of Hort., Michigan State College, East Lansing, Mich.

2:30 p.m. Our experience with hormone sprays. By Dr. R. H. Roberts, Dept. of Hort., U. W., Dawson Hauser, Bayfield, and Don Reynolds, Sturgeon Bay.

3:00 p.m. Experiments with fertilizers and mulch in the orchard. Work with fruit at the Peninsula Branch Experiment Station in Door County. By Dr. Frank Gilbert, Supt.

Our experience with mulch and fertilizers in the orchard. By Ransome Severson, Mgr., Reynolds Orchards, Sturgeon Bay.

3:45 p.m. Experience with power pruning. By S. S. Telfer, Ellison Bay.

ANNUAL BANQUET

6:30 p.m. Ballroom, Retlaw Hotel. Presentation of Honorary Recognition Certificates.

Toastmaster: Professor O. B. Combs, Chief, Dept. of Horticulture, U.W.

"The magic of pollinization in agriculture." By Claude O. Ebling, General Agric. Agent, Soo Line R.R., Minneapolis. A short program of "magic" will follow this talk.

Music by Barber Shop Quartet, Fond du Lac.

Auction; prize winning bushels of apples. Maximum bid: $10.00.

Tuesday, November 18

Joint Meeting With Wisconsin Apple Institute

9:30 a.m. Results of experimental work on scab control and recommendations for the 1953 spray program. By Dr. J. D. Moore, Dept. of Plant Pathology, U. W.

10:30 a.m. What's new in orchard mouse control. By William Fitzwater, U.S. Rodent Control Service, La Fayette, Indiana.

11:00 a.m. Experiences with T.C.P.P.A. to prevent pre-harvest drop of apples. By Dr. A. E. Mitchell, Michigan.

11:30 a.m. Business meeting Wisconsin State Horticultural Society.

12:00 M. Luncheon Business Meeting, Wisconsin Apple Institute. Election of Directors. Pres. Harold J. Schubert, Gays Mills, presiding. All growers invited.

1:45 p.m. New apple packages and packing. 10 minute discussion. William Connell, Menomonie; Albert A. Ten Eyck, Brodhead; J. R. Writt, Rosen Orchard, Ellison Bay and Spencer Eames, Egg Harbor.

2:30 p.m. How to improve apple size and tree growth by pruning. By Dr. R. H. Roberts, Dept. of Hort. U. W.

How pruning improved our apples. Discussion. Marshall Hall, Casco.

Note: All growers are invited to bring a sample of any type of apple container other than bushel baskets, for display and discussion.

See Fruit Show Premium Schedule on page 30 of the October issue.

The Honor Roll

1952 WISCONSIN APPLE INSTITUTE PAID MEMBERSHIPS

Mr. Armin Frenz, Cedarburg, treasurer of the Wisconsin Apple Institute, sends the following list of paid-up members for 1952, as of October 1, Oswald Baehman, Thiensville. William H. Basse, Waukesha; O. Bolliger, Bayfield; John C. Bremer, Adell; Arthur Brunn, West Allis; Louis R. Fischer, Croix Farms, Hastings, Minn.; Young Bros. Decoraland Orchards, Galesville; Philip Dell, Waldo; Virgil Fieldhouse, Dodgeville; Armin A. Frenz, Frenz Orchards, Cedarburg; John W. Fromm, Cedarburg; Frederick M. Gygax, Waukesha; Arthur Halbig, Sheboygan Falls; Hall Enterprises, Casco; Herbert J. Hasslinger, Nashota; Hipke Orchards, New Holstein.

Kickapoo Orchard Co., H. J. Schubert, Gays Mills; Arthur H. Kittenger, Caledonia; The Larsen Co., Green Bay; Henry Mahr, Caledonia; Milwaukee Co. Fruit Growers Ass'n., Alfred J. Meyer, Milwaukee, Sec.; Joseph L. Morawitz, West Bend; Earl R. McGilvra, Baraboo; Nieman Bros. Orchards, Cedarburg; Donald Otting, Cedarburg; Ozaukee County Fruit Growers Ass'n. Armin Frenz, Sec., Cedarburg; Mearl B. Pennebecker, Waupaca; Aloys W. Pfeiffer, Racine; Racine Co. Fruit Grow Ass'n, Ben Ela Sec., Rochester; F low Lourie, Rosa Orchards, Gays Mills.

Sacia Orchards, Galesville; Sheboygan Co. Fruit Growers Ass'n. Berhard Halbig, Sec. Sheboygan Falls; A. K. Basset, Ski-Hi Fruit Farm, Baraboo; H. Russell Smith, Waupaca, Bayward Sprengel, Waukesha; Harold Steffen, Cedarburg; Ed. H. Stoeber, Madison; C. J. Telfer, Green Bay; Albert A. Ten Eyck, Brodhead; Albert J. Theys, Luxemburg.

Thompson & Marken, Kenosha; Willard O. Wagner, Cleveland; Washington Co. Fruit Growers Ass'n., E. E. Skalisky, Sec. West Bend; R. L. Waehler, Lomira; Waldo Orchards, Arno Meyer, Waldo; Oscar Wiechert, Cedarburg; Wisconsin Orchards Inc. R. H. Roberts, Gay Mills; Hugo E. Wunsch, Sheboygan; Rolsen Orchards, Inc. J. R. Writt, Ellison Bay.

Meyer Orchards, Alfred J. Meyer, Milwaukee; Manitowoc Co. Fruit Growers, E. W. Tuma Sec. Cato; Wm. Connell, Menomonie Sun Ridge Orchards, Menomonie; Jefferson Co. Fruit Growers, Carrol Krippner, Sec., Fort Atkinson; Dauson Hauser, Bayfield; Harry Brunn, Milwaukee; Lester F. Tans, Waukesha.

NOTICE

The American Association of Nurserymen reports that all plants and trees sold by nurserymen are absolutely guaranteed to contain chlorophyll.

It is next to impossible to grasp opportunity when you have both hands in your pockets. — **Iron County Minor.**

The Downward Trend In Number Of Apple Trees

Data released by the United States Census Bureau shows a steady downward trend in the number of apple trees in the United States during the past forty years. The total number of apple trees has declined from 151 million in 1910 to 39 million in 1950 — a 75% decline.

Although there has been a decline in the number of apple trees in all of the sixteen principal producing states, the decline since 1910 has been about twice as great in the minor producing group.

Reference to this data would give the impression that the United States is going out of the apple business, but production has by no me been proportional to the decline in tree number. Increased yields per tree have been brought about by improved cultural practices. Other possible reasons for this are that the poorer trees are generally out first and also filler trees are often pulled to give wider spacing of trees. Therefore, nearly equal production may be achieved on fewer trees.

More Young Trees in 1950 Than in 1940:

In the 1950 Census, 22% of total apple trees in the United States were classed as non-bearing. This figure represents a considerable increase over the 1940 Census in which 15% were non-bearing.

Assuming the life of apple trees is fifty years, 2% of the trees should be replaced each year to maintain acreage. Therefore, 20% of the trees at any time should be under ten years of age. If the productive life of an apple tree is assumed to be forty years, 25% of the total trees should be under ten years of age to maintain tree count.

Tree Count in Washington State

Since 1920 the number of bearing trees in the State of Washington has declined from approximately 8 million trees to about 3 million in 1950. Winter injury in the early part of 1950 may have reduced the number of bearing trees even more. If the average rate of planting continues, the present tree count could very likely be maintained.

In Michigan and Illinois, 22% of all new plantings are Golden Delicious. Plantings of Golden Delicious are particularly heavy in Illinois where production is expected to reach one million bushels of this variety by 1958. Growers in these states continue to favor the Jonathan variety, as shown by the heavy plantings, 29.6% of all non-bearing trees. **From Apple Research Digest. Washington State Apple Commission.**

WISCONSIN APPLE PIE AND CHEESE FEATURED ON BILLBOARDS

Wisconsin apple pie and tasty cheese are being featured on about 300 billboards of the Wisconsin Department of Agriculture during the harvest season—September and into October.

This is a big help for the apple industry. The Wisconsin Apple Institute members and all apple growers appreciate the cooperation of the Department. Featuring apple pie was suggested by the Officers of the Wisconsin Apple Institute last spring.

Only by drawing the attention of consumers to our farm products repeatedly and constantly can we maintain our market. Our thanks go to Mr. Don McDowell, Director; and members of the Farm Products Promotion Section; Don Wilkenson, Chm., Frank Wing, W. L. Witte, C. L. Jackson and Cliff Hutchinson.

OTHERS HAVE DIFFICULTIES TOO

Denmark fruit growers are to remove one million bearing apple trees this year. Reasons given are overproduction plus heavy competition from various types of foreign fruits, according to the Kansas Horticultural Society Bulletin.

A serious impediment to marriage is the difficulty of supporting the government and a wife on one income. — **East Dubuque Register.**

A Visit To The Spencer Eames

At the Spencer Eames Orchard Egg Harbor. Upper Picture: Mr. Eames admiring some of his beautiful Red Delicious. This block of young, low-headed trees produced an excellent crop. Center picture: The Eames packing shed, one of the largest in the state. Below: View inside the packing shed with 80 foot grader, having a capacity of 2,500 bushel per 10 hour day. ..A cooler at the left of this room (not shown) has capacity of 10,000 bushel.

Near Egg Harbor, in Door County, Wisconsin is a really large commercial orchard, the Spencer Eames Orchard of 250 acres of apples and 300 acres of cherries. The orchard was started about 1926—30 by Dr. H. F. Eames. When he passed away 1937 it was taken over by his son.

The main varieties of apples are Wealthy, McIntosh Cortland, N. W. Greening, Snow, Red Spy, and Wolf River. There are some fine young trees of Red Delicious which is third largest in acreage, McIntosh being first and N. W. Greening second. Cherry varieties are largely Montmorency with a few sweet cherries —Tartarian and Royal Anne.

This entire acreage is sprayed with one speed sprayer and the use of two supply units. Mr. Eames thinks that the concentrate sprayer is the coming thing. The trees must be pruned so they are "open" for proper spraying and not too high for picking—so apples can be picked with a seven foot ladder. When asked what spray materials he uses he said "Whatever is recommended by the men at the Experiment Station." Mr. Eames thinks that Potash is a necessary fertilizer element on his soil and has been using from 1 to 2 pounds of 0-0-50 on young trees, and 6 to 8 pounds on older trees. He believes that Delicious and McIntosh are improved in color, quality, and vigor of the tree by the use of Potash fertilizer.

Looking at the trees one is impressed with the fact that pruning has not been neglected in this large

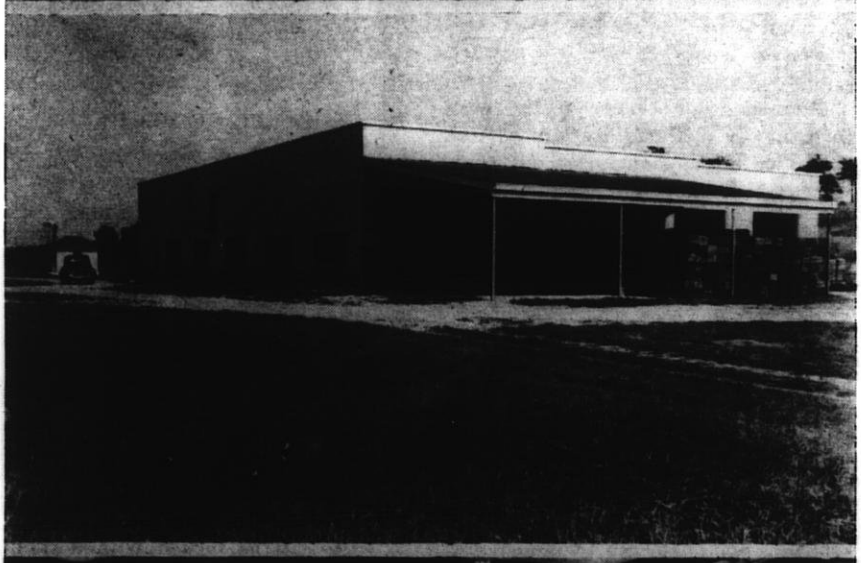
Orchard

orchard. The trees are open so the spray material and sunlight can reach all the leaves and fruit. The trees have open tops and picking must be relatively easy, since so many of the apples are within reach of the ground or can be reached with a short ladder.

The Packing-Shed

A few years ago the packing shed on the Eames Orchard burned down, so a new and larger one was built. It is one of the most modern in the state of Wisconsin; 150 ft. long and 60 feet wide. The grader is 80 feet long, with a capacity of 2500 bu. per 10 hr. day. It requires 22 people to operate this grader at a peak load. Mr. Eames grades into 2", 2¼", 2½", 2¾" sizes and up. The apples are packed mostly into baskets, but he is changing to boxes, using some Friday pack; face and fill and Jumble pack. He says the ideal set-up is to store the fruit in a field crate the same day it is picked and then pack them as they are sold. He thinks the basket is on the way out; is old fashioned and has many faults. The cost of facing a basket is high.

The refrigerator in the packing shed has a capacity of 10,000 bushels, and is maintained at a temperature of 33-44° F. with correct humidity—88-90%. The humidity is automatically controlled by the refrigerator unit. Activated carbon retards ripening and picks up the odors. Air is blown through the activated carbon plates which are in a machine fastened to the ceiling of the cooler.



POWER PRUNERS SAVE TIME

Power pruners save time and money. At the meeting of the Maryland State Horticultural Society a grower who has used power pruners for three years stated: "Power pruners cut time about 25% and reduce cost about 20%. Orchard crews like them but find it hard work to use them. They are dangerous, require careful use and call for quick decisions."

The first cost of equipment is high? As many as four pruners can work on 50 foot hose lines per compressor.

Notes On Fruit Growing

RODENT CONTROL NEWS

While mice are in orchards at all times, they reach plague proportions only periodically. In general, these localized peak populations occur about every four years.

The introduction of "miracle" poisons has made the orchardist impatient with the admittedly laborious practice of trail baiting. As a result a number of new methods have been suggested, none of which have been tested extensively enough to permit proper evaluation. However, studies thus far indicate that trail baiting remains the most effective method throughout the Midwest and Eastern apple belt. Until an easier and more economical method of mouse control has been developed we feel that it offers the most consistent protection.

Although our experiments with these newer methods are still exploratory, we might summarize our findings as follows:

(1) The dispersal of zinc phosphide-treated cracked corn by seeding it mechanically along tree rows. Our studies have shown that, in general, mouse infestations have not been reduced by this means sufficiently to prevent damage. The lower expense of application, and success under certain orchard conditions, make it worthy of further studies.

(2) Regulation of wild animal populations by reducing their cover and shelter is one of the most fundamental controls. The Culti-Cutter and similar machines apparently strike at these basic requirements by breaking up the sod and, if used frequently enough, prevent the growth of a dense ground cover favorable to mice. Under actual operating conditions it has been found that these machines alone cannot be relied upon to remove mouse populations. In fact they have the dangerous effect of concentrating the mice in the undisturbed area around the base of the tree.

(3) The newest method under experimental study is the use of toxic ground sprays to treat the orchard floor, thus killing mice by contact and/or consumption of poisoned natural foods. While reduction in numbers has been obtained, we have encountered several problems: (a) the density of ground cover influences the kill; (b) some mice are forced underground; and (c) the cost of treatment is relatively high. **By G. C. Oderkirk & W. D. Fitzwater, U.S. Rodent Control, Lafayette, Ind.**

NOTES FOR FRUIT GROWERS

By C. L. Kuehner and Malcolm N. Dana

1. Is it safe to start pruning fruit trees as soon as we get time in November and December?

Answer: While it is rather safe to prune healthy older bearing trees as soon as the foliage has dropped it is better to postpone the pruning of young, late-growing trees until after the coldest weather of winter is over.

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2. I have heard growers talk about pruning so as to keep the trees low so fruit can be picked with 8 to 10 ft. ladders. How is that done on big trees? How can we keep young trees from getting too tall?

3. What is meant by "thin wood pruning?

Answer: For Answer to questions 2 and 3 I recommend that you read and study our publications Stencil Circular 242, Young Farm Orchards, and Circular 390, Management of Bearing Orchards. Both may be attained at your county agent's office.

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4. We have some old trees of Yellow Transparent and Duchess, but most years we are unable to sell all the apples before they spoil. What would you advise that we do?

Answer: The problem as stated sums up well the reasons why Yellow Transparent and Duchess are no longer planted extensively. These varieties meet competition from better varieties and consequently do not sell well. The grower concerned would be wise to remove the old trees and replace them with Melba, Beacon, and Milton. These newer varieties are attractive, have good quality, and will store better than the Transparent or Duchess.

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5. What can we do to prevent rabbits from eating the bark off of our young trees this winter?

Answer: Young trees may be protected from rabbit injury by erecting small mesh woven wire or hardware cloth cylinders about the trunk of each tree. The guards should be high enough to give adequate protection above probable snow depth. Wire guards will serve several seasons if properly constructed. One season protection may be obtained by wrapping the trunks with newspaper, burlap, or aluminum foil.

Chemical repellents have in some instances given good control. Rabbit Repellent 96a which can be obtained from the Fish and Wildlife Service may be sprayed or painted on the trunks of the trees to give a winters protection. Workers at Michigan State College have obtained good results from a mixture of seven pounds of resin to one gallon of ethyl alcohol.

Small plantings may be entirely fenced with woven wire. Again make sure the fence is higher than the probable snow level.

Liberal applications of shotgun shells and traps are very effective deterrents to a high rabbit population.

Editor's Note: Dr. Malcolm N. Dana, at the retirement of Professor J. G. Moore, joined the Staff of the Department of Horticulture to do teaching and research. He is a native of Vermont and received his Doctor's degree at Iowa State College.

The dead from highway accidents from time of the first automobile in the 1890's totals 1,012,000 — some 6,000 more than the number of Americans killed in all wars in the last 177 years. — **Grantsburg Journal.**

Berries and Vegetables

Wisconsin Berry and Vegetable Growers Ass'n.

WHY SOW OATS IN STRAWBERRIES

By Charles F. Swingle, Sturgeon Bay

Both in 1951 and this year, we sowed oats the first half of August between the rows of our new berries. This was done to cut down weeding and provide part of the mulch needed for winter cover. Planting should be done late enough so no heads develop good seed, and only after a satisfactory stand of berries has formed. Had it been dry when we planted we would have irrigated, as oats in August and early September might take needed water. Later (I hope, at least) removal of water from plants is beneficial or at least not injurious. We sow by hand, with most of the seed falling in about 8 inches of the row, but with enough spreading out to give us the entire middle covered with oats, from berry row to berry row. Our rows are 4 feet, center to center. By the middle of October, the oats are between 18 and 36 inches high, with the frosts starting to knock them down.

When we cover the plants, we will put a full cover on the berries but none on the oats.

Although not planned on, some everbearers planted in single rows for plant increase, and not covered when 21 degree weather was experienced, came through almost as free of frost damage as those covered with straw.

In 1951 we also planted some rows with buckwheat, but found the oats much better both in choking out late weeds, and in winter cover. We sow about 8 pecks on an acre, which of course, is at the rate of some 20 pecks per acre, since only half to one third is covered. We cultivate with a roto-tiller or one-horse cultivator, to cover, getting the weeds at the same time. We did not sow on carry-over berries, but see no reason why that wouldn't work just as well. We waited until a week after the oats had come up before putting on our last Crag weed spray.

Dr. Charles Swingle in his strawberry field with oats between the rows of berry plants.

BERRY GROWING

By Chris Olson, Berlin, Wis.

The strawberries that we raise are mostly of the everbearing varieties. The variety that we like best is the Gem. The Red Rich produced good sized berries the first pickings. However, later in the season they had a large number of small, unmarketable berries.

We did not have a large crop of strawberries this year because of a plant nutrition problem. An attempt was made to solve the problem by applying chemical fertilizers. The plants responded favorably to the fertilizers and we harvested some berries this fall. The chemical fertilizer was applied through our irrigation system.

Irrigation is necessary most years for the production of everbearing strawberries of good quality.

By mulching in the rows we had cleaner berries. Also, the ground did not dry out as quickly as it did between the rows where mulching was not applied.

The market for the June and fall crops of berries was fair.

THE ANNUAL MEETING

Strawberry varieties, chemical weed control, insects and diseases of small fruits and cultural problems were the principle topics at a most interesting meeting of the Wisconsin Berry and Vegetable Growers Association at Oshkosh on November 3.

Papers which were given by the speakers will be printed in early issues of the magazine. The results reported by Dr. Frank Gilbert of the Branch Experiment Station at Sturgeon Bay on strawberry variety yields and chemical weed control and by H. E. Halliday on insects and diseases and Dr. Charles Swingle on new ideas in strawberry growing were outstanding.

Officers Elected

New members of the Board of Directors were elected: Charles Braman, Waupaca; Charles Greiling, Green Bay; and Gerald Hipp, Janesville.

The officers were re-elected: President, Harry Barlament, Green Bay; Vice President, Dr. Charles Swingle; 2nd Vice President, Chris Olson, Berlin; Secretary-Treasurer, E. L. White, Fort Atkinson. H. J. Rahmlow is Corr. Sec. *Ex-Officio. Other Board Members are F. W. Van Lare, Oconomowoc and Glen Swartz, Kenosha.

Questions About Berry Growing

Answered by H. E. Halliday and members Wisconsin Nursery Inspection Staff

1. Is the Wis. No. 537 a good strawberry? I have heard some good reports about it, but also that the leaves get yellow. Does this condition do it any harm? How do other growers like the variety?

Answer: The reports from growers on Wis. No. 537 are mostly good. Like any other variety that has ever been introduced, it does not do equally well for all growers. The yellow color of some of No. 537 plants does not seem to make any great difference in its bearing. It appears possible, however, that a strain of completely green 537's will be available before too long. All things considered, the No. 537 has possibilities of becoming one of our solid standard varieties.

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2. I tried to grow everbearing strawberries this year and found that **in September many of the berries were nubbins with hard green centers.** This was especially true with the variety Red Rich. What is the cause, and was this seen in other places?

Answer: Everbearing strawberries throughout the state were pretty much a disappointment this year. Ordinarily the Red Rich are not any more prone to button or catface berries than are other everbearing varieties. The large number of berries set on the Red Rich perhaps made the condition more exaggerated in their case this year.

The cause of catfacing or buttoning of berries is not fully understood. Research is being done on it from several angles; namely, insects, diseases, physiological upsets of the plants, and pollination difficulties.

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3. What caused the yellowish caste and curled leaves on my strawberries this fall?

Answer: There are several factors involved in the yellowing and curling of strawberry leaves. While it is purely observation not backed up by research, new settings of strawberries which had been given one or more sprays with DDT and which showed a very low population of leafhoppers, had very little yellowing and curling of the leaves. The sprayed patches also had much higher runner production and set.

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4. How do the strawberry plants look for next year's crop around the state?

Answer: Many patches were set during a dry spell this spring and did not get off to a fast start. In these patches, early runner production has not been too good. It would appear that the yield may not be as high next year as what might be considered a normal crop, but the prospects look good for very high quality.

Questions About Raspberry Growing

What causes the greyish spots on my raspberry canes? What can I do about them and is this a serious trouble?

Answer: The greyish spots on the canes are caused by a disease called anthracnose. This condition is very severe in some patches this year. Many growers do not appreciate the extent of injury they suffer from anthracnose. The area of the cane under each one of these grey spots is killed. If the canes have large numbers of these spots, the cane cannot produce much fruit. The blossom stems are heavily attacked, also the fruit itself. Very often this is the cause of fruit drying up and being misshapen. The treatment for this disease will be found in the March 1952 issue of this magazine.

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2. Last winter my raspberry canes winter-killed quite badly. I thought it was due to the wet weather in fall. Do you think the plants look better this year and will we have as much winter-killing?

Answer: Severe winter-kill of raspberries last winter extended from the southern border of the state almost to Lake Superior. Due to the almost continuous rainfall last fall, the plants were not hardened off and ready for winter. Dry weather this fall has helped the canes go into dormancy and it is felt that there should be a minimum of injury this winter.

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3. What varieties of raspberries seem to be hardiest in this state?

Answer: The Latham, June, Sunrise, Indian Summer, Durham and Ontario all seem to be about equal in hardiness. There are other reasonably hardy varieties also. The ones listed here are the varieties most widely grown in the state. The Viking, an excellent variety, seems to be limited to the extreme northern edge of the state along Lake Superior. Climatic conditions there make it possible to grow varieties which are not hardy elsewhere in the state.

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4. What causes the lump, or swelling on some of my raspberry canes, and is it a serious trouble?

Answer: The spindle shaped swelling is caused by the raspberry red-necked cane borer. All canes showing such a swelling should be cut off close to the ground and burned, as the larva over-winters in the cane. It is felt that a fairly complete raspberry spray program would help reduce the incidence of the red-necked cane borer by killing some of the adult beetles before they lay their eggs.

BERRIES WINTER INJURED AT BARABOO

Latham and **Taylor** Raspberries were badly winter killed at Baraboo last winter. The **Durham** fall bearing raspberry did better this year than the year before.

Strawberries were also injured by the early frost in November of 1951 and so, while we had large berries the first few pickings from Premier, they were small after that and later varieties yielded poorly due, I think, to too much rain.—By Albert Kruse, Baraboo.

The guy who says that the American people haven't got the will to take a chance any more, just hasn't been out on a drive in heavy traffic recently. — **Sparta Herald.**

VEGETABLE CONSUMPTION SOARS

Consumption of fruit and vegetables has shown greatest rise of any group of agricultural products. Letting 100 represent the 1909-1913 level, the index for 1951 was just over 150, eggs had risen to about 130, dairy products to 127, meats, poultry and fish to 108, grain products had fallen to about 65 and potatoes to about 60.

Volume of vegetable production for fresh market, taking period 1935 to 1939 as 100, has risen only to 132. Price has climbed from 100 to 244. Corresponding figures for truck crops for processing indicate that production has more than doubled to an index of 209; price received by farmers has risen to 237.—From the Market Growers Journal.

WISCONSIN LEADS THE NATION IN VEGETABLES FOR CANNING

Long the leading producer of canned peas, Wisconsin is now also a major producer of canned corn, beans, carrots, green and wax beans, lima beans, sauerkraut and pickles. The state's acreage of these crops in 1951 totaled 278,900 acres and the value of these crops exceeded 25 million dollars. The totals for 1952 will be about the same although some crops are up and others down.

This year Wisconsin is packing 12,000,000 cases of peas, 8,750,000 cases of corn, 2,000,000 cases of green and wax beans, and probably 3,500,000 cases of beets, and the total pack of vegetables and fruits will probably exceed 30,000,000 cases. This canning is done by about a hundred companies operating one hundred and fifty canning plants throughout the state.

The soil and climate of Wisconsin are particularly well adapted to growing vegetables for canning and the progressive and alert farmers of the state have found that these crops work in well with dairying. As a result, Wisconsin has more than doubled its production of these crops since 1940.—By M. P. Verhulst, Sec. Wis. Canners Ass'n.

Usually a pessimist is a man who financed an optimist.—**Forest Republican.**

THOSE LEFT-OVER SEEDS

When we have completed the garden planting for the season, we usually have a quantity of seed left over. Will they be any good next spring or should they be discarded now?

The longevity or length of life of seeds depends on two main factors—the kind of seed, and the conditions under which the seeds are stored. Under the hot, humid conditions in summertime seeds do not retain their vitality as long as they do in cooler and dryer times of the year.

Different kinds of seeds vary greatly in their longevity. For example, onion, sweet corn, parsley and parsnip seeds retain their vitality for only one to two years; beans and peas, okra and salsify for two to three years; cabbage, collards, kale, turnips, and mustard four to five years; cucumbers, melons, squash, and tomatoes about five years—all of these under favorable storage conditions, which means a cool temperature and relatively low humidity.

Ordinarily, it is best to buy your seeds each year, but if you do keep seed over until the next year, you should by all means make a germination test before you plant them. **By John Schoenemann, Dept, of Horticulture, U. W.**

IN THE NEWS

Workers On Farms

In 1951 it is estimated there were 2,270,000 hired workers on farms and 7,780,000 family workers.

Where To Get Them

A bulletin on Soilless Culture may be obtained from James LoCicero, 51 West Avenue, Stamford, Conn. It is entitled "Soilless Culture and Its Application to Vegetable Industry".

A grooving iron that grooves a design may be obtained from J. D. Wallace & Company, 147 S. California Ave., Chicago, Ill.

A leaf lettuce packaging machine which packages about 40 per minute is made by the American Specialty Co., at Amherst, Ohio.

Packaging materials such as cardboard or paper boxes with celophane windows for holding tomatoes in a row may be obtained from Morris Paper Mills, 135 LaSalle St., Chicago, Ill. and from Dobeckmun Co., Box 6417 Cleveland 1, Ohio.

Bulletins Of Interest Available

Research on irrigating Connecticut vegetables. B. E. James, Agr. Exp. Sta. Storrs, Conn. Apr. 1951.

Retailing strawberries. A. W. Van Dyke. Agr. Exp. Sta. Storrs, Conn. Mar. 1951.

Wage bonus plan for farm workers. J. B. Cunningham. Agr. Col. Ext. Urbana, Ill. Jan. 30, 1951.

Social Security Act for farm workers. N. G. P. Krausz. Agr. Ext. Urbana, Ill. Mar. 13, 1951.

Vegetable varieties for Minnesota. O. C. Turnquist. U. Agr. Ext. St. Paul, Minn. Feb. 1952.

Fertilizers for commercial vegetables and potatoes. Ext. Service. Ithaca, N.Y. Agr. Col. Cornell Ext. Feb. 1952.

Retailing carrots. A. W. Van Dyke. Agr. Col. Ext. Storrs, Conn. May, 1951.

The shelf life of fresh fruits and vegetables in retail store display cases. W. E. Lewis and J. C. Hansen. U.S. Bur. Plant Ind. Soils & Agr. Eng. Nov. 1951.

KRILIUM TESTED ON SOILS FOR CARNATION

The effect of Krilium versus organic matter in conditioning three soil types for carnation production was reported in the Colorado Flower Growers Bulletin in June and repeated in the Florists Review.

Conclusions as the result of the test were as follows: "The slight increase in production caused by Krilium in ordinary greenhouse soil was too small to be regarded. The addition of organic matter did, however, greatly improve the greenhouse soil, even though this was initially good. No treatment gave any significant improvement in the sub-soil.

"When the flowers were graded it was noted that there was a difference in the number of Fancy-grade blooms. It was found that the addition of organic matter significantly increased production of fancy-grade blooms, while Krilium was ineffectual. In the case of the subsoil, Krilium did increase production of fancy-grades but not so effectively as did organic matter." (Condensed).

From the Editor's Desk

NOMINATING COMMITTEE
For Election of Members, Board of Directors, Wisconsin Horticultural Society

At the last meeting of the Board of Directors of the Wisconsin State Horticultural Society, President Arnold Nieman appointed, with the approval of the Board, the following as members of the Nominating Committee for nomination of 3 directors: Marshall Hall, Casco; William Leonard, Route 1, Fort Atkinson; Aloys Pfeiffer, 2809—21st St., Racine.

The members appointed on the committee were those whose three year term of office as members of the Board expire this year. According to our constitution they cannot directly succeed themselves on the Board.

Anyone wishing to give them suggestions for nominations for members of the Board should contact them.

OUR COVER PICTURE

Alice in Dairyland — Miss Beverly Steffan of Appleton, hands Governor Walter Kohler a big Wolf River apple. She could have given him a nice McIntosh, which are right in front of her—but of course, the big size of the Wolf River attracted her attention first. When it came to taking a bite out of an apple, which they did for the next picture, did they take a bite out of a Wolf River? Should say not! They chose a McIntosh, which goes to show they know their apples.

But why was Alice chosen for this picture with apples? Of course, Apple Pie and cheese is a natural combination, so Alice is willing to boost apples as well as cheese. Cliff Hutchinson of the Department of Agriculture took the picture. The apples were furnished by Leonard Langord, who has charge of the University Orchard, with the OK of Professor O. B. Combs. The other arrangements were made by Mrs. Marjorie Slaughter, Publicity Director of the Wisconsin Apple Institute and the Editor.

COMING EVENTS

November 17-18. Annual Convention, Wisconsin State Horticultural Society and Auxiliary; Wisconsin Apple Institute. Retlaw Hotel, Fond du Lac.

December 1, 2, 3. Annual Convention. Wisconsin Nurserymen's Association. Schroeder Hotel, Milwaukee.

December 1-5. Holiday Flower Show. By Milwaukee Region, Garden Club of Wisconsin. T. A. Chapman Store, 407 E. Wisconsin Ave., Milwaukee, Wis.

December 4-5. Annual meeting. Door County Fruit Growers. Courthouse, Sturgeon Bay. Thursday: Program for Apple Growers. Friday: Program for Cherry Growers.

GREAT DEMAND FOR APPLE RECIPE BULLETIN

The apple recipe bulletin "Use Wisconsin Apples 52 New Ways" published by the Wisconsin Apple Institute found such a strong demand this year that the 15,000 copies printed in July were all distributed by early October and many requests had to be turned down. In fact, we asked a number of the Apple Institute members who had purchased some to return a few so we could fill small orders. Many late orders were not filled this year.

County Home Agents cooperated splendidly in bringing before their homemaker's clubs the health value of apples and ways to use them, cooperating with Mrs. Marjorie Slaughter in our program of increasing the use of apples.

CONRAD L. KUEHNER

The horticulturists of Wisconsin lost a truly great friend the evening of Wednesday, October 15 when Professor Conrad L. Kuehner, Extension Horticulturist, passed away from a heart attack. He had attended the Extension Agent's Conference and enjoyed the Annual Banquet that evening. He was in excellent spirits when he retired that evening and without hardly any warning was called away. From far and near, expressions of sympathy come to his wife, for among those who knew him he was a great friend, a great teacher and the fine quality of Wisconsin's fruit can be traced to a large extent to his untiring efforts in teaching improved methods.

Professor Kuehner was a product of Wisconsin, the son of Reverend and Mrs. Conrad Kuehner, and spent his entire life as a teacher—in the schools, in extension work and in Sunday schools.

Our numerous spray rings and County Fruit Growers Associations owe their existence to his untiring efforts. He was still, at age 65, capable of holding three meetings each day; climbing trees to demonstrate tree pruning.

To his wife and his relatives, the Wisconsin Horticultural Society extends deepest sympathy.

OUR ANNUAL CONVENTION

The program for our annual convention is outstanding this year; see page 52. At the request of several growers we are bringing in Dr. A. E. Mitchell of Michigan, who has been doing extensive research on the effect of chemical sprays on apple thinning, apple color and set at harvest time.

Many of our own growers are able to give valuable reports on their experiences in fruit production and marketing. Our research men will report the results of their year of work at this convention. Don't miss it.

MATERIAL FOR GARDEN PROGRAMS

Supplied on Request by the National Garden Bureau, 210 S. Desplaines Street, Chicago 6, Ill.

This program material will be lent, without charge, to responsible persons or organizations known to us, or who will furnish reference. Safe return by prepaid and insured parcel post or express is the only expense to the user. Insure moving pictures, $100 per reel. A report of the use to which the material was put is also required. Please give us as much notice as possible in making reservations.

Projection equipment for 16mm. moving pictures (sound or silent) is standard, easily obtainable on rental, and operates on 100 volt A.C. or D.C.

Sound Movies Only—Cannot Be Shown On Silent Projector

BREEDING BETTER FOOD CROPS—675 ft. 20 minutes to show—Kodachrome. This takes you to the vegetable seed farms in California where seeds of most vegetables used in the United States are grown under irrigation. It shows how seed production begins with ideal plants, which may be discovered as mutants or produced by hybridizing. This method is followed in the production of new varieties and the maintenance of quality in standard varieties.

GROWING A FLOWER GARDEN FROM SEED—492 ft. 15 minutes—Kodachrome. This film shows the simple techniques which insure success in growing flowers from seed. Starting seeds in greenhouse, outdoor flats, and by sowing direct in the garden are demonstrated. Several methods of transplanting from the flat to the garden are shown, and the film concludes with views of the flowers which have been grown by these methods. A highly instructive and entertaining film.

Movies With Sound, or Silent Without Titles, Script Supplied

WHERE NEW FLOWERS ARE BRED—477 ft. 15 minutes—Kodachrome. This movie depicts the flower seed farms in California where most of the flower seed used throughout the world is grown. It shows fields covering acres with flowers of a single color, methods of irrigating, cultivating, harvesting, and the production of new varieties by selection and hybridization.

GARDEN FOR ABUNDANCE—517 ft. 15 minutes to show—Kodachrome This movie shows development of a small vegetable garden from spading the ground to the harvest, demonstrating the best methods of spading, applying fertilizer, sowing the seed, cultivating, dusting, and harvesting vegetables.

HOW "CANNING" WAS DISCOVERED

During the French Revolution, Napoleon found difficulty in supplying his troops with sufficient fresh food. Consequently, he offered a reward of 12,000 francs to the citizen who could find a method for preserving perishable foods indefinitely. Imbued with eagerness and curiosity, Appert decided to carry out preservation studies in addition to his obscure duties as candy-maker, brewer, distiller and baker. He had the theory that if food was heated and sealed in a closed container it would not spoil. He worked on this theory for 14 years and finally proved it. The reward was presented to him by Napoleon in 1809. Excited with the greatness of his discovery he exclaimed, "We have sealed the season". Later it was announced "With him spring, summer, autumn exist in bottles like delicate plants that are protected by the gardener under a dome of glass against the intemperance of the seasons".

The early canners believed that the preservation of canned food depended upon the exclusion of outside air. It was not until 1860 that Louis Pasteur proved that microorganisms were the real cause of spoilage and that the heating applied during the canning process killed the organisms.

HOW TO STORE BEGONIA AND GLOXINIA BULBS

Bulbs of tuberous rooted Begonias and gloxinias dehydrate or dry out readily during the winter months, unless they are protected.

Tuberous rooted Begonia bulbs may be stored in this way: after they are dug and dried for several weeks, so they will no longer "sweat" when stored, they can be placed in a closed container, such as a friction-top tin pail or glass jar. The latter is probably best because we can easily see what is happening to the bulbs during the winter months. If they sweat and become damp they will become moldy. If the cover is not sealed tightly, they may dehydrate and shrivel. If it's too warm (a temperature of about 50° F. is satisfactory) they will start to grow along about January. If they become damp, take them out of their container and dry them some more.

Gloxinia bulbs may be treated the same way, although many growers repot the tubers and set them in a cool spot in their basement or a cool, dark closet. They are then kept only slightly moist during their rest or until they are brought into the light and watered for the new year's growth. It is well to **bring them in to the light and water them as soon as any new growth shows,** because if this is not done it will weaken the tuber. New growth will start quite early if the temperature is somewhat high and the soil damp.

WISCONSIN NURSERYMEN'S ASSOCIATION MEETING

SCHROEDER HOTEL, MILWAUKEE, DECEMBER 2-4

Wisconsin Nurserymen's Association will hold its annual convention in Milwaukee—Schroeder Hotel, Wednesday and Thursday, December 3-4, according to Mr. Thomas S. Pinney, Sturgeon Bay, Sec.-Treas.

On Tuesday, December 2, the Association will cooperate with the University of Wisconsin putting on a one day short course open to all members and members of their organization. On Tuesday evening, December 2, there will be a social evening with entertainment and dancing at the Schroeder Hotel where the meeting will be held.

Said the artist: "I'll give you five dollars if you'll let me paint you."

The old mountaineer shifted his tobacco from one cheek to the other and back again.

"It's easy money," said the artist.

"Thar hain't no question 'bout that," the mountaineer replied. "I was just a-wonderin' how I'd get the paint off afterwards."

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

President
DR. R. H. JUERS
Wausau

Vice President
RALPH BURDICK
Edgerton

Secretary
MRS. JOHN BAYLESS
Rt. 2, Two Rivers

Treasurer
DR. H. A. KASTEN
315 Washington St., Wausau

DRYING GLADIOLUS CORMS

Unless gladiolus corms are dried quickly and thoroughly they are very apt to rot. In the Florist Review for October 2, J. L. Forsberg, Associate Plant Pathologist at Urbana, Illinois, writes about an experiment conducted to find ways of curing gladiolus bulbs to prevent rot.

Writes Mr. Forsberg: Moisture on the corms and on soil particles attached to them at the time of harvesting, unless removed promptly, creates a condition favorable to the development of rot-producing organisms, botrytis, sclerotina, penicillium, etc."

Gladiolus corms do not dry thoroughly if stacked in the field, which is a common practice. Some drying and curing takes place, but there is still much excess moisture remaining which is brought into the warehouse. Consequently, corm rot is not prevented.

The situation was especially severe in 1950-51. Mr. Forsberg states: "During the winter of 1950-51 when following the first heavy botrytis attack during the growing season, storage losses caused by botrytis rot in this area alone amounted to thousands of dollars."

"A portable drier designed and built to dry forage crops and grain on the farm was moved to a typical bulb grower's farm in the area . . . In the shed on the concrete floor an air-distribution duct was built of ship-lap lumber. The top of the duct was open so that trays of corms could be piled directly above. This duct was 3½ ft. high, 4 ft. wide and 30 ft. long. A fireproofed canvas air duct, 25 feet long, connected the

drier to the air-distribution duct in the shed."

The heat was supplied by an oil burner. A 36" propeller fan connected to a 5 h.p. electric motor was used to force the heated air through the ducts. As the corms were dug in the field they were put in wire bottomed crates which were placed in tiers 7 to 10 high in such a way that the heated air could be forced through the crates.

The drying time was usually 3 to 8 hours depending on outdoor temperatures, and the amount of moisture in the corms. The proper dryness was determined by touch. Several crates of corms were weighed before and after drying and surprisingly some of them lost 20 lbs. per crate during the drying process.

Corms which went through the drying process kept well throughout the winter and very few developed rot. Samples of corms were planted and grew normally except for one group in which the temperature over the corms had reached 110 degrees F.

Reason why some boys don't follow in their father's footsteps is because the father's gait is too fast for them. — **State Center.**

FERTILIZERS FOR GLADIOLUS

In the September issue of the Empire State Gladiolus Society bulletin (N.Y.) an article by Dr. Oscar Eichmann of the Long Island Agric. & Tech. Institute discusses fertilizer problems. The following is a portion of the article relative to fertilizers and diseases.

Dr. Eichmann believes that 60% of gladiolus diseases are soil-borne; that susceptibility to disease of the gladiolus is largely a function of the nitrogen supply, regardless of whether it is organic or inorganic nitrogen; that superphosphate is very helpful for gladiolus, especially at planting time, since it furnishes both calcium and phosphorus which are needed at that time for proper root development. It can be put in the trench at planting time and raked over lightly without danger of any burning of roots and bulbs. The calcium and phosphorus, in addition to the food that is naturally stored in the soil and the bulb takes care of the plant until the time that the flower stalk forms in the sheath. Nitrogen may then be used **lightly** to stretch the flower head and stem, and potassium also at the period of longest sunlight for the development of good bulbs and seeds.

Dr. Eichmann stressed more than anything else the harmful effects of too much nitrogen, including our old favorite—cow manure—and the dangers incidental to using too much of any fertilizer plus the importance of supplying the proper kind of fertilizer at the time the particular kind is needed in the growth-cycle of the plant.

A bee's sting is 1/32 of an inch long. The other two feet are imagination.

The Wisconsin Gladiolus Society Holds

An Interesting Annual Meeting

Eleven members of the Board of Directors were present at the meeting at Milwaukee on November 2. President Walter Kurtz was reported as being very ill. The Board voted to send a message of best wishes and hopes for a speedy recovery. The Board voted to add the names of Miles Armstrong, Leland Shaw and Archie Spatz to the N.A.G.C. symposium list, which previously included Walter Krueger and Charles Melk.

The question of inspection of gladiolus bulbs was discussed. It was voted to appoint a committee of three to meet with the Wisconsin Department of Agriculture to discuss the question of bulb inspection.

The Treasurer's report indicated total receipts of $1,186.53 and expenses of $654.54, leaving a balance of $531.99. The balance in 1951 was $604.07. State Gladiolus Show expenses at the State Fair were $37.75.

The Society again affiliated with the N.E.G.S. and the N.A.G.C.

Change In Election of Directors Considered

The Board of Directors recommended consideration of a change in the Constitution which reads as follows:

"The Board of Directors shall consist of 2 members to be elected annually by each affiliated chapter of the Wisconsin Gladiolus Society, and 6 members at large to be elected at the annual meeting of the Society. Each member at large shall be elected for a period of 2 years, three to be elected each year.

"An affiliated Chapter shall have at least 10 or more members of the State Society.

"A member at large shall not directly succeed himself."

At the annual business meeting of the Society the above amendment was considered. A motion was passed to delay voting on it until the spring meeting.

Officers Elected

New Directors elected were: John Bayless, Two Rivers; Ralph Burdick, Edgerton; Hugo Krubsack, Peshtigo; Charles Melk, Milwaukee; G. H. Thompson, Manitowoc.

The following officers were elected by the Board of Directors: Dr. R. H. Juers, Wausau, President; Ralph Burdick, Edgerton, Vice President; Mrs. John Bayless, Two Rivers, Secretary; Dr. H. A. Kasten, Wausau, Treasurer.

Spring Meeting

The spring meeting will be held at the Retlaw Hotel, Fond du Lac, on the first Sunday in April. A bulb auction will be held at that time.

On the committee for the bulb auction the following were appointed: Leland Shaw, Archie Spatz and Charles Melk.

Dr. L. G. Holm of the Department of Horticulture, U. W., talked on chemical weed control in gladiolus. Extensive experiments on weed control were carried on at the University the past 2 years entailing a great deal of work.

Chemicals used were 2,4D, TCA, DiNitro, Crag Herb. 1, TCA with PCP and Endothal. All were applied as pre-emergence sprays—applied after the bulbs were up. The rows were not cultivated.

There was no ill effect from any of these chemicals on the number of flowers or production of bulbs or cormels on heavy soils. Some other chemicals were tested. A full report on the 1953 tests will be published in a spring issue of Wisconsin Horticulture as soon as records are available. Chemicals are not effective if the soil is dry when applied, and until rain comes.

Gladiolus Diseases

Mr. H .E. Halliday talked on Gladiolus diseases. Again, more details on disease control will be published in spring issues in articles by Mr. Halliday.

He recommends that bulbs be **cleaned when they snap off** or clean easily. This time differs with varieties.

Botrytis, which was serious in 1951 due to the wet season was not bad this year. There is no chemical which will kill the diseases of a gladiolus bulb which won't kill the bulb. If the bulbs are covered with fungicides in storage they will not pick up diseases from other bulbs. Curing bulbs properly is very important. Cure them **rapidly** and thoroughly. Hold bulbs out of storage for awhile; let diseased bulbs develop the disease so they can be detected and removed and not infect others.

Use a three year rotation, Mr. Halliday recommended. Don't fill the soil full of raw organic matter such as plowing under soy beans because experience has shown it increases the danger of disease injury. Diseases will not develop in a loose, well aerated soil. There is hope that a soil conditioner like Krillium may be developed cheap enough to use, because they are of benefit.

Ferbam is excellent for control of diseases but never spray when flowers show color; there is danger of burning the tips. DDT is good for insect control. Chlordane and methoxychlor are good; the latter the safest for the operator. Parathion is an excellent insecticide but be very careful when using it. Chlordane, 10 lbs. per acre, is the control for wireworm and white grubs.

Virus Diseases

Control insects and "rogue" or pull out in affected plants; that is about all that can be done for control of virus diseases.

Don't save bulblets off of **old bulbs** because they may be diseased. Use bulblets only from **young bulbs.**

Varieties

Mr. Ralph Burdick of Edgerton gave a very good paper on a number of new varieties which we will publish in an early issue.

We often think we could move mountains if someone would get the hills out of the way. — **Blair Press.**

AFRICAN VIOLETS ALWAYS IN BLOOM

African violets can bloom almost all year 'round, if they have the right conditions for best growth.

First, the African violets must have the right amount of light. A north or east window is best in summer, however in winter they can stand a south or west window. If the leaves become pale, the plant compact, and the flowers bloom for only a short time, then they are receiving too much light. If the leaves become large with long leaf stems and with little or no flowers then there is too little light.

Watch the room temperature — African violets need a constant temperature of 70 to 75° and not less than 65° F. It might be wise to move the plants from a cool window to a warm place on cold nights.

Humidity is important — the plants may thrive better in the kitchen than other rooms of the house because humidity is higher there. Pans of water on the radiators or heaters will help. Watering is important. Never let the plants dry out. Watering from below is safest for the amateur. Usually it is well to water once each day; at least examine the plants that often. Keep them slightly moist at all times.

African violets prefer a loose soil, one containing about 2 parts garden soil, 1 part of leaf mold or peat and 1 part of sand. Fertilizing with one of the soluble fertilizers, following directions on the package, is satisfactory.

Mulches should not be used on poorly drained garden soil. Do not apply them until the ground is warm, and water it well before mulching. Mulches are most effective during hot weather when they check evaporation of soil moisture and keep soil temperatures as much as 10 degrees cooler.

Many an argument is sound—just sound, and nothing else.

The Advent Wreath

By Mrs. Wm. Curtiss, Plymouth Garden Club

A custom that dates back to early times, that has wide observance in countries of Europe, and is receiving wider recognition each year in the United States is one which precedes the observance of Christmas. In many homes today the tradition of the Advent wreath is taking root.

This wreath is easily made, consisting of evergreens, candles and purple ribbon. Evergreen is attached to a wooden or wire hoop. Four bows or bands of purple ribbon are used between the candles.

Every part has a symbolic meaning. The circle represents the eternity of God and the unceasing flow of time. The evergreen reminds us of the everlasting life the Savior is to bring. The candles divide it into time which we can measure and count—four of them for the four thousand years of waiting for the arrival of the Sun Justice, the Savior, remembered on the four Sundays of Advent as we prepare for Christmas, the birthday of Christ. The candles themselves symbolize Christ — the wick, the soul of Christ; the tallow, the body of Christ, — the flame, Christ, the light of the world. The purple ribbons are the color of Advent during which we think of our sins and the need of redemption.

The lighting of the candles begins on the first Sunday of Advent. A prayer is given after which the youngest child lights one candle which burns throughout the evening meal. During the second week the eldest child lights two candles. The mother during the third week lights three candles. The father, the fourth week lights all four candles and after the Christmas eve dinner on December 24, the candles are extinguished and the wreath replaced with a manger scene.

Garden Club News

HIGHLIGHTS OF OUR ANNUAL MEETING

Further Report of Garden Club of Wisconsin Convention At Oshkosh By Martha Getzlaff Koch, Wauwatosa

Appropriately so, flowers were much in evidence at the third annual Garden Clubs convention. Looking like a huge bouquet on the speakers table were several beautiful pink fiat geranium plants besides those at each end. There also were flowers on all other dining tables plus a miniature sprinkling can filled with natural flowers in season for everyone.

During the lunch several vocal selections including "My God & I" were given by a local high school teacher.

The year-book committee consisted of Mrs. R. H. Sewell, Mrs. John W. Dooley, and Mrs. S. Swenson who agreed that the Antigo Garden Club year book had everything.

Business Meeting

A short meeting was held at which Mr. H. J. Rahmlow spoke about modernizing and glamorizing future garden club exhibits. Plans for a summer meeting and the next convention city were also given attention.

Mrs. Glen Fisher, Oshkosh, had an excellent showing of new color combinations in African Violets. She told of her success with fluorescent lighting and the proper soil, moisture, and temperature. Her soil is of equal parts of sand, soil, and compost. For best results she uses warm rain water.

For the garden hobbyist with a bend toward electricity, growing plants in basement with fluorescent lighting can prove interesting and successful. Mr. Albert Weiner showed his bench with 3 tube unit—each 40-Watts—time switch (thermostatic control) cables and the like. A small greenhouse is expensive and the Weiners have successfully proved they can grow early spring plants

and others in their basement fluorescent garden. See page 13 of Sept. Wis. Horticulture for details by Mr. Weiner.

Conservation

Mr. Frank King of the Wisconsin Conservation Department, Oshkosh division, gave an illustrated talk stressing habitat development. Plants and animals work together for good and farmers can benefit much if they seek help from, the department. For example, if water running down hill has formed a gully, it is time for cross-planting. This will save top soil and also hold back water.

Crops, trees and bushes attract birds, hold moisture, and add beauty. Trees such as Asiatic rose, dogwood, mountain ash, winterberry, bittersweet, thornapple, and June berry also attract birds and are particularly utilitarian while making beautiful "living fences". They attract pheasants, too, and hold water. The high bush cranberry serves as an emergency ration for birds.

Mr. King showed pictures of marsh areas which could be used to advantage for muskrat farming. Road side spraying and control of stream pollution were also mentioned.

Geraniums

Mr. Wood, from Wood Greenhouse, Oshkosh, proved a very interesting speaker while handling some of the geraniums he grew. The coral colored geranium, called pink fiat, is the most profuse bloomer. As to popular demand, white is gaining prominance. In order to have geraniums blooming Memorial day they should be cut in August and planted immediately. Cut just below leaf joint leaving 5 or 6 leaves. Plant in coarse sand. In November plant in 3 or 4 inch pots. By February they are ready for the first cutting.

It was purely by accident that it was found geraniums had to be pinched. One year the cutworm went through their greenhouse and nipped the tops off many of their plants. However, those nipped flourished and since has become a **must.** To force a bud, geranium should be on dry side.

Adventure In Flower Arrangement

Mrs. Victor Schmitt took the audience on an adventure in autumn arranging, as her topic suggested, when she put together the most interesting artistic creations right before our eyes.

Her media were dried materials found in her garden or along the highways. She says you can become so proficient that you can carry on a telephone conversation while criticizing your own arrangement and also give the right answer.

She is a teacher of interior decoration and also a mother, thereby

knowing full well that each day or week must be evaluated and planned. By the same token does she handle her arrangements in order to achieve the desired results.

First, let us say "there is no bad taste, only lack of good taste". Then, in going about our business we must realize there are certain principles of art which must be followed. For instance, if using dried material stick to that type of media. Then consider material, container, and background as a whole.

Mrs. Schmitt referred back to grade school days when drawing straight lines which made stick figures and then dressing them up was learned. The same idea is used in her art. For example, she took a low glass dish, placed several branches of tamarack of proper lengths in a pin holder and filled in with bittersweet.

By being very practical she used a green fiesta platter, branches of evergreen and some purple and orchid straw flowers for another eye-catcher.

Are there any children in the home, one might ask? Then a simple arrangement of fan-shaped corn as background with a plump china pig nestled joyously in front of it, on a brown tray, would bring good cheer on any day.

Then, one can go dramatic by using extreme contrast. One way of doing this is by combining equal parts of flour and salt plus powdered paint. Take any one of the dried materials such as dock, mullen, sweet rocket, okra, or yarrow and shake end in bag holding flour and salt. The result will be white. Then by adding preferred color of powered paint, an extreme contrast can be obtained. Again, keep material, container, and background in mind so as to create a harmonious whole.

"He who plants a garden has a future;
He who has a future is alive."

The person who never takes sides in political arguments is apt to keep out of trouble—but think of the fun he misses.—**Oregon Observer.**

"It isn't the things in the Bible I don't understand that worry me; it's the things I do understand."—**Mark Twain.**

Holiday Flower Show

By The Garden Club of Wisconsin
Milwaukee, December 1-6

A sensational holiday show is being planned by the Garden Club of Wisconsin to be held at the T. A. Chapman Co. store, 407 East Wisconsin Ave., Milwaukee, from December 1 through December 6.

The fact that Mrs. Chester Thomas is general Chairman of the show assures its success as she has had years of successful experience. She will be assisted by an experienced staff of committee members.

All members of the Garden Club of Wisconsin and garden clubs affiliated with the Wisconsin State Horitcultural Society are invited to exhibit. Premium schedules may be obtained from Mrs. Chester Thomas, 7481 North Beach Dr. Milwaukee 11, Wis.

A glance at the premium schedule is enough to make any garden club member determined to visit this outstanding show. Here are some of the classes.

HOLIDAY WELCOME: 1. Wreaths; 2. Outside Door Decorations; 3. Decorations for Walls, Inside Doors — Garlands.

SYMBOLS OF CHRISTMAS: Artistic Arrangements in 4 Classes.

CHRISTMAS THROUGH THE AGES: Christmas Comes to us From Many Lands; Christmas Colors, 1952.

THE CHRISTMAS TOUCH: Christmas Card Pictures — Layton Art School.

Other classes are: Gleam, Glitter and Greenery, arrangement to be placed on a pillar. Coffee or Cocktail Table Arrangement. Holiday Fresh Flower Arrangement. Holiday Corsages. Christmas Mobile or Hanging Decorations. Holiday Arrangement or Composition, displaying ingenious artistic use of kitchenware or household articles. Holiday Favors. It's A Gift. Small Decorative Dining Table or Buffet Trees.

Holiday Hospitality. Christmas At Our House, arrangements to be placed in room settings. Large Christmas Trees—a. Period or Provincial; b. Contemporary Glamour; c. Bird's Christmas Tree; d. Our Choice.

Committees

The Executive Board of the Milwaukee Region: President Mrs. Severin C. Swenson; Vice-Pres. Mrs. C. F. Bierman; Sec. Mrs. John W. Dooley; Treas. Mrs. Wallace Freund.

Committees: Awards, Mrs. John Dooley; **Entries,** Mrs. Edgar Bergmann; **Hospitality,** Mrs. C. F. Bierman; **Judges,** Mrs. Roy Sewell; **Printing,** T. A. Chapman Co.; **Registration,** Mrs. Lester Sweeney, Ch'm., Mrs. Robert Stephenson, Mrs. John Kornacki; Mrs. Dewey Gill and Mrs. Otto Burgermeister; **Schedule of Classes,** Mrs. L. G. Stewart, Ch'm., Mrs. Val Suttinger, and Mrs. E. A. St. Clair; **Staging,** Mrs. Victor Schmitt, Ch'm., Mrs. Norbert Gresbach and Mrs. Peter Colosimo.

WAUWATOSA GARDEN CLUB NEWS

The Wauwatosa Garden Club held their annual fall flower show on Sept. 16. It proved to be one of the most unusual flower shows in years, There were fifty exhibits of flowers, vegetables, fruit etc.

In the flower array, zinnias took the lead; however, there were tuberous begonias, roses, heliopsis greenheart, snapdragons, asters and others.

Appropriately enough was a dish of marigold surrounded with ageratum. Among the smallest displays was a gold-edged glass vase holding dark pink carnations, and a miniature with stivia and gay verbenas.

One member proudly displayed prize tomatoes grown in the tulip bed. There also were plums, apples, and pears, the latter of which the Geo. Kruells brought in a good supply.

Something "different" was the specimen called Centaurea Macrocephala displayed by Mrs. Bertha Haasch. Another member displayed a bean pot holding a dried arrangement of hydrangea, cattails, and plants found in northern Wisconsin this summer.

For added pleasure Mr. Anthony Wuchterl and Mr. Wm. Peterman showed movies and slides of vacation jaunts, home gardens and landscaping.

—By Martha Getzlaff Koch.

WEEKLY FLOWER SHOW IN OSHKOSH

The Paine Art Center and Arboretum of Oshkosh held a weekly flower show during August and September. Arrangements were brought in on Friday, judged at noon and then left over Sunday, thereby increasing the number of visitors to the exhibit. One weekend, over 500 people attended and viewed the show as well as the grounds of the Arboretum. A number of members of the Oshkosh Horticultural Society have helped in getting people interested and exhibiting. Colored pictures are taken of the First and Second prize winners each week and will be shown later when the premiums are awarded to the winners.

Members of the Oshkosh Horticultural Society who have won honors are: Professor R. A. Norem, Mr. Ward Schroeder, Miss Bessie Pease, Miss Agnes Phillipson, Miss Anna Phillipson, Mrs. E. W. Burmeister, Mrs. M. R. Cook, Mrs. John Rasmussen, Miss Anna Christensen, Mrs. Fred Fischer, and Mrs. H. W. Nelson. Miss Sarah Morrissey acted as judge each week and will present a series of five lectures on flower arrangement.

The Paine Art Center seems very much pleased with the success of the program and we hope they will continue it next year. **By Miss Agnes Phillipson, Oshkosh.**

REGION ONE CHANGES NAME

Region One, Garden Club of Wisconsin will henceforth be known as the **Blackhawk Region.** This was decided at the Annual Meeting held at Jefferson on October 20. The famous Indian Chief, Blackhawk is an important figure in the past history of Jefferson County.

The Annual Meeting of the Region was well attended and the pot luck supper for which the clubs are famous was one of the high lights of the evening. The program was excellent and everyone left with a feeling of good will and friendship and with the thought that they had learned a great deal.

Probably nothing in the world arouses more false hopes than one good cantaloupe.

CENTRAL WISCONSIN REGION HAS EXCELLENT ANNUAL MEETING

The Central Wisconsin Region held one of their very enjoyable and instructive annual meetings at Ogdensburg on October 22. Excellent talks were given by Mr. Charles Braman, Waupaca, on berry growing; Mrs. Vincent Grasek, Amherst, on perennial phlox; Mr. Frank Long, Clintonville, on peonies; Mrs. Marvin Erickson, Iola, on gladiolus growing; Mrs. Steve McCaslin, Ogdensburg, on shrubs on the home grounds; Mrs. N. Rosholt, Rosholt, on chrysanthemums; Miss Josephine Boie, Scandinavia, on houseplants; Mrs. E. E. Brown, Waupaca, on trees. These were all 5 to 10 minute reports and contained a great deal of valuable information. Mr. H. J. Rahmlow, Secretary of the Horticultural Society, spoke on timely garden subjects and showed slides on new annuals and Mrs. Garrison Lincoln, Madison, gave a most excellent demonstration on arranging dried material for use at various occasions.

New Officers Elected

Officers elected for the coming year are: President, Mrs. Charles Braman, Waupaca; Vice-President, Mrs. Glen Lockery, Rosholt; Secretary, Mrs. Curtis Hanson, Scandinavia; Treasurer, Mrs. F. C. Wipf, Iola; and Member of the State Advisory Board, Mrs. George Willett, Iola.

PLYMOUTH GARDEN CLUB STAGES BEAUTIFUL FLOWER SHOW

With the ground covered with three inches of snow, the Plymouth Garden Club nevertheless staged the most beautiful flower show on October 17-19. There were 194 entries of arrangements of many types. Since most garden flowers have frozen by the unusually early frosts we encountered this year, dried materials were largely used and many of the arrangements were outstanding.

Judging was done by the Merit System and comments were written on each of the award cards. While preparing and writing comments entailed a great deal of work, it nevertheless was very much worth while for a 3 day show as the comments were read by hundreds of exhibitors and visitors and the committee felt that it was a very educational feature.

On the committee in charge were Mrs. A. C. Erbstoezer, Chm.; Mrs. Wm. Curtiss, Co-Chm.; Mrs. Wm. Klemme; Mrs. Adrian De Smith and Mr. Henry Winn. The largest number of arrangements were made by the oldest member—Mrs. Henry Gritt, who is 78 years old.

YEARBOOK CONTEST

The 1952 yearbook contest of the Garden Club of Wisconsin and the Wisconsin State Horticultural Society was so successful that it will be repeated in 1953.

We wish to thank Mrs. R. H. Sewell, Chairman, and her committee of judges for the services they rendered in judging all the books entered and in displaying them at the annual meeting in Oshkosh on Sept. 19. Other committee members were: Mrs. John W. Dooley, West Allis and Mrs. Severin C. Swenson, West Allis.

The committee has prepared the following score card for judging yearbooks in 1953. The chairman of next year's committee will be announced after the first of the year and books may then be sent to her when ready.

SCORE CARD

1. Standard Club. 60 points

a. Systematic course of study	15
b. A club project	15
c. A flower show a year	10
d. A garden pilgrimage or visit	10
e. An authoritative speaker	10
	60

2. Contents. 25 points

a. Membership list	5
b. Complete program, (meetings, visits, speaker, projects, accomplishments)	15
c. Supplementary list of material of value to members in gardening	5
	25

3. Form of year books. 15 points

a. Neatness and beauty of design	10
b. Originality in relation to club's character	5
	15
Total	100

A Page Of Garden Questions

Answers by G. E. Beck, Dept. of Horticulture, U. W.

Q. Is it necessary to cover my chrysanthemum for winter? How should it be done?

A. If you want chrysanthemums to last over winter, it will be helpful to give them some cover. My suggestion for covering chrysanthemums is to mound them over with about 8 inches of soil after the tops have been completely killed by frost. Then later rough litter or evergreen branches can be put over this mounded soil. I think it would also be helpful to cut back the tops of the plants to within about 10 or 12 inches of the ground level. This is especially important on tall growing varieties to help prevent the root system being loosened up by the shaking of the top by wind, etc. Probably a more successful or sure way of keeping your chrysanthemum plants over winter would be to dig them with a good soil ball and keep them in a protected location such as a cold frame or the clumps could be put in large containers and placed in a cold root cellar, basement or garage. Be careful not to over water them, however, they should be given enough water to prevent the stems and root system from drying out.

Q. Are there some really hardy varieties of chrysanthemum which will not winterkill in Wisconsin?

A. Since our trials at the University and the Spooner Station have only been started this year we do not have any results yet as regards the relative hardiness of various varieties. We, of course, know that many of the varieties are rather subject to winter killing, and, it is for this reason that we speak of this type of chrysanthemum as garden varieties rather than hardy varieties. There are several varieties that do come through Wisconsin winters quite well. Dorothy Howard is a variety that has such a reputation.

Q. The lower leaves on my chrysanthemum plants dried up before the plants bloomed. What is the cause and is there a cure?

A. The most common cause of the drying up of the lower leaves on the chrysanthemum plant is the black leaf spot disease known as Septoria. This disease can be quite prevalent on spot varieties whereas others seem to have a good degree of resistance. This disease can be readily controlled by spraying the plants every week or 10 days with a ferbam solution. Common brand names of ferbam are Fermate, Carbam Black, Ferradow and many others.

Q. How shall I handle an azalea plant so it will bloom? It was in the garden this summer and I brought it in before frost.

A. I would suggest keeping your azalea in a location where it will get a good supply of light. From now on until middle spring it will take full sunlight and if the plant gets a good light supply and cool temperatures it should flower and be at its best in the home.

Q. Will Philadendron plants do well if hung on a wall away from windows?

A. Yes, I have seen Philadendron plants do very well when they have been hung on walls away from windows. There are two qualifications. The first is that there has been a good supply of artificial light and the second is that the rooms were very light and even though the plants were not close to windows there were enough large windows in the rooms so that there was a good light.

Q. Is it safe to plant Rubrum or Auratum lilies next to Tiger lilies in the garden? How many years can we expect these varieties to live?

A. Tiger lilies have been dubbed "typhoid Mary". The reason for this is that these hardy native lilies are common carriers of virus disease and although these lilies are often infected with virus the symptoms are marked. That is, the Tiger lily does not appear to be infected with the disease. When planting Tiger lily close to Rubrum or Auratum lilies the virus can be transmitted from the Tiger lily either by insect vectors or by root grafts or other means to the Rubrum or Auratum lilies which are very susceptible to the virus disease. When these two lilies are infected with the virus, it will be a relatively short time before they take on yellowing or mosaic symptoms, reduced vigor and within a short period of time become almost worthless. Drainage, nutrition and insect control and other factors will all effect the length of time Rubrum and Auratum lilies survive in our gardens. I have seen these varieties in localities where they were planted six years ago and are still very satisfactory.

Q. In October we heard the Christmas Rose advertised over the radio. It was said to bloom all winter out of doors. Is that true for Wisconsin?

A. During the past year we have heard many radio advertisements about various ornamentals. Many of these claims are utterly fantastic, and I have been very disappointed to hear from companies which we have believed were rather reliable using this type of promotion. Although the Christmas Rose may be brought into flower by a few mild days in December, it will not under Wisconsin conditions such as I have ever experienced in my lifetime bloom all winter when planted out of doors.

Wisconsin Beekeeping

Official organ of the Wisconsin State Beekeepers Association

NOVEMBER IN THE APIARY

November is the month when all is quiet in the apiary. The bees have been put into condition for winter, the queen is resting, the bees are clustered and take only an occasional flight when the weather is pleasant.

There is still time, of course, to take care of such minor details as inspection to see that mice cannot enter the hive; perhaps to tip up the bottom of the brood chamber to see if the cluster, on a cool day, is large or small. If very small, due to a failing queen or late swarming, it will be well to do something about it. In outdoor wintering clusters that do not cover more than 4 or 5 combs will probably not survive. We can save considerable honey by uniting them with stronger colonies amply supplied with honey and pollen, using the stores saved for package bees next spring.

A little poison oats bait placed in mouse runways, especially under a board or bottom board, will help solve the mouse problem. If you cannot get poisoned bait, perhaps the little spring trap available at any dime store will help out. Bait it and place it in a tile or long tin can where other animals can't get at it.

A good windbreak probably does as much or more good than covering the hive. **Be careful about drifting** bees as it is a serious problem. Bees remember their old location better than we think. It is not advisable to move bees only a short distance in the fall, such as placing them close together for mass packing. An obstacle in the line of flight from a colony may lead those bees to enter a different hive than their own. If bees have been standing 3 or more feet apart in a row and are then moved close together, they may not return

to their own hive when they take a flight. Drifting may result — some colonies receiving too many bees and others being weakened to a point where they will not survive the winter.

NEWS ABOUT BEEKEEPING

A California beekeeper reports in Gleanings in Bee Culture that he has been using white nylon stockings — the kind nurses wear, for straining honey. He fastened a stocking to the end of the pipe from the honey pump and lets it hang down into the honey tank. A stocking often expands as much as 2 ft. in diameter when under pressure. However, don't go looking around the house for a pair of stockings — buy a new pair.

SWARMING was reported by bee inspectors as occurring in many places in the state during September. A slow but steady honey flow from goldenrod and other fall flowers filled brood chambers to the point where there was no room left for brood rearing. This congested condition led the colonies to swarm. This did not occur where 3 brood chambers are being used. Swarming may have reduced the population of colonies to the point where they will not survive the winter. There is still time to check such colonies to see how large the winter cluster is and unite weak colonies onto strong ones, thereby saving the honey the weak one might use, as it probably would die anyhow.

INCREASING THE PRODUCTION OF NECTOR IN ALFALFA AND CLOVER may be a solution to the problem of declining seed yields because bees will pollenize such clovers better. This statement was made by an agronomist at the 6th International Grassland Congress held in Pennsylvania. It was stated that a close relationship exists between the **amount and concentration of nectar and bee visits. Also between bee visitation and seed yield.**

It is encouraging to note that agronomists are now working on this problem. We can truthfully say that during the 30 or more years in which we have attended meetings at all kinds of agricultural groups, until recently the only meetings in which the value of bees for pollination was seriously discussed was at Beekeeper's Meetings. It is high time the seed growers also talked about it. If, now, clovers and alfalfa types can be produced that will yield more nectar, thus attracting more bees, it will be a boon to not only the seed growers but the beekeeper as well.

THE SOLUTION TO THE DISEASE CONTROL PROBLEM IS NEAR

Articles in the Bee World (England) giving results of research with the use of new materials to control E.F.B., A.F.B., Nosema and sac brood indicates that in the near future we will have effective controls. This will solve some of the problems which have discouraged beekeepers and make beekeeping more profitable.

The auto has at least one advantage over the airplane. It doesn't need any special landing field—any old ditch will do.—**De Pere Journal-Democrat.**

The honeymoon is over when bushels of kisses are reduced to little pecks.—**Menomonee Falls News.**

REPORTS FROM BEEKEEPERS

From Shawano, by William Aderman. The honey crop was good in this section, about 95% of norma . A.F.B. is on the decrease in northeastern Wisconsin. Colonies are going into winter strong and heavy this fall where they took off the honey the first part of September. Bees g a good fall flow from asters and denrod this fall, so we had c crop around here. Honey is moving rather slowly.

BEEKEEPING IN THE FOX RIVER VALLEY

By Herbert J. Tepper

The first part of the honey flow here was not as good as last year because of too frequent rains. The fall flow was much better than last year and probably as good as can be expected. The total crop was equal to, or a little less than last year.

There was a lot of late swarming this year because of rains during the early part of the flow and the subsequent heavy late flow. Giving more room would have helped, but would not have been sufficient in all cases to control the swarming.

The main causes of the persistence of A. F. B. are: 1. the re-use of old contaminated equipment brought out of storage. 2. Lack of systematic control procedures by the beekeepers. That is, by the careful accounting of supers, and the immediate destruction of diseased colonies when found. 3. The careless use of sulpha, and 4. diseased honey being in the vicinity often in discarded containers.

We did not notice as much E. F. B. as last year.

Commercial beekeepers are a little more satisfied this year due to a firmer market. Farmers having more honey than enough for their own use have difficulty getting rid of it and are thus discouraged. Very few young people are going into beekeeping because of the lack of quick money in it compared with industrial jobs.

HONEY WANTED

State amount you have at your place, what flavor it is and prices in 60's. Will pick up and pay cash. M. H. Lyons, Logansville, Wis.

BEEKEEPING IN THE MILWAUKEE AREA

By Vernon G. Howard, Milwaukee

The honey crop was fairly good in this section and much more has been left on hives for winter than usual. We are leaving more honey than we used to do because we have had some starvation in past seasons. Early extracted honey was very white, but the later honey runs to golden. We have run across a few yards that have showed lack of attention and a poor crop.

A.F.B. is definitely on the increase and part of the blame can be laid to insufficient inspection. Also partly to early warm spring weather and bees flying from the hives and no nectar for them to gather, causing robbing.

Quite a few new beekeepers started this season and some old ones quit or became disinterested in their bees.

One thing that is killing the industry is the sale of golden honey (which in many cases has a good flavor) for such low prices that the chain stores are able to sell it very cheaply. The word "golden" sounds nice, and perhaps our best honey should be marked "golden", and the darker should be graded 'amber" or "dark".

Most colonies are going into winter very strong and heavy. However, we should check closely as some strong ones are queenless.

Our Legislative Committee agreed to present to the Legislature and the Director of Agriculture a request for a larger appropriation for inspection work.

FROM WESTERN WISCONSIN

From Newton Boggs, Viroqua

Good beekeepers averaged about 100 pounds of honey per colony this season. We had one of the best fall flows we have ever had.

There was very little swarming during the summer honey flow from clover, but in September there were many swarms in the area. We have not seen any E.F.B. in our county.

Many beekeepers are somewhat discouraged and are just holding on. It is difficult to know just what can be done to help the industry. Colonies are going into winter strong with plenty of bees, honey and pollen.

FROM NORTHWESTERN WISCONSIN

By Robert Knutson, Ladysmith

The early honey crop was about 50% of normal, but the fall flow was the best in many years. We had very little late swarming here.

A.F.B. is about the same as in years past, but E.F.B. appeared somewhat more than usual in many yards.

Beekeeping seems to be static. No new beginners here and old ones are just carrying on. To help the industry, everyone should join the American Beekeeping Federation.

Bees are going into winter in excellent condition in every respect.

Our own crop was one of the largest we have ever had.

1952 APIARY INSPECTION REPORT

County	Active Apiaries Inspected	Apiaries Inspected	Colonies AFB
Adams	3	28	-
Ashland	6	57	6
Barron	49	403	9
Bayfield	-	-	-
Brown	18	376	58
Buffalo	27	293	9
Burnett	1	23	-
Calumet	78	1,123	12
Chippewa	92	1,208	10
Clark	249	1,903	1
Columbia	62	408	52
Crawford	60	843	8
Dane	80	431	72
Dodge	92	634	46
Door	89	564	16
Douglas	80	454	22
Dunn	12	435	22
Eau Claire	73	691	3
Fond du Lac	30	252	8
Grant	55	370	65
Green	26	451	22
Green Lake	73	342	2
Iowa	11	139	37
Jackson	91	629	2

(To be continued in January)

HONEY WANTED

WANTED Wisconsin honey in all grades. Submit samples. Highest prices paid. Schultz Honey Farms, Ripon, Wis.

The Beekeepers Annual Convention

A good program marked the annual convention of the Wisconsin State Beekeepers Association at Green Bay, October 28-29. Credit is due Mr. and Mrs. Clarence Pfluger, De Pere, and committees for arranging many of the details.

New officers were elected: William Judd, Stoughton, Pres.; Vern Howard, Milwaukee, Vice Pres.; Mrs. Louise Brueggeman,, Menomonee Falls, Rec. Sec., Treas.; Allan Vosburg, Ft. Atkinson, Cor. Sec.

The affiliation with the Wisconsin State Horticultural Society by which all beekeepers in the Association are affiliate members of the Society and entitled to receive Wisconsin Horticulture, was not voted on and remains in effect. The sum of $100.00 was voted to each—the American Honey Institute and the National Beekeepers Federation.

More details on business in the January issue. (Wisconsin Horticulture is not printed in December.)

Finances

The financial statement presented by the Treasurer, Mrs. Louise Brueggeman indicated a balance in the General Fund on October 1, 1951 of $845.41 and a balance this year—on September 30, of $874.17. The number of members reported last year was 437 and this year 363. The Label Fund received an additional $112.37 profit from labels sold, and the balance in the fund is now $943.06, with 88,000 large labels and 62,000 small labels on hand. The Advertising Fund received a boost from one set of signs and recipe books sold together with the State Fair balance so the fund now contains $295.16.

The Program

Mr. John Long opened the program with a discussion of the bee disease situation. He gave a brief history of diseases in the state. A portion of his report is given in this issue. The total number of apiaries inspected was 3,062. A.F.B. was found in 353 yards. Immovable frames were found in 103 yards, and 1,253 former yards were now inactive. A total of 32,941 colonies were inspected of which 1,245 had A.F.B.

Mr. E. L. Chambers was the second speaker. He said John Long and his Department are doing a good job but are handicapped for lack of funds in keeping bee diseases at a minimum. Mr. Chambers discussed the danger of poisoning bees with chemical sprays and gave 10 precautions which growers should use when applying poisonous sprays. Caution not to spray when blossoms are open was stressed. The use of sprays is often necessary to save plants from insect injury—or the bees won't have any blossoms to work on. He also pointed out that there have been reports of bee losses from poisoning that turned out to be from other causes. Publicity and education on the proper methods of spraying must be continued. He said chemists have never found any poisons in honey—the bees are killed first or only the pollen is affected.

The Crop Report

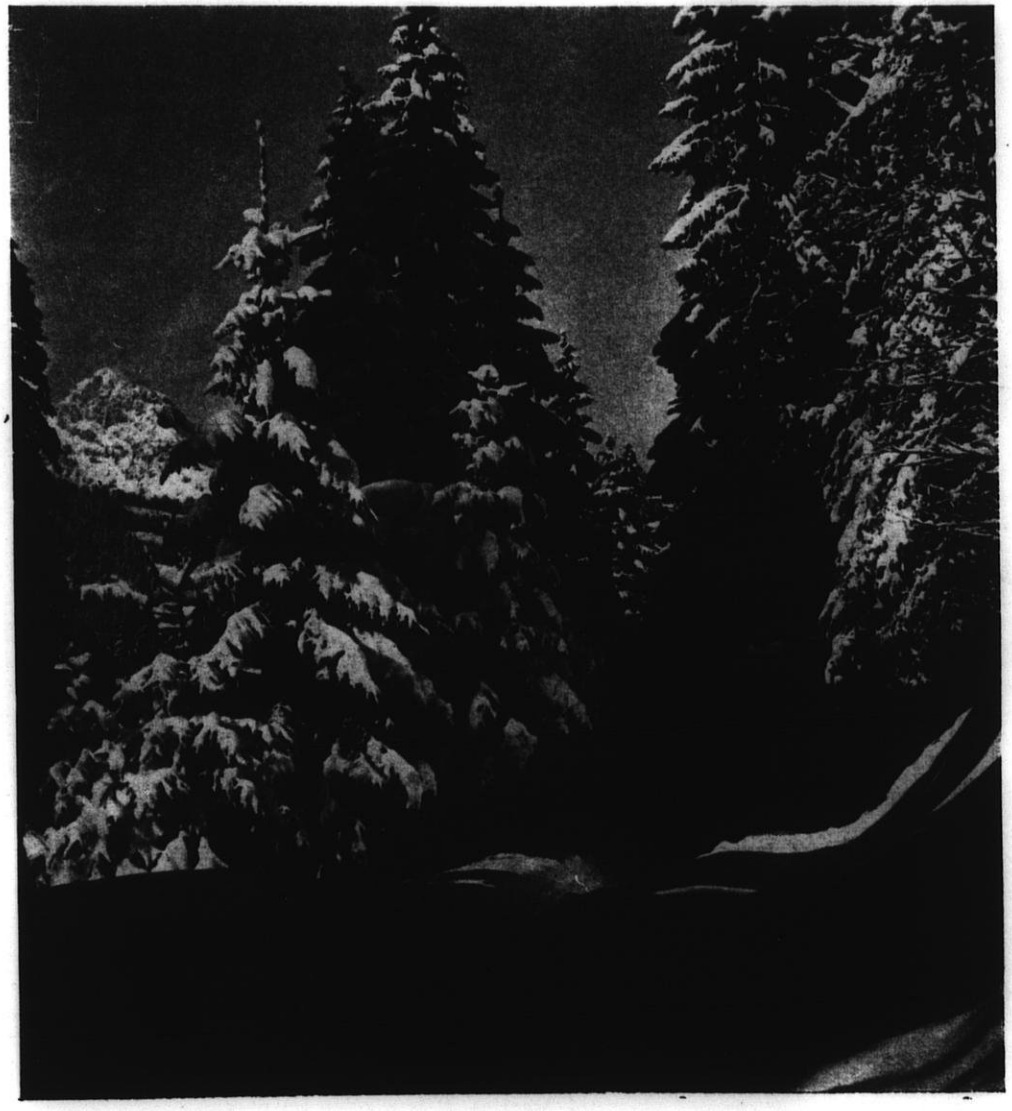
The session on the Honey Crop and present conditions of bees indicated that the fall crop was unusually good throughout the state. Bees are in excellent condition with the most winter stores in many years. It will be interesting to see if there is less winter loss than usual.

Mr. Newman Lyle of Sheldon, Iowa gave a comprehensive talk on the work of an extension specialist. Work on pollination and with 4-H Clubs and Future Farmers would be an important part of the program. Such a specialist would work out of the Agriculture Extension Department of the University and through the County Agents.

Dr. Floyd Moeller talked on Nosema disease and its effect on colony population. In the winter colony the most of the bees infected with Nosema will be found at the top of the cluster where the temperature is 80 degrees. Dr. Moeller stated that all packages and queen attendants received from the south are examined for Nosema infection. All have shown some bees infected, some a high percentage and some low. The disease is world wide and seems to be present everywhere. Losses to the producer depend upon the percentage of infected bees. Tests with Fumagillin proved that this antibiotic will control Nosema but is as yet expensive to use.

(To be continued)

Wisconsin Horticulture



January, 1953

WISCONSIN HORTICULTURE

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Subscription by membership in the Wisconsin State Horticultural Society. Annual dues are $1.25 per year. Organizations of 10 members or more may affiliate at special rates which will be sent on request.

MORE PANTS IN THE GARDEN

The above is the title of a bulletin issued by the Men's Garden Clubs of America. It is a guide for organizing a Men's Garden Club in your community, containing suggestions for proper procedure, constitution and by-laws, and information on joining the National organization.

Mr. Herbert E. Kahlert of 124 West Diamond Lake Road, Minneapolis 19, Minn. is Secretary of the National organization and materials may be obtained from him.

Mr. Ronald A. Padway, 830 Empire Building, 710 N. Plankinton Ave., Milwaukee, is President of the Men's Garden Club of Milwaukee and help and material may be obtained from him also.

There are men's garden clubs in Superior, Manitowoc and Milwaukee, all doing very well. We sincerely hope that a Men's Garden Club can be organized in every city in Wisconsin.

Our Experience With End Pruning

TRY THIS METHOD ON BIENNIAL BEARING VARIETIES FOR BETTER FRUIT QUALITY

By Marshall Hall, Casco

Doctor R. H. Roberts calls it "End Pruning"—We like to call it "Bob Tail Pruning".

Under the supervision of Dr. Roberts, in 1950 we "end pruned" 2 Wealthy and 2 Golden Delicious trees. He left us with the suggestion that we prune a dozen of each variety.

Frankly, after having "butchered" about 10 trees, we thought we had ruined them, and so stopped.

Nothing happened for several weeks; then we began to notice considerable end growth. The leaves appeared much larger and greener than we had had for several years.

Produce Large Fruit

Thru-out the Summer, the new wood, the foliage and fruit continued to out-grow that of the check trees. In the final count of that season, the Bob Tailed trees produced excellent quality fruit. The percentage of 2½" and larger apples was larger than from the hand thinned check trees. A similar situation prevailed in the Wealthy trees pruned before blossom time. Those trimmed after blossom time did not respond too well.

The Winter of 1950-51 was very severe. In the Early Spring we End Pruned several Red Delicious and a few more wealthies and Goldens. Later, we tried chemical thinning on these trees. On the unpruned trees, we not only thinned them, we cleaned them! The end pruned trees come back with about half a crop.

Later in Summer, heavy Winter injury became apparent and the Golden trees were a sad looking lot. Besides the Winter injury, we had a bountiful crop of case bearers. The Bob Tail pruned trees were not Winter injured and continued their vigorous growth thru out the season.

In the Winter of 1951 and 1952 we end pruned all of the Golden trees, cutting back severely. It is easy to teach a man Bob Tail pruning and a large tree requires 2 to 3 hours work.

The results of "end pruning" on Golden Delicious. Mr. Marshall Hall of Casco, Vice President of the Wisconsin State Horticultural Society is holding a branch which has been end pruned. Vigorous side branches have developed, fruit is large. Leaves are large and darker green than on unpruned trees.

We used about 7 pounds of nitrate per tree and the heavy rainfalls really helped the situation. We were amazed at the new life these dilapidated trees took on!

Chemical thinning proved ineffective, so we hand thinned these trees, leaving one apple per culster. Of course we had plentiful moisture this season, but we contribute our good crop of Golden apples, largely to the End Pruning. Approximately 10% of these apples were 2¾" and larger, 50% were 2½", 30% were 2¼" and only 10% were smaller than 2¼".

Effective For Several Years

Our Wealthy trees continued to respond. We End Pruned two trees again, and similar vigorous growth occurred. However, the other trees performed well too. In our opinion, this type of pruning is effective for 3 or 4 years.

The results with Red Delicious were not calculated. Most of the trees showed good growth and set a fair amount of fruit.

This Winter we plan to Bob Tail all the Red Delicious and Wealthy's which show a heavy bud set. On the rest of the varieties we will cut out the weak wood, open up the centers, and generally thin out the thickest spots.

We now know that we can grow good marketable Wealthy's and Goldens. This knowledge has come from the tedious and painstaking efforts of our good friend, Doctor Roberts. We feel that he has contributed much to the apple industry.

Winners Of Fruit Show

Annual Convention

The following growers won premiums at the Fruit Show held at the Annual Convention of the Wisconsin State Horticultural Society at the Retlaw Hotel, Fond du Lac, November 17-18.

Arthur K. Bassett, Jr., Baraboo: 1st prize on McIntosh, 2nd prize on Golden Delicious, and an award of Good on Macoun.

John Kopp of West Bend received an award of Good on Macoun; 3rd prize on Wealthy.

John McIlquham, Chippewa Falls: Excellent on Macoun and Haralson, 1st on Wealthy and N. W. Greening, and 3rd prizes on Cortland and Red Delicious.

Francis Costello of Fond du Lac: Very Good on Macoun and Secor; 2nd prize on McIntosh.

L. H. Stringer of Milton: Excellent on two entries of Any New Variety Properly Named: Very Good on Macoun; Good on Fireside.

Walter Clemens of Thiensville: Very Good on Haralson and Good on Prairie Spy.

William Dahlke of Pickett: Good on Haralson and Any New Variety.

Leonard Brothers of Fort Atkinson: Excellent on Secor and Fireside.

Waldo Orchards, Arno Meyer: Very Good on Secor.

William Leonard of Fort Atkinson: Very Good on Fireside, Good on Secor.

Henry Mahr of Caledonia: 1st prize on Angou pear, 2nd on Wealthy and Cortland; Good on Fireside.

Earl McGilvra of Baraboo: 1st prize on Snow, 3rd N. W. Greening, and Good on Fireside.

Miss L. T. Zinn, Hartford: Very Good on Prairie Spy and Any New Variety; 3rd prize on Golden Delicious.

Emil Beyer, Malone: 1st prize on Golden Delicious, 2nd on Red Delicious and N. W. Greening, 3rd on Jonathan; Very Good on Prairie Spy.

Mrs. Harry Brunn, Milwaukee: 1st prize on seedling apples; Good on Prairie Spy.

Herbert Hasslinger, Nashota: Excellent and Very Good on Any New Variety; 1st prize on Red Delicious.

Marvin Kosanke, Ripon, 2nd prize on Jonathan; Good on Any New Variety.

Dora Costello, Fond du Lac: 3rd prize on McIntosh.

The Nieman Orchards of Cedarburg: 1st prizes on Cortland and Jonathan.

Albert A. Ten Eyck, Brodhead won 2nd prize on Seedling Apples.

The Honadel Orchards of Milwaukee: won 3rd prize on Seedling Apples.

Winners of Bushel Pack Awards

There were nine entries in the Packed Bushel Baskets of Apples Class and the judges had a most difficult time in picking the winners. About 5 of the bushel baskets were sold at the auction following the banquet and the proceeds, after payment of premiums went to the Wisconsin Apple Institute. The winners were: 1st prize, Henry Mahr, Caledonia; 2nd prize, Pieper's Fruit Farm, Oakfield; 3rd prize, Marshall Hall, Casco; 4th prize, Earl McGilvra, Baraboo. Additional premiums to Hipke Orchards, New Holstein; Marshall Hall, Casco; H. E. Pierce, Edgerton.

William Connell of Sun Ridge Orchards, Menomonie, exhibited a most beautiful bushel basket of his new seedling which we will call the Connell apple. It is from a tree received in a shipment of Fireside apple trees, but is of a bright red color and a very fine quality. It colors up very early and we would say it was far superior to Fireside in these respects.

BEWARE OF ORCHARD MICE

In many sections of Wisconsin there is a heavy mouse population. They come in from the fields—the grain fields, alfalfa fields, etc., in late fall and orchards with a nice covering of grass offer them an ideal winter home.

At our annual convention William Fitzwater of Purdue University, Rodent Control Specialist, urged growers to place poison oats bait or zinc phosphide bait in the runways under each tree to reduce the populations. While this entails some labor, it is nevertheless the cheapest and most effective method so far found.

In Door County, County Agent G. I. Mullendore sent out a special letter to all Door County apple and cherry growers calling attention to heavy mouse injury as early as November 13th.

Poison oats bait and in some cases Zinc-phosphide may be obtained from Door County Fruit Growers Co-op, Sturgeon Bay; Southeastern Supply Company, 227 Cutler Street, Waukesha; and the G. A. Dunn Company, 2138 University Ave., Madison.

U.S. APPLE CROPS OF THE PAST 10 YEARS (USDA).

1943—	87,310,000 bushels
1944—	121,266,000
1945—	66,796,000
1946—	119,410,000
1947—	113,041,000
1948—	88,407,000
1949—	133,702,000
1950—	123,126,000
1951—	110,660,000
1952—	92,696,000

Big reductions from last year came in these states: New York, 17 million last year to 11 million this year; the seven New York and New England states are down 10¼ million bushel; Michigan 9.8 million to 5½ million; Ohio, 4.4 million to 2½ million. Washington's short 1951 crop of 19 million increased to 22.6 million this year.

Wisconsin's Apple Crop Is Better Than Last Year

This is one of the few states in the nation having as large a crop as last year, according to USDA reports. California and Oregon are two others. Last year our crop was estimated at 1,207,000 and this year at 1,238,000 bu.

As we have said a number of times the price of apples is directly reflected by the size of the national crop. A crop of less than 100 million bushels is a short crop and we have a seller's market. A study of national crop conditions with careful consideration of the size of the crop of different varieties in different sections of the nation may enable growers to take advantage of the best months for selling.

A Texan passed away and upon arriving at the gates of his eternal home, remarked, "Gee, I never thought heaven would be so much like Texas."

"Son," said the man at the gate sadly, "This ain't heaven."

—Stockton Herald News

KEEP SCAB OUT WITH DU PONT "FERMATE"

TOUGH ON DISEASE. "Fermate" fungicide gives foliage and fruit of apples and pears sure protection against scab. It also controls cedar-apple rust, black rot, sooty blotch and bitter rot.

EASY ON BLOSSOMS, LEAVES AND FRUIT. "Fermate" is safe to use through the scab season, provides disease control without burning or stunting even tender young growth. Safe in hot weather, too.

BETTER YIELD AND QUALITY. Leaf growth reaches full vigor when protected with "Fermate." Helps make higher yields of larger fruit with better finish.

COMPATIBLE WITH OTHER CHEMICALS. You can use "Fermate" safely with most pest-control products. For exceptional wetting and covering power, use Du Pont Spreader-Sticker in the spray mixture.

IDEAL FOR MANY FRUITS. "Fermate" also controls grape black rot, brown rot of stone fruits, peach scab, cherry leaf spot, cranberry fruit rots and raspberry anthracnose and leaf spot.

***See your dealer now** for Du Pont "Fermate" fungicide and other proved Du Pont pest-control products. Ask him for free booklets, or write to Du Pont, Grasselli Chemicals Department, Wilmington, Delaware.*

DU PONT CHEMICALS FOR THE FARM INCLUDE:

Fungicides: PARZATE® (Liquid and Dry), FERMATE,® ZERLATE,® Copper-A (Fixed Copper), SULFORON® and SULFORON®-X Wettable Sulfurs . . . *Insecticides:* DEENATE® DDT, MARLATE® Methoxychlor, LEXONE® Benzene Hexachloride, KRENITE® Dinitro Spray, EPN 300 Insecticide, Calcium Arsenate, Lead Arsenate . . . *Weed and Brush Killers:* AMMATE,® 2,4-D, TCA and 2,4,5-T . . . *Also:* Du Pont Cotton Dusts, Du Pont Spreader Sticker, PARMONE® Fruit Drop Inhibitor, and many others. ®REG. U. S. PAT. OFF.

On all chemicals always follow directions for application. Where warning or caution statements on use of the product are given, read them carefully.

DU PONT

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BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

Results In Michigan On
Chemical Thinning Of Apples

By Arthur E. Mitchell
Dept. of Hort., Michigan State College. Annual Convention Paper

The consumers of midwestern apples are demanding fruit larger than 2¼ inches. Because of this thinning at blossom time or shortly thereafter has become a very prominent practice in Michigan.

There are two chemicals which may be used early in the growing season for thinning apples, dinitro compounds (DN) and naphthaleneacetic acid compounds (NAA). DN sprays are effective only when the application is timed correctly during bloom. By contrast, naphthaleneacetic acid sprays may be used as late as two weeks after "Calyx". It is important to thin early in the season within the period of "Full Bloom" to "First Cover" to stimulate the formation of flower buds for the next year's crop. In Michigan flower bud formation of apple trees takes place during June and early July so it is desirable to remove developing fruits as soon after bloom as possible.

Prefer NAA For Thinning

Michigan fruit growers have not been impressed with DN compounds for thinning because of the hazard of thinning in "Full Bloom" when the possibility of a reduction in crop by late spring frosts still exists. They have accepted NAA as a favorable chemical for blossom and fruit thinning. When first introduced, this chemical was suggested for use only during bloom. Continued investigations have brought out that sprays of NAA applied as late as two weeks after "Calyx" may result in effective thinning. Thus, the grower has a decided advantage in using NAA instead of DN compounds.

Varieties Vary In Ease Of Thinning

Varieties vary considerably in the ease by which the blossoms and fruit are thinned with NAA sprays. Because of this it is necessary to divide them into groups as follows:

(1) Those varieties easy to thin—McIntosh, Red Delicious, Jonathan and Northern Spy. The red selections of these varieties are included in this group.

(2) The intermediate group—Grimes Golden, Oldenburg (Duchess), Fameuse, Hubbardston and Wagener.

(3) Those varieties hard to thin—Yellow Transparent, Wealthy, Golden Delicious and Baldwin.

Amounts To Use

As a guide for growers in Michigan desiring to use NAA for fruit thinning, H. D. Hootman and C. A. Langer Extension Fruit Specialists, have suggested the following concentrations for thinning at "Calyx": **(1) Those varieties easy to thin—10 parts per million; (2) the intermediate group—15 parts per million; and (3) the varieties hard to thin—20 parts per million. Ten parts per million is 4 grams of pure NAA in 100 gallons of water; 15 parts per million is 6 grams of pure NAA in 100 gallons of water and 20 parts per million is 8 grams of the pure compound in 100 gallons of water.**

Using NAA at the concentrations given above does not mean always satisfactory results. The amounts suggested are merely guides or starting points. **The degree of thinning accomplished with these concentrations are dependent on such factors as (1) the vigor of the trees, (2) weather conditions at the time the thinning sprays are applied and (3) the amount of spray mixture applied per tree.** Vigor of trees and weather conditions vary from orchard to orchard and sometimes even within orchards, so it is apparent that each grower has to determine for himself the concentrations of NAA best suited for his conditions to give the degree of thinning desired. The experiences of a few large fruit growers who use this method of thinning as a regular part of their orchard operations will give a clearer understanding of the variation in the degree of thining that may be expected.

Mr. W. G. Mawby in the Grand Rapids area has been using NAA for thinning apples for the past four years. In 1951 he made single applications of NAA at 15 parts per million in two different blocks of large bearing McIntosh trees. The thinning spray was applied in early "Calyx" in one block and one week later in the second block. The degree of thinning obtained in both blocks was excellent, but **there was less injury to the leaves in the block where the NAA was applied at the later period.** A third block consisting of Red Delicious and Jonathan trees was sprayed with 10 parts per million of NAA in "First Cover". Very little thinning resulted. This block was thinned by hand later in the season Mr. Mawby felt that he would have obtained good thinning by using 12 to 15 parts per million. Because he was doubtful of the degree of thinning that would be obtained with the higher concentration, he preferred to under-thin rather than to speculate on losing a portion of the crop by over-thinning.

A second grower in the Grand Rapids area, J. B. Braman has had varying results using NAA for thinning. In 1951 the bloom in his orchard was heavy with every indication of an abundant "set". An application of 15 parts per million of NAA was made in a mixed block of Red Delicious and McIntosh 10 days after "Full Bloom" with excellent results. Using 10 parts per million on the varieties, Northern Spy and Jonathan, at the time of "First Cover", the Northern Spy trees were well thinned while the Jonathan trees were over-thinned. Mr. Braman felt, however, that the thinning of the Jonathan variety was worthwhile as the tops of the trees produced a good crop of large, well-colored fruit. All the fruit would have been small if no thinning had been done.

Apples For Processing Must Be Large

Many apples in Michigan are grown for processing. Varieties such as Wealthy, Hubbardston, Grimes Golden, Baldwin and Rhode Island Greening supply this market. In past years the processor was satisfied with 2¼ inch apples, but that is no longer

true. Rising production costs have caused the processor to demand apples of 2½ inches and larger. This change in specification for processing apples has been largely responsible for the wide spread use of chemical thinning.

Thinning Increases Annual Yield

A large grower in northwestern Michigan has been using NAA thinning sprays in a block of Hubbardston trees for the past four years. As a result, he has increased the average annual yield as well as size of fruit. Before using blossom thinning sprays, the trees bore biennially producing approximately 1200 bushels in the "on-year" and only 300 bushels in the "off-year". For the past four years this block has been thinned with a single spray of NAA at 15 parts per million at the time of, or just after "Full Bloom" and the yield has exceeded 1000 bushels annually of large, marketable fruit.

Good Results From Three Applications

A method of thinning gaining prominence in Michigan is the use of several sprays of NAA at reduced concentrations rather than speculate on a single application of high concentration. For example, a spray of 15 parts per million may be used on Wealthy in "Full Bloom". By early "First Cover" it is possible to determine the "set" of fruit by observing those fruits which are beginning to enlarge. If the "set" is adequate, no more sprays are required; but, if the "set" is too heavy, it is not too late to make a second application, and perhaps a third. I can cite an example where a grower had excellent results using 20 quarts per million of NAA on Wealthy at "Full Bloom", a second spray of 15 parts per million at late "Calyx" and a third application of 20 parts per million in "First Cover". At harvest time these trees were carrying a good crop of well colored, large fruit.

The varied experiences of Michigan fruit growers using NAA for thinning is explained in part by C. A. Langer, Extension Fruit Specialist in Michigan who has found that flowers and developing fruits on weak spurs are thinned more easily with NAA than flowers and fruits on larger spurs. Also, thinning sprays appear to be more effective when applied on clear days with the air temperature 70°-75°F.

Not to be overlooked is variation in methods of spray application. **The gallons of spray applied per tree vary from grower to grower.** And, applications using hand-operated guns and brooms differ from those made with masts and airblast sprayers. In some cases the applications of NAA are made by adding the growth regulator to the spray mixture of insecticides and fungicides. This practice has been very satisfactory and is commonly used by many growers in Michigan. Thus, it is clear that each individual must experiment in a small way under his own conditions to determine the concentrations to use and the way NAA can be applied most effectively and practically in his own orchard.

Women's Auxiliary Holds Interesting Meet

There was a good attendance at the annual meeting of the Women's Auxiliary of the Horticultural Society held in connection with our convention on November 17. .

Officers of the Auxiliary were re-elected. They are: Mrs. Arnold Nieman, President; Mrs. Dawson Hauser, Vice-President; and Mrs. R. H. Sewell, Secretary-Treasurer.

The meeting was opened in the morning with a fine talk by Prof. George Ziegler, Landscaping Specialist of the University, who talked on landscaping the farm home with illustrations in flannel. Mr. Walter Krueger of Oconomowoc followed on how to grow gladiolus. In the afternoon the judge of the apple cookery exhibits, Mrs. Lillian Moehrke Home Economist of the Wisconsin Power & Light Co., Fond du Lac, told how the exhibits were judged and gave a nice talk on how to use apples in cookery.

Mrs. R. H. Sewell of Milwaukee, who received the Honorary Recognition Certificate of the Society together with Mr. Walter Krueger, was not able to give her talk on Festive Lighting, featuring Thanksgiving and Christmas arrangements because of an injury and illness. She had asked Mr. H. J. Rahmlow to show slides on New Annuals for our Gardens, African Violets at the National African Violet Show and finish with slides on Flower Arrangements.

The usual delightful tea followed the program at 4 p.m. at which the apple baked goods were served.

Exhibit winners receiving an award of Excellent in the Apple Baked Goods exhibit were: Mrs. Merle Pennebecker, Waupaca, on an apple pecan cake; Mrs. Gilbert Hipke of New Holstein, on an applesauce fruit cake and also on applesauce refrigerator cookies; Mrs. Arnold Nieman of Cedarburg, on an applesauce fruit cake; and Mrs. William Basse of Waukesha, on apple bread.

An award of Excellent was given the following exhibitors of Flower Arrangements. Mrs. Gilbert Hipke presented a Picture Window Arrangement; Hawaiian Basket of Fruit; Cornucopia with fruit, grain, pheasant feathers and nuts; Artistic Basket of Arborvitae, Mugho Pine and Love Apples; and, a Basket of Gourds. Mrs. R. H. Sewell of Milwaukee exhibited a Christmas Bell with evergreens and lights; Miss L. T. Zinn of Hartford, a Christmas Tree; and Mrs. John Kopp of West Bend, an artistic Basket of Gourds.

HARDIE TAKES OVER AERO-MIST SPRAYERS

All sales and distribution rights for Aero-Mist concentrate sprayers have been acquired by the Hardie Manufacturing Company from the Lawrence Aero-Mist Sprayer Corporation of Greenfield, Mass. Hereafter, Aero-Mist sprayers will be sold and serviced by the Hardie Manufacturing Company factories and sales organizations in Hudson, Michigan, Los Angeles, Calif., and Portland, Oregon, and by Hardie dealers.

Aero-Mist Concentrate Sprayers are widely used especially for pest control in shade and forest trees. They are also used very successfully in mosquito, fly and insect control in municipalities, pastures, buildings, ponds and farms. Tests show horizontal coverage up to 1,000 feet.

BEST MATERIALS FOR SCAB CONTROL IN PENNSYLVANIA

Speaking at the joint Wisconsin-Minnesota Fruit Growers meeting at Winona on November 6-7, Dr. H. W. Thurston, Dept. of Plant Pathology, Pennsylvania State College, said that it is very important to have a complete spray program in order to control scab. It was found that when a delayed dormant spray was omitted, scab was high in years when weather conditions were favorable for scab. He also said that some new materials gave better scab control, better finish of fruit, and higher yield than lime sulphur.

Dr. Thurston rated materials in their ability to control scab as follows: 1—Crag 34; 2—Sulphur paste; 3—Orthocide 406; 4—Wettable sulphur; 5—Kolospray; 6—Ferbam. He also rated Crag first in lack of injury with Orthocide 406 second.

Berries and Vegetables

Wisconsin Berry and Vegetable Growers Ass'n.

TOPICS DISCUSSED AT THE ANNUAL MEETING EXPERIENCE WITH EVERBEARING STRAWBERRIES

Dr. Charles Swingle of Sturgeon Bay, reported at the annual meeting of the Wisconsin Berry & Vegetable Growers Association at Oshkosh that he had grown quite an acreage of everbearing strawberries this year and found that at Sturgeon Bay people either want a quart of berries at 50c or less or they don't. Pints do not sell well there. When the price was above 50c per quart they didn't move. In large cities this may not be true.

Miss Freda Schroeder of Evanston, Ill., reported that berries of high quality sold well there at 50c per pint.

The everbearing variety Red Rich did not do as well as Gem or Pathfinder this year because almost 90% of the Red Rich berries were nubbins or catfaces during September. There were fewer nubbins in October.

While Dr. Swingle admits that geese do keep weeds out of strawberries, he didn't find the work involved worthwhile on their farm, especially where chemicals can be used for weeding. Crag Herbicide No. 1, gave excellent results and its use will be continued next year. It was applied at the rate of 4 lbs. of herbicide per acre in about 10 gallons of water at one application.

In a discussion about injury from Crag Herbicide, one grower said he had considerable injury but that he had used his regular orchard sprayer which has high pressure, in doing the work. Dr. Frank Gilbert said that a high pressure ring should not be used when applying Crag Herbicide. The instructions by the manufacturers of Crag definitely advise against using high pressure.

Experience With June Bearing Varieties

Mr. Harry Barlament of Green Bay, President of the Association, reported that the variety Catskill did very well last year. He said that Thomas also did well but it must be grown correctly; requires good soils and good growing conditions. Thomas berries matured late and as a result brought an excellent price when other varieties were gone. Premier did not do well at his place this year, perhaps because the plants were infected with virus. He will not continue with them unless better plants can be obtained, he said.

What Should A Quart Of Strawberries Weigh?

Mr. Barlament suggested that we work for a law that will require that a crate of berries weigh 26½ lbs. This law was in effect during the war and did a lot of good and growers were in favor of it. It was a regulation which was dropped after the war. Other growers said that the boxes should weigh 24 oz. Something along this line should be discussed at future meetings.

MESSAGE OF SYMPATHY

The Wisconsin Berry & Vegetable Growers Association at their annual meeting in Oshkosh voted to extend a message of sympathy and regret at the passing of Professor Conrad Kuehner to Mrs. Kuehner. Mr. E. L. White, Secretary, sent the message and stated: "Professor Kuehner's knowledge of fruits and his willingness to pass on his knowledge to others and his friendly spirit was an inspiration to all fruit growers. We share with you this loss and extend to you our sincere sympathy."

CHEMICAL WEED CONTROL DISCUSSED AT ANNUAL CONVENTION

The subject that created the greatest amount of interest among strawberry growers at the annual meeting of the Wisconsin Berry and Vegetable Growers Association was that of chemical weed control. It now looks as if the expense of hand-hoeing and weeding strawberries is at an end, or nearly so. Dr. Frank Gilbert of the Peninsula Experiment Station, said that Crag Herbicide No. 1 gave very good control of weeds in strawberries in test plots. It is better than 2,4,D because Crag does not injure growing plants after they are several inches high. Therefore, strawberry growers as well as growers of many other crops have the encouraging prospect of greatly reducing a very costly labor item—that of hoeing.

Dr. Charles Swingle said that in 1951 he employed 12 people for hoeing strawberries but in 1952 this was reduced to three people because Crag was used for weed control.

Crag is used at the rate of about 4 lbs. of material per acre dissolved in any amount of water, such as 10 gallons. It is applied about 2 weeks after the strawberry plants are set out in the spring and after the land has been freed of weeds by hoeing or cultivating. It then prevents the growth of weeds from seed.

Cultivation is not entirely eliminated because it is beneficial from the standpoint of good tilth and moisture control.

THE TARNISHED PLANT BUG

Is It Guilty Of Injuring Strawberries?

The tarnished plant bug has been called the sparrow of the insect world. It is a brownish, yellowish and blackish-mottled flat bug about 3/16" long. There is much variation in color pattern. This plant bug over-winters as an adult in alfalfa fields, weeds and similar places. There are three generations each year.

The tarnished plant bugs injure plants by inserting their beaks into flower buds, seeds and tender stems causing rosetting of ornamentals, flower drop, shrunken seed and dimpled fruit.

This bug is suspected of causing the "cat-faced" condition found last fall on strawberries. Late in the fall it was quite common in chrysanthemum flowers causing short petaled one-sided flowers and rosetting.

Various causes have been given for the "cat-faced" berries so numerous on the variety Red Gold, in September. If this bug is the culprit we should know more about it.

STRAWBERRY VARIETY TEST IN NORTHWESTERN WISCONSIN

By Harvey Kamnetz,

Cumberland, Wis.

During this past summer, records were kept on 3 varieties of strawberries, Beaver, Robinson, and Premier, grown on the same plot. All rows were 4 feet apart with the plants spaced 32 inches in the rows. Fifteen hundred Beaver plants were set out in 1951 and produced over 2000 quarts in 1952. The Premier variety produced 260 quarts from 250 plants. Robinson's produced 142 quarts from 250 plants.

This trial was run on a soil mixture of gravel-sand-loam. Each variety was side-dressed with 5-20-20 fertilizer in June and an application of 150 lbs. of ammonium nitrate during the last week of August during the year in which the plants were set out (1951). A test row of Beaver left without the ammonium nitrate but with the same general fertilizer produced 1½ less pickings. The rest of the Beavers produced 8 pickings, Premier 6 pickings, and Robinson 5 pickings in 1952.

The quality of the Beaver surpassed both the Premier and the Robinson. The Beaver did not soften with the numerous drenchings of rain and the size held up well throughout the season. The pickers preferred to pick the Beavers and they brought premium market prices. Needless to say, it is my plan to increase the production of the Beaver variety.

EDITORS NOTE: Mr. Kamnetz' experience with Beaver strawberries is in line with the experiences of other growers in his section of the state. Beaver was originated at Eau Claire and has been a leading variety for many years at Warrens, Sparta and Alma Center. The climate and soil there seems to be adapted to it, if good plants are obtained. This is not true in the eastern sections of the state, especially on heavy or high lime soils. It again proves that it is well to test out a number of varieties on your soil to see which is best adapted.

WE APPRECIATE

This letter from C. A. Kemnitz, Eldorado, Wis.: "I want to take time out to tell you that you have a wonderful little magazine. I appreciate it and look forward to its coming every month."

INSECTS CUT STRAWBERRY YIELDS

Mr. H. E. Halliday of the Department of Plant Industry, State Department of Agriculture, spoke at the annual meeting of the Wisconsin Berry & Vegetable Growers association on the subject of insects of berry plants. He pointed out that leaf rollers, strawberry weavil, spittle bug and white grubs cause enough damage to warrant control measures being used by growers.

Mr. Halliday is convinced that the first late fall freeze which often comes about November 1 to 15 in northern sections, and November 10-20 in the southern part of the state, causes the greatest damage to the crowns and roots of the strawberry plants.

If the temperature drops to 15 or 20 degrees F. and the plants are still in a growing condition as they were in 1951, and if they are not covered before such a cold snap, the roots and crowns are injured.

Raspberry acreage in Wisconsin has gone down. Anthracnose is probably the reason and it has done more damage than we realize during years when there was lots of rain in spring and summer. Look for the grayish spots on canes. The spores from these diseased spots infect the spurs and berry stems in the following spring and poor berries result.

Don't let the raspberry rows get too thick. Thin out the plants and get air circulation and sunlight into the patch for better berry production, said Mr. Halliday.

MORE ABOUT THE WORLD'S LARGEST APPLE PIE

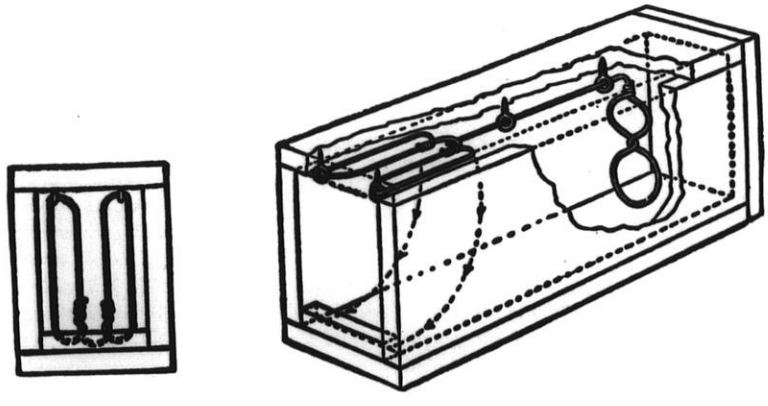
From Better Fruit (Oregon)

A recent issue of Wisconsin Horticulture displayed on the cover a picture of an apple pie with the claim that it was the "world's largest." Without attempting to deflate Wisconsin ego unduly (because your editor was born in that state), we find it necessary to point out that here in the Pacific Northwest where Paul Bunyan found trees and mountains to his liking, a Wisconsin size "world's largest" pie would merely furnish a snack for a half a dozen hungry apple knockers.

In the days when Yakima and Wenatchee were vying for the honor of producing the largest pies, some truly gargantuan masterpieces were produced. Girls with garden rakes, standing on opposite sides of the huge pies, were scarcely able to make their rakes meet in the center.

Pies of that size would feed hundreds, or thousands—we lost count. But the Wisconsin-size one would provide a mere mouthful in comparison. However, it is not our desire to belittle the efforts of our friends in the Mid West. More power to them! And more practice in making bigger—and no doubt, better—pies. It all helps to encourage housewives to go and do likewise.

As we have said about pie baking contests, we hope there will be more of them. Anything which will encourage greater use of our wonderful fruit will prove of value to all those who produce it.



A Rabbit Trap May Save Plants

Nursery News & Notes

For The Wisconsin Nurserymen's Association

A NEW DEPARTMENT

This issue marks the opening of a new department, concerned primarily with the nursery industry in Wisconsin, but edited as well, with a view to making it of interest to all of the readers of **Wisconsin Horticulture.** Action to initiate this page was taken by the Directors of the Wisconsin Nurserymen's Association at the close of the Milwaukee convention reported by Secretary Thos. S. Pinney below.

For the industry, this page can be of considerable usefulness on disease control, adaptability of newer varieties in Wisconsin, the "Plant Wisconsin" program, new uses for ornamentals and a host of other ways. The degree to which it will be useful is the extent to which members of the Association send along information and suggestions. Many things begin with a flourish only to later fade away and if the hope of the Directors is to be realized it will be because members of the Wisconsin Nurserymen's Association have considered it their responsibility to keep the editor of this page adequately supplied with items timely in the industry. Such items should be directed to Leland L. Jens, Jens Nursery & Landscape Co., Wisconsin Rapids, Wis.

WISCONSIN NURSERYMEN'S MEETING A HUGE SUCCESS

By Thos. S. Pinney

The 36th Annual Convention of the Wisconsin Nurserymen's Association, held at the Hotel Schroeder, Milwaukee, on December 2nd, 3rd and 4th, was one of the most successful the association has ever held. On the first day the nurserymen held their first Short Course. For several years the officers of the association have considered holding a Short Course, but somehow couldn't seem to get enough interest in it to warrant doing so. However, this year they went ahead. It was developed and put on by the University of Wisconsin. Advanced registrations showed that there would be about 45 in attendance, but much to the surprise of everyone, there

were exactly 67 paid registrations, with probably over 70 in attendance at all sessions. During the morning session, J. Howard Westing, of the School of Commerce, University of Wisconsin discussed the principles of administration and merchandising and David A. Bosley, of the Department of Horticulture, discussed soil management for ornamental plants. Both subjects were of keen interest to everyone. The afternoon session opened with a discussion by G. E. Beck, of the Department of Horticulture on the possibilities in the use of growth regulators and other chemicals on ornamental plants. This was something new to us. It is needless to say it was of tremendous interest. No doubt one of the highlights of the program was the discussion on selection and propagation of some newer ornamental plants of interest to nurserymen by Roy N. Nordine, of the Morton Arboretum, Lisle, Illinois. Mr. Nordine is well known to nurserymen and is held in high respect for his knowledge concerning plant life identification and use. Mr. G. A. Ziegler of the University of Wisconsin, finished the days program with an excellent discussion of landscaping the modern home, which due to the prevailing Ranch type does present some problems.

On Tuesday evening, the social hour was held from eight to twelve, with excellent music and dancing, which afforded an opportunity for renewal of acquaintances and a very pleasant evening.

The regular convention of the Wisconsin Nurserymen's Association opened Dec. 3rd, the first morning being devoted to a business meeting. The noon luncheon, with 90 in attendance, was highlighted by an excellent address by Tom Kaufman of the Allis-Chalmers Mfg. Co., on "You Are America's Best Salesman." He gave us all something to think about. The balance of the afternoon was taken over by E. L. Chambers our State Entomologist and H. E. Halliday, of the same department, discussing in their usual interesting and informative way the various problems confronting nurserymen from the standpoint of inspection service and pest control.

The social highlight of the convention was the Past Presidents Banquet on Wednesday evening. There were approximately 120 in attendance. Master of ceremonies, C. L. Wachtel a member of the Board of Directors, did an excellent job in keeping everyone in good humor and well satisfied. The entertainment consisted of a 40 minute program by the Schmitt Bros. Quartet, of Two Rivers, Wisconsin, who have twice been National Barbershop Champions. Their program held the audience spellbound. The guest speaker of the evening was Charles House, well know newspaper man from the Milwaukee Sentinel, who gave a very interesting talk on, "The Road to Alaska" which was a breathtaking narration of his trip to Alaska on a beer truck in the middle of the winter. Many of his experiences, as Mr. House described them, were 'definitely brutal.'

On Thursday morning, Earnest Durrant Nurseries of Grand Rapids, gave a discussion such as only a layman could give on simplified cost accounting for nursery industry. It comprised of detailed discussion of the system that Mr. Durrant has worked out to arrive at a cost of his operations from which he could intelligently fix retail prices. It showed a lot of very close thought and study on the part of Mr. Durrant and gave all of us many excellent ideas.

Leland Jens of the Jens Nursery, members of the Wisconsin Nurserymen's Association, discussed, "Ethics

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From the Editor's Desk

OUR 84th ANNUAL CONVENTION
Fruit Show Was Outstanding; The Program Excellent

The 84th convention of the Wisconsin State Horticultural Society at the Retlaw Hotel, Fond du Lac, November 17-18, will go down on the records as one of the best ever held. There were 219 paid registrations. Nine commercial firms exhibited their products. The fruit show was the best in quality that we have seen in many years, indicating the fine apple crop which our growers produced this year.

There were more bushel packs of apples exhibited than in past years, and at the auction, five of the bushels were sold, netting the Wisconsin Apple Institute $50.75 after paying all premiums of $10.00, 1st prize; $7.00, 2nd prize, and $5.00 for each additional bushel.

New Board Members Elected

At the annual meeting three new board members were elected: Carroll Krippner of Fort Atkinson; William Thompson of Kenosha, and Charles Swingle, Sturgeon Bay. Officers were re-elected—President Arnold Nieman; Vice President Marshall Hall; Secretary H. J. Rahmlow, and Treasurer E. L. Chambers.

Resolutions Adopted

The Resolutions Committee consisting of LeRoy Meyer, Hales Corners, Chairman; William Connell, Menomonie, and Ransome Severson, Sturgeon Bay, brought in resolutions which were unanimously adopted as follows: a resolution of sympathy to Mrs. C. L. Kuehner in the passing of her husband, Professor Kuehner, Extension Horticulturist.

Resolution of sympathy to the relatives of the late Oscar Conrad, Milwaukee, Miss Merle Rasmussen of Oshkosh, and Dr. George Sheer, Sheboygan.

A resolution thanking outgoing members of the Board of Directors, Alloys Pfeiffer, Racine, William Leonard, Fort Atkinson, and Marshall Hall, Casco, for outstanding service on the Board.

A resolution thanking the Reynolds Company of Sturgeon Bay for the apple juice for the annual banquet, and thanking the Nieman Orchards, Cedarburg, and Marshall Hall, Casco, for the fine apples furnished for the annual banquet.

A resolution thanking Malcolm Dana, Madison, Earl Skaliskey, County Agent of West Bend, and Leonard Langord, Madison, for their services in staging and judging the fine fruit show at the convention.

A resolution thanking Dr. A. E. Mitchell of Michigan State College, and Mr. William Fitzwater of LaFayette, Indiana for their contributions to our program as speakers.

A resolution of best wishes and the hope that he will be able to attend our next annual convention to Mr. John Hauser of Bayfield who has attended conventions for the past 40 years but was unable to be present this year.

Secretary's Report

The Secretary reported the year 1952 as a very successful one for the Society. Three new fruit growers associations affiliated during the past year— there are now 14 fruit growers organizations affiliated, composing the largest membership, with the garden clubs a close second. Membership of garden clubs has been increasing slowly but steadily. There has been some dropping off of membership in the Wisconsin Gladiolus Society and the Wisconsin State Beekeepers Association, but the Wisconsin Berry & Vegetable Growers Association is on a solid footing and growing.

The Secretary reported that during the past year he attended or spoke at 22 meetings of fruit growers organizations, 44 garden club meetings, 5 gladiolus society meetings, 17 meetings of beekeepers, 5 berry & vegetables meetings and 2 meetings of nurserymen and gave 15 radio talks a total of 110 meetings. Also attended Board of Directors meetings of various organizations and tried to keep Wisconsin Horticulture on a high plane with the latest in scientific information for each branch of the Society. While, he said, we welcome articles from members, first consideration is given to the results of research at the Wisconsin and other experimental stations on horticultural subjects so that our members will have the most accurate, scientific information available to them. During the year he also directed the promotional program of the Wisconsin Apple Institute which was again very effective. Numerous radio talks, TV demonstrations, newspaper articles direct to newspapers and to Home Agents, a new recipe book which became very popular, were some of the activities which came out of the office, with the help of a Home Economics graduate, Mrs. Marjorie Slaughter.

MUSIC EFFECTS ANIMALS

Music causes animals to respond curiously. Dogs commonly enjoy piano music but run from a violin. Mice lose their timidity when a piano is played and come out even in daytime to listen raptly to the music. English Naturalist Thomas Bell observed that schools of seals were attracted to shore by church bells. Organ music is provided animals of the Los Angeles S.P.C.A. High C is avoided because it invariably makes dogs howl. — Capper's Farmer.

(Sometimes it does us too).

Two Horticulturists Honored

Mrs. R. H. Sewell

In 1929 the Wisconsin State Horticultural Society adopted the very worthwhile program of honoring outstanding contributors to horticulture in this and other states for their contributions. Since that time, 46 persons have been so honored.

At the annual banquet held in connection with our 84th annual convention President Arnold Nieman presented the beautiful hand engraved certificates to Mrs. R. H. Sewell, Milwaukee, and Mr. Walter C. Krueger, Oconomowoc. He gave the following biography of the contributions of each of them.

MRS. R. H. SEWELL

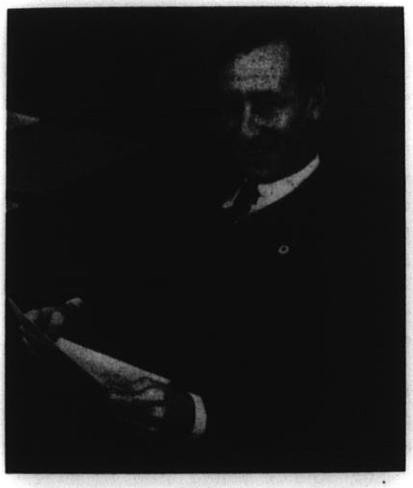
Mrs. R. H. Sewell of Milwaukee has contributed greatly to the advancement of gardening and garden club work in this state. As an active gardener and speaker on gardening subjects she has created greater interest in gardening in her community. As an officer of garden clubs, as President of the Wisconsin Garden Club Federation and, during the past few years as President of the Garden Club Advisory Board of the Garden Club of Wisconsin and the Horticultural Society, she rendered notable service in guiding these organizations on a successful career. By her wisdom and good judgment, her pleasing personality and tact, she created harmony and good will and helped the organizations to reach notable achievements.

Mrs. Sewell's introduction to gardening came when the family moved into a Wauwatosa bungalow just before Christmas, some years ago. In the spring they found they had a home surrounded by slippery, deep, red clay. With the help of her husband and neighbors, the garden grew and became very beautiful with pools, 27 kinds of wild flowers, and shrubbery. A picture of the garden was displayed in the Milwaukee Museum some years later. Mrs. Sewell soon joined the West Allis Garden Club and then the Wauwatosa Garden Club. While serving as program chairman for the latter, she wrote and produced a 10 act Mid-Summer Pageant. It was produced as a garden club project before 300 guests. Next she studied the art of flower arrangement, passed the requirements and received the Wisconsin Judging Certificate. She then conducted three six-week judging schools, has given 112 talks and demonstrations on flower arrangement and judged 58 shows. During 1933 and 1934 some of her short poems were printed in Wisconsin Horticulture. Mrs. Sewell became a charter member of the Blue Mound Garden Club and in 1939 was elected President of the Milwaukee District of Garden Clubs; was chairman and staged the Milwaukee District Flower Show in Gimbel's Auditorium in 1944. She was elected President of the Wisconsin Garden Club Federation and attended the National Regional Meeting at Ames, Iowa, and the National Council Convention at Atlanta, Georgia. During these years six new garden clubs were organized in the Milwaukee District. She was also a delegate to the Victory Garden Conference in Chicago during the war and served on the County committee for Victory Gardens.

In 1949 came the separation of the Federation from the Horticultural Society. Mrs. Sewell remained loyal to the Wisconsin Horticultural Society. When we created a State Garden Club Advisory Board, Mrs. Sewel was elected to serve from the Milwaukee Region and with her support and help the Garden Club of Wisconsin was organized. She was the Milwaukee Region's first chairman, and was chairman of the second Garden Club of Wisconsin's Convention, held in Milwaukee in 1951. She was elected President of the State Garden Club Advisory Board and it is through her wise counsel and loyalty that the organization is growing and gaining in membership.

After living 14 years in Wauwatosa, the Sewells felt themselves hemmed-in, and purchased a 50 year old house and 15 acres to the north of Wauwatosa. They called it "Dun Roamin'" and say it is the happiest spot on earth. Here they have a spring garden of 1,000 tulips, 500 daffodils and all the smaller varieties of bulbs. Mrs. Sewell transformed a rock pile filled with tin cans into a rock garden. As a result she wonders how Auxiliary members of the Society take care of their various farm duties and keep the lawns and flower beds in order. In 1949 she joined the Auxiliary and was elected Secretary in 1951.

WALTER C. KRUEGER



Mr. Walter Krueger of Oconomowoc is considered one of the outstanding breeders of new varieties of gladiolus in Wisconsin and in the Nation. As a writer on gladiolus subjects

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Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

President
DR. R. H. JUERS
Wausau

Vice President
RALPH BURDICK
Edgerton

Secretary
MRS. JOHN BAYLESS
Rt. 2, Two Rivers

Treasurer
DR. H. A. KASTEN
315 Washington St., Wausau

PRESIDENT'S MESSAGE

To Our Members:

There are many constructive ideas and proposals to consider and work out to the best advantage of this our State Society, in the year 1953. Foremost in my thoughts, is strengthening our various Chapters and gaining more members in these Chapters, and, also, to make the Chapter meetings of greater interest to the members, especially to the newer members, as they may just be novices at raising glads and any help we may give them may save them from disastrous results in their gardens. This, with our various Chapter shows and occasional social hour, should make our Chapter meeting more agreeable. If we could only encourage our newer members to break down and say what they would like in the Chapter meeting, as well as the State meeting, it would be of great help to the Directors.

The membership in our Chapters should of necessity increase our State membership and in that way build up the State Society, but we should never let down our desire for meeting all our problems, those of the hobbyist, as well as the commercial grower, with open minds and to the best of our abilities.

I fully realize all Chapters should have equal representation on the Board of Directors, and possibly the change in selecting our Directors may be of advantage to all, at least the local Chapters will be responsible for their own choice of Directors as a result, and I would like to suggest that the six Directors at large be elected by the Directors chosen by the various Chapters.

In closing, I shall strive to do the best I can and shall not hesitate to seek information wherever I can obtain it, and may my efforts be of

benefit to the Society as a whole, and may I also wish you all a Prosperous New Year.

R. H. Juers, M.D. President.

MARATHON COUNTY CHAPTER NEWS

Dr. George J. Schroth was elected president of the Marathon County Chapter, Wisconsin Gladiolus Society, at the annual banquet held November 13, 1952. Mrs. Albert Scholtz was elected secretary, Arthur Schulz, vice-president, and Mr. Albert Scholtz, treasurer. Archie Spatz and Lloyd Prahl were elected to the Board of Trustees. Dr. R. H. Juers reported on the recent meeting of the Wisconsin Gladiolus Society and the Wisconsin Gladiolus Co-ordinating Council held at Green Bay. Colored slides and movies of members' gardens and flowers and of the gladiolus show held at the YWCA last August were shown. Fifty-two persons attended the banquet, including members and guests from Merrill, Loyal and Neillsville. **By Mrs. E. D. Kramer, Wausau.**

Sophistication is the art of admitting that the unexpected is just what you anticipated. — Cuba City News-Herald.

BEST STORAGE TEMPERATURE FOR GLADIOLUS BULBS

What is the best temperature at which to store gladiolus bulbs during the winter? We asked this question of Mr. John Flad, Madison, who is equipped with cold storage with which he can keep his bulbs at any desired temperature. He remarked that several years ago he stored bulbs at 40 degrees until he took them out for planting. It took more than two weeks for them to come up. He then found that by raising the temperature after January 1st 5 degrees or so every 3 or 4 weeks until the storage temperature is 60 degrees in March, he has much better results. A week or two before planting he takes them out of the storage and sets them in the open air so they will "come to life". With this method he found that the new growth emerged in about one week depending, of course, on outdoor temperatures.

Mr. Flad does not believe in treating his bulbs at planting time because it takes a lot of work at a busy season and he must then handle wet bulbs in planting. Instead, he nips all bulbs after they are washed, following digging in a solution of spergon and DDT for fungus disease control and thrips. With this method the bulbs are protected during the storage season and require no further dipping in the spring.

Protect the birds. After all, the dove does bring peace and the stork brings tax exemptions!—Sparta Herald.

"To me the most aggravating thing about the younger generation is that I no longer belong to it," observes Merle Fish in the Marathon, Iowa, Republic.

Observations On Gladiolus Varieties

WHAT IS A GOOD WHITE?

By G. R. Scarrott,

In Empire State Gladiolus Society Bulletin

One question I am frequently asked is, "What is a good white?" In five shows there were 14 wins recorded for Class 500 and they are distributed as follows: White Goddess 7; White Christmas 2; Silver Wings 2; and 1 each for Roosevelt Memory, Sierra Snow and Winter White.

To analyze this, we find that White Goddess is in its 4th year and sold last year at 50c. It has been consistent and highly rated, so despite the price there should be a good sprinkling of bulbs in cultivation. Nevertheless, the tally is definitely outstanding. Next we have White Christmas—selling for around 25c and also in its 4th year. Because it has consistently been spoken of as variable in performance, there would probably not be as many in cultivation as White Goddess despite the fact it is half the price, in its 8th year, and, because it has been highly spoken of, is in almost everybody's patch. Two wins merely show it can win, but to be in White Goddess' class it would need to swamp the shows just as Leading Lady has done in the 506 class.

Winter White and Roosevelt's Memory have not been sold extensively, so one win each is not comparative. Sierra Snow is one of Harris' '51 intros at $2.00 per any size. The number in cultivation is strictly limited. It could be the best release to date and not make a single win in its first year. On the other hand, a fluke spike from a bad release could win a G. C.

The Old Timer knows all this, but I hope I have said enough to warn the less hardened that they do not really achieve much by taking notes at one show, and, even on a larger field, such notes need careful analysis.

Many a motorist has lost control of his car because of one mistake—teaching his teen-age youngster to drive.—Bonduel Times.

CONVENTION PAPER

By Ralph Burdick, Edgerton

The following variety comments are based on growth of more than 700 varieties in my garden plus observations made regularly in the garden of Miles Armstrong; the shows and garden trips made as a part of the S.W.N.I. Society judging school. Since the gladiolus is a flower that may vary widely in differing soils and conditions, the evaluations should not be considered as a condemnation of any variety.

WHITE 00 and 01.

CRUSADER, ruffled white with purple blotch, has excellent opening and keeping qualities, opens 6 to 8 in the field and seems to have perfect placement. A good propagator but a slow grower from bulblets.

At the top of the 400 class is **Welty's white seedling.** This was seen in considerable numbers and is going to be outstanding both as a show flower and as a commercial. A spike taken dry from the Jefferson show and left dry on a shelf all the next day was still in good condition showing only slight wilting that night. It holds 10 and 12 open easily and seems to produce very uniform spikes.

MOTHER FISHER is a very fine ruffled white which produces tall spikes and long flowerheads on strong stems. I believe it will replace **Florence Nightingale** as a commercial in a few years. **SIERRA SNOW** has been a very heavy winner at shows this year and last, the year of introduction.

BARRETT'S BEAUTY, a creamy white with reddish purple lined throat, looks good for exhibition, but will probably be reclassed as a 300, since all spikes from four bulbs seemed to have undersized florets. **PORTIA** was perhaps the most beautiful white I had this year. It is a very pure lightly ruffled white with a cream or buff throat and holds about six open.

Of the 500 class whites **WHITE CLOUD** was good. It is extremely ruffled and has good color, its only fault seems to be a short handle. **WHITE TOWER,** cream white with a pink blotch, was also very good, giving tall spikes with seven open and is a good producer of bulblets. Older varieties which were outstanding were **WHITE GODDESS, GRACE S. PEET, FLORENCE NIGHTINGALE,** and **MISS DAINTY. MISS DAINTY,** one of Goddard's introductions which have all been good in my garden, is a heavy textured white with a lavendar blotch; easily holding ten with the strong stem and good replacement needed for a top show glad.

THE CREAM VARIETIES (06)

The 400 cream classes were topped by **COLOMBIA,** which was introduced as an improved and healthy **Corona.** I saw a good many spikes grown under differing soil and cultural conditions and was amazed at the variance in color of the flower. Some had only a faint halo of rose, while others had at least a half inch of color and also considerable flecking. It will open five to seven and in what seems to be a weak class will be hard to beat. **CHERB,** another of Goddard's IS a very pretty heavily ruffled deep cream with a red blotch. **ODETTE SANSOM,** a **Salmons Glory** seedling , is an extremely heavy textured deep cream with a dark red blotch edged yellow. Opens 10 or more on a very long head, holding the florets only partly open for a day or two and then opening them widely all together. **PROF. GOUDRIAN** was best in the giant size, a light cream with deeper throat opening 7 or 8 in very formal placement on tall stiff stems. A very good propagator and grower from bulblets too. **Annie Amelia** is a deep enough cream to be classed as a light yellow since it is very nearly the same color as Aureole, **LAKE PLACID,** a tall cream with a deep yellow throat, and **SINCERITY,** a brighter better opening Veecream, were best of all the older 400 creams and Leading Lady was tops in the 500's for everyone but me.

THE YELLOWS (10 and 12)

The 300 yellow classes offer no competition for **CATHERINE BEATH,** a deep yellow exhibition variety which received Tom Manley's highest rating of all yellows.

GOLD is undoubtedly the best color of the 400's but is prevented from number one rating by its too compact flower head. **HELIOS** seems more likely to be the exhibition flower in this color since it will hold 7 to 9 open on a long stem, has nearly as good color and is a much better propagator. It does have a tendency to misplace however. **GOLD ROD**, another tall deep yellow with a long head opens 8 at a time. **RECORD** the only light yellow that was at all outstanding, is a 1950 Holland introduction and has a very beautiful bud somewhat like a rose. Unfortunately it will not open more than 5 or 6. Giant yellows are still needed badly and the really good one is still to come.

THE BUFFS (16)

QUIBERON is the one to beat in the buff classes. Not only does it grow nearly six feet tall and hold 10 to 12 out of 22 or more open, but the color harmony varying from salmon to peach to a yellow throat is very beautiful. **DAYBREAK**, in the giant class, is a peculiar color combination of cream and buff with lavender lines. It will open 7 to 9, always has good placement, and lends itself well to forcing with fertilizer. **SCHEHERAZADE** is buff pink with a red feather and gave exhibition blooms from bulblets; every bulblet producing a number one bulb. **SUNSPOT** and **PATROL** are too well known to all of you to need any description. Both are always at the head of the list of show winners.

Two Horticulturists Honored

(Continued from Page 85)

in Wisconsin Horticulture and other magazines and as a speaker at meetings, he has rendered notable service in extending the knowledge of gladiolus culture.

As President of the Wisconsin Gladiolus Society for a number of years, he guided the organization to outstanding achievements.

Mr. Krueger grew up in the village of Oakfield, graduating from the Oakfield High School and the University of Wisconsin in 1925. After graduation he taught science and coached football and basketball at Black River Falls. He then went to Oconomowoc where he was Vice-Principal and Science teacher and later Principal of the High School, then Superintendent of schools from 1933 to 1942. At that time, due to his health, he resigned and became an active gardener, growing and breeding gladiolus. Later he became Assessor and Treasurer of the city of Oconomowoc.

Mr. Krueger started growing Gladiolus as an amateur in 1930. He has served the Wisconsin Gladiolus Society as President for three terms. When an amateur he was very successful as an exhibitor, winning many championship ribbons. He won the American Home Achievement Award with his variety **Criterion**. He contributed more than 30 articles to the Gladiolus section of Wisconsin Horticulture and has written articles for the gladiolus bulletins of other state societies, and the national gladiolus magizine. He has judged gladiolus shows at Chicago, Springfield, Illinois, Wabash and many other smaller shows. In 1949 he talked on gladiolus at the Iowa State Horticultural Society's meeting. He is a member of the North American Gladiolus Council Classification Committee.

His most notable achievements are in the field of hybridising and creation of new varieties. His most successful gladiolus originations were these varieties: Badger Beauty; Miss Wisconsin; Variation and Color Marvel. These varieties have been winning top awards at gladiolus shows throughout the gladiolus world. His varieties Gold Medal and Miss Chicago have been well received and his most recent originations are Ardell and Badger Rose.

However, it is not alone as a grower, hybridizer, judge and showman that Mr. Krueger has contributed to the betterment of horticulture in Wisconsin. He has been outstanding as a counsellor, a teacher and an organizer. While President of the Wisconsin Gladiolus Society, he charted the course of the organization so as to avoid the pit-falls and rough waters often encountered by state organizations.

Garden Club News

PLANS FOR 1953 GARDEN CLUB OF WISCONSIN

The Executive Board, Garden Club of Wisconsin, held a very busy meeing at the YWCA, Milwaukee, on December 2, 1952.

The following officers of the Board were elected: President Mrs. Chester Thomas, Milwaukee; Vice-President Mrs. George Willett, Iola; Rec.-Sec. Treas. Mrs. M. A. Haller, Oshkosh; Executive Secretary, H. J. Rahmlow, Madison.

The name of the Board was changed from the Advisory Board to Executive Board, Garden Club of Wisconsin, affiliated with the Wisconsin State Horticultural Society.

The invitation of the Fort Atkinson Garden Club to hold the annual convention of the Garden Club of Wisconsin in Fort Atkinson was accepted. The meeting will be held in Mid-September.

Flower judging schools will be held in two or more locations in the state during the month of May. Mrs. Chester Thomas was asked to contact possible out of state speakers. It was also voted to call the schools "Horticultural and Design Schools."

It was decided to appoint a committee of 5 members to have charge of the requirements for accrediting judges for the Garden Club of Wisconsin.

A yearbook contest will be held in 1953. A committee will be appointed to have charge of the contest and judging. Future plans will be announced. It was suggested that winning year books be made available to clubs for reference. Books on gardening will be offered to the clubs having the three grand champion yearbooks by the Wisconsin Horticultural Society. All books will be judged by the merit system.

A zinnia growing and showing project was adopted. All garden clubs will be urged to sponsor new varieties of zinnias and to hold a "bouquet of one variety" show. Such a show will also be held at the state meeting.

SENSATIONAL HOLIDAY FLOWER SHOW

The Garden Club of Wisconsin and the Milwaukee Region, also members of the various committees and especially Mrs. Chester Thomas, General Chairman, are to be congratulated on the sensational Holiday Flower Show held at the T. A. Chapman Store in Milwaukee from December 1 through December 6.

To use a modern expression it was "out of this world". The high quality of exhibits showed the ability of these garden club members, most of them from the clubs in Milwaukee, Wauwatosa, West Allis and vicinity.

There were a large number of entries, most of them scoring "Excellent" or "very Good", indicating the high quality of the show. The dinner tables, the large Christmas Tree with a Christmas wedding scene, were among the outstanding features.

The show received wide publicity throughout the press and over radio stations. It created a great deal of good will for the Garden Club of Wisconsin. Good will, indeed, was in evidence everywhere on the show floor. We congratulate the committee members on working together so smoothly and efficiently.

WELCOME BROOKFIELD GARDEN CLUB

In October the Brookfield Garden Club, Milwaukee County voted to affiliate with the Wisconsin State Horticultural Society and sent in their membership dues.

The officers of the Wisconsin State Horticultural Society and the Garden Club of Wisconsin welcome the Brookfield Garden Club to membership. Members will be invited to take part in the meetings of the Milwaukee Region and the Christmas Flower Show.

FORT ATKINSON GARDEN CLUB EXTENDS INVITATION TO STATE ORGANIZATION

The Ft. Atkinson Garden Club voted at their November meeting to extend an invitation to the Garden Club of Wisconsin to hold the annual convention next fall in Ft. Atkinson.

Mr. Clarence Field, one of our good members, gave us a very interesting review on chrysanthemums at the meeting of November 12. Mr. Field grows mums commercially and has had a great deal of experience with them. New officers were elected.

—By Albert F. Witte, Sec.

DRIED FLOWERS FOR SALE

Many varieties of dried materials for winter bouquets and arrangements: grasses, garden flowers, wild flowers, leaves and seed pods—more than 76 kinds. Home sales only. Mrs. George Kohlhoff, Rt. 1, Sullivan, Wis. First farm east of Concord on Hy. B. Oconomowoc Tel. 1135J4.

WAUWATOSA GARDEN CLUB NEWS

The annual dinner party of the Wauwatosa Garden Club was held on October 21, at the Wauwatosa Presbyterian Church with Mr. H. J. Rahmlow the speaker.

Mr. Rahmlow's opening remarks were in the form of a prayer:

"Lord fill my mouth with worthwhile stuff
And stop me when I've said enough."

It was time alone that forced the audience into knowing they'd had enough of the "worthwhile stuff" since the speaker's knowledge of horticulture seemed limitless.

Colored slides of the newest and best in annuals and African Violets were shown. With it comes the question—How are we going to show them at flower shows? Mr. Rahmlow suggests "bouquets of one variety, oval in effect without other foliage or accessories." Let's let the flower be seen by not being crowded and shown to the best advantage.

Then followed a discussion period on soil, watering and covering mums, roses, etc. As a word of warning, the group was told to continue watering evergreens, spring blooming bulbs, and young trees and shrubs to prevent losses over winter.

In keeping with the season, the tables were beautifully decorated with gay gourds, vegetables and flowers—even to a replica of a miniature fruit tree hanging heavily with pears. Again the George Kruells were very kind in donating a box of pears as an attendance prize won by Miss Caroline Turner. During the evening a "sing" was enjoyed with Mr. M. Tonsor at the piano.

Many thanks to the committee and all who had a part in arranging the enjoyable affair.—**By Martha Getlaff Koch.**

Christmas Party

The annual Christmas party of the Wauwatosa Garden Club was held on Tues. Dec. 16, at First Congregational Church. A gift for everyone present beneath a gayly trimmed tree was the intriguing feature of the affair. Mr. Anthony Wuchterl shared his art with the club members by playing violin being accompanied by his good wife. Carols were sung. There were tempting holiday refreshments and a social hour.—**By Martha Getzlaff Koch.**

Holiday Flower Show

BLUE RIBBON WINNERS

There were 46 exhibitors at the Holiday Flower Show held in Chapmans Store, Milwaukee, Dec. 1-6. Rating of "Excellent", with blue ribbons were given the following:

Class 1. Wreaths: Mrs. L. G. Stewart, Mrs. A. J. Dietrich, Mrs. J. W. Overholt.

Class 2. Outside Door Decorations: Mrs. Ray Luckow, Mrs. Own Pritchard, Mrs. Val Suttinger.

Class 3. Inside Walls: Mrs. A. J. Dietrich.

Class 4. Symbols of Christmas: Mrs. Peter Colosimo, Mrs. Harold Buerosse, Mrs. Wm. Smiddick, Mrs. Joe Loeffelad, Mrs. Geo. Verch, Mrs. Chas. Braman, Waupaca, Mrs. W. Hibbard, Mrs. Ray Luckow, Mrs. Art. Leidiger, Mrs. A. J. Dietrich, Mrs. L. G. Stewart, Mrs. Peter Colosimo, Mrs. S. Swensen.

Class 5. Christmas through the ages: Mrs. Victor Schmitt.

Class 6. Christmas Colors 1952: Mrs. A. J. Dietrich.

Class 7. Gleam, Glitter and Greenery: Mrs. A. J. Dietrich, Mrs. L. G. Stewart.

Class 9. Coffer or Cocktail table arrangement: Mrs. L. Leidiger, Mrs. A. J. Dietrich.

Class 10. Fresh Flower arrangement: Mrs. L. Fellenz, West Bend.

Class 11. Corsages: Mrs. Ray Luckow, Mrs. L. G. Stewart, Mrs. Val Suttinger, Mrs. L. Leidiger.

Class 12. Mobiles and hanging decorations: Mrs Peter Colosimo, Mrs. W. Brunow.

Class 13. Using Kitchenware: Mrs. Val. Suttinger, Mrs. L. G. Stewart.

Class 14. Holiday Favors: Mrs. W. Brunow, Mrs. Wallace Freund, West Bend.

Class 15. It's A gift: Mrs. C. Lemke, Mrs. L. Fellenz, West Bend, Mrs. A. K. Dietrich, Mrs. L. G Stewart

Class 16 Table Trees: Mrs. R. Tressin, Mrs. L. G. Stewart.

Class 17 Tables: Mrs. J. W. Dooley, Mrs. Howard Specht, Mrs D. Kirkland, Mrs. S. Swensen, Mrs. L. Fellenz, West Bend, Mrs. L. G. Stewart, Mrs. A. R. Leidiger.

Class 18. Rooms: Garden Club of Wisconsin; West Allis Garden Club; Wauwatosa Garden Club.

Class 19. Christmas Trees: Home Gardeners of West Allis, Mrs. L. G. Stewart, West Allis Garden Club, Mrs. Charles Bierman, Mrs. Victor Schmitt.

Special Awards: Garden Club of Wisconsin on Room; Mrs. Arthur Leidiger on Table; Mrs. L. G. Stewart on Bridal Table; Home Gardens of West Allis on Bridal Christmas Tree.

—Submitted by Mrs. J. W. Dooley, West Allis.

NURSERY NEWS

(Continued from Page 83)

of the Nursery Business." Mr. Jens' talk gave us all something to talk about and made us all wonder if we couldn't improve our operation somewhat from that standpoint.

The program was completed by a well presented discussion by E. N. Ducan, director in charge of the Agricultural Development, of the Great Northern Railway, who talked about the possibilities of the nursery business and its relationship to transportation. Mr. Ducan is one of the leaders in his field. The convention was terminated by a short business session with reports from the nominating and auditing committee. Mr. Vincent Frantel of Kenosha, and Charles Hawks, of Wauwatosa, were elected as directors for three years. Howard Anderson, President, Robert Gieringer, Vice President and Thos. S. Pinney, for Secretary, Treasurer, were re-elected for another term of one year.—**By Thos. S. Pinney.**

HOME AND GARDEN PILGRIMAGE TO MEXICO

From Friday, February 6 through Monday, February 16 garden club members may take part in the 19th annual Home and Garden Pilgrimage to Mexico. It is sponsored by the Texas Garden Club. Mrs. Ben Oneal, 2201 Miramar St., Wichita Falls, Texas, is Pilgrimage Chairman and a circular describing the trip may be obtained from her. This pilgrimage starts in San Antonio; then to Mexico City by train. Homes and gardens not open to other visitors will be seen and there will be tours of Mexican beauty spots. Rates are quite reasonable considering what is included.

Garden Gleanings

AFRICAN VIOLETS ARE EASY TO GROW

But They Need Proper Handling For Best Results

In transplanting your African violets be careful not to damage the roots too much when shifting from one pot to another or when lifting leaf cuttings. Bare rooted plants often suffer considerable shock in transplanting and may require some time to get back to normal.

The original potting soil cannot be too rich in plant food or injury may occur. This is especially true if too much nitrogen is added. While nitrogen is important and has a direct relation to the flower and leaf development it should be supplied at regular intervals in small amounts such as with a liquid fertilizer.

If a liquid fertilizer is used of one of the standard brands containing nitrogen, phosphorus and potash it will not be necessary to use additional elements such as super-phosphate—the complete fertilizer contains all the elements necessary for good potting soil.

Start your plants with a good soil high in organic matter; then you won't need to worry about the fertilizer problem.

Remember that African violets were accustomed in their native habitat to a warm climate. A room temperature of not less than 65 and up to 75 degrees is best; 60% humidity is also desirable, though the average home has around 40 to 50% humidity. If you grow the plants in the kitchen, let the room steam up occasionally as plants benefit by the extra moisture.

However, in the kitchen your plants may not bloom well if there is any gas leakage from the gas range because they are very sensitive to gas in the atmosphere.

Watering is one of the main factors in keeping plants healthy. The safest way to be sure that the lower part of the pot has sufficient moisture is to water from below. In a dry atmosphere, it will be necessary to water every day, especially if the plants are in a porous clay pot.

Grow only single crown plants. If little suckers form, push them off gently with a pencil. Turn the plants twice each week so they will remain symetrical.

FLOWERS FOR WINTER BOUQUETS

In this issue Mrs. George Kohlhoff, Route 1, Sullivan, has an ad in regard to her stock of grasses, garden flowers, wild flowers, seed pods, leaves of different shrubs and trees, both green and colored—in fact, 76 varieties which she has for sale to those who wish to make winter bouquets.

She is not able to send material by mail, but welcomes those who may wish to call at her home, only ½ mile from highway 30—first farm east of Concord on highway B. Here is an opportunity for members to obtain a large variety of materials for all decorations and flower arrangement work.

NEW ROSE REFERENCE BOOK

Modern Roses IV, compiled by the J. Horace McFarland Co. and the American Rose Society, contains 405 pages, 32 illustrations, 16 in color, American Rose Society, Harrisburg, Pennsylvania. Cost: $7.50.

Announcement has been made of the publication of **Modern Roses 1V,** a "bible" for rose nurserymen, hobbyists and hybridizers. Its aim is to present simplified, non-technical descriptions of all the roses now in commerce. In addition, there are included many that are now of only historical or botanical significance. In 1930 the list numbered 2511; this latest edition describes 6150 roses, including 300 species of wild sorts.

While the book does not give instructions for growing roses, it does provide a great deal of information useful to rose breeders and growers not otherwise available. Besides a straightforward description of the characteristics of the plant and flower, it tells all the known synonyms of each rose name, the class to which each variety belongs, the name of the originator and introducer and the date of introduction.

HOUSE PLANTS DETECT GAS

What are some of the house plants that are the best detectors of gas leakage from the kitchen gas range?

All plants react unfavorably to household gas, and show it by dropping their leaves and flowers. Some of the house plants which are most susceptible to it include the African Violet, which drops its flowers and buds or refuses to bloom; Jerusalem cherries and ornamental peppers, which drop their berries and leaves; babystears and impatiens, both of which lose their leaves and some kinds of begonias. Tomato plants, perhaps the most susceptible to gas, are often kept by growers to detect its first presence, long before the human nose is aware of it.—**From Horticulture, Mass. Hort. Soc.**

INSECTICIDES VS OUR BIRD LIFE

According to the Wildlife Management Department of the University of Wisconsin, if a wooded area or field is dusted with 5% DDT the poison either on or in the insects when eaten by the birds will kill them. A 2% DDT dust will not affect the birds.

This problem is, indeed, a serious one. We take many steps to protect song birds and beneficial birds of all kinds. But now, in our efforts to control insects on crops we may kill them in wholesale numbers.

Prof. Joseph J. Hickey, Chairman of the Wildlife Management Department, states that he has seen birds dying with the same convulsive movements as the insects have after fields have been dusted with DDT dust.

This problem must certainly be studied and every effort made to prevent wholesale destruction of bird life.

The measure of a man's character is what he would do if he knew he would never be found out.—**Blair Press.**

With all her faults, the back seat driver at least has enough interest in life to look ahead.—Chilton Times-Journal.

Indoor Gardening Questions

Answers by Dave Bosley
Extension Floriculturist, U.W.

1. How can soil that has been "worked to death" be brought back to life?

Ordinarily soil of this type should be discarded in favor of new soil. However, your old, used soil can be more or less rejuvenated by the addition of fairly large quantities of organic matter such as leaf mold, well-rotted compost, or well-rotted cow manure. In addition to the above organic matter, superphosphate (0-20-0 fertilizer) can be added at the rate of a four-inch potful to a wheelbarrow of soil.

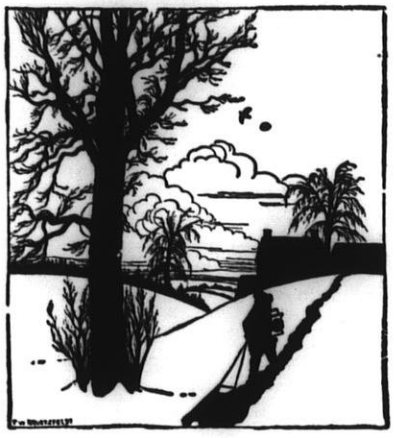
2. Can tuberous rooted begonias be grown indoors successfully?

Ordinarily tuberous rooted begonias are considered to be an outdoor plant in the summer and are grown to a great extent inside. Usually the tubers are potted in March or April, kept on the dry side until top growth is visible and then watered rather moderately until all danger of frost is over outdoors. The plants are then transferred to a place in the garden where they will receive about partial shade. Although the plants may be grown in the home there is no guarantee that flowering will result because of the poor light conditions found in the Mid-West during the dark winter days.

3. Is the preparation advertised recently for polishing of indoor plant leaves successful?

One of the preparations used to polish plant leaves is called Leaf-Brite, manufactured by Rosewell Inc., 330 South Ninth Street, Lincoln, Nebraska. This material is plastic in origin and while giving a beautiful luster to the plant leaves, it will not prevent the entrance of moisture or the escape of gasses which is necessary for the plant to continue growth.

4. I have heard it recommended that soil be mounded over chrysanthemum plants for winter protection. Can this be done too early, so as to injure the plants? When should it be removed? Are chrysanthemum plants different from others, such as delphinium in this respect.



If the chrysanthemums are purchased from a greenhouse, there is little chance that they will survive a typical Wisconsin winter even though they may be heavily mulched when planted outside. Years of commercial greenhouse planting show chrysanthemums have used the greenhouse factor to where these plants do not withstand very cold temperatures. If garden chrysanthemums are mulched too early the temperature may become so high that new growth will start and freezing of the soil will kill the new shoots and shorten the number of growing plants the following spring. Mulches should be removed at the first sign of top growth in the spring, or when the temperature averages about 50 degrees during the day.

5. During the winter months is it well to fertilize our indoor houseplants as much as in spring, summer and fall months. What is the best method of fertilizing them?

During the winter months houseplants may be conveniently fed twice a month with a liquid solution composed of one teaspoon of a soluble high analysis fertilizer such as a 15-30-15 or 12-31-14. This solution may be applied as a normal watering on the soil once every two weeks during the winter.

(To be Continued)

SOME NEW GARDEN BOOKS
Interesting Reading For Winter Months

American Trees, a Book of Discovery, by Rutherford Platt. Dodd Mead $3.50. Line drawings, photographs and an ingenious and simple kind of key help with field identification.

America's Garden Book; revised edition, by Louise and James Bush-Brown. Scribner's, $4.50. A book which covers all the problems of gardening is one of the hardest to write well. This has been among the best, and is interesting as well as practical.

Anyone Can Grow Roses, by Cynthia Westcott. Van Nostrand, $2.00. On the basis of experience in her own garden, the "Plant Doctor" takes from rose growing most of its supposed difficulty.

The Best Loved Trees of America, by Robert S. Lemmon. Doubleday, $3.50. The author has selected 59 trees from various parts of the country, each a local favorite.

The Gardener's Trouble Shooter, by Victor H. Ries. Sheridan House, $3.50. How to diagnose ailing plants and bring them back to health, explained in simple terms for the amateur.

The Home Garden Book of Herbs and Spices, by Milo Miloradovich. Doubleday, $2.95. How to grow herbs in the garden, in flower pots and window gardens.

How To Grow Rare Greenhouse Plants, by Ernest Chabot. Barrows, $4.00. Detailed instructions on the growing of 260 kinds of flowering plants.

Picture Primer of Attracting Birds, by C. Russell Mason. Houghton Mifflin, $2.50. A small book, but packed with information and illustrated on every page with colored sketches.

—Condensed from Horticulture, by Mass. Hort. Soc.

We never did have a war to end war—but we could appreciate peace that will end war.—Colby Phonograph.

What our nation needs is less soiled conversation and more soil conservation.—Burnett County Leader.

Wisconsin Beekeeping

Official organ of the Wisconsin State Beekeepers Association

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PROGRESS BEING MADE IN TREATMENT OF BEE DISEASES

At last we are beginning to see light ahead in the control of bee diseases—American Foul Brood, European Foul Brood, and Nosema. Science, which has discovered so many cures for human and animal diseases has now given hope to beekeepers all over the world that these bee diseases may also be controlled with modern methods.

Dr. Floyd Moeller of the North Central States Bee Laboratory gave a progress report at the annual convention of the Wisconsin Beekeepers Association on the work done at Madison during the past few years. His report on progress with feeding sodium sulphathiazole for control of American Foul Brood was especially encouraging. If sulphathiazole is fed properly, the progress of the disease can be stopped. If fed long enough, there is evidence that a colony may be able to clean up the disease. Dr. Moeller emphasized that one should not consider a colony clean until it has had no more foul brood for a period of 3 years without feeding sulpha.

How to Feed Sulpha

In the early spring while pollen supplements are being fed, the sulpha is mixed in the pollen cake at the rate of 1 gram of the soluable sodium sulphathiazole per gallon of sugar syrup. This is mixed with the pollen supplement in the regular manner and fed continously during March and April, or whenever pollen sources are inadequate for the requirements of maximum brood rearing.

Dr. Moeller recommended the feeding of sulpha in the spring as a preventative measure in areas where there is danger of infection from various sources.

Later in the season when sufficient pollen and nectar is coming in from the field so that the bees will not take up the feed readily, it will be necessary to spray the colony to get control of the disease. Bulk feeding of sulpha sirup is objectionable because of the danger of its finding its way into the honey supers as well as the large amount required to insure its reaching the brood. Spraying is not difficult. The combs may be taken out one by one and both sides of them sprayed with a low pressure sprayer. Good results can be obtained by spraying between the combs both from the top and the bottom of each brood chamber. By spraying twice each week active disease has been stopped and no new diseased cells have been found. The treatment must be continued until all evidence of the disease has disappeared.

Dr. Moeller emphasized that sulpha should not be used by beekeepers who have never had foul brood in the past but suddenly discover one or two colonies with the disease. These should be burned with the expectation that it may eliminate the disease from the yard. The treatment can be used as a preventative measure in apiaries that occasionally pick up infections; also in those where a large percentage of the colonies show a light infection, in which case there will be considerable saving of equipment, quite high priced at the present time.

There is now hope that with the combination of burning and control by sulphathiazole greater progress can be made in the future. The inspection service should be enlarged and changes should be made in the methods of handling the disease with the hope that there will be greater cooperation on the part of the beekeepers when they realize that perhaps it will not be necessary to burn their valuable combs.

However, it is certain that great caution must be exercised in making any changes. Sulpha is not a positive cure unless its use is supervised and carefully maintained. In fact sulpha may not cure the disease at all. It may simply delay or prevent germination of foulbrood spores, so that the young larvae can escape infection. The bees remove the scales of old infected larvae from the comb.

E. F. B. and Nosema Control

The antibiotic streptomycin has shown promise in EFB treatment and can be mixed safely with sulphathiazole without alteration of either drug.

A new antibiotic, Fumagillin, having amoebacidal properties gives some promise for the control of Nosema. Further research on the effectiveness of these and other antibiotics is needed before definite recommendations can be given but there is reason to expect good results in this new approach to disease control.—**By H. J. R.**

KELLEY MOVES OUT OF PADUCAH

The above is the heading in the October issue of Modern Beekeeping and the article tells about the congestion at Paducah due to government projects and that Walter T. Kelley Company is moving to a country location about 30 miles north of Mammoth Cave. It is a 110 acre farm about 1½ miles from Clarkson, Kentucky. From the pictures in the magazine it looks like Mr. Kelley is building a real modern establishment.

BEEKEEPING IN HOLLAND

In Holland the high prices now bear no relation to what the beekeeper can earn; many small ones are giving up and commercial men cutting down their number of colonies. The fault lies with cheap foreign honey; an attempt is now being made to all foreign honey to be used only for manufacturing purposes, and if the Dutch beekeepers succeed in this, it may be a way out for other countries. Switzerland, for all its work on bee forage, breeding management, disease control, etc., seems to produce little honey, an average of only 10 lb. per stock over the last 10 years. **—M. D. Bindley, in Bee World (England).**

BEEKEEPING IN CZECHOSLOVAKIA

In Czechoslovakia bee forage is being destroyed by industrialization and by corn and sugar-beet growing and the increasing disappearance of forests. In 1948 the average yield was only 4 lb. per colony (although possibly the true harvest is not declared because of distrust of the authorities). Permits for wood, roofing, nails, etc., for repairs to hives are given, but often cannot be honoured at all, or only with very poor material. New large State apiaries exist, but lack the experts to run them. Only the State Agricultural Institute may publish books, and the old ones have been seized and are no longer printed. Beginners get sugar only if they attend a beekeeping course. The normal price of honey is 200 kr., which is the price of fat and half the price of butter. — **From Bee World, (England.)**

TREATMENT OF EUROPEAN FOUL BROOD

Experiments in France, reported in the Bee World (England) indicated that results were much the same as in this country: there was no success when EFB was treated with antiseptics, sulpha drugs or penicillin. This past year treatment with streptomycin was 100% successful with no recurrence of the European Foul Brood.

Proof that most women can take a joke is the average man. There are still many widows, however.—Pierce County Herald.

A SOUND PROGRAM NEEDED

Honey Marketing Not A Sky-Rocketing Affair

A sky-rocket flares up with a bright light and everyone says "Ah! How Beautiful", but then it always reaches a peak and it comes back down to earth in darkness. It's a good illustration of what also happens to sky-rocketing programs—promotion that goes up with a big flare and then comes back to earth with a thud.

Probably the greatest injury that can be done to our industry is to give the producer the opinion that with a sudden great sky-rocketing promotional program, the **price of honey can be doubled** or greatly increased. We have heard it said that if 2c per pound or more could be collected for every pound of honey produced, and used for advertising, the price of honey could be doubled. Nothing can be further from the truth, and nothing is so misleading to beekeepers. There are more than 250 million pounds of honey produced in the nation. That's a lot of honey. The consumers, be they a family using honey on the table, or a baker using tons of honey in baked products, will pay just so much and no more for honey. Already there are indications that some bakers are considering abandoning honey in favor of some cheaper substitute.

A promotional program will stimulate the sale of honey, but only at a price that the consumer will pay. When we have a bumper crop it is valuable to push honey to move the crop and not have a big surplus to weaken prices the following year. A promotional program may also bring new users of honey, who may continue to use it during the coming years.

During the war period when sugar was rationed there was a great demand for honey at high prices. People who didn't buy honey before began to use it in baking and on the table. What did they do when sugar came back. Many of them would not buy it at all, and only during the past two or three years has the demand again increased among those same people who used it during wartime.

Let's get our feet on the ground and not expect miracles nor do a lot of wishful thinking.

1952 APIARY INSPECTION REPORT

(Continued from November)

County	Apiaries	Colonies	Colonies AFB
Jefferson	27	273	16
Juneau	7	57	..
Kenosha	28	408	18
Kewaunee	13	130	18
LaCrosse	77	558	3
LaFayette	22	505	15
Langlade	1	40	..
Lincoln	26	145	..
Manitowoc	32	827	14
Marathon	44	421	7
Marinette	38	243	13
Marquette	5	26	11
Milwaukee	50	399	21
Monroe	22	88	2
Oconto	54	657	25
Outagamie	91	1,069	8
Ozaukee	32	242	22
Pepin	18	168	1
Pierce	31	1,045	117
Polk	55	709	34
Portage	1	4	..
Price	2	52	..
Racine	54	431	75
Richland	6	112	2
Rock	25	1,654	25
Rusk	36	264	4
St. Croix	32	1,015	8
Sauk	46	674	15
Shawano	69	762	13
Sheboygan	78	654	23
Taylor	54	595	..
Trempealeau	79	796	..
Vernon	19	422	57
Walworth	33	657	10
Washington	17	370	85
Waukesha	4	35	1
Waupaca	160	1,697	58
Waushara	78	1,350	18
Winnebago	52	515	29
Wood	73	596	15

She—"Dearest, is there anything in life more important than love?"

He—"Nothing, sweet. Will dinner be ready soon?"

Saving is fine, but it's better to spend all you make than not to make all you spend.—**Phillips Bee.**

WHAT IS YOUR EXPERIENCE WITH WINTER PACKING CASES

Some 15 years ago the Editor purchased a small apiary in early winter and transported them to a home yard near Madison. For each of the colonies the owner had prepared an air-tight winter packing case of heavy cardboard material. The case allowed for 2 inches of shavings all around the hive with several inches on top. These cases were immediately placed over the colonies and the weather being quite cold in December, they were not inspected further. The next spring the results were quite tragic. About 75% of the colonies were dead and the combs and hives were quite damp. We had very little winter loss that year with other colonies which were protected only by a wind-break —no packing.

As a result we have always had a prejudice against any packing that is air-tight. So we were recently surprised to receive an illustrated sheet from a New York party advertising a packing case which reminded us a great deal of the one which gave such tragic results.

We will welcome any comments from beekeepers in Wisconsin who have had experience with tight packing cases—either good or bad.

Many Factors Involved

Of course the packing case is not the only factor involved in good wintering. We have these additional factors: 1) **ample stores in the right place—that is around and above the winter cluster.** These had not been properly checked in the purchased yard; 2) a large population of bees produced by plenty of room and favorable conditions for brood rearing during August and September.

Good wintering is only obtained by careful attention to all details by the beekeeper.

Once there was a girl who didn't think she could be happy without a pearl necklace. So as her birthday drew near, she hinted to all her boy friends that as a gift she would like to have something for her neck. Came the big day and she got six cakes of soap.

—West Allis Star

JANUARY IN THE APIARY

January is not only the first month of our calendar year, it is also the first month of the new year for our bees.

Our bees and queens have been resting since October. This rest is evidently beneficial because in tropical countries bees do not take such a long rest and consequently populations do not build up to the large numbers of bees per colony that we experience here in northern states by the month of June.

In January the colony takes on new life. The nurse bees again feed the queen for egg production. The temperature within the winter cluster is increased and the queen starts to lay. The eggs hatch; the larvae are fed 3 or 4 times per hour; the temperature within the cluster is maintained uniformly and brood rearing proceeds — all this happens even though the temperature outdoors may reach 20 or 30 below zero.

By the first of February colonies with a normal population will have about 2 frames with sealed brood about the size of a man's hand. Some may have slightly more than others depending upon when the queen starts to lay. From then on we can expect young bees to emerge daily to take their place as nurse bees, maintaining the population of the colony.

Some beekeepers feel they would prefer to have colonies remain dormant and not raise brood during midwinter. Under normal conditions if there is sufficient pollen and honey available to the winter cluster, brood rearing cannot be checked. To stop brood rearing one would have to remove all pollen within reach of the nurse bees and about two weeks afterwards the brood rearing would slow down at the expense of the vigor of the bees. The death rate would increase and without any emerging bees the colony would start to dwindle in March and April which, of course, may leave the spring colony very weak and unproductive.

HONEY WANTED

WANTED Wisconsin honey in all grades. Submit samples. Highest prices paid. Schultz Honey Farms, Ripon, Wis.

Dean
College of Agriculture
Madison 6, Wis.

Wisconsin Horticulture

February 1953

WISCONSIN HORTICULTURE

The Official Organ of the Wisconsin State Horticultural Society

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Subscription by membership in the Wisconsin State Horticultural Society. Annual dues are $1.25 per year. Organizations of 10 members or more may affiliate at special rates which will be sent on request.

Concentrate Spraying Experience

After 30 Years of Trial and Error We Found a Sprayer that Enables Us To Produce Clean Fruit Which is a Joy To Grow, Harvest and Sell

By Arnold Nieman, Cedarburg

Our orchard, located near Cedarburg, consists of about 115 acres of apple trees —main varieties being Cortland, McIntosh, N.W. Greening, Red Delicious, Kendall and Melba.

The orchard is located on fertile clay loam soil; the trees are well mulched with pea vine waste, baled straw and hay, so with the addition of some nitrate fertilizer we get good tree growth and yields of fruit.

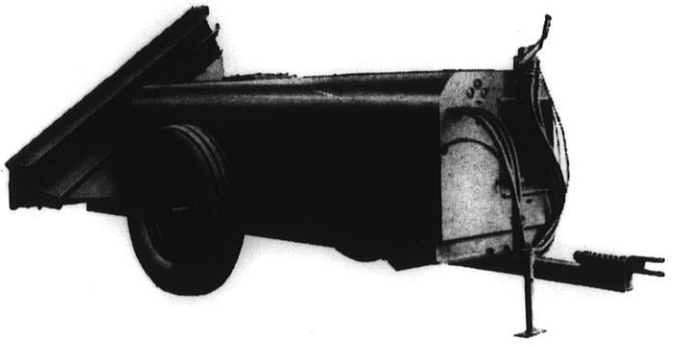
However, our location being only 6 miles from Lake Michigan has some disadvantage for it gives us much cloudy, foggy weather which makes is difficult to get good red colored fruit and increases the danger of scab infection.

Early Spray Program

In 1923 our spraying equipment consisted of a 50 gallon hand-powered barrel pump with a bamboo spray pole. We then used liquid lime sulphur dormant spray and liquid lime sulphur with arsenate of lead for the calyx and 14 day spray. With this set-up we were able to produce a fairly high quality marketable crop of apples.

After a few seasons with this equipment we invested in a single cylinder gas engine driven pump and added a spray gun to streamline the equipment. A pink spray application was also added in the schedule.

In 1938 we had our first experience with a real scab infection. By that time we were using a tractor take-off powered sprayer with 12 gallon per minute capacity at 400 lb. pressure. A new and bigger sprayer was purchased, one with a 30 gallon per minute capacity at 600 lb. pressure, but was still powered by tractor take-off. The gun operator stood on the tank while the tractor operator drove up and down the rows. We were using liquid lime sulphur with arsenate of lead in the pre-blossom and calyx spray, applying the same according to recommended spray schedules. Our trees were growing in size, the oldest being now 19 years of age and in spite of all our spraying efforts which were practically continuous from spring to fall, we were getting worms in dry years and scab in wet years.



A Mist Concentrate Orchard Sprayer—the type used by Nieman Brothers.

Low Pressure Sprayer Fails

By 1945 we decided to purchase one of the low pressure air blast sprayers. Our first year experience with this new machine using the recommended spray schedule of liquid lime sulphur and arsenate of lead in the pre-blossom and calyx sprays with wettable sulphur with lead arsenate in the later cover sprays at the rate of 10 gallons per tree resulted in fair scab control but with severe foliage injury. Following this we cut way down on the use of liquid lime sulphur as a fungicide using wettable sulphurs, ferbams, Puratized, and Stanofide. In spite of all our efforts, however, scab was still taking a big toll of our No. 1 fruit. We then decided to supplement our liquid spray program adding a sulphur dust whenever the rainy weather made it impractical to use a low pressure air blast sprayer. However, in spite of all the modern equipment, new chemicals, rigid adherence to the timing of sprays we were losing ground and scab was our Number 1 enemy.

Through these troubled years we also had been attempting to have our low pressure air blast sprayer converted to a high pressure outfit for we felt that the principle of blowing the spray into the tree by an air stream was basically sound. Our objection to low pressure was that it caused the spray solution to leave the nozzle as a rain droplet splattering it on the fruit and leaves in the same way as rain, thus giving us only partial protection.

Scab Increases

During 1951 we hit an all time high with scab infection. We started our spray program with the green tip and continued on through the season until we had applied some 13 sprays and dusts. We used both the low pressure air blast machine and the high pressure boom type sprayer, spending about 4 days out of each week applying sprays. But in spite of all this effort and expense we still had scabby fruit.

Purchase Concentrate Sprayer

After this experience we began to look around for better spraying methods. At the annual convention of the Wisconsin Horticultural Society at Fond du Lac in 1951 we received information on the concentrate sprayer which we had observed at the Robert Sacia Orchard in Galesville the preceeding fall. That winter we purchased a concentrate sprayer which we thought was suitable for our needs. It has a centrifugal fan delivering 20,000 cubic feet of air per minute at a velocity of 110 miles per hour. The pump delivers 15 to 18 gallons of concentrate solution per minute and we use it at 550 lb. pressure. The tank will hold about 330 gallons of mixture. The engine is a 45 h.p. 6 cylinder water-cooled job well

able to take care of the pump and fan load. We use a one-way head, 8 ft. long with a 3 inch air slot equipped with 6 Tee-Jet nozzles with changeable tip sizes. The controls are accessible from the tractor seat making it very simple and easy to operate. The air stream can be lowered or elevated according to the size of the tree and it can be angled according to the direction of the wind. The governed speed of the engine can be changed to compensate for wind velocity. The fineness of the material sprayed into the trees by the high pressure and air stream is somewhat comparable to a heavy fog. The drift of the material that is not stopped by the tree actually being sprayed is often deposited on the trees in the adjoining rows causing a very high percentage of the spray solution actually being used for scab protection—instead of being lost on the ground as formerly.

New Spray Program Succeeds

Last year we started our green tip spray April 21 using liquid lime sulphur at the rate of 20 gallons per concentrate sprayer tank of 330 gallons or a 3 x solution which we applied at 3¼ gallons per tree, using No. 8 jets. When the spray dried on the orchard looked a shimmering white having almost perfect coverage. In the pre-pink spray we used the same jets and 18 gallons of liquid lime sulphur per sprayer tank but increasing our traveling speed so as to apply 3 gallons of solution per tree.

In the pink spray we used No. 4 jets on the bottom with five No. 8 jets on top and further increased the traveling speed so that 2-6/10 gallons per tree were applied. In the solution 17 gallons of liquid lime sulphur were used with 28 lbs of arsenate of lead per tank.

A blossom spray was applied in wet cool weather on May 13, using Crag at the rate of 15 qts. per tank—no insecticide being used. The per tree application was 2-6/10 gallons.

The calyx spray was applied May 20 using 15 qts. of Crag and 28 lbs. of arsenate of lead with 14 lbs. of spray lime at 2-6/10 gallons per tree.

Summer Sprays

The rate of application of a 3 x solution using 2-6/10 gallons per tree was continuous throughout the summer with different spray materials tried out in different parts of the orchard. On August 5 we used a combination of No. 2, 3, and 5 jets with a 4 x solution using 2 gallons of solution per tree. The spray material used in this application except in a few test sections was 36 lbs. of arsenate of lead and 12 lbs. of ferbam.

We applied 12 complete sprays last season spacing them about 1 week apart. We harvested an almost scab free crop of apples, had no apple maggot and practically no worms but had some mite and late leaf roller damage which we hope to control next year.

A Happy Solution

In summing up our experiences, in almost 30 years of trial and error, hope and despair, we finally found a machine that we think applies a spray material in the way we want it applied and makes agreeable work out of a dirty and distasteful job. We and our sons now again feel master of our orchard and not its slave. We now feel that we can produce good, clean fruits that it becomes a joy to grow and harvest and sell.

METEOR CHERRY

A Hardy Introduction from the University of Minnesota Fruit Breeding Farm

Meteor is similar in fruit type to Montmorency, its mother parent. Its hardiness is derived from the male parent which was the product of repeated selections from the Russian varieties, Vladimir and Shubianca. This cross brought together America's most popular pie cherry and a selection from some of the world's hardiest cherries. Meteor presents a happy combination of the large, good quality fruits of its mother and rugged cold resistance of its father. It should be a valuable addition to the fruit lists of cold northern climates and it may be good enough to win a place in commercial cherry growing areas of this country.

The tree of Meteor is a strong and vigorous grower with an upright, moderately spreading habit. The unusually large leaves produce a dense and luxuriant foliage that apparently is resistant to leaf spot. The original tree began bearing in 1944 and since that year has never failed to bloom and set a crop of fruit.

The fruit is large to very large, blocky roundish oval flattened at the ends. The color is a very attractive **clear light bright red:** the skin is thin and tender. The flesh is medium firm and medium juicy. The flavor is a pleasant mild acid and quality is very good. The stone is small, long oval, and very free. The fruit ripens about mid-season in relation to standard varieties of sour cherries.

COUNTY FRUIT GROWERS ASSOCIATION MEETINGS

Eleven County Fruit Growers Associations will hold their annual meeting and program during February and March. The program this year will open with a movie by the National Apple Institute on the value of apples for health. The 1953 Orchard Spray Program will be one of the principal topics on the program. Apple varieties both old and new, annual business meeting, election of officers, how to get better apple size and quality by pruning, chemical thinning and fertilizers, and discussions by local growers and County Agents will make the program interesting. Speakers will be Dr. C. L. Fluke of the Department of Entomology on orchard insect control and Dr. J. D. Moore, on apple disease control, at several meetings each. Mr. Earl Wade, Extension Pathologist will speak on diseases of small fruit and farm crops at several meetings, and H. J. Rahmlow, Secretary of the Horticultural Society who will speak at all of them.

MEETING SCHEDULE

Tuesday, February 24. Milwaukee County Fruit Growers Association at Greenfield Town Hall.

Wednesday, February 25. Waukesha County Fruit Growers Association. At S. E. Supply Co., 227 Cutler St., Waukesha.

Thursday, February 26. Racine County meeting at the School of Agriculture, Rochester.

Tuesday, March 3rd. Washington County meeting at Jackson Town Hall.

Wednesday, March 4th. Ozaukee County meeting at Mequon Town Hall.

Thursday, March 5. Sheboygan County meeting, at City Hall, Plymouth.

Wednesday, March 11. Jefferson County meeting at City Hall, Fort Atkinson.

Tuesday, March 24th. Calumet County Meeting. New City Hall, Brillion.

Wednesday, March 25th. Shawano County meeting. Utility Building, Shawano.

Thursday, March 26th. Outagamie County meeting. Twelve Corners Hall on Hy. 47.

A girl will never forget her first kiss, but a boy is more apt to remember the kiss he tried to get and couldn't. — **The Dodgeville Cronicle.**

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TOUGH ON DISEASE. "Fermate" fungicide gives foliage and fruit of apples and pears sure protection against scab. It also controls cedar-apple rust, black rot, sooty blotch and bitter rot.

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On all chemicals always follow directions for application. Where warning or caution statements on use of the product are given, read them carefully.

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BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

An Apple Variety Survey

Largest Tonnage of Apples in Door County Are Varieties Accepted By the Market. But Poor Varieties Have Price Depressing Effect.

By John I. Kross
Dept. of Agricultural Economics, U.W.

Several people have stated that Door County apple growers do not produce marketable apple varieties. This survey has ascertained that the largest tonnage of apples are of varieties that are recognized and accepted by the market. This survey has also pointed out that in Door County there are many varieties not readily desired by the trade. However, the combined tonnage of inferior varieties is not great but probably large enough to have a price depressing effect on the apple price situation in Northeast Wisconsin.

Varieties Grown In Door County

1. The total number of trees of all ages reported was 115,091. Slightly more than 79% of these trees are of bearing age.

2. The **McIntosh** variety is the leading variety followed by **Wealthy, Cortland, Red Delicious** and **N.W. Greening.** These five varieties make up 77% of the total apple trees grown in Door County. It is recommended that additional plantings of the Wealthy variety should be discouraged.

3. The number of trees planted between 1945 and November 1951 amounted to 23,908 trees, whereas the number of trees removed during the same period amounted to only 1,812 trees. Growers should take steps to remove trees that are 30 years and over particularly the wealthy variety.

4. The 1951 production of apples from 114 growers amounted to 497,975 bushels; 64% of the crop was disposed of in the fresh market and 36% in the processing market.

The Number and Age Distribution of Apple Trees by Varieties

The total number of trees of all ages reported was 115,091 trees covering an area of 2,636 acres. During the 1949 cherry tree census study, growers reported that they had 180,435 trees covering an area of 3,916.5 acres which included Door, Brown and Kewaunee Counties. It should be noted that the 1951 apple survey covered primarily Door County and excluded apple orchards in Brown County.

Slightly more than 79% of the trees are of bearing age. The trees between 15 to 30 years of age were the largest in number with 63,689 trees or about 41% of the total. The next highest number were made up of trees 30 years and over in age comprising about 24% of the total. Stated in another way, about 65% of the apple trees were more than 15 years old.

Table 1. Number of Orchards by Size

Size of Orchard (acres)	No. of Orchards
0.5-1.0	19
1.1-1.9	4
2-3.9	30
4-5.9	14
6-10	15
11-20	28
21-50	13
51-100	8
101 and over	8
Total No.	139

Number of Trees Planted and Removed between 1945 and November 1951

The number of trees planted between 1945 and November 1951 amounted to 23,908 trees, whereas the number of trees removed during the same period amounted to only 1,812 trees. The varieties making the most important gains were Cortland, McIntosh, Red Delicious, Golden Delicious and N.W. Greening. This data would give the impression that the apple industry in Door County is expanding. In the United States the total number of apple trees has declined from 151,000,000 in 1910 to 39,000,000 in 1950 or a drop of 75% in the number of trees producing apples in the United States.

Number of Trees Planted and Removed Between 1945 and November 1951, Door County

Variety	Number of Trees Planted	Number of Trees Removed
Cortland	6734	12
McIntosh	6611	1242
Red Delicious	2621	357
Golden Delicious	2298	243
N.W. Greening	1852	115
Wealthy	1564	864
Starking	523	1
Jonathan	398	35
Early McIntosh	130	18
Macoun	84	None
Whitney Crab	78	1
Prairie	52	1
Beacon	22	None
Dudley	1	45
Ben Davis & Jane and Black Ben	20	104
Duchess	2	174
Wolf River	None	206
Hyslop Crab	None	211
Tolman Sweet	16	229
Snow	380	1250
Other Varieties	522	117
Total	23908	1812

Apple Production In Door County

The yield per acre based on 68 grower records is shown below. Most of the growers reported yields that ranged from 151 to 300 bushels per acre.

Apple Production Per Acre

Yield Per Acre (bu.)	No. of Growers Reporting
75 bu. and under	12
76-150 bu.	17
151-225 bu.	11
226-300 bu.	13
301-375 bu.	8
376-450 bu.	6
451-bu. and over	1

Special acknowledge is made of the work of Dr. Frank Gilbert, Sturgeon Bay Branch Station, and G. I. Mullendore, County Agent.—Condensed from Bulletin No. 5, Dept. of Agric. Econ.

"Why didn't you yell for help when that soldier kissed you?"

"Mother, that soldier didn't need any help."

In The Orchard

ORCHARD PRUNING

"These times call for more information on improved orchard practices," said Dr. R. H. Roberts at our annual convention during November. "If concentrated spraying is the coming thing, then the trees must be low because this type of spraying will not cover the tops of tall trees well," he said.

In a renewal type of pruning we should leave the small suckers, those from 1 to 1½ feet long. They will come to fruiting earlier and when not so tall as the long suckers.

To Reduce Height of Trees

To reduce the height of an apple tree, **don't cut small branches.** If you cut 1 inch diameter branches it will stimulate new branches and in a few years the tree will be taller than before. Cut a big, tall branch all the way down to really lower the tree. Take out big, tall branches entirely, don't head them back. You can often effectively lower a tree with 3, sometimes 2 cuts.

Delicious should be worked on hardy stock in many sections to avoid winter injury. If you have winter injured trees, as Delicious, they should be pruned quite heavily; wait as late as possible to see where the new growth is starting.

Pruning the McIntosh

When a McIntosh tree gets old, you will have lots of terminal branches that make very little growth and produce small apples not of salable size. Therefore, prune annually, cutting back small branches.

Length of Growth and Size of Apples Related

"The reason why growers produce more bushels per tree in the state of Washington than we do here is that they grow larger apples," said Dr. Roberts. We have twice as many apples per tree as they do. In Wisconsin trees 12-18 years old have the most and best fruiting wood per acre. There is a very direct relationship between the length of growth and the size of the apples. If the branches grow less than 3 inches, the apples will be too small for the market. We waste a lot of time picking and grading out little apples which takes a lot more time than to prune a tree properly.

In varieties which are biennial in bearing, cut the small branches in two. The effect will last about two or three years. All branches and laterals on varieties such as Golden Delicious are cut in half. New spurs will grow into lateral branches—bringing in new, vigorous wood which will make a young tree out of an old one.

IRRIGATION SYSTEM FOR SALE

FOR SALE: Several slightly used portable overhead irrigation systems at real bargain prices. I also have the agency for all popular brands of new pumps. Write: Eric Franke, Rt. 5, Sturgeon Bay, Wis.

Berries and Vegetables

Wisconsin Berry and Vegetable Growers Ass'n.

STRAWBERRY VARIETY TRIALS—1952, PENINSULA BRANCH EXPERIMENT STATION

F. A. Gilbert, Superintendent
Ass't. Prof. of Horticulture

A study of the adaptation of strawberry varieties in the Door County Peninsula was initiated with the planting of 24 varieties and selections in the spring of 1951. Since there has been considerable interest in our results, it seems desirable to give a progress report, even though only one set of data is available thus far.

The plants used in the trials were obtained from several nurseries in Wisconsin and one nursery in New Jersey. Unfortunately, there was a considerable lack of uniformity in the plants, with too many of the plants undersized and undesirable from the standpoint of best subsequent plant stands and yields. However, the plants were a fair sample of the plants offered to the trade.

Cultural Program

Before giving a description of the individual varieties, it might be of interest to outline the general cultural program followed. The soil at the station is classified as a Longrie Silt Loam and the field used for the strawberry trials was planted to potatoes the previous year. Before the field was worked, 600 pounds per acre of an 0-20-20 fertilizer was broadcast over the area. The plants were set by hand in rows 3.5 feet apart with 30 inches between plants. As soon as the plants were set one half pint of a starter solution was poured directly on them in order to have available plant nutrients in the root zone. This starter solution was made by dissolving four pounds of a 10-52-17 fertilizer in 50 gallons of water. (Similar high analysis fertilizers can also be used to make the starter solution).

When the first runners were observed, the planting was side-dressed with 300 pounds per acre of a 3-9-18 fertilizer. In mid-August, a second side-dressing was applied using a 33-0-0 fertilizer at the rate of 200 pounds per acre. In the spring of the fruiting year, 200 pounds per acre of 3-12-12 was added since the plants appeared slightly on the "hungry side" as they went into the winter.

One other factor which should be noted is that the status of the plants with regard to the virus disease, "Eastern Yellows" was not known. In other words, these plants were not known to be virus free. However, they would be comparable to plants set out by the growers in Wisconsin.

Plant Vigor and Plant Stands

The descriptions of the plants and the plant stands will be given in the same order as given in the accompanying table on yields. By doing this, it should make it easier to ascertain why some of the yields were poor.

Redstar:

The plants of this variety made very few runners and thus only a thin matted row was obtained. Information from the East Coast would probably point to the virus disease as the reason for this poor showing.

Redwing:

Only a fair plant stand was obtained with this variety. Even though it is one of the best freezing types, the Redwing has not been widely planted because of its tendency toward shy yields.

Dunlap:

This variety made a fair to good row but after the first two pickings the berries just weren't there. Also, the size of the fruit dropped rapidly.

Sparkle:

Sparkle lived up to former observations of this variety. There was a fairly good stand of plants, but the vigor was variable which was probably due to virus. There was a very heavy set of fruit, but the plants were not vigorous enough to size this fruit. The quality of the fruit, both fresh and frozen was very good, and the berries were firm. Growers who try this variety should be prepared to give it some extra fertilizer and should be equipped with irrigation.

Pathfinder:

Virus, also, was probably a factor in the plant stand as only a thin matted row was obtained. When Pathfinder was first introduced, it was exceptionally vigorous, but it has been one of the varieties which has failed to make runners in recent years.

The fruit has a tendency to be a little on the soft side, but is very attractive and the fact that it ripens a day or so after Premier is in its favor.

Redcrop:

Although there was a good stand of plants of Redcrop, the yield was low. This has been a high yielding variety, and it is hoped that it will show more promise when virus free plants are available.

The fruit is firm, dark red, and makes a very good freezing berry.

Catskill:

Catskill made a fair showing with a good stand of plants, but once again there was considerable variation in plant vigor. Since this variety is one of those most susceptible to "Eastern Yellows" the finger points to this disease as the cause of the variability.

The fruits were large, showy, and moderately firm. However, the variety has sunken seeds which makes it rub easily. In general, the fruits as we grew them would rate as a fair variety for freezing.

Premier:

Plant vigor and numbers of plants were both good with Premier. The fruits ripened early and maintained their size fairly well throughout the season. Probably the biggest factors in favor of this variety are reliability and earliness where an early variety is wanted.

Robinson:

Plant stands and yield were good, with large attractive fruits throughout most of the picking season. However, the fruits were not quite as firm as desirable for a commercial shipping berry.

Wis. 537:

The plants at the station showed very little evidence of yellowing and produced an excellent stand, and a high yield of desirable fruit we've harvested. The fruit was large, attractive, firm, and made an excellent frozen pack. However, since there has been a lot of "genetic yellows" showing up in this variety, growers should be cautious in trying it out.

Wis. 214:

As fruited in 1952, this variety was very prolific with the most vigorous stand of plants. The fruits were large, with sunken seeds, and in general were somewhat soft for commercial shipment.

Since the variety is so prolific, it is suggested that growers become familiar with it with regard to fertilizer requirements. Our observations this past season would point toward holding back somewhat with this particular variety.

Wis. 261:

In 1952, Wis. 261 had the "best" matted row with an exceptionally high yield of large berries. Under Door County conditions the quality of the fruit was only fair and was on the soft side for commercial shipment.

Yields in 1952

The yields from the plots are recorded in the accompanying table. Two rows each of which was 115 feet long, made up the plots from which the yield figures were obtained. If the yield figures were to be converted into quarts per acre, 100 quarts from a plot would approximate 5000 quarts per acre.

Strawberry Yield Data—1952
Peninsula Branch Experiment Station

Variety	First Picking	Yield (qts.) 230' of Row
Redstar	7/1	8.75
Redwing	6/25	36.50
Dunlap	6/18	61.50
Sparkle	6/25	69.50
Pathfinder	6/18	74.00
Redcrop	6/18	74.00
Catskill	6/23	81.50
Premier	6/18	100.25
Robinson	6/23	110.75
Wis. 537	6/25	112.50
Wis. 214	6/23	115.25
Wis. 261	6/18	135.25

Strawberry adaptation trials will be continued at the Peninsula Branch Experiment Station, with the addition of other varieties whenever they are available.

VEGETABLE GROWERS OF AMERICA HOLDS ANNUAL CONVENTION

At the annual convention of the Vegetable Growers Association of America held in Tampa, Florida early in December, James Swan of Delavan, Wis., was named first Vice President. Leonard Weiss of South Milwaukee, Wis., is on the Board of Directors.

A SATISFIED ADVERTISER

"I sell more small fruit plants from advertising in Wisconsin Horticulture than all other advertising." Albert Kruse, Baraboo, Wis.

REDUCTION IN STRAWBERRY ACREAGE

The 1953 strawberry acreage for the United States as reported by the USDA last October will be smaller than last year. There are only 119,000 acres compared to 151,000 in 1951. The biggest drop will be in Louisiana, with about a 25 per cent reduction in acreage.

Severe draughts last summer and uncertain labor conditions were responsible for the reduction. The early spring strawberries, therefore, will probably be short in supply.

HIGH STRAWBERRY YIELDS IN CALIFORNIA

The USDA reports that there has been tremendous increase in yields of strawberries per acre—345 crates per acre as compared to 120 crates per acre for the next highest state.

One of the factors effecting this high yield is the introduction of new, adapted varieties for the district by the Strawberry Institute of California and the use of relatively **virus-free stock.**

Here in Wisconsin a movement is on foot to **develop virus-free stock of our best varieties.** This is a step greatly needed. In fact, we are lagging behind the west in this respect.

With high labor costs, with labor uncertainty, and the shortage of pickers, every effort must be made by growers to increase the yield per acre.

For Higher Yields

To obtain these high yields per acre in Wisconsin, we should: 1. Introduce virus-free stock of adaptable varieties; 2. Prepare our soil with more organic matter; 3. Use irrigation wherever beneficial; and 4. Use chemical weed killers to reduce labor costs.

VEGETABLE GROWING IS BIG BUSINESS

Vegetables stand fourth among the crops in production. The vegetable acreage, that is, truck crops for fresh market and processing, was about 3¾ million acres, according to the 1950 census report. This is 3½ times the plantings in 1909. There are 2.5 acres of vegetables for every 100 persons while in 1909 it was only 1.1 acres.

Civilian consumption of canned vegetables has jumped from 28 lbs. per person in 1929 to 32.7 lbs. in 1939, to 40.5 lbs. in 1950.

Berry Plant Market

PRAISE FOR NEW APPLE

"Winner of the first prize basket at the joint fruit growers meeting at Winona, Minn., was William F. Connell of Menomonie, Wis. Close runners-up were Ulrich Fruit Farm of Rochester in 2nd place, and L. F. Lautz of La Crescent in 3rd place. Mr. Connell also exhibited a beautiful basket of his **new red unnamed apple grown at his Sun Ridge Orchards. This apple was the talk of the meeting.** It is from a tree received in an order of Fireside trees. The apple is of much higher color than Fireside which it resembles to some extent."—**By J. D. Winter in Minn. Newsletter.**

Nursery News & Notes

For The Wisconsin Nurserymen's Association

NURSERY INSPECTION SERVICES BY THE STATE ENTOMOLOGIST'S OFFICE

By H. E. Halliday

Many Wisconsin nurserymen do not realize the number of calls and inspections made each year to Wisconsin plant growers by E. L. Chambers, State Entomologist, and his staff. Approximately 800 nurseries were inspected in 1952 and certificates issued. Many of these were inspected twice and some three times. In addition, there were inspections made for the issuance of permits. A permit is issued to a person, after inspection, to allow them to dispose of surplus stock from their garden. Sales are limited to six and must be within a twenty mile radius of their home.

There are many special inspections made each year for Wisconsin nurserymen. These inspections which are made on definite shipments or orders of stock make it possible for the nurseryman to comply with regulations of foreign countries and certain other states in which he does business. We have been very strict in compliance with regulations of other states and foreign countries. As a result, seedsmen, and mill operators enjoy a good reputation and have very little trouble in doing business wherever they wish.

Special types of inspections are also made of nurseries for white pine blister rust and black stem rust control. These are made by specialists in charge of these projects in the State or their men, all of whom work under the direction of the State Entomologist.

Individual insect and disease problems, storage inspections, and post entry quarantine inspections also add up to a considerable number of calls which are made for the nursery industry.

Many times nurserymen's problems can be answered by correspondence. Specimens of troubles are sent into the office. Identification and information on treatments can be sent in a letter, thus saving a trip.

Information on plant diseases and insects affecting ornamentals, flowers, and bulbs, is not nearly as plentiful as it is for field, vegetable, and fruit crops. There is also a lack of information as to toxicity of many of our new pest control materials to plants. Availability of many of these new materials is a serious problem at times. There is not much point in recommending useful materials if the nurseryman cannot obtain them. Toxicity to the user is another consideration in the use of some of the new materials. In many cases, the problems of the individual grower do not warrant the employment of custom control operators. He has to do his own spraying, and consequently, we have been hesitant to recommend some dangerous materials even though they may be very effective pesticides.

These problems are being solved slowly, it is true, but better materials and methods are being made available to nurserymen for pest control. Through the nurserymen's section of this magazine, the State Entomologist's office expects to give the nursery industry the latest pesticide information as it becomes available. Reminders on the timing of pesticide applications will be given as well as any changes in insect and plant disease regulations affecting the nursery industry.

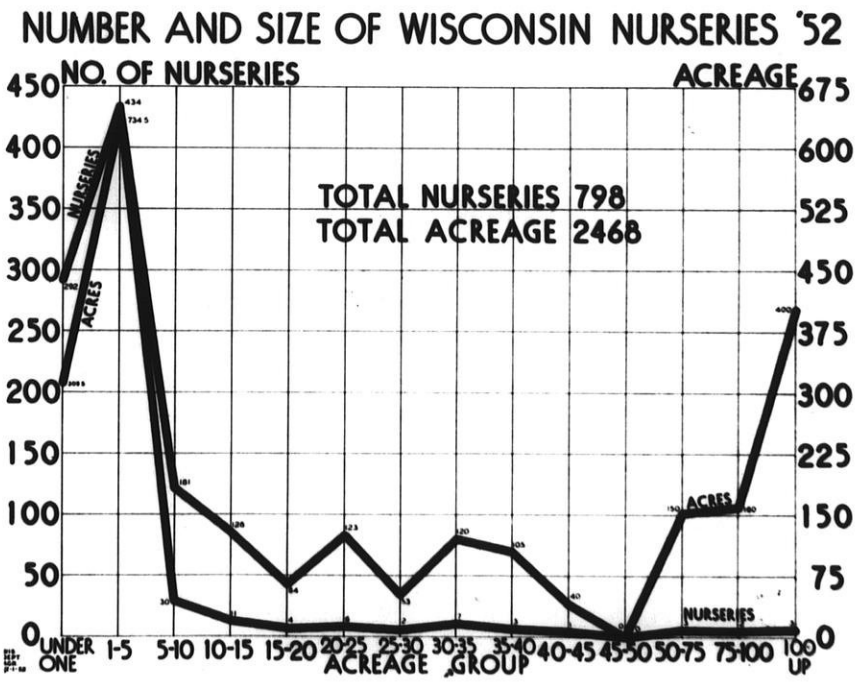
Explanation for graph: The chart shows the distribution of Wisconsin nurseries by acreage. The largest number of nurseries are 1 to 5 acres.

"SAY IT WITH SPRUCE" ADVISES BANKER

An indication of how the nursery industry can share in the large amount spent annually by business firms at Christmas time for gifts to customers and employees was made in the Christmas present of the Farmers and Merchants Bank of Rudolph, Wisconsin to 420 of its customers.

A letter, mailed by the Bank on December 22nd, reads in part as follows: "The other evening as we were coming back from a farm business call we noticed a real Spruce tree all decorated in the 'Spirit of Christmas' in the front yard of one of our customers' homes.

(Continued on Page 108)



From the Editor's Desk

OUR COVER PICTURE

A Basket of Zinnias is the title of our cover picture this month. At last the zinnia has come into its own. Even our most enthusiastic flower arrangers are intrigued by it. Seed growers have developed large flowers of unusual shapes and excellent colors. We can have them now in clear rose, rich purple, golden yellow, pastel cream and even salmon, orange and crimson. Then we have the curled and crested sorts, and wonderful new giant flowered varieties. For those who don't like the large flowers there are the charming dwarf sorts which produce small flowers that cover the plant—dwarf kinds known as Tom Thumb, Pom Pom or Lilliputian.

But many folks haven't really seen the best varieties and so the Garden Club of Wisconsin has adopted a zinnia growing project—to test the new kinds both for their garden charm and for arrangement.

Last summer we heard a lady exclaim over a "beautiful bowl of roses" which she saw from a distance: actually the Fantasy variety Rosalie.

Well, perhaps in the future even the prospective bride may decide on a bouquet of beautifully colored zinnias—a far cry from the kinds that Grandma used to grow and arrange in the bean jar.

The photograph for our cover cut was loaned us by the National Garden Bureau of Chicago.

TREND IN ORCHARD INSECT CONTROL

"You cannot depend on one kind of insecticide for control of all insects in the orchard because you must meet each situation differently as it arises," said Dr. C. L. Fluke of the Department of Entomology, U.W., at the annual convention of the Wisconsin Horticultural Society. Different insects require different treatments and we may have trouble with curculio, red mites, leaf roller, codling moth, apple maggot or aphids and we must meet each situation—it will often take different kinds of insecticide to gain control. DDT will control codling moth; Parathion will control mites; you may have to use Methoxochlor late in the season for apple maggot.

Dr. Fluke said that Dieldrin will be recommended in the calyx spray for those who have plum curculio trouble.

Say It With Spruce

(Continued from page 107)

The thought came to us 'Wouldn't it be nice if every customer could have a live Christmas Tree.' We have made arrangements to have ready for delivery to you a genuine Colorado Blue Spruce if you will call for it during the last two weeks of April, as our Christmas Greeting to you. So come spring you too can start your 'Living Christmas Tree' and as the years go by watch it grow. Let this tree symbolize 'The Spirit of Christmas' not only this year but for the years to come." The letter goes on to recite the details of the plan by which a card will be mailed out by the Bank April 10th which the recipient can present to the nursery with which arrangements have been made, in exchange for the potted Blue Spruce.

According to Mr. C. M. Amman, the progressive president of the Farmers and Merchants bank, the gift has been received far better than anything the bank has done in the past. "From a practical standpoint," he said, "it is better than anything we have ever done. Not only are we helping to beautify our community but we are making a gift which will last and be appreciated longer. It has been wonderful to hear the response."

Seemingly, this type of Christmas gift plan can stand a good deal of encouragement from the trade. Whether a Spruce, a Flowering Almond or a Rose, the recipient is bound to be delighted. The institution making the gift is rewarded in good will at Christmas time, in the Spring when the plant is picked up and, of course, through the years as it grows.

Copies of the complete letter mailed out by the Bank are available from the editor of this page.

A NEW PETUNIA — COMANCHE

We Recommend The 1953 Bronze Medal Winner

The announcement that the Petunia, Comanche won the Bronze Medal for new seed introductions of 1953 was no surprise to us because we had seen this wonderful new variety at the Vaughan Seed Company Trial Gardens in August. We have not always found the All American Selections to be better than other existing varieties, but Comanche is better than a great many petunias and of a different color—red. It is described as follows in the All American Selections information.

The hybrid Comanche is always rich scarlet red in color, with larger and many more flowers on somewhat larger, more bushy, stronger plants than Fire Chief. It is a very striking improvement over the 1950 winner and just as easy to grow.

Comanche petunia grows to about 15 inches tall and as wide unless crowded in the bed. Its hybrid vigor makes it stand erect and to hold its many bold, plain petalled flowers above the foliage in effective display. It is for widest planting use in bedding, low borders, row planting along walks or drives, in clumps for corners and niches, for pots and plant boxes. Comanche makes lasting cut flowers for arrangements.

How To Plant

Petunia seeds are very small so should be barely covered or merely pressed into the soil surface, watered from beneath or with a fine spray not to dislocate the tiny seeds until they get a start. Seedlings may be picked out with a pen knife blade and set an inch or two apart in another flat or pan, in small pots or in hotbed or coldframe when the first true leaves are formed. Transplant to final location outdoors as soon as frost danger is past. Start seeds indoors from 6 to 9 weeks before time to set plants outside.

The old philosopher says: "Tell a man there are 270 million stars in the universe and he'll believe you. But show him a "Wet Paint" sign and he'll come away with dirty hands.

NEW COOK BOOK AVAILABLE

Mauston's Favorite Recipes is the title of a new cook book compiled by the Christ Child Circle of St. Patrick's Church. It sells for $1.50 and may be obtained from Mrs. Charles Remmington, 521 Elm St., Mauston, Wis.

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

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OBSERVATIONS ON GLADIOLUS VARIETIES CONVENTION REPORT

(Continued from January)

By Ralph Burdick, Edgerton

The Scarlets (36)

PALETTE in the 400 scarlets was good, principally because of its color appeal since it only opens 5 or 6. Color is a bright scarlet with an electric blue blotch, the combination being so hot it is really startling. **FIREGLEAM** gets the beauty prize and will hold 8 on a long flowerhead. Color is orange scarlet with cream lines and floret is ruffled and needlepointed, but attachment is poor. In the 536 class **ECLIPSE** has very large florets, opening only 5 or 6 on a long head, but covering a big expanse of stem because of the floret size. A rather dull color however. REGAL RED was nice this year but so late it would be hard to get to a show without April planting. REDWING has been of champion calibre for several years now and DIEPPE and CARNIVAL were also good.

PINK, 40 thru 44

Pink of course, was our largest color class in point of numbers but was perhaps the most disappointing in quality of the more recent introductions. FAIRYLAND for the medium size was very good. Its color is hard to describe, in fact it has been changed in its color class three times from salmon to rose to pink. Because of its texture ruffling, and other generally good qualities, it should be an excellent exhibitors flower. SLICHERLIED 443 was best in the large class, opening 8 light pink blooms on tall stems. A dark rose mark in the throat adds distinction. Plants are vigorous and are heavy producers of bulblets. PINK CLASSIC in the giant size is a lovely color and has a beautiful and appealing floret shape. The older ones however really shine in this color class. SPIC & SPAN of course at the top; LIPSTICK, CONN. YANKEE, and PHANTOM BEAUTY in the 400's and EVANGELINE undisputed mistress of the 500 size. I believe that more grand champions are chosen from this group than any other.

RED, 50, 52 and 54

Encouragingly enough there were more desirable recent introductions in the red class per number tested. 400 size was topped by POINSETTIA which has a fine clear distinctive color, holds about six open and will produce impressive spikes from bulblets. JO WAGENAAR also has a tone of red that makes a hit with most and gives good big flowerheads even from small bulbs. LEAH GORHAM is a wonderful showmans flower: never seeming to crook or misplace and the light red floret with large creamy white throat is very attractive. RED VELVET has the color, texture, and sheen you would expect from the name. Since it was seen only from bulblet spikes I do not know how it would be judged as a show flower. Bayless' PRIDE & JOY is known to most of you as a consistent winner in the giant red class. Those who have grown it tell me that it produces very uniform spikes. DR. PRYOR, one of the strongest growers in this class is a striking ruffled light red with large cream throat and red blotch. It will open up to eight. MIGHTY MONARCH still a heavy winner from the ranks of the old ones.

ROSE, 60 thru 64

300 rose class is headed by KIM, a medium height purple rose with a long head and plenty open. From what we saw, size probably should be 400. SENECA is a beautiful deep rose exhibition variety that has won at least one grand championship. ELMERS ROSE in the large size gave exceedingly good spikes from all bulbs, holding ten open easily, and the color and charm of the florets are greatly admired by everyone. AMELIA is a heavy textured, ruffled, cream and rose pink glad with a long straight head. It looked very promising. Melk Brothers MARGERY is a bright and lovely shade and has a long list of winnings as a seedling to recommend it. ROSY FUTURE has an exciting and vivid color that is perhaps its greatest distinction as it does not hold many open. PREVIEW, an older variety in this class, gave some of the tallest spikes in the garden with exceedingly long flowerheads and attractive color. AMERICAN BEAUTY and LILA WALLACE were also good. MISS CHICAGO and TRAILS END both beautiful combinations of cream and rose were best in the giant class.

LAVENDER, 66 and 68

COLONAL DAME, a formal frilled pale lavender with dark throat is the best show prospect of the medium sized lavenders since it wlil hold a dozen open, but the color is somewhat unattractive. CORONET is a beautiful shade of lavender and blooms are well placed on the spike; 400 size lavenders were overshadowed by COL. ATKINSON, a wonderful deep shade with no apparent faults. The placing and facing were always perfect and it will take refrigeration well and continue to open. TYRONE was also exceedingly good and the list of awards to its credit has been very large. A relatively light shade of lavender, it produces a big percentage of show quality spikes. KAREN is a new and different color, a deep red lavender with a showy yellow throat, about seven open in informal placement and vigor in plant and growth habits that are hard to match. The 500

size has been dominated the past two or three years by BRIDAL ORCHID and when grown properly in soil to its liking it is a pretty and robust exhibition glad. ATTRACTION and ORCHID MONARCH both Goddard introductions, are also very good show prospects.

ATTRACTION is a very pale pastel lavender opening 8 on long flowerheads of 22 or more buds. ORCHID MONARCH presents large florets of a clear bright shade of lavender on medium height stems. VALDA is an easy growing rosy lavender with good long heads. A good propagator and bulblets will bloom.

PURPLE, 70

KNIGHTHOOD easily gets top billing in the 400 size purple class and KING DAVID should hold the spotlight in the giant class for some time to come unless deposed by the RAJAH, which has less red in its purple and a different type of ruffling. I saw several massive spikes of this and believe it has a great deal of promise for the exhibitor.

(To be continued)

WISCONSIN GROWERS ATTEND NATIONAL MEETING

The annual meeting of the North American Gladiolus Council was held in Cleveland, January 15 to 18. Wisconsin growers attending were Mr. and Mrs. John Flad; Theodore Woods, and H. E. Halliday of Madison; Charles Melk and Mr. and Mrs. Dave Puerner of Milwaukee; and Everett Van Ness of Clinton.

According to Mr. H. E. Halliday who was the Wisconsin delegate and who has written a complete report of the meeting and program which will appear in our next issue, the attendance was good with over 300 registered.

The next meeting will be held in Baltimore, Md.

Outstanding speakers were Dr. G. H. Berkeley of the Dominion Pathology Laboratory of Ontario, Canada, who spoke on virus diseases of gladiolus, and Mr. M. S. Stashower, advertising expert who spoke on the subject of Advertising and Promotion Pays.

Watch our next issue for Mr. Halliday's report.

INTERNATIONAL FLOWER SHOW

The International Flower Show will be held this year in Grand Central Palace, New York City on March 8-14.

Early Developments In

Gladiolus Breeding

Prepared by Dr. J. H. Torrie, Madison

Ancient writings indicate that the Greeks and Romans grew several native Gladiolus species. Gladiolus known as Corne Flags were grown in England as early as 1597. In Europe about 15 species native of southern Europe, Asia and Persia were grown during the seventeenth century. Near the end of the eighteenth century new species of gladiolus obtained from South Africa were imported into Europe.

William Herbert, Dean of Manchester about 1820, was one of the first to recognize the value of the African species of gladiolus as a means of improving the types of gladiolus then grown. The first important hybrid was developed at the Colville's Nursery, Chelsea, England, in 1823. It was derived from the cross of **Gladiolus tristis** L. var. concolor with **G. cardinalis,** Curt. This new variety was named **G. colvillei** Sweet. In 1838 a second important hybrid named **G. ramosus** Paxt. was produced in France by M. Rifkogel from a cross of **G. cardinalis** and **G. oppositiflorus** Herb.

New Variety Brings New Interest

Up until 1841 there was a mild but increasing interest in gladiolus, particularly among amateurs, but that year a variety was introduced that resulted in the greatest stimulation ever evidenced in the history of gladiolus breeding. Louis van Haulte of Ghent, Belgium, purchased the stock of a variety developed by M. Beddinghaus, gardeners to the Duke of Aremberg and introduced it in 1941 as **G. gandavensis** Van Houlte. He described it in glowing terms as bearing majestic flowers, numbering 18 to 20, of the most charming vermilion, the inferior petals adorned with chrome, amaranth and brown. **G. gandavensis** resulted from the cross of **G. psittacinus** Hook, and **G. oppositiflorus** or between hybrids from these species. Napolean III heard of this variety and secured some for his garden. His gardner Souchet using **G. gandavensis** as one of the parents developed many new hybrids. In 1855 as a result of Queen Victoria's visit to the gardens of Napolean at Fontainebleau interest in gladiolus growing greatly increased. By 1880 over 2000 named varieties tracing back to **G. gandavensis** were available. In 1880 Victor Lemoine of Nancy, France, developed a new race of gladiolus called **G. lemoinei** Hort. from the cross of **G. gandavensis** and **G. purpureo-auratus** Hook introduced in 1872. His varieties were characterized by their large flowers and the prominent blotches in the throat of the florets.

Meanwhile Max Leichtlin of Baden-Baden, Germany, crossed **G. gandavensis** with **G. saundersei** Hook which had been introduced from the Cape of Good Hope in 1870, and **G. leichtlinii** Baker was produced. This stock was ultimately purchased by John Childs of Long Island, New York, and renamed **G. childsii.** W. Van Fleet crossed a variety of **G. childsii** with **G. cruentus,** Moore and secured among others, his famous variety Princeps. The purpureo-auratus-grandavensis hybrids developed by Lemoine were crossed by him with **G. saundersii** and a new race called **G. nancieanus** Hort. resulted which was characterized by plants having remarkable large open florets with contrasting color mottlings in the throats.

The Primulinus

G. primulinus Baker, found in the Rain forest near Victoria Falls on the Zambezi River in Africa, is the most recent introduction to greatly influence the development of gladiolus varieties. It was first flowered in the Kew Gardens, England, in 1890. Since that time many American, French and English breeders have utilized this species to modify the form and color of the gladiolus flower. The more important charcteristics contributed by **G. primulinus** were a light and graceful flower stem, a more or less pronounced hooding of the florets, and a subduing of brilliant hues to soft, pleasing colors. Among the early breeders on this continent were A. E. Kundert of Goshen, Indiana, who developed a strain having fringed and lacinated segments, and H. H. Groff of Simcoe, Ontario, whose strain was noteworthy for its wide variations in color.

Modern Varieties have Complex Background

This discussion illustrates the complex background of modern gladiolus varieties.

(Continued on next page)

A Tribute To Blackhawk

By S. S. Moore, Jefferson

The name BLACKHAWK was chosen for former District One because the famous Indian Chief and his tribe roamed the Rock River Valley from their home village Saukenuk at Black Hawks Watch-Tower near Rock Island, Illinois to the Horicon Marsh where they did their annual hunting.

Mounds, both ceremonial and burial, council rings, traditions, monuments and even a mighty sixty foot statue of the Chief on the hills overlooking the river near Oregon preserve their memory. A great state park now occupies the site of the winter village of Saukenuk. Fort Atkinson has a fine marker presented by the Daughters of the Revolution on the site of General Atkinsons Fort.

Perhaps the finest collection of relics of this famous tribe are in the possession of Dean Roberts of the Fort whose father was one of the few to actually view the remains of the original fort before it was removed . . . An annual pilgrimage or hunt to the plains of Iowa for Buffalo was a part of the years life of this tribe. Harvests completed, corn stored and homes prepared for winter, the entire tribe would cross the Mississippi and complete their supply of food by a big buffalo hunt.

Tragedy

In 1832, when they returned from this annual hunt, they found their homes burned, their stores of corn stolen and their burial grounds plowed by a group of white settlers. They protested verbally but were run out by threats of death and as they retreated up the Rock river, a force was raised to pursue and massacre them. Attempts to surrender were refused by the whites. Messengers with white flags were shot. The tribe finally attempted to cross the Mississippi near Bad Axe and were slaughtered, men, women and children, by gun boats as they attempted the crossing in their canoes.

Old ramparts on Lake Koshkonong were built at this time. North of Jefferson the council ring of rock is still evident where Chief Blackhawk and his counselors smoked their pipes and awaited the return of the emisaries of surrender, who were shot near the Fort. Here they made the decision to attempt to escape to Iowa.

Chief Blackhawk was captured, taken to Washington as an exhibit and confined to jail where he contracted Tuberculosis and died.

In recognition of this great chief and his unjust treatment at the hands of the greedy whites, District One is now The BLACKHAWK DISTRICT. . .of the Garden Club of Wisconsin, of the Wisconsin Horticultural Society.

ZINNIA COMES INTO ITS OWN

Little did Johann Gottfried Zinn (1727-1759), Professor of Medicine at Gottingen University, dream that the flower named after him "Zinnia" would ever become as popular or widely grown as it is today. Seed growers have now developed new varieties of beautiful colors —clear rose, rich purple, golden yellow, pale cream, salmon, orange and crimson. There are curled and crested kinds, and wonderful new giant flowering varieties. Then there are the charming dwarf sorts which produce small flowers that cover the plants.

The Executive Board of the Garden Club of Wisconsin, is recommending a zinnia growing project to member clubs.

DEVELOPMENTS IN GLADIOLUS BREEDING

(Continued from page 111)

Original species have been combined and their hybrids crossed and recrossed until their progeny possess characters derived from many different species. In the development of present day gladiolus less than a score of the 150 known species of gladiolus have been utilized. It seems highly probable that many useful characters can be obtained from the many wild species which have as yet been little utilized in gladiolus breeding. This offers a distinct challenge to present day breeders of gladiolus to evaluate the wild species for their characteristics, especially disease reaction, and to utilize the more promising ones in their breeding program. **Condensation from 1937 Year Book of Agric.**

Garden Club News

The Garden Club of Wisconsin

Garden Club Member Tells About Winter in Arizona

Friends of Mrs. Norma St. Claire of Wauwatosa will be interested in portions of a letter she wrote from King's Ranch Resort, Apache Junction, Arizona, where she and Mr. St. Clair are spending the winter. This resort is 45 miles east of Phoenix and quite a bit warmer. In part she writes:

"As far as the eye can see over the desert it is the softest green. Due to the rains, we have huge carpets of grass, and wonder where the seeds come from. At sunset the mountains and valleys are bathed in a rose-colored light and the chollas look like giant mounds of rose chrysanthemums. I am very thankful for my garden club background. On our trek up the mountains and Hieroglyphic Canyon most visitors rush off pell-mell to see who can get there first, but some of us stay with the Ranger and learn to identify trees and plants.

"At Christmastime I made some decorations for the group here, and while I did not get any blue ribbons, I was certainly rewarded because of the joy they found in them. I used all natural materials from the desert and fruit from the groves near here. A wreath was made from a shrub with a small tassel bloom of white like a tiny brush. I made an arrangement for one of the garden clubs at Phoenix for their Christmas meeting. It was quite different from what they had been doing and I was invited to come again. They have a beautiful garden center in Phoenix supported by 39 clubs, all working together, and they maintain a regular attendant. They all have their meetings there—really quite a project. We will be here until April."

Editor's Note: Mrs. St. Clair was quite prominent in garden club activities in Wauwatosa. She was State President, and received the Honorary Recognition Certificate of the Wisconsin State Horticultural Society for her garden club work. She will be glad to hear from garden club friends.

ELKHORN GARDEN CLUB NEWS

The Elkhorn Garden Club plans this year to move into high gear in the development of a future city park on the site of the present city dump. Some of the seedling trees planted by club members four years ago are now large enough to be set into permanent locations. Other club projects include a flower show in connection with the Walworth County Fair; providing leadership for Girl Scout garden badge work; garden therapy for shut-ins, especially the completion of 150 small table favors each month for patients at the County Home and hospital.

YEAR BOOK COMMITTEE CHAIRMAN APPOINTED

Mrs. Wallace Freund, Rt. 3, Box 284, West Bend, Wis., has been appointed as Chairman of the Committee on Year Books with Mrs. Severin C. Swensen, 2230 S. 106th St., West Allis, as Co-Chairman, by Mrs. Chester Thomas, President of the Executive Board, Garden Club of Wisconsin. All garden clubs are invited to send copies of their year book to either the Chairman or the Co-Chairman. They will be judged according to the score card on page 67 of the November issue of Wisconsin Horticulture.

HILLCREST WEST ALLIS GARDEN CLUB PROGRAM

Our meeting in February will consist of slides on Wisconsin State Parks and Forests. Spring meetings take up a study of birds in connection with spring planting of flowering shrubs. In May we sojourn to Estabrook Park to study landscaping in connection with the surroundings.

At one of our meetings we are having an outside speaker. In the fall we will study bulbs of various types, also dried bouquets and arrangements. We always participate in flower shows in this region. **By Mrs. H. Krueger, Sec.**

ANTIGO GARDEN CLUB PROGRAM

The Antigo Garden Club has adopted these club projects for 1953. Community park plantings. Continuation of making favors for the hospital trays for Christmas. Cooperation in promoting recreational facilities for the Airforce Installation. Donation to Trees of Tomorrow for scholarships.

Some special meetings will be: an open meeting in the evening with Mr. H. J. Rahmlow of Madison as speaker. An African violet show and program. A tulip tour. An annual flower show. A Christmas show. Monthly radio program. **By Minnie Helbick, President.**

Use Dried Materials And Emphasize Design And Mass In Making

Arrangements For The Church

By Ralph A. Norem, Oshkosh

Arrangements of dried materials can be used to advantage in church. Bear in mind that such arrangements are often seen in dim light and at some distance. Make the arrangements large, and emphasize design and mass. Delicate lines and shadings in color cannot be seen.

Materials for dried arrangements must be gathered in the fall. If properly cared for and stored, they can be used throughout the winter. They will be especially welcome during the long, heavy season from Christmas to Easter when flowers are expensive and may otherwise not be available.

Advantages of Dried Material

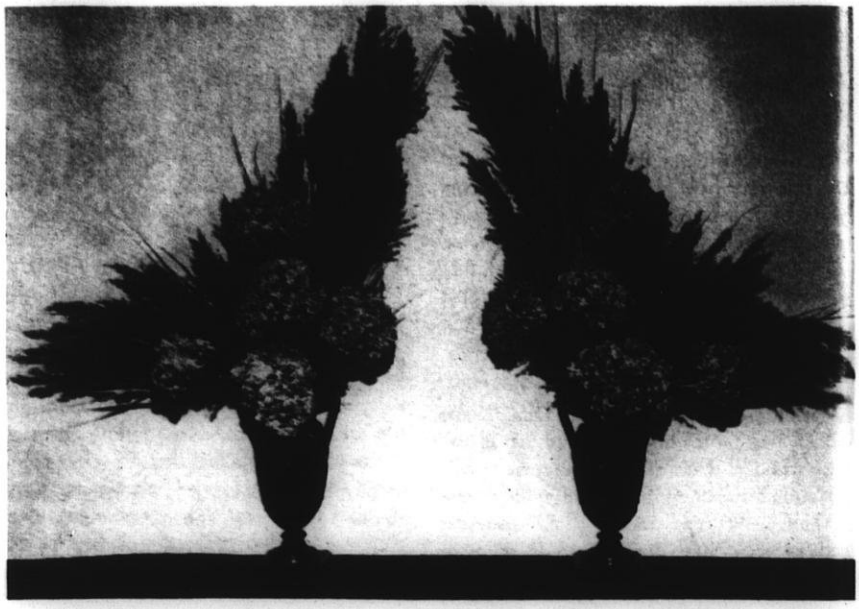
Dried arrangements offer a number of advantages. They are in harmony with the winter season. They cost nothing, and they neither freeze nor wilt. They can remain in place for weeks, or until the need for variety dictates a change. The members of the church will be intrigued by any ingenuity displayed by the arranger's art. "Your weeds are lovely this morning," you will be told; or perhaps, "You do such interesting things with just plain straw."

Make Large Arrangements

Select materials which permit the making of large and bold arrangements. Develop an eye for such materials as you drive through the countryside in the fall of the year. The roadside will supply you generously. Look for dock, goldenrod, and milkweed pods. The red-berried sumac and branches of oak and maple leaves will be useful. Each locality has its own distinctive contribution to make.

My favorites for winter arrangements of dried materials, those which through the years I have found to be most useful for church, are hydrangea and the tall marsh grass which is known commonly as canebrake. They can be put to an infinite variety of uses, separately, together, or in conjunction with other materials. They make large arrangements possible—as large as you please.

There is no better excercise for strengthening the heart than reaching down and lifting people up.



Arrangement of dried materials for the church. These arrangements made by Dr. Ralph Norem of Oshkosh, measure 52 inches in overall height. Note that the large bloom breaking the line of the rim of the container provides a center of interest.

Arrangements Have Center of Interest

In the accompanying illustration I suggest a possible use for these materials. These arrangements measure fifty-two inches in overall height. Like other such decorations, church arrangements should have a center of interest, a point where the eye can come to rest. The large bloom breaking the line of the rim of the container is designed to serve this purpose.

Hydrangea should be cut in early fall (late August or early September) while they still retain their delicate green tinge and before they begin to turn brown. Cut the stems as long as possible. You may need some long stems when working on your arrangements later. Strip off all the leaves, and tie the hydrangea up in bundles of perhaps a dozen each. Hang these upside down in a dry, dark place where there is some circulation of air.

The canebrake should be cut in October. These should also be cut in ample length. Five feet is not too long. Tie them in bundles six inches in diameter and hang them upside down with the hydrangea.

With an ample supply of dried hydrangea and canebrake, together with such other materials as your ingenuity and industry may suggest, you need never be wholly at a loss as to what to use for church next Sunday; your arrangements need never lack for interest and variety; and you will be in line for your full quota of compliments and words of appreciation.

Editors Note: Dr. Ralph Norem is a member of the faculty of the Wis. State College at Oshkosh and is President of the Oshkosh Horticultural Society.

COMING EVENTS

February 28—March 29. Natchez, Miss. Natchez Pilgrimage.

March 14—May 14. Heemstede, Holland. Great International Flower Show, "Flora 1953."

May 7—13, Tour of Scottish Gardens. Write National Trust for Scotland, 5 Charlotte Square, Edinburgh.

1953 Garden Club Directory

Executive Board, Garden Club of Wisconsin

Pres., Mrs. Chester Thomas, 7481 N. Beach Dr., Milwaukee 11

Vice Pres.: Mrs. George Willett, Iola.

Rec. Sec.-Treas.: Mrs. M. A. Haller, Rt. 1, Oshkosh.

Exec. Sec.; H. J. Rahmlow, Ex officio.

Member: Mrs. S. S. Moore 821—1st Ave., Jefferson, Blackhawk Region.

Blackhawk Region

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Vice Pres.: Mrs. H. C. Poyer, Rt. 2, Ft. Atkinson.

Sec.: Mrs. W. E. Klug, 610 North St., Jefferson.

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Sec.: Mrs. Lester Anderson, Amherst.

Antigo Garden Club

Pres.: Mrs. Minnie Helbick, 1003—7th Ave.

Sec.: Mrs. Robert Lehman, 228 North Ave.

Baraboo Garden Club

Pres.: Mrs. Henrietta Burchardt, 227 Water St.

Sec.: Mrs. John Leatherman. 303—3rd St.

Berlin Home Garden Club

Pres.: Mrs. N. H. Fortnum, 137 N. Capron St.

Sec.: Mrs. Alfred Huebner, 240 Mound St.

Brookfield Garden Club

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Sec.: Mrs. George Trupke, Rt. 5, Box 364, Waukesha.

Burlington Garden Club

Pres.: Mrs. Helen Bayer, 363 Randolph St.

Sec.-Treas.: Mrs. Bernice Wanasek, Rt. 5.

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Pres.: Mr. Paul Dekarske.

Sec.-Treas.: Mrs. Joseph Paul.

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Crivitz-Nearnorth Garden Club

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DeForest Garden Club

Pres.: Mrs. Morton Heisig.

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Eau Claire Garden Club

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Sec.: Mrs. H. E. Baldwin, 436 Summit Ave.

Eau Claire - Elk Creek Lake Garden Club

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Sec.: Mrs. Arthur Pierce, Rt. 2, Elk Creek Lake, Eau Claire.

Elkhorn Garden Club

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Sec.: Mrs. Ray Breitenbach, Rt. 1, Lake Wandewega, Elkhorn.

Ellsworth Garden Club

Pres.: Mrs. Ray Trok.

Sec.-Treas.: Mrs. Elliott Fosmo.

Fort Atkinson Garden Club

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Sec.: Mrs. Roy Baker, Rt. 2.

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Pres.: Mrs. William Holz, Box 67.

Sec.: Mrs. Herman Nacker, Box 328.

Hales Corners - Tess Corners Garden Club

Pres.: Mrs. Charles Fickau, Rt. 3, Box 399.

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Pres.: Mr. Clyde Ludwig.

Sec.: Mr. Gordon Piehl.

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Pres.: Mrs. Myron Erickson.

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Pres.: Mrs. Dorothy Reidle.

Sec.-Treas.: Mrs. Marion Janzig.

Jefferson Garden Club

Pres.: Mrs. Bernice Shaksheky.

Sec.-Treas.: Mrs. S. S. Moore, 821—1st Ave.

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Pres.: Mrs. Allen Ley, Rome.

Sec.-Treas.: Mrs. Howard Smith, Lake Mills.

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Sec.: Mrs. R. L. Roettiger, 333 S. 20th St.

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Pres.: Mrs. A. F. Waldmann, 540 S. Jackson.

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Favorite Roses

These Rose Varieties Performed Well At Whitnall Park Gardens

According to Mr. John Voight, Superintendent of Whitnall Park Gardens in Milwaukee County, the following varieties of roses did very well last season. He presented a description of these at the December meeting of the Milwaukee Rose Society.

They are: Pink Cloud; Independence; Detroiter; Ma Perkins; Chrysler Imperial; White Swan; Buccaneer; Carrousel and Glacier.

Happiness sometimes sneaks in through a door you didn't know you'd left open. —John Barrymore.

QUESTIONS ANSWERED

By Dave Bosley

Question: I've heard it said that some plants act as detectors of gas leaks in the house. Is that one of the reasons why blossoms drop off my African Violets in the kitchen where we cook with gas? What other plants are sensitive to gas?

Answer: Small quantities of stove gas will cause leaf drop in many house plants among which are African Violets. In the greenhouse, tomato plants are used to detect small quantities of gas, since they are extremely susceptible and will drop their leaves readily in the presence of very small quantities of gas.

What should I do with my cyclamen plant after it is through blooming?

After your cyclamen plant is through flowering I suggest that you withdraw moisture from the plant gradually until the foliage has completely dried up. The dead leaves should be removed from the corm, the corm should be removed from the pot and the soil removed. The corm should be stored in a cool dry location until late April. At this time the corm may be repotted into a fairly large pot (five inches) and after all danger of frost is over it may be placed outside in a partial shade location for growth throughout the summer. Early in the fall the plant should be brought in and kept at a relative cool house temperature of fifty degrees and should flower for Christmas of 1953.

Can gloxinia bulbs be planted too early so that they will not do well due to lack of sunlight in late winter months in our homes?

Gloxinia bulbs should be potted sometime in January or February, kept fairly dry until top growth has started at which time larger quantities of water can be applied. Gloxinias are related to African Violets and require a fair quantity of shade or they will not flower. During the early spring when our days are still dark I suggest that you place the young plants in a west or south window where they will get a maximum amount of light.

PLANTING TULIPS IN SPRING. No, you won't get any flowers from your tulips if you keep the bulbs over winter and plant them in the spring. However, if you do have some bulbs left, store them in a cool place and then plant them in late May when the normal blooming time is over. Fall planting is necessary to subject the bulbs to cool temperatures and develop a root system.

Wisconsin Beekeeping

Official organ of the Wisconsin State Beekeepers Association

FEBRUARY IN THE APIARY

The New Year has begun for our bee colonies. Egg laying started early this year. Today you will find 2 or 3 combs in the brood chamber containing patches of sealed brood.

Oddly enough, if you inspect your bees on a nice sunny day in mid-February you will probably find them in excellent condition. The bees will appear calm and in good health. There will be, or should be combs of honey with some pollen, adjoining the combs of brood. Sometimes the weather in early February is better for inspection of the brood nest than in March or early April, if we find a day when the sun is bright, without wind and the humidity low. In April even if the thermometer goes up to 40 degrees, if there is a cold, damp, northeast wind blowing, it can be very disagreeable for inspection of colonies.

Inspect Now For Adequate Food Supply

You can prevent winter or spring losses by an inspection now to see if there is enough honey within reach of the winter cluster so that they will not starve during long periods of cold weather. Very few colonies are lost by mid-February—the losses usually occur from now until mid-March or April 1st.

Throughout Wisconsin reports indicate that brood chambers were heavy last fall due to a good honey flow from late flowers. We could anticipate better wintering this year than usual. However, it is possible that many colonies may need help. They may not have honey in the right place, that is, within the winter cluster so bees can move upward onto honey during zero weather. If you winter in 2 or 3 brood chambers it may be that the bees are clustered in a lower chamber and will not move upward across the top bars because they will not leave the brood in the lower chamber. In such cases, the brood should be placed in the upper brood chamber and surrounded with honey to avoid starvation.

DISTRICT BEEKEEPERS MEETING Y.M.C.A. JANESVILLE, MARCH 21

The annual meeting of the Southern Wisconsin District of the State Beekeepers Association will be held in the Y.M.C.A. Building in Janesville on Saturday, March 21, 1953, according to William Judd, State President.

A good program is being prepared and all beekeepers are invited.

HOW TO FEED SULPHA FOR EARLY A.F.B. CONTROL

QUESTION: It is advisable to feed sulpha for A.F.B. control before April. How can it be done?

ANSWER: American Foul Brood will appear in the brood combs of infected colonies as soon as brood rearing starts, in January. For control, therefore, it is quite as important to feed the sulpha in February and March as it is at any other time.

Perhaps the most effective way of feeding now is to mix it with the pollen supplement, such as soy bean flour.

HOW TO PREPARE SULPHA IN SOY BEAN FLOUR MIXTURE

Use 1 gram of the soluable sodium sulphathiazole per gallon of sugar syrup. A level teaspoonful of the sulpha powder (when not packed down but scraped level) will weigh approximately 3 grams and should therefore be mixed with 3 gallons of syrup. Dissolve the sulpha in a small amount of warm water and then stir it slowly into the sugar syrup. Use this syrup for mixing up your pollen supplement. Feed it on top of the brood combs in which brood is being reared. This is important. The nurse bees must feed on this mixture and these bees are on the brood combs. In real cold weather they will not travel very far to one side or the other. Renew the cakes of pollen about once a week and keep them fresh. If the bees are not feeding upon them, examine the colony to see what the trouble is. It may be that the supplement mixture is not close enough to the nurse bees on the brood combs.

Sulpha should be fed in the pollen supplement mixture until natural pollen and nectar comes in from the fields. Then the colonies should be sprayed with the same mixture of one gram per gallon of sugar syrup about twice each week. This method will be discussed in a later issue.

PROGRESS IN NOSEMA CONTROL

We are pleased to be able to write that it looks very much as if the Nosema disease problem may be solved in the near future. The Central States Bee Culture Laboratory in Madison is carrying on a test of the new antibiotic fumagillin. It will be tested on a large scale with package bees this spring and also on over-wintered colonies.

It appears that fumagillin does not cure bees that are infected or sick with nosema, but will prevent the spread of the disease and prevent young bees from becoming infected.

At the present time the material is quite expensive but if it proves to be of value it will no doubt be produced in larger quantities and will be lower in price. At any rate we hope it will be a practical method of controlling this very serious disease. Also we congratulate the staff of the Central States Bee Culture Laboratory upon their leadership in calling to the attention of beekeepers the seriousness of the disease and in efforts at finding control methods.

Beekeeping News

BROOD REARING STARTS EARLY IN 1953

On Tuesday, January 13 the temperature rose to over 40 degrees in southern Wisconsin. It was a beautiful day to inspect bee colonies to see if brood rearing had started and to check the appearance of brood and surrounding stores.

At a meeting of the Dane County Beekeepers Association that evening, beekeepers expressed surprise that they had found good sized patches of brood on two frames on that early date—January 13. Not all colonies had brood but many of them did. Egg laying must have started in December. Of course it means that stores will be used up more rapidly than usual due to early brood rearing and so it will be important to check carefully to see that honey is available to the cluster during periods of very cold weather from now on.

THE HONEY MARKET

The market for extracted honey (producers' sales to bottlers in large lots) was steady during the last half of December. Demand and trading slackened off somewhat as bottler, wholesalers, and others in the distribution channels were attempting to reduce or hold down inventories for the start of the New Year. Supplies in producers hands were reported as moving out well in most eastern and central parts of the nation, and in some western areas. However, beekeepers in a few of the western states still hold considerable quantities and reported stocks were not moving out at a rapid enough rate to assure a good clean-up. Beekeepers sales of bulk honey in 60 lb. cans in large lots to packers, either f.o.b the beekeepers warehouse or delivered to nearby bottlers for the **most desired grades** and flavors ranged 10½—12½c in California; 11-12c in Oregon; 12-12½c in the Intermountain States; 10½-12½, few high as 14c in the Central and Plains States; and 12-12½c in Eastern States. **Less desired colors** and flavors sold 9-10½, with a few as high as 12¼c. **From USDA Honey Report.**

A clergyman upon hearing that liberalism was creeping into the churches, remarked, "If that is true, I hope it will soon strike the contribution box."

HIVE DAMPNESS AND NOSEMA

QUESTION: If dampness or moisture in the brood chamber causes the spread of nosema shouldn't we increase the ventilation of the hives—allowing air to come in at the bottom and go out under the cover to keep the colony dry.

ANSWER: Experiments by the Central States Bee Culture Laboratory at Madison have failed to show any relation ship between the amount of nosema and the amount of dampness in the hive—or, in other words, they have not been able to control nosema by any type of hive ventilation.

Those who use the augur hole entrance under the hand hole in the upper brood chamber, as well as the regular bottom entrance, find that it gives sufficient ventilation to prevent moldy combs. During sub-zero weather, moisture condenses on the side of the hive and under the cover. When the temperature goes up the frost thaws and evaporates. The bees seem to help with this evaporation and very shortly after the temperature goes to 30 degrees F. or above, the hive is again dry.

Many beekeepers have experimented with various types of ventilation, but most seem to have lost interest in them.

HONEY FOR ATHLETES

One of the outstanding talks of the Ontario Beekeepers Meeting was that by Lloyd Percival, director of the Sports College where various diets and foods are tried out to see their effects on athletes. They have tried honey and found it to be the ideal energy food for athletes and can be eaten before, during and after a game without any digestive distress. They found it increased the endurance and made much quicker recovery possible than when any other type of sweet was used. As a result, many of the hockey teams in Canada now use honey exclusively and because of its excellent results, it is now being tried out with people in business and industries. If it proves superior, you can be sure consumption of honey in Canada will go up still more. **By Charles Mraz, in Vermont Bee Bulletin.**

It may be romantic to be a man's first love, but some women think it is safer to be his last.

DANE COUNTY BEEKEEPERS ASSOCIATION ELECTS OFFICERS

At a meeting in the Glenn Dunn Company garden supply store in Madison on January 13, the Dane County Beekeepers Association held their first meeting of 1953 and elected Harry Hayes of Madison, President; Stanley Otis of Madison, Vice President; Earl Blizard of Verona, Secretary and Glenn Dunn, Treasurer. The Association plans some interesting meetings and field demonstrations for the coming months.

NEWS NOTES

Mr. John Long and family drove to San Jose, California, for the National Beekeepers Meeting, January 26-31. Mr. Long presented a paper on Nosema Disease of Bees. We hope to have a report from him in our March issue.

—

Mrs. Harriet Grace, Director of the American Honey Institute, attended the National Beekeepers Meeting at San Jose and spoke on the work of the American Honey Institute and what it does for the beekeeper. She also talked to the National Auxiliary.

CURING AND KEEPING POPCORN

For best popping quality, popcorn should be cured on the ear for about 1 year after harvest in a well ventilated, unheated room, until it has dried to about 13 per cent moisture. When it has reached good popping condition, it should be shelled and stored in air-tight containers, such as glass jars with rubber rings or metal cans with a friction top. In these containers, if the kernels are free from insect infestation, they should keep in a good popping condition for a long time.

Corn that has become too dry to pop satisfactory **can be brought back to popping condition** by placing on top of the kernels a small amount of a saturated salt solution in a jar, keeping the entire container tightly closed. The amount of moisture given off by the salt solution keeps the corn at about 13 per cent moisture. A saturated salt solution is made by putting an excess amount of salt in a small amount of water. **From Rural New Yorker.**

RENTING BEES FOR POLLINATION IN DENMARK

Migratory beekeeping has increased greatly in Denmark since the war. Farmers frequently ask for bees to be placed on their land, and in certain districts the demand has been greater than the supply. Difficulties encountered by the beekeepers include finding bees able to work red clover, and ensuring that the bees they hire out for pollinations are not destroyed by poisonous sprays. A. C. Hansen discusses some of the problems involved in **Tidsskrift for Biavl** and suggests that a contact committee should be set up in each district, through which the farmers can be put in touch with suitable beekeepers, and the movements of hives planned so that unnecessarily long journeys are avoided. Many such committees have by now been organized.

The Danish Beekeepers Association has drawn up a standard form of contract for the use of beekeepers and farmers, and this has been submitted to the Danish Union of Farmers' Associations for approval.

The Contract

The farmer or fruit grower who hires the bees must undertake not to use any poisonous chemical on the crop for 5 days before the arrival of the bees, nor on neighboring crops from which it might be blown on to the flowering crop. He also acknowledges that he is responsible in spite of every precaution, bees are lost through the use of poisonous substances on any of his crops, and he agrees to do his best to discover the cause of poisoning which may occur. He is responsible for fencing the apiary, and he must pay compensation for any damage to the bees or hives caused by him, his employees or his domestic animals, while the bees are on his property. If the bees are poisoned as the result of any action by a third party, compensation can be claimed against the latter not only for the bees, but also for the rent which had been paid for them, so that others can be hired without further cost. — **Condensed from Bee World (England).**

SCHAEFER NEW BEEKEEPERS FEDERATION PRESIDENT

As we go to press word comes that Mr. Henry Schaefer, Osseo, Wis., Past President of the Wisconsin Association, has been elected President of the National Beekeepers Federation. We congratulate Mr. Schaefer.

ONLY ONE A.F.B. COLONY IN DOUGLAS COUNTY

Mr. N. R. Chamberlin of Poplar writes that there was an error in our November issue in that it stated Douglas County had 22 colonies infected with A.F.B. this past year. This was a printer's error. It should have been one colony. We are glad to make this correction.

Mr. Chamberlin also comments on an article in our last issue on moving bees in the wintertime. He writes:

Moving Bees In Winter

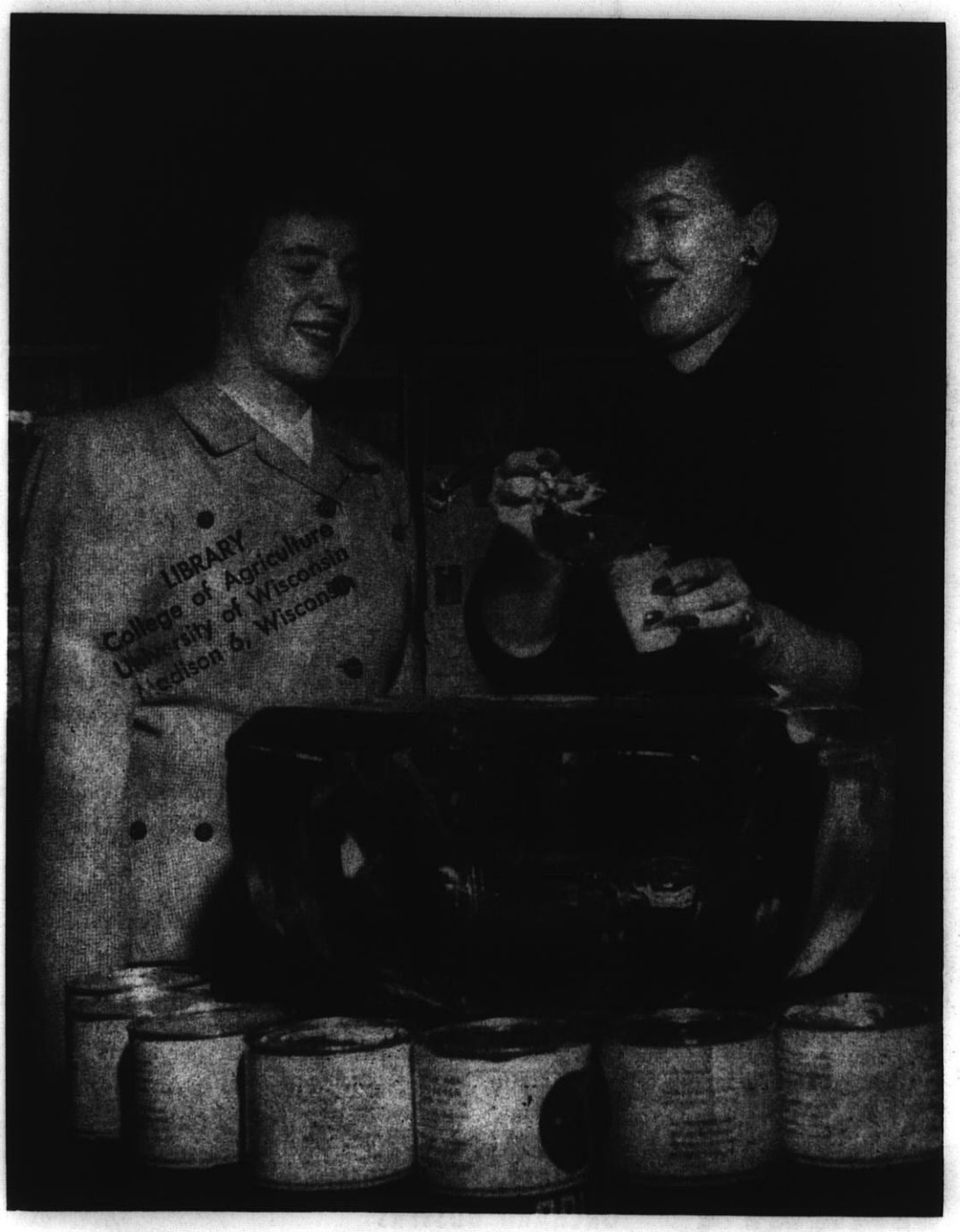
"During the past 20 years I've been required to move bees five times in the winter. Loss has been heavy regardless of the way they were packed or not packed. Moving seems to excite the bees and they gorge themselves and if flight is not possible soon afterwards there are bad results." He thinks that this may be one reason why cellar wintering has not always been satisfactory when the bees are moved in cold weather. (Nosema infection is no doubt another reason: Ed.)

Mr. Chamberlin also noticed that in using an inch auger hole in the upper brood chamber Caucasion bees and some dark Italians close this hole so that by spring it is only large enough for one bee to enter. He has found that in wintering with three brood chambers the lower brood chamber often gets moldy.

The standard Italian bees do not close the auger hole entrance. Moldy combs in the lower brood chamber can be avoided by having the bottom board —slightly raised above the ground and having a lower winter entrance to provide air to dry out the combs when wet. Also it is advisable to scrape out dead bees as early as possible in spring. March is a good time.

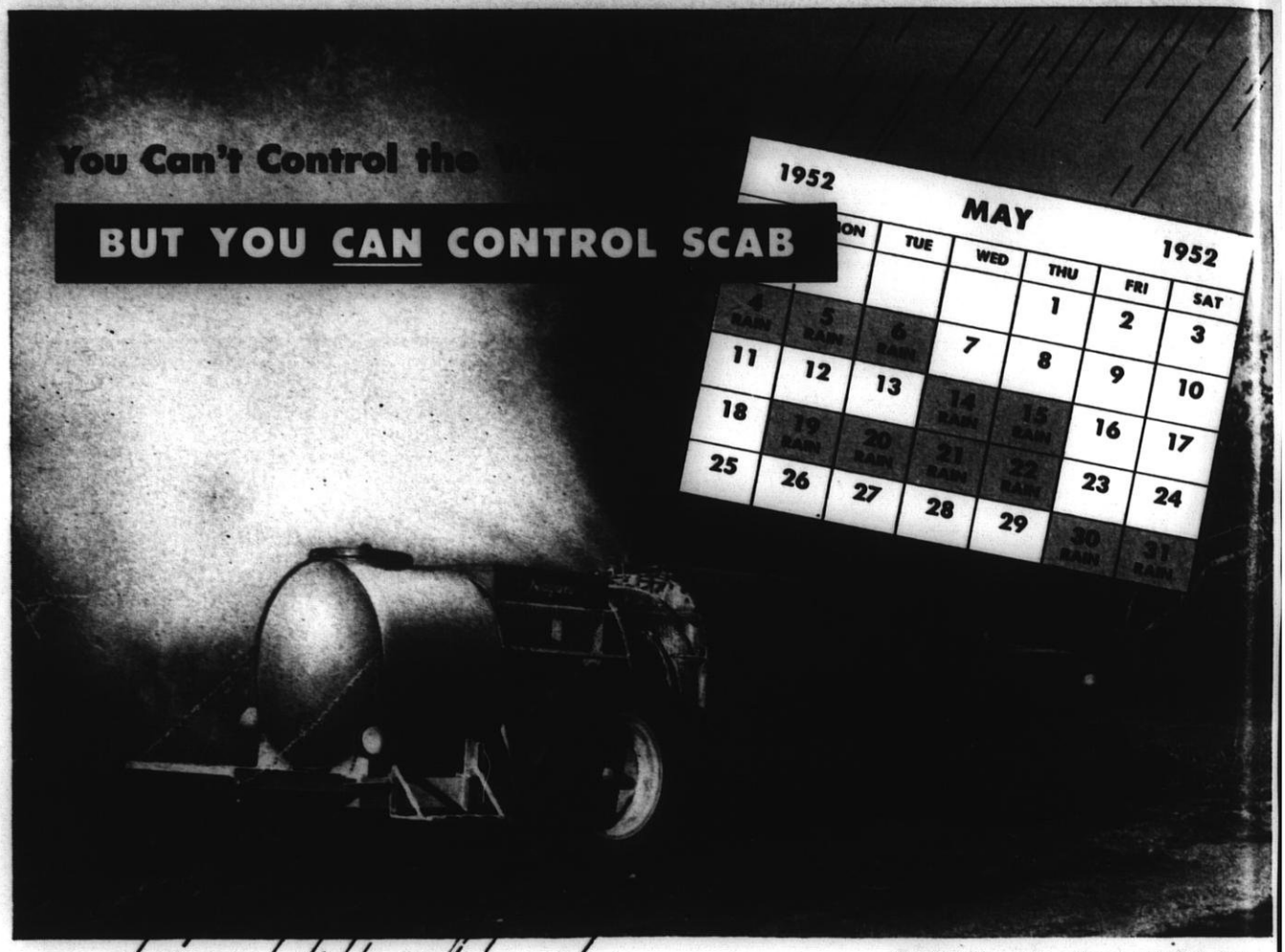
(Come again, Mr. Chamberlin — Editor.)

Wisconsin Horticulture



Wisconsin's Champion Cherry Pie Maker

March 1953



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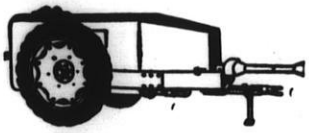

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"People are funny," remarks the Rooks County, Kansas Record. "The kind of news they like to read best is the kind they never want printed about themselves."

Doctor: "The pain in your right leg may be due to old age."

Aged Patient: "Old age, nuthin'. T'other leg, he's the same age and he's all right."

WISCONSIN HORTICULTURE

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Subscription by membership in the Wisconsin State Horticultural Society. Annual dues are $1.25 per year. Organizations of 10 members or more may affiliate at special rates which will be sent on request.

How To Prune To
Produce Larger Apples

Trees That Are Becoming Too Tall and Produce Too Many Small Apples Need Treatment

By Dr. R. H. Roberts, Dept. of Horticulture, U. W.

QUESTION: How do you prune apple trees the way Mr. Marshall Hall wrote about in the January issue of Wisconsin Horticulture?

ANSWER: In the winter **before a tree is to produce an overload of blossoms,** reduce the height by entirely cutting out the tallest branches (see figures 1 and 2). Then cut all the old weaker branches and multiple spurs "in half" (figure 4). Branches making more than 8-10 inches of terminal growth may be left alone as they will bear fruits of good size.

Be sure to cut all weak growths in two, especially if they have only two buds. **Uncut growths will bear almost as poor apples** as if no cutting is done on a vast majority of the others.

It will take one and a half to 2 hours for one man to snip prune a tree like figure 2. This expense is recovered at harvest time as there are practically no small apples to be picked and graded out.

Chemical thinning is needed on kinds like Golden Delicious and Wealthy to thin the clusters. The vigorous growth sets more apples than are borne on weak wood.

Do not prune McIntosh by this system. This variety becomes "over vegetative" and will not blossom well if it grows like figure 3.

Snipped trees should have a little more nitrogen to produce the growth stimulated by the pruning. This is also needed to get repeat bearing.

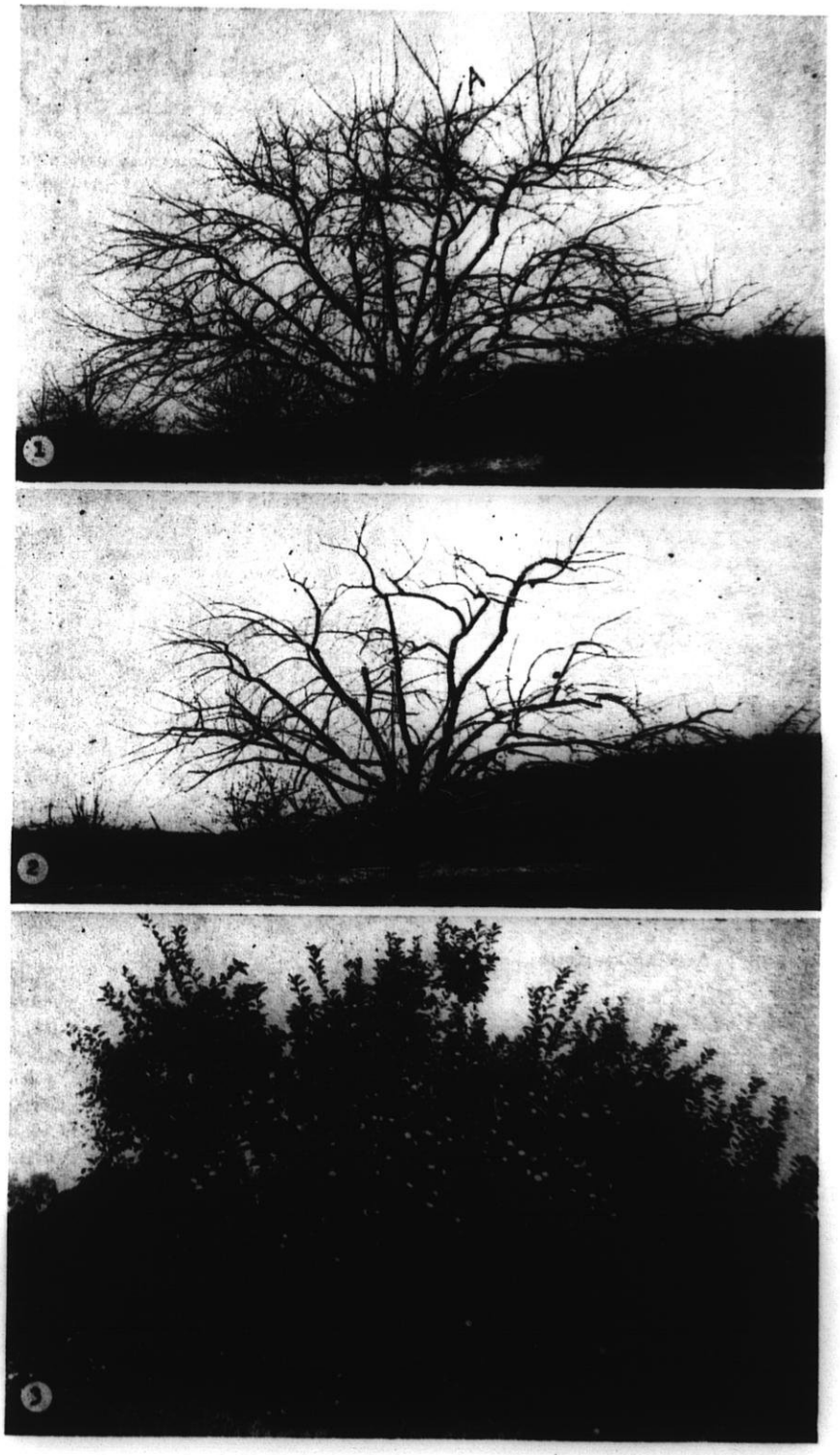


Fig. 1. A Northwest Greening before pruning, University orchard. This tree is of fair vigor but is becoming tall and producing many small apples.

Fig. 2. Tallest wood taken out instead of being cut back. Balance of branches cut "in half". This tree is now low and easy to spray and to pick at harvest time. Note how the tall branch "A" in Fig. 1 has been removed. Often a tree can be effectively lowered with 3, sometimes 2 cuts.

Fig. 3. Same tree as Fig. 2. It bore 24 lugs of apples. 62% over 3 inches and 97% over 2½ inches. It has enough blossom buds for a good repeat crop.

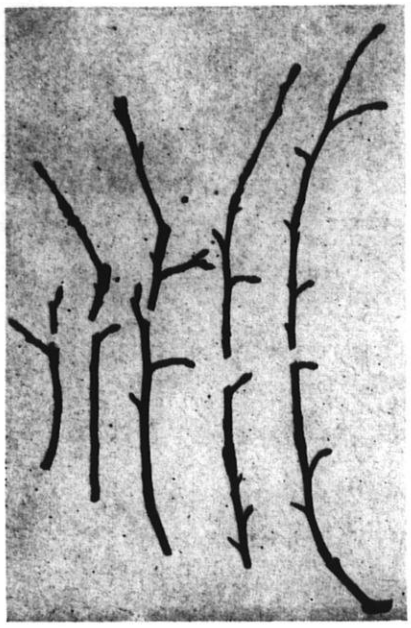


Fig. 4. Old weak branches of Golden Delicious when cut in half, as shown, make a vigorous growth and produce large apples. Left alone, they bear only small apples.

QUESTION: Which standard Wisconsin varieties of apples can be pruned as described as end pruning to grow larger fruit, in addition to Wealthy, Golden Delicious and Duchess?

ANSWER: These varieties can also be pruned in that way: Red Delicious; N.W. Greening; Dudley; Melba; Early McIntosh; Haralson and Jonathan.

QUESTION: Are there any varieties besides McIntosh that should not be so pruned?

ANSWER: Probably not such other terminal fruiting varieties as Cortland.

QUESTION: How much increased fertilizer is recommended when using this type of pruning?

ANSWER: Use about 50% more than has been customarily used.

Father: "Well, son, did you kiss your bride?"

Son: "No, dad, but I believe she'd let me."

1953 Apple Spray Program

By Don A. Dever and C. L. Fluke

The 1953 spray program given here is suggested as a basic program. It may be necessary to apply additional sprays depending upon seasonal conditions.

Parathon is effective against codling moth, red-banded leaf roller, bud moth, and fruit tree leaf roller. As a result, it is recommended in certain cover sprays as a possible substitute for DDT or lead arsenate. Parathion is not recommended for spraying McIntosh and Cortland as it may cause injury to the fruit.

If there is considerable second brood codling moth activity, an additional DDT or parathion spray is advised for late varieties. A fungicide at this time may not be necessary.

If apple maggot emerges late and it is necessary to apply a spray near harvest use 50% methoxychlor at two pounds to 100 gallons of water.

Growers should consult their plant pathologists about any unusual fruit disease problems. In severe scab conditions, it may be necessary to use liquid lime sulfur in certain cover sprays. Do not use DDT or parathion in combination with liquid lime sulfur.

The Dormant Spray

A dormant spray for insect control is generally recommended. A dinitro compound such as DN-289 or Elgetol 318 will control mite eggs and bud moth; it will also help to kill aphis eggs and case bearers.

European red mites often build up during the summer even after a dormant spray. If this occurs, one of the phosphates, tetraethyl pyrophosphate (TEPP) or parathion, or one of the newer compounds such as Dimite, Aramite, or Ovatran should be used. If parathion is used in the cover sprays, red mite should not become a problem.

Suggested Basic Apple Spray Program

Time of Application	Materials and Amounts per 100 gallons
Dormant (insecticide)	DN-289 or Elgetol 318, ¾ gal.
Dormant (fungicide)	DN-289 Elgetol 318, Elgetol, or Krenite, ½ gal. as ground treatment at 600 gals. per acre.
Green tip	Liquid lime sulfur, 2 gals.
Closed cluster	Lead arsenate 3 lbs., liquid lime sulfur, 2 gals. (1)
Open cluster	Lead arsenate 3 lbs., liquid lime sulfur, 2 gals.
Calyx or petal fall	Lead arsenatte 3 lbs., or lead arsenate 3 lbs. and 50% DDT, 2 lbs., (2) or 15% parathion 1½ lbs., and a micronized wettable sulfur 5 lbs., or ferbam 1½ lbs.
1st Cover (about 10 days later)	Lead arsenate 3 lbs. (3) and a micronized wettable sulfur 5 lbs., or ferbam 1½ lbs.
2nd Cover (about 10 days later)	50% DDT 2 lbs., or 15% parathion 1½ lbs. and a micronized wettable sulfur 5 lbs., or ferbam 1½ lbs.
3rd Cover (about 10 days later)	50% DDT 2 lbs., or 15% parathion 1½ lbs. and a micronized wettable sulphur 5 lbs., or ferbam 1½ lbs.
4th Cover (about 10 days later)	Lead arsenate 3 lbs., or 15% parathion 1½ lbs. and a micronized wettable sulfur 5 lbs., or ferbam 1½ lbs.
5th Cover (about 10 days later)	Lead arsenate 3 lbs., or 15% parathion 1½ lbs. and a micronized wettable sulfur 5 lbs., or ferbam 1½ lbs.

---

(1) If fruit tree leaf roller is a serious problem, a separate application of 50% DDT (2 lbs.) is necessary following the lime sulfur. **Do not** add the lead arsenate if an application of DDT is necessary, and **do not** use the DDT in combination with the lime sulfur.
(2) DDT should be used in this spray only if oyster shell scale is a problem.
(3) If DDT is not used in petal fall and oyster shell scale is a problem, add DDT.

WHAT ARE THE 1953 APPLE PROSPECTS

"Indications are for a heavy bloom. Plan your orchard now to bring to maturity a quality crop." writes J. R. Magness of the U. S. Dept. of Agriculture in the January issue of the American Fruit Grower. He continues:

"The apple bloom in 1953 is expected to be moderately heavy in all of the principal producing areas of the United States. The 1952 crop was below average in nearly all districts but especially in the northern areas from New England to Michigan and in the Middle Western states.

Tree Removal

"For the past 2 or 3 years there has been concerted effort in many apple producing areas to remove trees of unprofitable varieties, trees that have become too old and high to produce quality fruit economically, and trees in soil areas or sites that are not satisfactorily productive. Many orchardists are following the policy of moderate replanting and orchard renewal. These practices are certainly sound and should be expanded in 1953.

Pruning

"In order to control insects and diseases satisfactorily it is essential that the trees be sufficiently open to cover them adequately with spray material. Pruning out of weak wood is also an important factor in getting size and finish on the fruit. If trees have not been well pruned during the past 2 or 3 seasons it is particularly important to prune them prior to the start of growth in 1953 when a heavy crop is in prospect. Apple trees do not require pruning every year to produce satisfactorily but it is essential that they be well pruned at least every 2 to 3 years to obtain adequate spray coverage and to reduce the percentage of poorly developed apples.

A recruit was on guard duty with specific orders to admit no car unless it bore a special tag. He stopped a tagless car carrying a high-ranking officer. The guard heard the officer order his driver to go right through and calmly the guard spoke up—"I'm new at this, sir; do I shoot you or the driver?"

It is interesting to note that when God made man, He didn't arrange any of the joints of his bones so he could pat himself on the back.

Sawdust as Mulch

For the Orchard and Garden

By W. P. Judkins, Virginia, in Virginia Fruit

For shallow-rooted crops such as strawberries or vegetables a one-inch mulch of sawdust is recommended. This may be applied at the time of planting or after the crop has been cultivated and hoed once or twice to destroy the weeds which develop early in the season.

The greatest benefit is derived by allowing the sawdust to remain on the surface as a mulch. In this position it conserves soil moisture, reduces the runoff of water during rain storms, helps maintain cool soil conditions during the hot summer months, and to a limited extent suppresses the growth of weeds. If the sawdust is worked into the soil by cultivation or hoeing the grower must be prepared to apply nitrogen to overcome a deficiency of this nutrient element.

A One Inch Layer Advised

The one-inch layer of mulch is sufficent to give optimum moisture conserving and soil cooling effects. A thicker covering will be of little additional benefit and will add to the problem of nitrogen deficiency when the material is ultimately incorporated into the soil. Thicker mulches, up to several inches deep, may be used for larger growing, deeper rooted berry bushes, ornamental shrubs or fruit trees. A heavy mulch around shallow-rooted vegetables may tend to reduce soil aeration in a wet season and have a somewhat suppressing effect on growth.

Sawdust apears to have a moderate retarding effect in the development of broad-leafed weed seedlings. If the first crop of such weeds can be controlled without disturbing the soil under the mulch, the problem of control during the remainder of the seasin will be relatively easy. Most cultural and hoeing operations stir up a new crop of weed seeds which must then be eliminated at a future date. Mulching tends to curtail the development of these later crops of weeds. Sawdust appears to have no particular controlling influence in weeds of the grass family.

Use Any Type Of Sawdust

On the basis of experimental evidence which is available at the present time either hardwood or softwood sawdust may be used in a green or weathered condition. Sawdust which is partly decomposed will, of course, cause less nitrogen deficiency than will fresh material.

Ordinarily it is advisable to purchase sawdust by the cubic yard rather than on a weight basis. One cubic yard will provide a one-inch mulch over 324 square feet of area. A one-inch mulch for an acre of land requires 134 cubic yards of sawdust. The dry weight of the organic matter in a cubic yard of sawdust may vary from 200 pounds for softwood sawdust to 300 pounds for hardwood material. Fresh green sawdust or weathered sawdust containing moisture may weigh two or three times as much as air dry material.

Several benefits are realized when sawdust is incorporated into the soil after it has served its purpose as a mulch. Heavy soils will become lighter and easier to work whereas light soils will have a higher waterholding ability of the soil.. When the soil has decomposed into humus it increases the nutrient holding ability of the soil. This may be of real importance in sandy soils.

Increase In Organic Matter

If a one-inch layer of hardwood sawdust is incorporated into the top 6 or 7 inches (plow layer) of the soil the organic matter content will be increased approximately 2.0 percent.

Organic matter starts to decompose as soon as it is incorporated with the soil. The rate of decomposition depends on the succulence of the material as well as on the temperature, moisture content and aeration of the soil. No figures are available which can be used to estimate the speed of breakdown of sawdust under various climatic conditions. It is, however, a relatively stable type of organic matter which decomposes more slowly than most cover crops or crop residues.

CHERRY SPRAY PROGRAM

In addition to cherry fruit worm and destructive prune worm, there has been considerable injury caused by the fruit tree leaf roller and bud moth. In some instances damage also has been caused by red-banded leaf roller and codling moth.

If fruit tree leaf roller is a serious problem, DDT or Metacide should be used as the insecticide in at least one of the cover sprays.

Suggested Basic Cherry Spray Program 1/

Time of Application	Materials and Amounts per 100 gallons
Dormant	DN-289 or Elgetol 318, ¾ gal.
Petal Fall	Lead arsenate 2 lbs., and bordeaux 6-8-100.
Ten to fourteen days after petal fall	50% methoxychlor 2 lbs. 2/; and bordeaux 3-4-100 or ferbam 1½ lbs. 3/ —or— 50% DDT 2 lbs., or 50% Metacide ¾ pint, 2/ and ferbam 1½ lbs.
About four weeks after petal fall	50% methoxychlor 2 lbs., and bordeaux 3-4-100 or ferbam 1½ lbs. —or— 50% DDT 2 lbs., or 50% Metacide ¾ pint, and ferbam 1½ lbs.
After harvest	Bordeaux 3-4-100.

1/ For interplanted blocks of cherries and apples use ferbam (1½ lbs./100 gals.) as the fungicide and follow the apple spray schedule timing. Add 50% methoxychlor, 50% DDT, or 50% Metacide for cherry fruit worm about 4 weeks after petal fall. If this does not coincide with the regular spray, make a separate application.

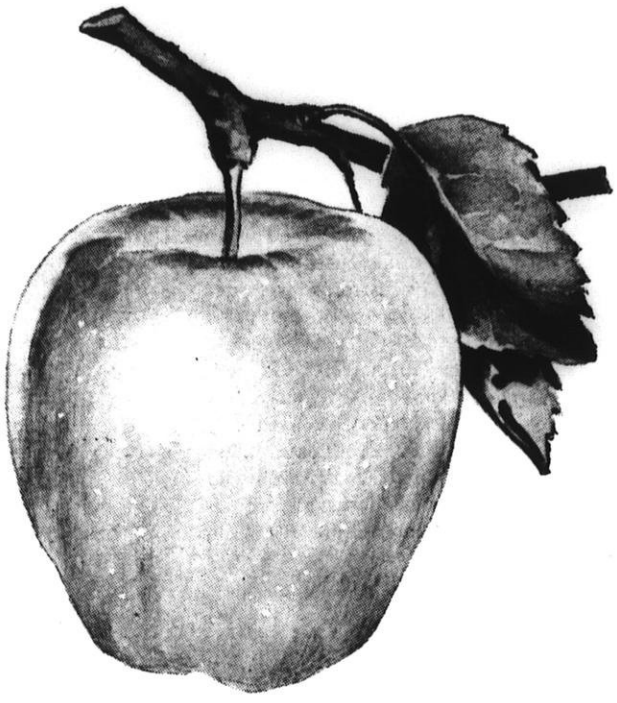
2/ In all cases do not use DDT or Metacide with bordeaux. Methoxychlor can be used with bordeaux or ferbam.

3/ If ferbam is used, an additional application may be necessary before harvest.

For more apples
with better finish

Du Pont FERMATE®

Ferbam Fungicide



PREVENTS SCAB, RUST, SOOTY BLOTCH, BITTER ROT AND BLACK ROT

A favorite ever since 1943, "Fermate" has proved outstanding for fungous disease control on apples and pears. With "Fermate" you get all these important advantages:

- **COMPLETE PROTECTION.** Controls all the major fungous diseases of apples and pears.

- **IMPROVES TREE VIGOR.** The more years you use a "Fermate" program, the better your trees grow, the better the buds develop and the better the fruit sets.

- **BETTER FINISH.** "Fermate" helps you get consistently high yields with better quality, better-looking fruit.

- **IDEAL FOR OTHER CROPS, TOO.** "Fermate" also controls grape black rot, brown rot of stone fruits, cherry leaf spot, cranberry fruit rots and raspberry anthracnose.

- **ECONOMICAL.** "Fermate" gives you the full values of a dependable organic fungicide at low cost.

See your dealer now *for "Fermate" and other proved Du Pont chemicals for fruit growers. Du Pont Grasselli Chemicals Dept., Wilmington, Delaware.*

For better spray coverage, add Du Pont Spreader-Sticker to spray mixtures.

DU PONT CHEMICALS FOR THE FARM INCLUDE: *Fungicides:* MANZATE,* PARZATE* (zineb and nabam), FERMATE* ferbam, ZERLATE* ziram, Copper-A (Fixed Copper), SULFORON* and SULFORON*-X Wettable Sulfurs . . . *Insecticides:* DEENATE* DDT, MARLATE* Methoxychlor, LEXONE* Benzene Hexachloride, KRENITE* Dinitro Spray, EPN 300 Insecticide, Calcium Arsenate, Lead Arsenate . . . *Weed and Brush Killers:* CMU, AMMATE,* 2,4-D, TCA and 2,4,5-T . . . *Also:* Du Pont Cotton Dusts, Du Pont Spreader-Sticker, PARMONE* Fruit Drop Inhibitor, and many others.

*REG. U.S. PAT. OFF.

On all chemicals always follow directions for application. Where warning or caution statements on use of the product are given, read them carefully.

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BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

How We Grow Good Apples

By Albert A. Ten Eyck, Brodhead, Wis.

Wisconsin apples, grown on relatively high ground underlayed with lime rock, have an unsurpassed flavor. If your location is different be sure you are not in a "frost pocket" and that the water table is not too high. In addition, be sure your soil will grow trees. Some soil apparently will not. There is such an area immediately south of Brodhead called "sand prairie". Apple trees simply do not grow well there and die at an early age. Irrigation might alter the situation.

Varieties

Now for varieties: Red Delicious, Golden Delicious, Jonathan, and Winesap are the easiest to sell and may bring the best price but they are all strictly a gamble because of Wisconsin's occasional severe winters. **Cold weather may kill trees entirely** or it may injure them so as to reduce vitality, retard growth and cause fruit to be small and the crop "short".

Over a period of years, it is possible that a less desirable variety such as Wealthy or N.W. Greening might bring in a larger income than, for example, Red Delicious.

McIntosh and Cortland are two of the finest apples and they are hardy in the southern half of the State. Some of the new Minnesota apples are excellent; for example, Prairie Spy and Fireside (the latter being short on color in southern Wisconsin).

Planting Distances

The young orchard should be set with rows on the contour or on terraces. Trees should be 35 ft. apart in the row with 40 ft. between rows unless a pruning method designed to reduce normal tree size is to be practiced. Place hardware cloth (3 holes to the inch or smaller) guards for more protection around trees when they are set.

If cultivation is not practical, mulch heavily (8 to 10 inches).

Crops can be grown between the tree rows for 2 or 3 years or rows of early bearing apples may be set between the permanent rows of trees. These early bearers should be cut out in 10 to 12 years. For this purpose Golden Delicious is very good—the trees are apt to be half dead by the time they should come out and their removal won't be so difficult.

Normally, young trees need little spraying but a fungicide 3 or 4 times a season will often pay, and trees should be watched for signs of worms and plant lice.

Fertilizers

No fertilizer should be used the first year and thereafter very little prior to bearing. Two or three ounces of ammonium nitrate scattered under each tree is enough. When trees are bearing, too much nitrogen will u-

(Continued on page 134)

Fruit Varieties For Wisconsin

* Varieties by the Minnesota Experiment Station.

C For Commercial as well as home use.

H For home orchards or small plantings for roadside markets.

** For trial.

Topwork: Use Hibernal stock and topwork about 2 years after planting.

APPLES
Recommended in Fruit Districts

	1	2	3	4
**Mantet	H	H	H	H
Early Red Bird	H	H	H	
**Oriole*	H	H	H	
Melba	H	H	H	H
Red Duchess	H	H	H	H
Early McIntosh	H	H	H	
Beacon*	H	H	H	H
Milton	H	H	H	
Wealthy	C	C	C	
**Minjon*	C	C	C	C
McIntosh	C	C	C	
Macoun	C	C	H	
**Spartan	C	C	H	
Cortland	C	C	C	
**Lakeland*	C	C	C	C
**Victory*	H	H	H	H
N. W. Greening	C	C	C	
**Haralson*		C	C	H
**Prairie Spy*	C	C	C	H
**Redwell*	C	C	C	
Red Delicious (Topwork)	C	C		
Golden Delicious (Topwork)	C	C		
Jonathan	C			
Secor	C			

CRAB APPLES

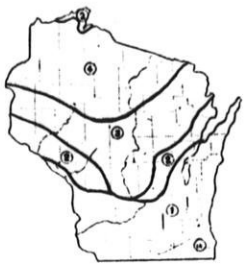
Whitney	H	H	H	H
Chestnut	H	H	H	H
Hyslop	H	H	H	H

PEARS

Lincoln		H	H	
Parker*		H	H	
Patten		H	H	
Blemish Beauty (Pollinizer)	H	H	H	
**Bantam*	H	H	H	H
Clapps Favorite	H	H		
Bartlett	C			
Vermont Beauty	H			
Seckel	H	H		
Bosc	C			
Lawrence	C	H		
Winter Nellis	H	H		

CHERRIES

**North Star*	H	H	H
Montmorency	C	H	
**Meteor*	H	H	H



Fruit Zones Of Wisconsin

GRAPES

Blue				
Fredonia	H			
Moore's Early	H	H	H	
Worden	H	H		
Concord (late)	H			
Beta			H	H
**Blue Jay*		H	H	H
**Blue Bell*		H	H	
Red				
Brighton	H	H		
Delaware	H	H		
**Red Amber*	H	H	H	H
White				
Portland	H	H		
Ontario	H	H		
**Moonbeam*	H	H	H	

Grape varieties excepting Beta should be given winter covering in Regions 2, 3, and 4.

PLUMS

Red				
Underwood	H	H	H	H
Superior*	H	H	H	
Ember*	H	H	H	
**Pipestone*	H	H	H	H
**Red Glow*	H	H	H	H

The above varieties need pollinizers.

Pollinizers				
Kaga	H	H	H	H
Toka	H	H	H	H
South Dakota No. 27	H	H	H	H
European Plums				
**Russian Green				
Gage	H	H		
**Bonne St. Anne	H	H		
**Krikon Damson	H	H		
Mount Royal	H	H	H	
Stanley	H	H		
Lombard	H	H		
**Wisconsin Prune	H			
Cherry Plum				
Opata (needs pollinizer)			H	H
Sapa (needs pollinizer			H	H
Compass (pollinizer)			H	H

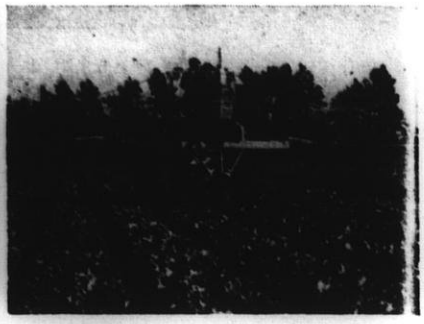
Prepared by Malcolm Dana, Dept. of Horticulture, U.W. and H. J. Rahmlow, Wis. State Horticultural Society. Information on Minnesota varieties obtained from the January 1953 issue of Minnesota Horticulturist and on Wisconsin varieties from station bulletin by the late C. L. Kuehner.

Child training expert — "If your children become unmanageable, quickly switch their attention."

Puzzled Parent — "Switch their what?"

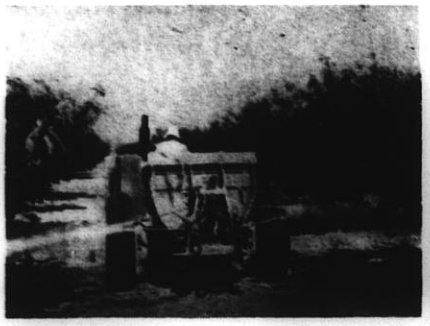
Parathion being applied on carrots . . .

on citrus . . .



on cabbage . . .

on shade tobacco . . .



on peaches . . .

on broccoli.

Parathion

has proved its value on more than 50 different crops!

Many millions of pounds of parathion insecticides have been used safely, successfully, *economically*. Every year a new chapter is added to the parathion success story, as more and more growers find that parathion simplifies their insect control problems . . . makes farming easier and *more profitable*.

On many crops, parathion has greatly reduced the number of other insecticides needed to control difficult groups of insects. On some crops, parathion alone gives full control. And parathion is comparatively inexpensive.

Write for new Parathion Grower's Handbook, containing 200 accepted uses . . . safety precautions . . . valuable information on dosages and times of application.

Parathion insecticides are available from national manufacturers.

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Berries and Vegetables

Wisconsin Berry and Vegetable Growers Ass'n.

WHAT IS A QUART OF STRAWBERRIES

One of the topics to be discussed at the meeting of the Wisconsin Berry & Vegetable Growers Association at the Court House at Oshkosh, April 6th will be: Shall We Adopt a Minimum Weight Requirement for Quart Boxes of Strawberries.

Growers have pointed out the problem—a box of strawberries today is an unknown quantity. This often results in unfair practices detrimental to the undustry. Growers may bring in boxes only level full and sell them at a lower price than growers receive for full boxes of good quality berries.

Some growers have stated that when they sold boxes heaped full of berries that they later found divisions had been made and additional quarts of level full boxes were being sold. The weight of pint boxes of raspberries will also be considered.

BERRY GROWERS MEETING OSHKOSH, COURTHOUSE, MONDAY, APRIL 6, 1953

The Program

10 a.m. Meeting. Board of Directors, Wisconsin Berry & Vegetable Growers Association.

1:15 p.m. Round Table meeting of all Berry Growers on problems of the industry.

THE STRAWBERRY VIRUS CONTROL PROGRAM. Plans for producing virus free plants in Wisconsin. By E. L. Chambers, State Entomologist, Madison, and Frank Gilbert, Superintendent, Branch Experiment Station, Sturgeon Bay.

What Has Been Done This Year. By H. J. Rahmlow, Madison.

Packing and Marketing Strawberries. Shall we adopt minimum weight regulations for retail boxes of berries. Need for it. By Harry Barlament, Green Bay.

Problems Involved In Weight Regulations For Berries. By Mr. William Waterman, Dept. of Weights & Measures, Madison.

OUR FAVORITE STRAWBERRY VARIETIES

By Harry A. Barlament, Green Bay

In another month we will be busy with our strawberry plantings, so I think it interesting to go over our records and study the varieties that have been outstanding. Catskill again leads with Thomas next. Then I have 7 varieties in a test plot which made excellent plant growth, and from which I expect to select plants: these are Lindalicious, Sparkle, Red Crop, Wis. 214, Arrowhead, Utah Shipper and Can-all. I plan on buying some virus-free Premier plants. My own Premiers have not been satisfactory in recent years.

For fruiting this year I have 3 acres of Catskill and Thomas, plus some Catskill and Thomas that will be fruiting for the second year. The Thomas, 6 rows from 1200 plants when set out, produced 1450 quarts of fine large berries in 1952 and brought premium prices as they came on when other berries were off the market.

Cucumber Borer

I want to bring to the attention of our vegetable growers a new pest, the cucumber borer, which many of our growers had trouble with last season. As far as I can learn it was brought here in shipments of pickles from the South. The moths left the trucks at the pickling plants in this area and laid their eggs on our cucumbers, squash and melons. The larvae feeds on the inside of the pickles and destroys them. If it attacks early enough it can wipe out a crop.

Tomato Varieties

I had a very good crop of tomatoes in 1952. They were fine quality, mostly Valients, Stokes, Cross Hybrid No. 4 and Rutgers. However, the Hybrid No. 4 are more susceptible to blight and ripens later, and so for those reasons we prefer Rutgers for late tomatoes. I dusted twice and with the sunny weather had little blight trouble. A rainy season will undoubtedly bring blight trouble again, when more dustings will be necessary. Will grow these varieties again.

More About the Pickleworm

Editor's Note: Dr. R. Keith Chapman of the Department of Entomology, U.W., believes that this insect is the pickleworm which is ordinarily destructive only in the southern states but occasionally appears farther north. Whether these insects fly in each year, have developed a strain that can overwinter here, or are brought in with pickle shipments from the south is not known. During the past few years the Department of Entomology has had only one direct inquiry from either pickle processors or growers concerning this insect. If this insect has become a real problem to the pickle industry in Wisconsin, Dr. Chapman will welcome the opportunity to talk over the problems with those concerned to try to devise ways of studying and controlling this pest.

COMMENTS ABOUT STRAWBERRY VARIETIES AT MINNESOTA BERRY GROWERS SHORT COURSE

Brilliant . . . Needs more testing in Minnesota.

Montana Progressive . . . Too soft for a good market berry. Originated as a yellows-free strain of Progressive.

Nectarina . . . Good market appearance. Berry stands rain better than most varieties, but foliage susceptible to leaf spot. Needs more testing.

Robinson . . . Not too promising in southern and central Minnesota.

Red Rich . . . Disappointing results this year probably due to insect pests and perhaps some winter injury. One grower who used DDT reported good results while neighbor not using DDT has many nubbins.

Sparkle . . . Needs good soil and plenty of moisture. Excellent for freezing.

(Continued on page 135)

Vegetable Varieties For Commercial Growers

By the Department of Horticulture, U. W.

BEANS: Bush snap, green: Tendergreen, Contender, Rival, Topcrop, Wade, Plentiful, Bountiful. Bush snap wax: Round Pod Kidney, Pencil Pod Black, Cherokee.

BEETS: Early Wonder, Perfected Detroit, Detroit Dark Red, King Red.

CABBAGE: early: Golden Acre (Racine Market*, Resistant Detroit*, Resistant Golden Acre*); Jersey Wakefield (Jersey Queen*). Second early: Marion Market*, Globe*. Late: Wisconsin All Seasons*, Wisconsin Ballhead*, Bugner*. Red: Red Hollander*.

CARROTS: Red Cored Chantenay, Royal Chantenay, Nantes, Imperator, Morse's Bunching, Imperida.

CAULIFLOWER: Early Snowball, Super Snowball, Snowdrift.

CELERY: Golden Plume, Golden Self Blanching, Cornell 19 or Cornell 619. Summer Pascal or Emerson Pascal for green.

CHINESE CABBAGE: Michihli.

CUCUMBERS: Slicing: Cubit, Marketer, Straight Eight, Niagara (mosaic resistant). Pickling: National Pickling, Yorkstate (mosaic resistant), Chicago Pickling, Wisconsin S.R. 6 (scab resistant).

LETTUCE: Leaf: Simpson, Grand Rapids, Salad Bowl. head: Great Lakes, Cornell 456, Progress.

MUSKMELONS: Delicious, Milwaukee Market, Pride of Wisconsin, Iroquois, Craig, Schoon's Hard Shell.

ONIONS: seed: Early Yellow Globe, Brigham Yellow Globe, Rochester Bronze, Asgrow Y-40, Asgrow Y 41, Autumn Spice, Autumn Glory. Sets: Golden Globe. Ebenezer. Transplants: Yellow Sweet Spanish, Magnifico.

PEAS: American Wonder, Dark Podded Thomas Laxton, Freezonian, Pride, Teton, Laxton's Progress, Greater Progress, Little Marvel.

PEPPERS: Pennwonder, Early California Wonder (Calwonder, Oakview Wonder), Golden California Wonder.

POTATOES: early: Irish Cobbler, Triumph, Red Warba. Medium late: Chippewa. Late: Katahdin, Red Pontiac, Sebago, Russet Sebago, Russet Rural, Russet Burbank, Ontario, Kennebec.

PUMPKIN: (summer "squash") Yankee Hybrid, Early Prolific Straightneck, Caserta, Dark Green Zucchini. (Fall "squash") Green Table Queen. (Pie) Small Sugar, Winter Luxury.

RADISHES: Cavalier, Comet, Cherry Belle, Early Scarlet Globe.

*Resistant or tolerant to fusarium yellows.

SPINACH: Long Standing Bloomsdale, Nobel, King of Denmark.

SQUASH: Buttercup, Green Gold, Sweetmeat, Golden Delicious, Green Hubbard, Blue Hubbard, Golden Hubbard, Butternut cushaw.

SWEET CORN: (early) Improved Spancross, Seneca Dawn, Sun Up, Golden Rocket, North Star, Marcross, Our Choice, Earligold. (Second early) Improved Carmelcross Gold Rush, Wisconsin Golden 800, Lincoln. (Main crop) Wisconsin Golden 804, Golden Cross Bantam, Iochief.

TOMATOES: very early: Early Scarlet, Bounty, Sioux, Valiant. Early: Stokesdale. Second early: Long Red, Red Jacket, Wisconsin 55, Queens. Late: Rutgers.

HIGH-PRESSURE POWER SPRAYERS BUILT FOR SMALL OPERATORS

Described by the manufacturer as "the first consumer-priced power sprayer" on the market, the SPRAYMATE, a portable, compact and versatile high-pressure power sprayer, has been introduced by the John Bean Division of the Food Machinery and Chemical Corp.

Mounted on rubber tires and balanced with a low center of gravity, the sprayer can be stored practically anywhere. Equipped with a five gallon tank capacity and the ability to develop 150 pounds pressure the SPRAYMATE can be used for many jobs, from weed and lawn spraying at low pressures to shade tree spraying at high pressures.

Specifications on this sprayer may be obtained from the manufacturer.

JOHN BEAN DIVISION
Food Machinery and
Chemical Corp.
Lansing 4, Mich.

GROWING GOOD APPLES

(Continued from page 130)

ually reduce color and may retard the "hardening" process in the fall resulting in winter injury.

Pruning

When setting trees, prune them back severely. Go over them a second time, and you'll find you didn't do the job completely the first time. Be sure the leader isn't too long and don't leave branches with narrow crotches. If you feel you must leave a narrow crotch, cut the branch shorter than normal and in a year or two, take it out completely.

Prune every year without fail but in the young tree cut only when necessary. Crossed branches, branches growing straight up or through the tree from one side to the other, very low limbs, and all water sprouts should be cut out. Keep in mind the fact that the tree will spread out when it bears fruit.

At 4 or 5 years the young orchard should go into sod which should be kept mowed in succeeding years. There is no better harbor for a scab infection than a tall growth of weeds and grass.

Spray Often

When the trees bear, spray and spray often. In a normal year in southern Wisconsin, at least 15 sprays with adequate equipment are required for scab control. If you are in an area where fewer sprays are necessary so much the better, but don't allow a crop to be ruined while you are finding out.

If you have poor fruit, sell direct to consumers or process it at home. Don't put poor fruit into commercial channels. It will cost you money in the end by lowering demand and reducing the price on good fruit.

Last, but most certainly not least, if you plan on going into the business of raising fruit as a means of making an easy living, you had better get a job working for some one else. You may be able to loaf on the job and "pass the buck" while working for another but you won't be successful trying to raise good apples that way.

Raising poor fruit is neither a pleasure nor a profit.

Any man who says women aren't good listeners should be careful what he says.—Orfordville Journal.

Berry Plant Market

STATE CERTIFIED STRAWBERRY PLANTS

We offer original strain of Beaver; Premier, Robinson; Catskill. Gem everbearing. Quality plants at reasonable prices. Plants are freshly dug just before shipment. KAMNETZ STRAWBERRY NURSERY, Cumberland, Wisconsin.

STRAWBERRY PLANTS FOR SALE

Wis. No. 214; Wis. No. 261; Improved Senator Dunlap, Catskill; Thomas. Hillfruit Dairy Farm. Victor Heinz, Rt. 1, Cleveland, Wis.

CERTIFIED BERRY PLANTS

We offer strawberry and raspberry plants for sale. Gem Everbearing; Premier; Dunlap (Junebearing): 1000 @ $15.00; 100 @ $2.00.

Streamliner; Evermore Everbearing; Catskill; Fairfax; Robinson; Thomas; Beaver Junebearing: 1000 @ $18.00; 100@ $2.25.

Latham raspberries: 1000 @ $40.00, F.O.B. Bayfield; 100 @ $5.00; 50 @ $3.00; 25 @ $1.75. Postpaid.

Viking raspberries: 1000 @ $25.00, F.O.B. Bayfield. 100 @ $3.50; 50 @ $2.00; 25 @ $1.25. Postpaid.

John Krueger, Rt. 1, Bayfield, Wis.

COMMENTS ABOUT STRAWBERRIES

(Continued from page 133)

Superfection . . . Not too promising. Berry soft, more subject to decay than Red Rich and 20th Century.

Temple . . . Poor yields in Wisconsin, usually only two pickings.

20th Century . . . Some promising reports but needs more testing.

Thomas . . . Of interest only because it is very late. Poor quality berry that tends to be hollow.

Zeckcellent . . . A good market berry when grown under good cultural methods. —From Minnesota Horticulturist, By J. D. Winter.

RASPBERRY AND STRAWBERRY PLANTS

Write now for free booklet on proven varieties and how to grow them. Also some new seed selections. Bryan Nursery, Washburn, Wis.

PLANTS FOR SALE

New Minnesota No. 321 Red Raspberry: 12 @ $3.75. Latham, Indian Summer, Taylor raspberry: 25 @ $2.75; 50 @ $5.00 100 @ $9.50.

Cumberland black raspberry: 12 @ $1.25; 25 @ $2.50; 50 @ $4.50; 100 @ $8.50.

Premier, Catskill, Beaver, Robinson, Dunlap strawberry plants: 25 @ $1.00; 50 @ $1.50; 100 @ $2.45; 200 @ $4.45; 500 @ $9.50; 1,000 @ $17.50. Prepaid.

Currants, grape vines, fruit trees, shrubs, shade trees, evergreens.

Mary Washington asparagus roots, 1 yr. old: 25 @ $1.00; 50 @ $1.50; 100 @ $2.50.

Hall Nursery, Elmwood, Wisc.

STRAWBERRY AND RASPBERRY PLANTS FOR SALE

POSTPAID: Premier; Robinson: 50 @ $1.90; 100 @ $2.95; 250 @ $5.25; 500 @ $9.70; 1000 @ $15.00. Tennessee Beauty; Thomas; Sparkle; Catskill: 50 @ $2.00; 100 @ $3.50; 250 @ $7.50; 500 @ $11.00. Empire; Vermillion; Ardmore: 50 @ $2.50; 100 @ $3.70; 250 @ $7.75; 500 @ $11.75.

Everbearing: Superfection: 25 @ $2.15; 50 @ $3.75; 100 @ $6.25. 20th Century: 25 @ $3.95; 50 @ $6.85; 100 @ $9.95. Red Rich: 25@ $5.00; 50 @ $8.50; 100 @ $15.00.

Raspberry Plants: 2 year heavy. Early June: 25 @ @$4.95; 50 @ $8.75; 100 @ $15.00; 250 @ $29.00. Indian Summer; Latham; Sunrise: 25 @ $3.75; 50 @ $6.50; 100 @ $12.00; 250 @ $27.50.

Miss Freda Schroeder, c/o Krahn-Schroeder Nursery, Loyal, Wisconsin.

BERRY PLANTS FOR SALE

Latham Raspberry Plants: 1,000 @ $40.000; 100 @ $5.00.

Strawberry Plants: Beaver: 100 @ $1.75; 1,000 @ $12.00. Bearmore: 100 @ $2.00; 1,000 @ $15.00. Premier: 100 @ $2.00; 1,000 @ $15.00. Gem Everbearing: 100 @ $2.50; 1,000 @ $18.00. I. H. Bowen, Alma Center, Wisconsin.

PLANTS FOR SALE

For Sale: Strawberry and Raspberry Plants. Premier; Robinson; Wis. 214; Fujiyama, and Superfection strawberries.

June and New Durham fall bearing red raspberries.

Al Kruse Nursery, 615 Effinger Road, Baraboo, Wis.

STATE INSPECTED STRAWBERRY PLANTS FOR SALE

Premier; Clermont; Robinson; Improved Dunlap: 50 @ $1.65; 100 @ $2.75; 250 @ $5.85; 500 @ $8.75.

Catskill; Sparkle: 50 @ $2.00; 100 @ $3.00; 250 @ $6.50; 500 @ $8.75.

New Wis. 2-14; Thomas; Midland: 50 @ $2.50; 100 @ $4.00; 250 @ $8.50; 500 @ $12.00.

EVERBEARING: Superfection Streamliner: 50 @ $2.50; 100 @ $4.00; 250 @ $8.50; 500 @ $14.00

FREEZING VARIETIES: WIS. 2-14. Strong prolific plant maker, medium size and ripening. Dark red. MIDLAND. Early large to extra large berries. Nearly tops for freezing. If you have trouble with too many plants, try this. THOMAS. Strong prolific plant maker. Late ripening. Extra large. SPARKLE. Prolific plant maker. Late. Medium to large, extra pretty berry. IMPROVED DUNLAP. Small to medium sized berries; dark red; soft. Prices Postpaid.
Charles W. Hein Nursery, 1134-4th St., Baraboo, Wis.

STRAWBERRY & RASPBERRY PLANTS

We have the following fine new strawberry varieties: Empire, N.Y. Exp. Sta.; Vermillion, Ill. Exp. Sta.; Erie, N.Y. Sta.; Great Bay, N. H. Exp. Sta. All very promising. Clean, vigorous plants. Made excellent showing and favorable reports where tried. Price: 100 @ $4.75, except Great Bay. Standard varieties: Catskill; Premier; Thomas; Wis. Seedling No. 261, strong plants; 100 @ $2.50. Arrowhead; Robinson; 100 @ $2.00. New Webster everbearer, 100 @ $5.00. Extra fine plants.

Latham raspberry plants. Nice clean stock grown from new planting. Price 100 @ $8.50. Can supply a lighter grade, 100 @ $7.00. Write for prices per 1,000. H. B. Blackman, Richland Center, Wis.

From the Editor's Desk

CHERRY QUEEN ACCLAIMED BY WISCONSIN LEGISLATURE

Miss Marion Schott of New Franken, Brown County, was given a round of applause by both Houses of the Legislature in the State Capitol, Madison, on February 17th for her work in winning the Wisconsin Cherry Pie Baking Contest. The Assembly unanimously passed a resolution commending her for her work and wishing her success at the National Contest held in Chicago. She appeared on WTMJ-TV on February 18, and on several TV stations in Chicago on February 19.

Arrangements had been made by Assemblyman Frank Grass of Sturgeon Bay, to serve all members of the Legislature with Door County Apple Juice and apples on February 17. Miss Schott presided over the punch bowl with Miss Marion Brann, a University student from Sturgeon Bay.

With Miss Schott on this tour were Mr. Ben Batcheler, Sturgeon Bay, Chairman of the State Cherry Promotion Committee; Mrs. Elmer Pire, Miss Schott's Home Economics teacher from Luxemburg; and Mr. George Resch, Exec.-Sec. Door County Chamber of Commerce.

Door County growers are to be commended for their splendid promotional efforts on the behalf of the Cherry Pie Baking Contest. It's a natural to fit in with Washington's Birthday, and a great deal of time and effort was spent in making it successful.

On the committee of which Mr. Batcheler is Chairman, were: Ronie Jacks, Secretary, representing M.W. Miller Co. Sturgeon Bay, in charge of the pie baking contest at Rice Lake; Joe Writt, Treasurer, of the Ralson Orchards, Ellison Bay, in charge of the LaCrosse contest; Frank Harden, Martin Orchard Co. in charge of the Fond du Lac contest; Jules Palmer, Martin Orchard Co., in charge of the Marinette contest; Miss Taylor, Fruit Growers Co-op, in charge of the Milwaukee area contest; Ranie Severson, Reynolds Co, in charge of the Madison area contest; Arron Milbrant, N. W. Miller Co., in charge of the Wausau contest; Bill Volkman, Reynolds Co., in charge of the Eau Claire area contest; and Roy Leonart, Fruit Growers Co-op, in charge of the Ashland area contest; Matt Stram, Reynolds Co., Sturgeon Bay, in charge of the Sturgeon Bay contest.

Promotional material about cherries was carried in State newspapers, by radio stations, and on television—a splendid promotional effort for cherries.

Wisconsin's Champion in the annual Cherry Pie Baking Contest, Miss Marion Schott, who appeared before members of the Wisconsin Legislature, serves Assemblyman Frank Grass, Sturgeon Bay, with Door County APL-FRESH from an "ice bowl". At left is Marjory Fink, Nutritionist, State Department of Agriculture and at right Marion Brann, Home Economics student from Sturgeon Bay who helped "pour".

National Champion Cherry Pie Maker was Miss Maxine Walker of Alabama. Miss Schott and Miss Brann are also shown on our cover picture.

LET'S KEEP ALL THIS

The American people with less than one-fifteenth of the world's population and residing on about 6% of the world's land area, PRODUCES—45% of the meat; 46% of the electricity; 50% of the copper; 60% of the petroleum; 60% of the wheat; 65% of the corn. CONSUMES—14% of the food; 40% of the salt; 48% of the coffee; 50% of the goods; 53% of the wool; 56% of the rubber; 72% of the silk. OWNS—35% of the railroads; 48% of the radios; 50% of the gold; 60% of the telephones; 60% of the life insurance; 85% of the automobiles and 82% of the bathtubs.—**From Maryland Fruit Grower.**

WE APPRECIATE THIS

"We enjoy every issue of Wisconsin Horticulture and get lots of help on gardening, fruits and flowers. Hope we'll never have to be without it." From Mr. and Mrs. Carl Wenz of Baraboo.

"Was there ever a grandparent, bushed after a day of minding noisy youngsters, who hasn't felt that the Lord knew what He was doing when He gave children to young people?" remarks the Coloma, Michigan, Courier.

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

President
DR. R. H. JUERS
Wausau

Vice President
RALPH BURDICK
Edgerton

Secretary
MRS. JOHN BAYLESS
Rt. 2, Two Rivers

Treasurer
DR. H. A. KASTEN
315 Washington St., Wausau

Chemical Weed Killers

Their Use On Gladiolus

Convention Paper by Dr. Robert Carlton, Mich. State College. Given at Convention, N.A.G.C.

Reported by H. E. Halliday, Madison

Editor's Note: Mr. H. E. Halliday, Assistant Chief, Division of Plant Industry, State Dept. of Agriculture, was sent to the Annual Convention of the North American Gladiolus Council as delegate for the Wisconsin Gladiolus Society. On his return he prepared a 15 page report listing the high points of all the talks given and action taken at business sessions.

His report will be published in this magazine in sections, taking such topics as seem most timely in the month in which they are published. We appreciate Mr. Halliday's splendid report—he has set an example for delegates attending National meetings.

Points in Weed Control

1. Selection of land—Try to get land as free of weeds and weed seeds as possible. Use land that has been under good management.

2. Preparation of soil—Heavy lumpy soil is bad because weed seeds stay in the lumps. Lumps should be broken up so that the chemicals can get at the weed seeds. Soil should be worked year before planting. Chemical may possibly be applied in fall before planting the next spring.

3. Soil types: Sandy soils require less chemical: 1 pound per acre of 2,4-D on sandy soil—1½ pounds on clay—2 pounds on muck.

Organic matter and clay particles tend to break down and tie up chemicals.

As applications of 2,4-D are applied, there is a build-up of soil organisms. These organisms help break down the 2,4-D. This is demonstrated by tests which show that:

1st application remains active in soil for 4 weeks.

2nd application remains active in soil for 3 weeks.

3rd application remains active in soil for 2½ weeks.

4. Temperature and moisture relations. Chemicals are most active at 65°-85°. Higher soil temperature induces faster breakdown of chemical. Lower temperatures, the chemical is not active enough. Moisture is necessary for the movement of chemical in soil. If possible, do not apply chemicals just before or after a heavy rain. Too heavy a rain may wash chemicals down to the corms. Under some circumstances, the chemical can be diluted by too much moisture, thus becoming ineffective.

5. Culture and care of gladiolus after chemicals have been used. Do not cultivate without a purpose (cultivate just to cultivate). When the crust is broken up, breakdown of the chemical is speeded up and weed seeds are brought into position to germinate.

6. Type and methods of application. Row applications are usually best—a smooth surface is necessary. Apply 10 days after planting.

Weed Control Chemicals

Crag Herbicide No. 1—3 pounds per acre—soil spray. Not effective until in contact with soil moisture. Becomes somewhat like 2,4-D. Use 8-12 days after planting. Apply again in about 3 weeks (after cultivation).

Dinitros—8 pounds per acre. Premerge—do not apply after gladiolus are up.

TCA—10 pounds per acre plus ½ pounds 2,4-D.

2,4-D—1 pound per acre.

Tat G.W.—2 pound per acre.

Crag No. 1—3 pounds per acre as row application—2 applications.

All the above chemicals gave good control—no significant difference.

ANNUAL MEETING WISCONSIN GLADIOLUS SOCIETY Hotel Athearn, Oshkosh SUNDAY, APRIL 12, 1953 The Program

8:30 a. m. Meeting of Board of Directors, Wisconsin Gladiolus Society.

1:00 p.m. Business meeting. Voting on change in constitution on method of electing Directors.

Reports of the annual meeting, N.A.G.C. By Mr. H. E. Halliday, Madison, Melk Brothers, Milwaukee, and Dave Puerner, Milwaukee. 10 minutes each.

2:00 p.m. Bulb auction.

Committee in charge of bulb auction: Leland Shaw, Milton, Chm., Archie Spatz, Schofield.

Advertising Promotion Pays By M. R. Stashower, Cleveland, Ohio

Techniques of promotion and advertising can be applied to gladiolus. There is a difference between promotion and advertising. Promotion pushes a product toward the publ—

makes public conscious that such a product is in existence.

Advertising attracts people to certain brands of that product.

In promotion an attempt is made to create a vogue or build a habit.

Gladiolus are versatile. They can be used for any floral purpose. Teach people that gladiolus can be used for all floral purposes, then teach them how to use them.

A moratorium on new varieties should be declared, and people taught how to use the ones we have. People need confidence in the use of a product. They should be taught confidence in the use of gladiolus. Make everyone an expert in the use of gladiolus, then they will use them.

People can be made conscious of gladiolus through repetition; every stage production, movie, illustrations in magazines should feature and use gladiolus. People who produce the above should be shown the advantages and use of gladiolus so that they will feature them.

The public should get to feel that they know more about the use of gladiolus than the producers know. The opening of every new housing development should feature gladiolus in their open houses. A product sells best on an emotional basis—family instinct and pride in ownership are factors here.

The three main factors in promoting a product are, promoting confidence, developing a fondness, and creating a feeling of expertness in its use in the public mind.

Looking Ahead, America In 1953

By Merle Hostetler—
Federal Reserve Bank,
Cleveland, Ohio

At present, one-sixth of our national income goes for defense. There is no way of knowing how long this will continue. To illustrate what can make the difference between a depression and boom; in 1932 the food industries employed as many people as they do today. Food industries in 1932 were not putting any money into capital equipment and expansion.

Mr. Hostetler suggested that we are in danger of becoming so accustomed to such a high level of production that we do not recognize over production when we see it.

In 1937, we produced 57 million tons of steel.

In 1944, we produced 90 million tons of steel.

A 4 year average after the war was 94 million tons. We are now producing at the rate of 117 million tons.

Since the end of World War II, we have produced 36 million passenger cars. In 9 years in the 1920's, we produced 25 million. In the last 12 months, people have financed 2½ billion dollars worth of passenger cars, and 4½ billion dollars for homes.

Conditions are very similar to 1928 as far as deficit financing are concerned.

Mr. Hostetler felt that no one can predict what will happen economically in the next year or two.

(To be Continued)

All-America Gladiolus Selections Organized

At their annual convention at Cleveland, O., January 17, the North American Commercial Gladiolus Growers founded as an independent organization, the All-America Gladiolus Selections.

After exhaustive tests at 25 trial grounds, scattered throughout the United States and Canada, a maximum of three outstanding gladiolus seedings will be selected each year, beginning in 1955, as All-America Gladiolus Selections.

Entries Invited

All American and Canadian hybridizers are invited to enter their best seedlings in the trial grounds. A fee of $25 will be charged for each entry; 150 bulbs of each seedling, including No. 1's, 2's and 3's, must be sent by April 1 to the executive secretary, who will distribute them to the trial grounds under new numbers to conceal their origin.

No gladiolus seedlings originated abroad may be entered in the competition unless owned outright by an American firm. All inquiries regarding the new organization and regarding rules governing its trial grounds should be addressed to the executive secretary, Ralph Baerman, 5027 North 35th street, Arlington, Va.

Seedlings averaging the highest rating at the 25 trial grounds during 1953 will be voted on by secret ballot, with no judge voting on his own originations or acquisitions. When the three top seedlings have been selected, public announcement will be withheld until January 1, 1955, to permit an additional year's propagation. Condensed **From Florists' Review.**

TWIN CITIES CHAPTER MEETING AND ELECTION OF OFFICERS

The Twin Cities Chapter of the Wisconsin Gladiolus Society held its regular meeting at the Hotel Marinette on January 21.

Officers elected for the coming year are Arnold Sartorius, Porterfield, President; Arthur Kottke, Oconto, Vice President; Mrs. Hugo Krubsack, Peshtigo, Secretary; and Ervin Sommerfeldt, Marinette, re-elected Treasurer. Mrs. Carl Hornick, Menominee, Michigan, and Jerry Merchart, Marinette, were re-elected as directors for 2 years.

The program for the coming year will emphasize the importance of the Amateur grower in our Society and information pertaining to proper cultural practices will be offered at meetings by speakers and through the use of slides and films.

Attention will be given to the Youth Program as promoted by the Society the last two years. **By Arnold Sartorius, Porterfield, Wis.**

VIOLET, 76 and 78

BLUE HORIZON 376, is about the nearest approach to a true blue that has yet been seen and outside of a tendency to face up and to propagate poorly should be a heavy winner. LIBRETTO in the 400 size seems quite healthy, is a good shade of light blue and will open seven.

BLUE DEVIL is the best exhibition variety in this class; a clear deep violet with a rose blotch on a white throat. Flowerheads are long and placement and attachment excellent. WEDGEWOOD a European introduction produces a heavy head of bloom with good color and size to the florets. Plants are healthy and growth from bulblets vigorous.

SMOKY 80 thru 85

The smoky classes hold many that are favorites of ours. OKINAWA 38 a rosy chocolate flecked with gray and with a large purple blotch is well liked by the ladies and is often a winner at the shows. PERSIAN RUG is my personal favorite. Shades of rose and plum and a large yellow throat make a striking spike with about seven open. FRANS HALS is a better, deeper colored Buckeye Bronze and I have seen CLOUDY SUNSET with 14 open. Older varieties that were good were PASTEL, STORMY WEATHER, NELDA the purple smoky, and SURPRISE.

Nursery News & Notes

For The Wisconsin Nurserymen's Association

OUR SUMMER MEETING JUNE 27-28

The Wisconsin Nurserymen's Association is having another summer meeting at Deer Trail Lodge, Heaford Junction. Wis., eight miles north of Tomahawk on Lake Nokomis. There will be boating, fishing, swimming and horseback riding. There are fifteen cabins and hotel accommodations at the main lodge for about 100 persons.

The Illinois Nurserymen will be our guests and reservations from Illinois are already coming in. So it is important to get your reservations in as soon as possible. The date is June 27 and 28, 1953. Guests are to arrive on Friday night, June 26th. Anyone wishing to spend more time at the resort will be given the special convention rate if they arrive before the meeting date. Make your reservations as soon as possible to Woody Johnson, Manager of Deer Trail Lodge stating how many persons will be in your group.

Our meeting last summer was a great success. We need a weekend off after a busy season in the nursery and the meeting will be held when most of the nursery work is completed. All Wisconsin nurserymen should work together to make this an even greater success than our past summer meetings. **By Leland Jens.**

THE CRIMSON KING MAPLE, TRULY REGAL. ACER PLATANOIDES SCHWEDLERI NIGRA (Patent No. 735)

New introductions may come and new introductions may go but the new Crimson King Maple bids fair to become a permanent part of the suburban landscape in Wisconsin. First brought to this country about twelve years ago it is practically impossible to find any nursery listing anything larger than a seven foot whip as the proagation has not begun to catch up with the demand. Originally sent to America from Europe and propagated for experimental plantings along the East and West Coasts it

quickly became one of the "hottest" of nursery items.

It is apparently suitable anywhere in Wisconsin for it seems to thrive in any site where other maples grow. No instance of damage in a Wisconsin winter is known and from all appearances it is a vigorous and hardy tree in this climate.

The new Crimson King distinguishes itself by the brilliant leaf coloring which retains its purple or maroon coloring throughout the leaf season. While it has a brighter, richer foliage than the Schwedler and retains its color better it is a slower growing tree than the Schwedler. It is superb when used as a contrasting specimen in either lawn or street planting.

As a nursery item it is best retailed in pots for it has irresistable sales appeal when it comes into leaf.

A Superb Lythrum

Now we can offer a superb plant in lythrum Morden Pink. This fine Canadian hybrid blooms almost all summer in a really clean pink. It does not seed or stray by underground runners, yet lives for years. Moreover, it does well in dry, sunny spots in spite of its swamp-loving ancestry. Dropmore Purple, a deep shade, and Robert, a semi-dwarf of deep rose, are other recent forms far ahead of previous offerings. **From Horticulture. Jan. Mass.**

IT'S GUARANTEED

All products sold by members of the Wisconsin Nurserymen's Association are guaranteed to contain chlorophyl.

THE TUBEROUS BEGONIA

By Marv. Haller,
Green Terrace Nursery
Oshkosh, Wis.

Spring activities will soon begin for the outdoor gardener, and it is now time to plant Tuberous rooted Begonias in order to assure a continuous bloom from May until frost of this favorite flower. Bulbs should be planted in flats or pots and many prefer to root them in peat or vermiculite and when well rooted to transplant to a good soil mixture. The bulbs may, however, be planted directly in a soil mixture.

The Soil Mixture

Prepare a six to one mixture of peat moss and fertilizer, such as dried cow or sheep manure; add one third of the mixture to two thirds good garden soil and plant bulbs one inch below the surface. Keep the soil moist but not wet and place in a dark cool place. After several weeks when leaves begin to show the plants should be brought to light. Plants should remain indoors until after danger of frost when they are to be placed in a shady location, protected from strong winds.

Begonias will tolerate several hours of morning or late afternoon sunshine but should be protected from the hot mid-day sun. They like water and should be kept moist and a generous application of peat moss to mulch the plants will control weeds and retain moisture and improve their quality.

While the Camellia type of Begonia is most popular, ranging in colors from white, yellow to bronze and reds, often having blooms five inches in diameter, new types have recently been developed. Of these, the crested and crispa type are increasing in popularity having ruffled and frilled blooms of immense size. Begonias will bring a wealth of color throughout the summer until frost, when the bulbs may be dug and stored in a cool dry place during the winter and replanted the following spring.

Types of Japanese Yews

Illustrations Courtesy D. Hill Nursery Co., Dundee, Ill.

THE JAPANESE YEW

The Japanese Yew (Taxus) is our most outstanding evergreen for ornamental purposes. It has no equal for use on the shady side of the home. It is hardy in most all of Wisconsin. There are a number of forms which makes it suitable for varicus types of architecture.

The Japanese Yew was brought to America about 1860. Since that time, many new forms have been developed.

The Upright Japanese Yew

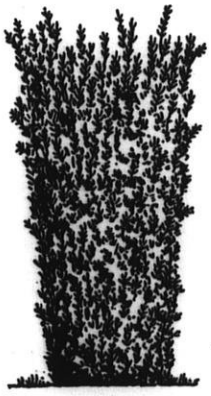
The Japanese Yew, **Taxus cuspidata cuspidata** normally grows in a pyramidal form. The habit of growth may be influenced by early pruning and training. It has a tendency to grow with more than one stem, but trees are usually trained to one stem. It may be trained to grow in a narrow pyramid or developed into a broad form by pruning.

Dwarf Japanese Yew

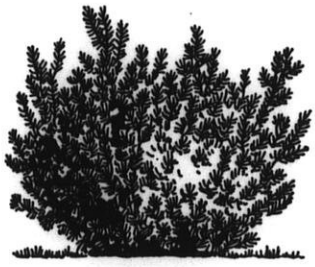
The Dwarf Japanese Yew, **Taxus cuspidata nana,** is one of the oldest forms of this Yew. It is dark in color, of extremely slow growth, and forms a low picturesque outline. There are some specimens 30 to 40 years old which are 15 to 20 feet in diameter and up to 4½ to 5 feet in height. It is therefore an ideal tree for dwarf edging because of its slow growth and compact foliage.

Hatfield Yew

The Hatfield Yew, **Taxus cuspidata hatfieldi,** is a well known hybrid form. The color is rich dark green and the foliage heavy and luxurious. It grows with several upright perpendicular stems, nearly as broad at the top as at the bottom.



Upright Japanese Yew



Dwarf Yew

Intermedia Yew

Hick's Yew

The Hick's Yew, **Taxus cuspida a hicksi** or **Taxus media hicksi,** is a columnar form with branches exten - ing almost vertically, giving it an e - tremely columnar narrow shape. t is widely known and is now exte: - sively planted. It has good rich, dar , glossy green color and an entire y distinct growing habit, varying grea - ly on the method of pruning.

For narrow hedges the Hick's Yew is quite satisfactory.

Hick's Yew

Intermedia Yew

The Intermedia Yew somewhat resembles the older dwarf Japanese Yew. It has the same heavy plump needles of a dark green color. It is a faster grower because it starts to grow earlier in the season.

Garden Club News

The Garden Club of Wisconsin

MESSAGE FROM THE PRESIDENT

When the Executive Board of the Garden Club of Wisconsin chose me as President, I felt honored, and in accepting the appointment I did so because of the sincere regard I have for each and every one of the members of the Garden Club of Wisconsin.

Because of the many years devoted to Garden Club activity, I decided some time ago to retire to the side lines and just look on, so to speak. My high esteem for the fine objectives of our organization together with the pleasant satisfaction of working and carrying on with a group devoted to the same high purposes and incentives, prompted my acceptance.

Plans for the year's activities are taking form and it is a pleasure at this time to announce that definite arrangements have been made for three Schools of Floral Design to be held May 19th, 20th, and 21st, at Milwaukee, Oshkosh and Waupaca.

We have engaged Mrs. Edward Ray, Lancaster, Ohio, to conduct the three schools. Mrs. Ray, a well recognized authority on the subject, is Editor of the Garden Path magazine and a noted lecturer.

With assurances of my continued cooperation and knowing that splendid support is forth-coming from member clubs and members at large, I extend cordial good wishes.—**By Mrs. Chester Thomas, President, Milwaukee.**

AFRICAN VIOLETS

FOR SALE: African Violet leaves: Old and New Varieties. Send stamp for price list. Rooted cuttings and plants at the Greenhouse. Mrs. Chester Graham, Fennimore, Wis.

Mrs. Chester Thomas, President, Executive Board, Garden Club of Wisconsin.

FLOWER ARRANGEMENT SCHOOLS GARDEN CLUB OF WISCONSIN

Course II

Speaker, Mrs. Edward Ray, Lancaster, Ohio

Mrs. Ray is a recognized authority and lecturer on this subject and is Editor of the Garden Path magazine.

May 19th at Milwaukee. May 20th at Oshkosh. May 21st at Waupaca.

More details in our next issue.

SPRING WORK SHOP SPONSORED BY THE MILWAUKEE REGION

Tuesday, May 5, 9:30 a.m. to 3:30 p.m.

YWCA, MILWAUKEE

Details in the April issue

SPRING MEETING
CENTRAL REGION—GARDEN CLUB OF WISCONSIN

CONCORDIA LUTHERAN CHURCH, ROSHOLT, WIS.

Thursday, April 16, 1953

10 a.m. Registration. Call to order by Regional President, Mrs. Charles Braman, Waupaca. Announcements.

The plans of the Garden Club of Wisconsin. How our program benefits our members. Coming events. By Mrs. Chester Thomas, Milwaukee, President, Executive Board, Garden Club of Wisconsin.

10:45 a.m. Spring Garden Clinic. Illustrated with slides. By H. J. Rahmlow, Secretary, State Horticultural Society.

11:30 a.m. Varieties I Plan to Grow In My Garden; 5 minute reports by a representative from each club. Continued at 3:00 p.m.

12 M. Luncheon in the Legion Hall. $1.00 per plate. Served by the Legion Auxiliary.

1:30 p.m. Herbs in Daily Living. Illustrated with a variety of plants and herb products. By T. A. Potter, Potter's Herb Garden, Baraboo, Wis. (Mr. Potter will bring herbs for sale for those who desire them.)

2:15 p.m. How to grow Begonias in your home. Illustrated with plants and slides. By Mrs. Victoria Kartack, Baraboo, Wis. Mrs. Kartack will also mention the culture of other spring garden flowers.

3:00 p.m. Business meeting. Central Region.

Varieties I plan to grow in my garden this season. By representatives of garden clubs.

Registration Committee: Mrs. Art Doede; Mrs. Arthur Nelson; Mrs. Anton Sikorski; Mrs. Thomas Milanowski.

Hospitality Committee: Mrs. R. Wrolstad; Mrs. Alvan Mathison; Mrs. Morris Anderson; Mrs. Donald Green.

Luncheon Committee: Mrs. W. L. Anderson; Mrs. Ingwald Anderson.

Registration Fee: 50c.

WAUWATOSA GARDEN CLUB NEWS

At the January meeting of the Wauwatosa Garden Club Mr. John Voight, superintendent of Milwaukee Botanical Gardens spoke on **"Practical Perennial Gardening"** and showed colored slides of the four seasons of the botanical gardens at Whitnall park.

To avoid hodge-podge results in gardening one should consider the topography, or lay of the land, background such as fences, hedges, shrubs, and structural features, such as retaining walls. Then, spot areas, color schemes wanted and heights of flowers needed, taller in background. By doing this one considers the garden as a whole yet it is made up of integrated beauty spots. A good example of this can be seen in the Whitnall park gardens.

Just as the flower, its color and texture are of great importance in planning, so are foliage and foliage plants. Coarse, heavy foliage belongs to the rear, and refined foliage should be grouped together. White flowers break harshness of color. For continuity of bloom, plant annuals around the perennials.

For the culture of perennials the soil should be free from bush or tree roots, have good drainage, and also have plenty of organic matter such as leaf mold, well rotted manure and peat moss.

Now, assuming that the perennials are growing nicely let's keep them that way by fertilizing, watering one day and cultivating the next. By all means, surface water.

The next step is staking. This is done for appearance, besides the utilitarian value. Rods or wooden stakes painted green are the least conspicuous.

Three practices recommended to gardeners are: divide your plants, share your plants, and keep flower heads or seed pods removed.

Comes winter, and perennials are put into cold storage in the garden by covering. Cover lightly with marsh hay, evergreen boughs, or corn stalks. (Leaves pack too much and are not good.)

—By Martha Getzlaff Koch

AN INVITATION JOIN THE GARDEN CLUB OF WISCONSIN

The Garden Club of Wisconsin invites all members of the Wisconsin State Horticultural Society who are not members of a Garden Club to join their respective regions as members-at-large, by paying 25c annually to the Secretary of the Region in which they live, or the State Secretary, if they live outside an organized Region.

Such membership will permit such members to participate in all Regional activities, such as Workshops, Flower Shows, Lectures, etc. Information relative to the various Regional activities will be published in Wisconsin Horticulture, and will serve as official notice of such activities of the various Regions.

State Secretary: Mrs. M. A. Haller, Rt. 1, Oshkosh; Blackhawk Region Sec.: Mrs. W. E. Klug, 610 North St., Jefferson; Central Region Sec.: Mrs. Curtis Hanson, Scandinavia; Milwaukee Region Sec.: Mrs. J. W. Dooley, 7724 W. Rogers St., West Allis.

LIKES TREE ROSES IN WAUSAU

"My husband concentrates on tuberous rooted begonias and roses" writes Mrs. C. H. Brimmer of the Wausau Garden Club. "We have at least six tree roses which always seems to be a novelty to people. I don't know why more people do not grow them. They are no more trouble to raise than other hybrid tea roses. Of course, we always bury the tree rose bushes in a trench in the garden for wintering."

Editor's note: Tree roses are indeed a novelty and interesting. However, if you plan to try some, be sure and do as the Brimmer's—bury the bushes in a trench in the fall or the tender hybrid tea tops will winter kill if left exposed to our cold weather.

HORTICULTURAL CHAIRMAN APPOINTED

Mrs. Donald Kirkland, 729 West County Line Road, Milwaukee 11, has been appointed Chairman of a committee on Horticulture for the Garden Club of Wisconsin by Mrs. Chester Thomas, Board President. Mrs. Kirkland is a fine gardener and horticulturist. She will promote interest in the growing of more annuals and especially in our zinnia project. We will all be happy to hear from Mrs. Kirkland on the important project of improvement in horticulture.

MOTION PICTURES ON GARDENING

The National Garden Bureau, 407 S. Dearborn St., Chicago 5, Illinois, has four 16 mm. kodachrome pictures of interest to gardeners. They are for loan, without charge, to responsible persons or organizations.

Sound movies only—cannot be shown on silent projector: Breeding Better Food Crops. 675 ft., 20 min. Growing a Flower Garden From Seed. 492 ft., 15 min.

Movies with sound, or silent without titles, scripts supplied: Where New Flowers are Bred. 477 ft., 15 min. Garden for Abundance. 517 ft., 15 min.

PROGRAM FOR WAUWATOSA GARDEN CLUB

The Wauwatosa Garden Club has announced its program for 1953. Here are some of the highlights. In February, Edgar Lehman, Faribault, Minn., on chrysanthemums; in March, Walter Krahn on the preparation and starting of seeds and plants. On April 21 Otto Zillmer will speak on peonies, iris and dahlias. A plant sale will be held May 19, and a picnic on June 21. Tours of member's gardens are planned for July and August. The club's annual dinner and flower show will be held September 15 with H. J. Rahmlow, Madison as speaker. Howard Brossmann, Supt. of Mitchell Park will speak on bulbs and house plants on October 20. Holiday decorations will be made at the November 17 meeting and a Christmas party will be held December 15.

THE INTERNATIONAL GARDEN EXCHANGE

The January issue of the American Home magazine contains an article on "Another World Hunger". It promotes an International Garden Exchange. Address P.O. Box 71, Boston, Mass. Dues are $1.00 per year. The names of gardeners in foreign countries are available for correspondence. Mimeographed bulletins are mailed with names of foreign gardeners who wish correspondence. A recent bulletin states: "We would like to hear from garden clubs who wish to 'adopt' a German garden club. Actually, all that would be necessary is to send an American Garden or Home magazine to the respective clubs there. There are over 4,000 such clubs in western Germany."

CLINTONVILLE GARDEN CLUB ANNUAL MEETING

The annual banquet and election of officers of the Clintonville Flower and Garden Club was held on January 28th with 40 guests present. Mrs. Len H. Rohrer was the chairman on arrangements. Mrs. Charles Braman of Waupaca, President of the Central Region, Garden Club of Wisconsin, gave a report of her work, which was followed by a very interesting talk on garden vegetable varieties and their culture in this vicinity by Mr. Charles Braman.

The following officers were elected: Mr. Earl Moldenhauer, President; Mrs. Marlin Steinbach re-elected Vice President, and Mrs. Joseph Paul, re-elected Secretary-Treasurer.

The retiring President, Mr. Paul Dekarske was presented with a table centerpiece; Mrs. Paul with a bowl of sweet peas.—**By Frank J. Long.**

MICHIGAN FLOWER SHOW DETROIT, MARCH 21 - 29

The annual Michigan flower show will be staged on March 21-29 at the State Fair Grounds at Detroit.

A large section of the show is devoted to gardens, staged by nurserymen, florists, private estates and educational institutions. In addition to flower arrangements there will be special exhibits of wild birds in their native habitats sponsored by the Audubon Society, and an unusual exhibit "Gardens of the Fairyland" by the Chrysler Corp.

Let's Grow Zinnias

By Mrs. Donald Kirkland, Horticultural Chairman

During the past few years many new zinnia varieties have been introduced and the colors rival the rainbow. So varied are the forms and colors of the zinnia that an entire garden can be planted with this decorative annual without creating monotony.

Zinnias are easy to grow. They love the sun and will thrive in any good soil, plus a fair amount of moisture. They will bloom until frost and are a welcome addition to the garden at a time when many perennials are through blooming.

For early bloom you may start your zinnia seeds indoors in flats and transplant the young plants to a permanent spot in the garden, after danger of frost is passed. Another easy way is to sow the seeds in rows around the edges of the vegetable garden, forming an attractive border for the vegetable patch. Plants may be lifted from these rows, if thinning is necessary, and placed in other spots in the garden. Try a few of the colorful dwarf types in your rock garden, for additional color.

Last year we successfully grew zinnias on the north side of the house where the sun shone only in late afternoon, which proves they will adapt themselves to all conditions. These particular plants were transplanted from the rows of young zinnia plants in the garden.

We hope that all garden clubs will urge their members to grow several varieties of zinnias, making this a successful zinnia project of 1953.

Types and Sizes of Zinias

California Giants, 3 to 4 feet tall, all colors.

Super Giants, flower heads 5½ to 6 inches, fine for cutting and exhibitions.

Dahlia flowered, 2½ to 3 ft. tall, large flowers, long stems.

Fantasy, 2½ ft. tall, shaggy flower heads similar to asters.

Pumila, cut and come again, bushy plants.

Scabiosa flowered zinnia, 2½ ft. tall, flowers similar to Scabiosa.

Midget or Mexicana type, 1 ft. tall, attractive border plants, or spot them in the rock garden.

Persian Carpet, Miniature flowers, dwarf plants, petals topped with contrasting shade.

Sanvitalia, "creeping zinnia", masses of small double blooms. 6 inches tall creeping or spreading, golden yellow striped yellow-green.

Peppermint Stick, dwarf plants from 12 inch mounds, colorful flowers bloom all summer.

Navajo Zinnias 1½ ft. tall—Bi-Color blooms reminiscent of Navajo rugs.

Cupid flowers, 1 inch, grows 1 ft. tall nice for miniature arrangements.

Tom Thumb, small double flowers, small plants—6 inches tall.

Linearis Zinnia, A novelty, golden orange with greenish stripe. Early flowering.

Lilliput, small bushy plants, tiny short-stemmed double flowers all colors.

"The way to grow old gracefully," suggests R. D. Merriman in the Clear Lake, Iowa Reporter, "is to let the world go along in its stupid, muddled way without trying to inform, advise or reform it."

Garden Gleanings

THE CHRISTMAS ROSE

By E. L. White, Ft. Atkinson, Wis.

Helleborus niger is usually called the Christmas Rose. Why is it called the Christmas Rose? Gray's Botany says, "because it flowers in warmer parts of England in winter". It is not a rose, but is a member of the Buttercup or Crowfoot family. It is a native of Europe, is evergreen all the year and, from descriptions, likes moist woods.

Some years back, 1931-1942, the Wisconsin State Horticultural Society and the Garden Clubs conducted a project of plant testing; recommending plants and fruits to be tested in our Wisconsin environment. Among the perennials recommended by the committee for tiral in 1933 was **Helleborus niger.**

After listening to radio broadcasts and reading advertisements about it as a winter blooming plant, it may be well to check on its performance. The advertisers intimate that one could go out any time during the winter and pick armfuls of its flowers.

We have grown it here at Burr Oak Gardens for several years and have learned that it is hardy, is evergreen, bloomed one winter in February, but generally blooms in March along with our skunkcabbage. The flowers are white turning green, about 2½ inches in diameter, and last a long time. Perhaps in states further south it will bloom during the winter, but not in Wisconsin. If we have a mild winter with plenty of snow to keep the frost out of the ground it will probably blossom in mid-winter. Frost does not harm the leaves or the blossoms after they are open.

Our plants are planted in a partially shaded place with plenty of peat and are kept well watered. When winter comes we place a **rough frame around them with a glass on the top** to keep snow off so we can watch the plants.

There is another Helleborus—the Lenten Rose **(Helleborus orientalis)** that blooms later and which the plant growers claim is easier to grow. Several firms list these plants, the prices ranging from $1.50 to $2.00.

Have you grown these plants? If so, what results have you had?

THREE PERENNIAL "QUEENS"

By C. P. Holway, Cooksville, Wis.

Except in the very smallest garden, I should find room in the middle-border for three perennial meadow-sweets, all iron hardy. Once classed as herbaceous spiraeas, they are still so listed in some catalogs. "Hortus II" now sets them apart as filipendulas. All erect handsome terminal panicles of bloom on two- to three-foot stems that seldom fall in wind or rain.

Filipendula purpurea elegans—a queen without a "throne"—displays molded clouds of tiny white blossoms spiced with bright-red stamens. The effect is one of hazy pink. F. Ulmaria, also known as Spiraea Ulmaria, and which shares with joe-pye weed the title queen-of-the-meadow, flowers in a rich mass of white, although it seems to me more like whipped cream.

Last to bloom—the three overlap in flowering sequence—is a native American, F. rubra (S. lobata), queen-of-the-prairie. My neighbors call it Martha Washington plume. Its fluffy panicles, peachblossom pink, always remind me of a foaming strawberry ice-cream soda.

Cinderella — Miniature Rose

A true miniature rose with plants about 8 inches tall; tiny, exquisite buds and full blooms about an inch across is the miniature rose Cinderella originated by John DeVink and available from the Conard-Pyle Co., West Grove, Pa. The color is white, sometimes lightly tinted with a delicate cameo pink, especially in the heart of the flowers. The rose is thornless and free flowering with a long blooming season. It is as hardy as other hybrid teas.

HOW TO ROOT GERANIUM CUTTINGS

QUESTION: I have had trouble with geranium cuttings. What is the best way to care for them?

ANSWER: The soil or sand should be kept packed quite firmly at the base of the slips so that they will receive sufficient moisture, otherwise they will shrivel and dry out and consequently die.

To prevent rotting of cuttings or slips, dust the base of the cutting with a 50-50 mixture of Ferbam. Common plant names of this fungicide are Fermate, Karbam Black, and Ferra Dow. The other half of this mixture can be a root inducing substance or plant talc. The soil or sand that you root these slips in should be sterilized by cooking in an oven for a couple of hours or if you wish by drenching it in boiling hot water, or it could be steamed at a temperature of 180 degrees for about a half hour.

The container in which the soil or sand is placed should be sterilized by scrubbing with soap and water and then rinsing thoroughly with hot water.—**Answer by G. E. Beck, Dept. of Horticulture, U.W.**

FAST GERMINATING ANNUALS

Annual flowers which germinate within five to ten days after sowing include the following:

Sweet Alyssum, Amaranthus, Aster, Calendula, Calliopsis, Candytuft, Celiosa, Centaurea, Cheiranthus, Cosmos, Dianthus, California Poppy, Godetia, Linaria, Lobelia, Lupins, Marigolds, Nicotiana (flowering tobacco), Annual Phlox, Portulaca, Mignonette, Schizanthus, Viola, Zinnia, Nasturtium.

The fastest growing annual **Leptosyne stillmanii,** producing yellow daisies, which flowers in five weeks from the time seed is sown. In two more weeks zinnias will begin to bloom. The slowest growers of the quick germinating group are aster and calendula; but these will begin to flower in late August, and continue through the fall, when cool weather is to their liking, and they produce their best flowers.

What Value Has Worm Manure

By Victor H. Ries, Dept. of Horticulture, Ohio Univ.

Some time ago I mentioned in my "Over the Garden Fence" column in the Country Gentleman Magazine that "it was too bad that horse and cow manure did not have the same glamour that earth worm manure has so they could be sold for the same jewelry store prices." This brought forth a letter from a worm manure company explaining that it took millions of earthworms to produce the same amount as a horse or cow, therefore the greater value. They enclosed an advertisment for the material.

The ad told of all its glories and of what wonderful results it produced when applied to plants. Then it gave the analysis. 20 parts per million nitrate nitrogen, 15 p.p.m. phosphorus, 30 p.p.m. potassium. This sou very marvelous unless you know that any good garden soil should contain 25 to 50 p.p.m. of nitrates, 10 to p.p.m. phosphorus and 10 p.p.m. of potassium or as it is sometimes called, potash. This indicates the worm manure doesn't have as much nitrate as a good garden soil and but slightly more phosphorus than the same soil should have and only 3 times as much of potash. Fo this you pay, according to the ad, only 20c per pound in 100 pound lots but considerably more for smaller quantities. You could buy the same material as far as the fertilizer it contains as a complete commercial fertilizer for a very small fraction of a cent per pound. You buy the organic matter that it contains for not over 3c per pound. Or put it another way, if you took a pound of peat moss or rotted leaves and added ½ teaspoon of a complete commercial fertilizer, you would have roughly the equivalent of the worm manure at an infinitesimal fraction of the cost.

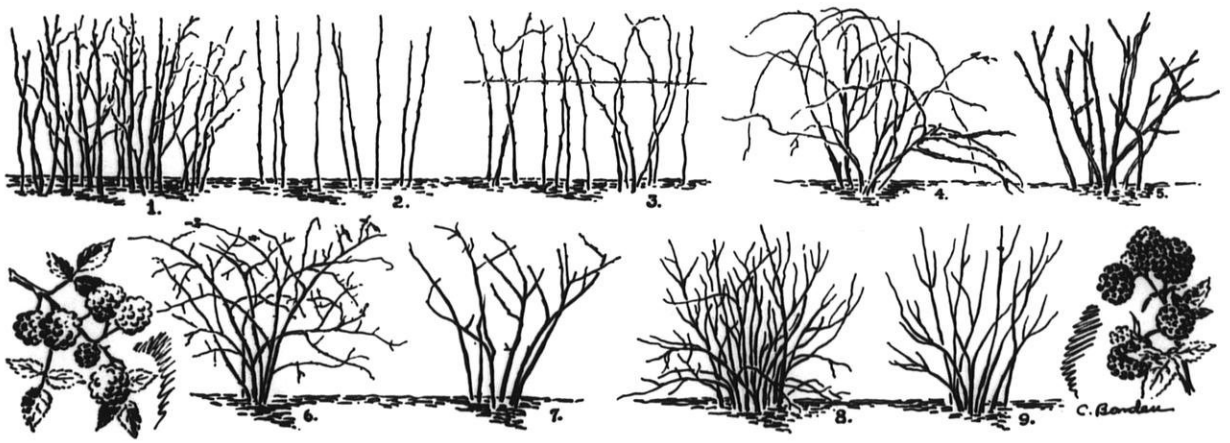
I'm afraid I cannot agree with the ad which says the following: "It is the richest form of plant food," but they are correct when they say it "looks like black soil," for that's all it is and that's all it's worth.

Why not get it out of your own back yard and save money?

Very little information is available on the use of concentrated spray mixtures for thinning. It has been reported by John Davidson of the Dow Chemical Company that mixtures of NAA at 3x concentration (three times dilute strength) using only one-fourth as much spray per tree as would be used in conventional spraying resulted in approximately the same degree of thinning as NAA applied in the conventional manner.

New chemicals are being tested each year for thinning properties, but the only growth regulating compound available at this time for commercial use is NAA. More Michigan growers are using this method of thinning each year and this number will continue to increase. The reason is made clear by a recent comment of Robert Anderson, Covert, Michigan which was **"A crop of small apples is practically worthless today, even for processing".**

How to Prune Bush Plants



( ) Note dense growth of red raspberries before pruning; (2) Same plants after pruning; (3) Some gardeners tie canes to wire supports. (4 and 5) Black raspberries before and after pruning; plants are topped at 18 to 24 inches each summer to obtain sturdy canes; purple kinds are topped at 30 36 inches. (6 and 7) Blackberries are handled like purple raspberries in topping and thinning. (8 and 9) Currants and gooseberries need to have old wood and weak shoots removed. Sketches from author's photos. From Article, Pruning the Bush Fruits For More and Larger Berries, By J. C. Bailey, Univ. of Mass., in Horticulture (Mass.), Feb., 1953.

Wisconsin Beekeeping

Official organ of the Wisconsin State Beekeepers Association

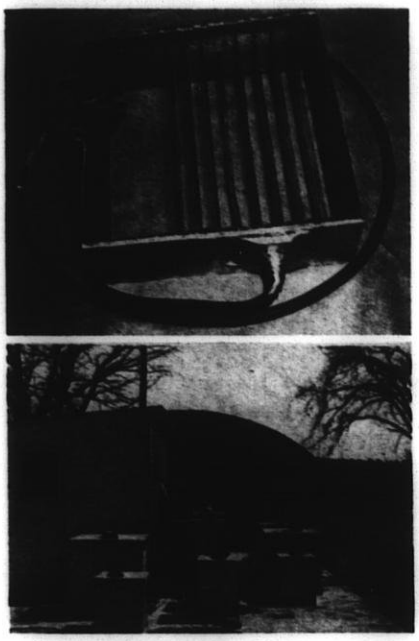
Studies on Overwintering Bees

Minimum hive temperatures outside the cluster area; temperatures within the cluster, and the relationship between winter honey consumption and yields the next season, are the important studies which have been made by the Bureau of Plant Industry in cooperation with the Bureau of Entomology and Plant Quarantine and the University of Wisconsin. A report written by Dr. C. L. Farrar was published in the September, 1952, Journal of Economic Entomology. It was reprinted in full in the February issue of Gleanings in Bee Culture We recommend that all who have this issue study the report carefully.

Temperature readings made January 28 and 31, 1951, during a period of very cold weather, on the temperature outside the bee cluster area and within the cluster are most interesting. On January 29, minimum temperature was -19 degrees F., and maximum -9 degrees; on January 30, minimum -36 degrees F., and maximum -2 degrees.

The temperatures at 8 a.m. on these cold mornings along the lower edge of the bottom set of combs ranged from -1 to -12 degrees in both unprotected, lightly packed, and heavily packed colonies.

The temperatures within the bee cluster ranged from 92 degrees F. in the center of the cluster to 43 to 46 degrees F. on the surface of the cluster. Dr. Farrar states: "A balance is maintained between the internal temperature, the diameter of the cluster, and the depth of the insulating shell, so that heat conducted from within will equal the small amount of heat radiated to the surface at approximately 45 degrees. It is easy to understand why small populations have greater difficulty in maintaining this balance than full strength colonies."



Above: Hive body showing wiring of thermocouples used in obtaining temperature readings of overwintered colonies. By the Central States Bee Culture Laboratory, Madison.

Below: The laboratory and the colonies used in temperature recording experiments, by the Central States Bee Culture Laboratory, Madison.

It was also found that "unpacked colonies consumed more honey, but made greater gains from an early honey flow in May because of more advanced conditions." He also concludes that: "Colonies that consumed more than the average amount of stores produced the greatest yield."

"Insulation around the hive slows up the rate of temperature change but in a cold climate it does not prevent sub-zero temperature within the hive."

MARCH IN THE APIARY

March is the month between winter and spring. It is rather a sad month for bees because so many of them starve during this month—more colonies pass away in March than during any other month in the year. Our coldest months are usually January and February and yet we find few colonies lost during those cold months.

The reason of course is that bees do not die from cold but from starvation. In rearing brood during January and February bees may consume the honey in the combs in and surrounding the cluster area and then, if there is a week or more of very cold weather, they starve on these empty combs.

Feed Pollen Supplement

By mid-March we should start feeding our bees pollen supplement. The best supplement is three parts of soy bean flour made by the expeller process and one part of natural pollen mixed in heavy sugar syrup—the kind of syrup we use for fall feeding. Feed the cakes directly on the combs containing brood—never away from the brood area. Then the nurse bees can reach it in cold weather and will eat it readily, thereby obtaining their supply of protein and other food elements so they can continue feeding the queen and larvae for maximum brood rearing.

If brood rearing ceases during late March it will seriously affect the strength of the colony by early May and is the reason why many colonies do not bring in much nectar from fruit and dandelion blooms—they do not have the field population at that time due to the slump started 6 weeks earlier.

If a super of honey has been placed above the brood chamber and it is not being occupied by the bees in brood rearing. then the soy bean flour

should either be placed under this shallow super on combs containing brood, or the super should be placed beneath the brood chamber. Not placing the pollen supplement directly on brood combs is probably one reason why many have not had success in feeding it.

EXPERIENCE IN WINTERING BEES

Have kept bees for 47 years and have found 226 bee trees here in central Wisconsin. We winter our bees in the cellar which we think is best. Some years ago I found a bee tree—a dry Hemlock, 34 inches at the stump. The cavity was about 8 inches by 4 feet. There was no ventilation except a ¾ inch knot hole where they had entered. Judging from the appearance of the comb they must have been there 25 years or longer. The tree had a good windbreak from large trees around it and survived our winters—we often have 40° below zero.

The winter food of the bees has so much to do with successful wintering. Sometimes our bees do not have a flight for about 5 months—a long time. One spring the bees were not able to fly—they just jumped.—**By H. H. Neumann, Rt. 2, Spencer, Wis.**

Editor's Note: The bees that were not able to fly in the spring were no doubt infected with Nosema which is a very serious disease of bees and perhaps causes more loss than any other in this state. It is encouraging to know that extensive experiments are being conducted to find a cure for this disease.

U. S. HONEY AND BEESWAX PRODUCTION-1952

Honey production in 1952 totaled 272,771,000 pounds, 6% more than in 1951 and 23% above the 1946-50 average, the U.S. Bureau of Agricultural Economics reported. Honey production per colony was 49.5 pounds, the highest since 1941, compared with 46.4 pounds in 1951 and the average of 38.7 pounds. In mid-December, producers had about 77 million pounds of honey on hand for sale—28% of the total production. The 1952 honey crop was produced by 5,508,000 colonies of bees, 1% less than in 1951. Beeswax production was 4,825,000 pounds compared with 4,705,000 in 1951.

Honey production was up sharply in the West and the West-North-Central States, which more than offset decreases in the rest of the country. Production in the West was up 23%, mainly because of the tremendous California crop. Production was up 18% in the West North Central States due mainly to large crops in Minnesota, Iowa and Nebraska. Decreases from last year were 13% in the East North Central, 5% in the South Atlantic, 3% in the South Central and 2% in the North Atlantic States.

The 10 leading honey producing States in 1952 were California, Minnesota, Iowa, Florida, Wisconsin, New York, Texas, Michigan, Illinois and Indiana. These States produced 62% of the total crop.

The average honey production per colony in 1952 was 49.5 pounds, compared with 46.4 pounds in 1951 and 41.5 pounds in 1950. Yield per colony averaged 76.5 pounds in the West North Central States, 74.8 pounds in the West, 45.0 pounds in the East North Central, 41.0 pounds in the North Atlantic, 36.3 pounds in the South Atlantic, and 25.5 pounds in the South Central States.

District Meetings Wisconsin Beekkeepers Association

SOUTHERN DISTRICT MEETING
JANESVILLE, YMCA
SATURDAY, MARCH 21, 1953

FOX RIVER VALLEY DISTRICT MEETING
APPLETON, CITY HALL
WEDNESDAY, APRIL 8, 1953

CENTRAL DISTRICT MEETING
MARSHFIELD, CENTRAL STATE BANK
WEDNESDAY, APRIL 15, 1953

Program begins at 10 a.m. Pot luck luncheon at noon. Program continues in the afternoon until 4 p.m.

BENEFITS OF SPRING FEEDING TESTED

The Bee World (England) for April, has an article titled The Effect of Spring Feeding On Honey Bee Colonies. It is a report of a British research committee on an experiment by selected beekeepers in 33 counties with 131 pairs of matched colonies of which one received spring feed and the others nothing.

The conclusions were: the fed colonies were significantly ahead of their control colonies. They had consumed only about 5.4 pounds of honey extra.

The effect of spring feeding on development of the colonies increased with decreasing spring strength. Very large colonies showed no extra development through the feeding, while small colonies showed 36% increase in bees and 55% increase in brood above their control twins.

The benefit of spring feeding also appeared in the distance of the colony from a water supply. It is considered probable that the water in the syrup is more valuable to the bees than the sugar itself.

DANE COUNTY BEEKEEPERS MEETING

The Dane County Beekeepers Association held its annual pot luck luncheon meeting in the Verona High School on February 15.

President Harry Hayes, Madison, opened the meeting by calling on a number of beekeepers present for comments on beekeeping problems. Beekeepers from several adjoining counties and their wives attended, with a total attendance of about 50. Mr. H. J. Rahmlow of Madison, gave an illustrated talk on How To Care For Our Bees During Late Winter and Spring Months.

The Association plans some interesting meetings and picnics this summer. Monthly meetings are held.

HELP WANTED

WANTED: Helper interested in bees to work in our apiaries and packing plant. Experience not essential. Excellent wages, bonus, other benefits. Real opportunity for advancement. Schultz Honey Farms, Ripon, Wis.

Study of Wintering by Hive Heating

By Charles B. Owens, Madison, Division of Farm Electrification, U.S.D.A.

(Paper presented at National Meeting. Condensed.)

In 1949, the United States Department of Agriculture, Division of Farm Electrification, and the Division of Bee Culture and Biological Control of the USDA in co-operation with the Wisconsin Agricultural Experiment Station started a research project to determine the effects on a colony of bees when electrically heated throughout the winter.

Studies are being made on the effect of heat on the cluster shape, the brood rearing, and the overall strength of the colony throughout the winter and to the time of the first honey flow. The temperature to be maintained, the size of the heater required, and the type of heater and control best suited for the job are also being investigated.

(Editor's note: Mr. Owen's talk was illustrated with slides and contained a detailed description of the equipment being used to measure and record the data in the hives. Fifteen hive bodies had been wired with 80 thermocouples each. We are sorry that lack of space prevents us from publishing all of his paper.)

Each year nine colonies were heated with various types of heaters. The location and the types of thermostats were also tested. Temperatures of 25° to 50°F. were used to determine the best temperature setting for economy and yet obtain the maximum brood rearing from a colony. All heated colonies were wrapped with insulation and covered with building paper. Each year at least one colony was wrapped to check the effects of insulation against heated colonies. During the first two years one colony had only building paper for extra protection. Both black and brown building paper were used to determine the differences in the temperatures maintained under the paper. One or two colonies were left without any protection as checks against the various treatments.

We found, when the thermostats were in the hive body, that the bees had more effect on the operation of the heaters than did the outside temperature.

Conclusions

To date, neither insulation, nor the heating of the hive, has shown any definite aid in wintering the colony or for increasing its brood production. Two factors may have had greater influence on the results than did the various treatments used in the test. Present, every spring, was a variable amount of Nosema infection within the colonies, and in 1951 a third of the colonies developed European foul brood infection. This year all colonies were fed a new antibiotic that shows some promise in limiting the effects of Nosema. The other item that may have minimized any gain from temperature control is that all colonies used for test were of large population in the fall. **Strong colonies with the proper preparation, plenty of honey and placed where they can use it, will overwinter in good condition in Southern Wisconsin regardless if heated or unprotected.**

Last winter a very weak colony was heated and it appears to have wintered in satisfactory condition. This year twenty low populated hives are under test to determine if the advantage of heating is more effective on poorer colonies. Also a refrigerator, which can operate down to -40° F. has been used for testing since the summer of 1951. The freezer unit accommodates two full strength colonies and it is operated at various low temperatures to determine the effects of extreme sub-zero temperatures on a colony. We hope to be able to simulate climatic conditions as severe as any northern region where bees are kept.

Heating Package Bees

Ten packaged colonies, five of which were heated, were put out on the 14th of April, 1952, to determine the influence of temperature control on their rate of build up. At the end of three weeks, the five heated packages averaged about 20 per cent more sealed brood than the unheated, **but at the end of 50 days, there was no significant difference between the two treatments. However,** during the test, unseasonably warm temperatures prevailed which did not provide normal conditions for such an experiment.

More work is to be done on packages. Work is also underway to get accurate humidity measurements within the cluster.

The above discussion on hive heating is a report on the progress of the project, and as to date there is no conclusive data as to the advantage or disadvantage of electrically heating hives for overwintering.

WHAT TO DO WITH QUEENLESS COLONIES IN MARCH

QUESTION: Last year I found a colony queenless in March. There was no brood present at all. Can I save the colony by giving it a new queen from the south at that time?

ANSWER: Unless you can give the colony some hatching brood at the same time you give it a new queen it would not be advisable. By March all the bees would be old and as soon as they started brood rearing with a new queen they would die off rapidly leaving you with a very weak colony a month later. If the colony had been given a queen in January or early February when brood rearing began it would probably have built up well.

DODGE COUNTY BEEKEEPERS MEETING

The Dodge County Beekeepers Association held its annual meeting in Juneau on February 14. It was a very pleasant affair. The ladies served a pot luck luncheon which was enjoyed by all. The speaker of the day was Mr. H. J. Rahmlow, Madison. Several prominent beekeepers from other counties attended.

County dues were raised from 50c to $1.00. Officers were elected as follows: President, Rev. Louis A. Moser; Vice-president, Otto Koepsell; Secretary-Treasurer, Emerson Grebel.

By Emerson Grebel, Beaver Dam.

HELP WANTED

Young man over 16 years of age who can drive car, to help in beekeeping. A good chance to learn details of beekeeping methods. Write Wisconsin Horticulture, 424 University Farm Place, Madison.

APIARY INSPECTORS OF AMERICA MEETING SAN JOSE, CALIFORNIA

By John F. Long, Madison.

There was in attendance, representation from about 30 states, including inspectors and beekeepers. In addition, U. S. Bee Culture Laboratories were represented by Jas. Hambleton of Beltsville, Maryland and Dr. Clayton Farrar of our own North Central States Bee Culture Laboratory.

For several years now this group has been working on an inspector's manual for the purpose of establishing uniformity in methods of instructing new inspectors as well as old. The idea back of this is to establish uniformity in inspection methods in all states. For example, a certificate of inspection should mean, in general, that the same number of colonies in a yard were inspected and approximately the same percentage of combs examined. Certainly this is one idea which all can agree on, that we should have uniformity of inspection methods if we are to allow movement of bees and equipment from one state to another. While some states today have an embargo on the bringing of bees on combs into that state, feelings expressed were that there was a point of legality involved and doubt was expressed as to the right of any state to prohibit a person to move his own livestock from one state to another if free of disease.

Bees For Pollination

Chas. B. Reed of Orange, California gave a very interesting topic on the movement of bees for pollination in that state. To us here in Wisconsin, it is hard to grasp the extent of moving bees required for pollination purposes on the West coast. Here we talk of moving several hundred colonies while there the figures are in the thousands. Mr. Reed explained how they have a co-op arrangement between producers of alfalfa seed in certain areas and a group of beekeepers organized to provide the needed number of colonies. The extent of their operation is best shown by the figures used. "Last year we (the co-op) supplied more than 40,000 colonies of bees at the rate of (1) colony per acre for alfalfa pollination." Payment is based upon the strength of colonies furnished and seed produced per acre. Machines are coming into use for the moving of most of the colonies. However, they still have a problem of colony strength, disease, earthquakes upsetting hives, and other problems familiar to all.

Inspection Certificates

Another very interesting discussion on intra and inter state transportation was lead by C.L. Walstrom, Nebraska and A. Burr Black, Oregon. After considerable discussion as to the relative merits of permits, certificates of inspection, or other moving permits, the general opinion expressed was that a certificate of facts was of more value to the receiving state than any other form. A correct statement of facts regarding an apiary gives an inspector on the receiving end a chance to know what he can expect from the owner. It was also brought out that most states do not regulate the moving of equipment between yards where no change in ownership takes place. Some do if moved over county or town lines.

Honey House Sanitation

In a report on honey house sanitation by Carl Killion of Illinois, three important factors were stressed. (1) Honey house sanitation is here whether beekeepers want it or not. (2) If the producer of honey or the honey industry does not police its own product, State and Federal food inspectors will. (3) The use of clean, separate extracting and bottling rooms are a necessity if beekeepers are to stay in business.

A. F. B. Control

On Tuesday, January 27, a general discussion was held on progress in American Foulbrood control led by A. Burr Black of Oregon. "I believe I am correct when I say that American Foulbrood control by the use of resistant strains has not proven too successful for several reasons. (1) The strains have failed to remain pure or resistant. (2) In many cases they have been very resistant to the owner when he tries to handle them. (3) There would seem to be some indication that strains known to be resistant to American Foulbrood have been ready victims of European Foulbrood." For these reasons most inspectors present agreed that there was not as yet much to expect from disease-resistant colonies.

WISCONSIN horticulture

Plant America

April, 1953

Dusting an apple orchard with Kolodust using a powerful new Niagara Liqui-Duster

KOLODUST IN THE RAIN

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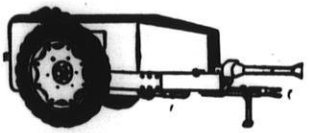

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The Official Organ of the Wisconsin State Horticultural Society

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Subscription by membership in the Wisconsin State Horticultural Society. Annual dues are $1.25 per year. Organizations of 10 members or more may affiliate at special rates which will be sent on request.

Questions Answered About
Spraying Fruit Trees

Is It Advisable To Spray During Bloom; Try To "Burn Out" Scab; Use "Copper" Materials; Use Mild Fungicides?

Dr. J. D. Moore of the Department of Plant Pathology, U. W., spoke at several County Fruit Growers Association meetings held in late February and March, on the subject of insect disease control on fruit trees. He made some interesting observations on the spray program.

Scab Control

Dr. Moore recommended the **ground spray** in years when the spring weather is cool and wet and in orchards where scab control has been a problem. The ground spray (see chart in March issue, page 126) is highly recommended under these conditions. In Counties along the shore of Lake Michigan where foggy or damp weather often prevails scab control becomes a problem and the ground spray is a definite help. In Door County a large percentage of the growers use it.

Pre-Blossom Spray Materials

Lime sulphur is the material which should be used before bloom. The pre-blossom sprays are very important in scab control.

A spray during bloom should also be made if the blooming period is long—two weeks or so, which often happens. Materials used during bloom should be one of the milder fungicides. Liquid lime sulphur may be used but sometimes it turns the petals brown which may or may not be harmful.

No insecticide should be used in any spray when trees are in bloom as pollinizing insects will be killed.

Spray Thoroughly

The concentrate sprayer or any other type of sprayer is not alone the answer to the scab control problem. The material must cover all of the leaves and it must be there in advance of scab spores which emerge in large numbers following rains and when temperatures are low.

Dr. Moore told the story of a grade student in Door County who wrote an essay on fruit growing which ended with this statement: "Oh, yes—you spray every time you get a spray notice". He remarked that growers must have a better knowledge of the spray schedule than this remark indicated.

Questions About Scab Control, Answered By Dr. J. D. Moore

Question: If we find scab has developed 10 to 20 days after bloom shall we spray with lime sulphur?

Answer: Would prefer to use ferbam rather than a mild sulphur, because it does a good job of controlling scab on the fruit. Lime sulphur might injure the leaves in hot weather.

Question: If either the spray material or scab injures the leaves of the trees will it affect fruit production?

Answer: Yes. Since all food material is produced in leaves not only the size and quality of the fruit but also the flower bud production for the next year's crop may be seriously affected.

Question: Can scab be "burned-out" with liquid lime sulphur or any other material after the scab spots have formed on the leaves or fruits?

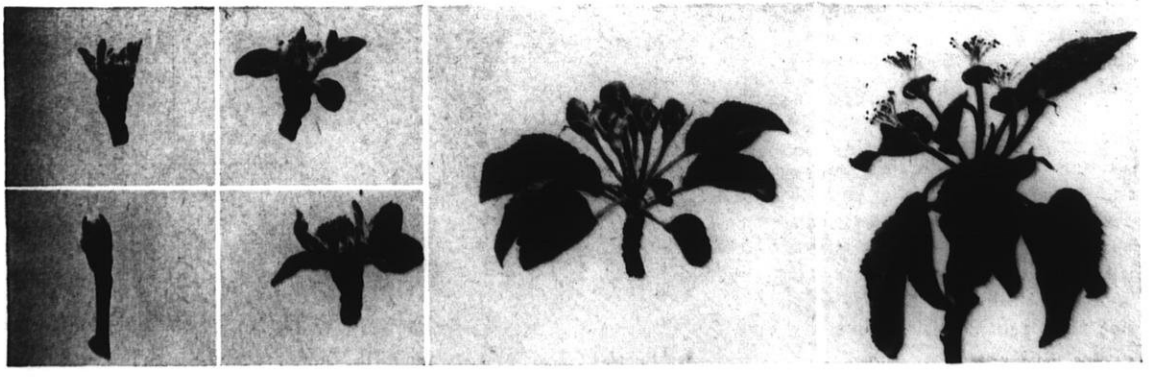
Answer: Following a lime sulphur spray the centers of the scab spots appear dead or "burned-out", but not the edges. We have always found live spores around the edges. **With materials like Puratized, the edges appear killed but not the center,** so—do not believe scab can be "burned-out" effectively with any material we now have available.

Question: When should the first spray be applied for scab control?

Answer: It depends somewhat upon the situation in the orchard and the weather. Often scab gets started when the buds begin to open and show gray tips. In some years when weather is cool and wet, it may be desirable to spray every 7 days.

Question: How can I determine why I had scab on apples in spite of spraying according to the spray schedule?

Answer: Suggest that you keep a record of the dates you sprayed, the amounts and kinds of materials you used and the weather at the time of spraying. From this information it is usually possible to tell when trouble started and how to avoid it in another season.



Green Tip **Closed Cluster** **Open Cluster** **Calyx**

Question: Will copper sprays such Bordeaux Mixture control diseases of apples?

Answer: Yes. Copper sprays will control many fungus diseases on plants but it is also **injurious to some, including apples** and so should not be used on them. Is used effectively on potatoes and tomatoes.

Question: We have had trouble with russeting on Golden Delicious. Is there any material which can be used to avoid this,

Answer Yes, Orthocide. It is comparatively expensive, however, and is one of the **Captan materials.** It can also be used to prevent russeting which sometimes occurs on varieties like Haralson.

COMMENTS ON SPRAY MATERIALS

Liquid lime sulphur is still recommended as the material to use before bloom especially near Lake Michigan.

Ferbams: 1½ lbs. per 100 gal. of water is excellent for the control of various fungus diseases on all kinds of fruit including apples, cherries, plums and pears.

Mercury materials in sprays are poisonous—very poisonous to human beings, and while good for spraying should not be used later than the petal fall spray on fruits.

Dithane used on apples with iron sulphate is good for scab control and cheaper than most of the newer materials. However, it may be injurious to some varieties of apples and further tests are necessary.

Actidione: an antibiotic which is produced by a fungus is a relative of pennicillin. Comes from a fungus related to the blue mold on oranges and grapefruit. It has given some outstanding results for fungus disease control of fruits. Will be tested further.

Look out for codling moth this year. The winter has been mild and unusually favorable for over-wintering of insect pests. Oftimes, 80-90% of the over-wintering codling moth are killed during a severe winter. This year, that is not the case, so watch out.

DORMANT SPRAYS. Don't apply them when there is apt to be freezing weather within 48 hours.

Fruit Insects And Insecticides

From Comments by Dr. C. L. Fluke At Fruit Growers' Meetings

DDT has been very effective in the control of codling moth and was the fore-runner of many new insecticides that appeared on the market in recent years.

DN—289 or Elgetol 318 are excellent as dormant sprays for insects. They kill aphis and mite eggs and can also be used as ground sprays for scab. Use a dormant spray when you are having trouble with aphids and mites.

Lead arsenate is advised in the preblossom sprays to control **the red-banded leaf roller.**

DDT will control oyster shell scale if used in the petal fall or calyx spray.

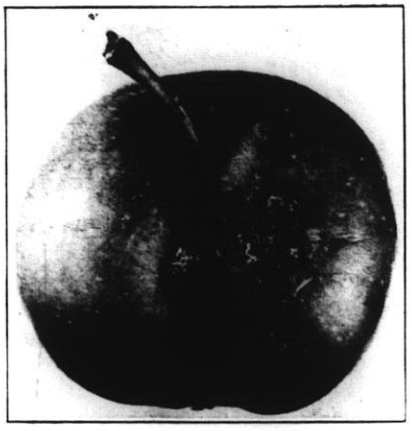
PLUM CURCULIO. This is a serious insect pest in many parts of this State on both apples and plums. The most effective material we have used is **Dieldrin.** It has now been released for use on apples by the USDA. It may be used at ¼ lbs. of actual Dieldrin per 100 gallons of water. If you buy a 25% material, use 1 lb. per 100 gallons and apply in both the calyx and 1st cover sprays.

Dieldrin won't kill codling moth, so use lead arsenate with it, or DDT if you wish to control oyster shell scale. (If you use only arsenate of lead for insect control, use it in the calyx spray also). With a DDT program, it can be omitted until the first cover spray (10 days).

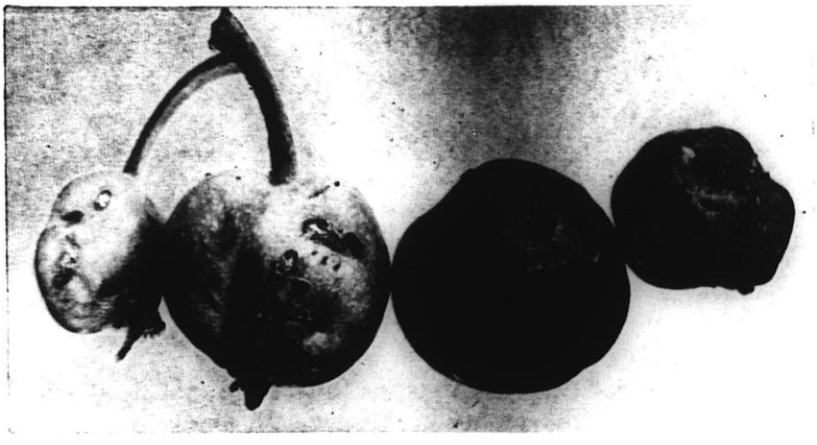
For insect control in later cover sprays it is advisable to use **DDT and arsenate of lead,** alternating them, for best results. Different insects are controlled better by one than by the other, and codling moth builds up a resistance to both of them. By changing, we "keep insects guessing".

Don't use DDT with liquid lime sulphur as they are not compatable—it makes the DDT ineffective.

APPLE MAGGOT is a serious problem in Wisconsin orchards. Many growers asked questions about it at our meetings. We will have a complete spray program in the June issue of this magazine with pictures of the insect. Spraying begins in mid-July.



Injury by Fruit Tree Leaf Roller



Work of the Plum Curculio

Chemical Thinning Of Apples

One Of The Answers To The Small Fruit Problem. Smoke Clouds Do Not Prevent Frost.

Are you growing too many small apples?

Wisconsin growers are seriously considering this problem of how to produce larger fruit of such varieties as Wealthy, Duchess, Golden Delicious, Snow and Red Delicious.

In the January and February issues of Wisconsin Horticulture the question of pruning for better apple size was discussed in detail. Thinning the trees by pruning branches so as to admit more sunlight and allow better spraying are the first steps. The new idea of "end pruning" on biennial bearing varieties with branches that have stopped growing on the ends will solve some problems.

Chemical Thinning

Next comes the problem of thinning, especially such commercial varieties in Wisconsin as Wealthy and Golden Delicious.

For chemical thinning we want to refer you again to the article by Dr. Arthur E. Mitchell of Michigan State College on page 78 of the January issue of Wisconsin Horticulture. This article explains in detail recommendations as made in Michigan.

Wisconsin varieties are divided into three classes as to ease of thinning. In the first group of varieties easy to thin, are McIntosh, Red Delicious and Jonathan.

The intermediate group, a little more difficult to thin—includes Grimes Golden, Duchess and Snow.

The varieties that are hard to thin are Yellow Transparent, Wealthy and Golden Delicious.

Amount of Material to Use

In Michigan the recommendations are as follows: on varieties easy to thin, 10 parts per million or 4 grams of pure NAA (naphthaleneacetic acid) in 100 gallons of water.

On the intermediate group: Grimes, Duchess and Snow, 15 parts per million or 6 grams of NAA per 100 gallons of water.

In the group hard to thin, Yellow Transparent, Wealthy and Golden Delicious 20 parts per million, or 8 grams of pure NAA per 100 gallons.

Factors Affecting Thinning

The following factors influence the ease of thinning. 1. The more vigorous the tree, the more difficult to accomplish thinning. 2. Weather conditions at the time of thinning may affect the results. It works best in warm, clear weather 3. The amount of spray mixture applied per tree is a very important factor because it determines the amount of hormone that is put on. Some sprayers will apply more of the solution than others. It will be necessary to experiment and make note of the results obtained the first time spraying is done. As a rule one should use regular spraying methods and amounts without any variation.

When To Spray

The first application is usually made in the regular "calyx" spray, especially in the varieties hard to thin. Also on these, another spray may be made in the first cover.

For the varieties easy to thin, (often it may not be necessary to thin these varieties at all), it may be best to make the application at the time of the first cover spray.

For Wealthy

The following is the experience in Michigan in thinning this variety. A spray of 15 parts per million may be used on Wealthy in "full bloom". By the early "first cover" it is possible to determine the set of the fruit by observing those fruits which are beginning to enlarge. If the set is adequate, no more spray is required. But if the set is too heavy, it is not then too late to make a second application and perhaps a third.

One Michigan grower obtained good results on Wealthy with the following spray—20 parts per million of NAA in full bloom; a second spray, 15 parts per M. at late cayix and a third application of 20 parts per M. at the first cover. These were no doubt vigorous trees. At harvest time they carried a good crop of well colored large fruit.

Thinning appears to be more effective when applied on clear days with the air temperature of 70 to 75 degrees F.

SOME FACTS ABOUT ORCHARD HEATING

Frost protection has been practiced for hundreds of years and we read about it in history as far back as Roman times.

Contrary to public opinion smoke clouds or other foreign particles do not reduce the amount of radiation from the ground to any extent, according to meteorologists. Even when large amounts of smoke are present over an area, temperatures will be about as low as they would if the smoke clouds were not present.

Freezing conditions occur in two ways. In Wisconsin we have had a cold wave with low temperatures coming in with strong winds from the northwest. In such cases the temperature at the surface of the soil is about the same as 20 or 30 feet above the ground which is not the case when there is no wind. Heat provided under such conditions is carried off too rapidly to raise temperatures and prevent freezing.

When there is little wind and the sky is clear with low humidity the air nearest the ground becomes cool due to radiation and then flows downhill similar to water and accumulates in flat areas or depressions. Under such conditions heaters may be used to raise the temperature. The heat must, however, be applied in the form of numerous small fires. If too much heat is formed it produces a sort of chimney effect and heat is carried off, thereby pulling in cold air from the surrounding areas.

There seems to be no standard method for orchard heating. A meteorologist speaking at the Maryland Horticultural Society Convention (reported in the Eastern Fruit Grower) said "at present Maryland orchardists are using everything from smoke clouds to heat produced by burning old tires or oils in various types of containers to protect their orchards during the critical spring period." He suggests more research to determine which method is the most economical and effective.

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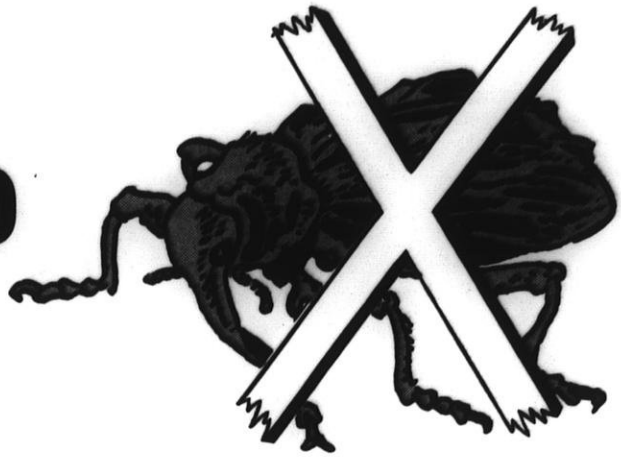

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On all chemicals always follow directions for application. Where warning or caution statements on use of the product are given, read them carefully.

How To Get

Clean Fruit By Spraying

An Adequate Amount Of Material Must Be Applied At The Right Time

By William F. Connell, Menomonie

In the February issue of Wisconsin Horticulture, Mr. Arnold Nieman explained in a fine article their use of a concentrate sprayer in their orchard at Cedarburg. It prompted me to think of some of our experiences of the past as well as our plans for the future.

Our orchard is located about 35 miles West of Eau Claire and about 12 miles West of Menomonie in Dunn County. We are situated on a ridge, have good air drainage and an elevation of 1100 feet over sea level. I believe our conditions relative to scab infection are not as serious as Eastern Wisconsin, however records indicate that we have approximately the same amount of rainfall as other sections of the state. Perhaps we have less foggy damp weather than Eastern Wisconsin.

Our apple crop in 1942 was one which I shall always remember. Practically our entire crop was infected with scab for which I will take full responsibility. We had sprayed without putting sufficient material on the trees at intervals which were spaced too far apart. As a result the infection carried over into later years and it wasn't until 1946 that we finally succeeded in taking over complete control of the apple scab problem. Since that time we have had exceptionally clean fruit.

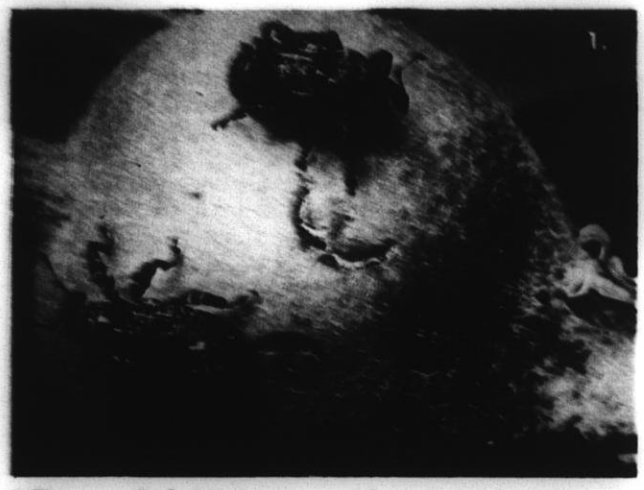
Converting to Automatic Sprayers

Since operating this orchard we have used only high pressure sprayers converting to an automatic spray mast in 1950. The transition from spraying with guns to the spray boom was not accompanied by any differences in control of orchard diseases. Now, we are buying another automatic spraying device which attaches to a high pressure sprayer (John Bean Speed Aire) which will enable us to spray either dilute or concentrate. However, we plan on spraying most of our orchard this coming season with dilute spray and will experiment with concentrate.

Traveling through Wisconsin and Minnesota these past seasons I have noticed exceptionally clean fruit on many occasions which I believe is due to the fact that an **adequate amount of spray material was applied at the proper time.** Most recommended chemicals are capable of control of scab if used properly and I believe this applies to sprayers as well. In fact I saw more scab on apples and leaves in two orchards where a concentrate machine was in use than in any other orchards in their respective areas.

Let us realize that no machine, concentrate or otherwise is going to control the various orchard diseases and insects unless we use them at the right time during the critical periods and with thorough coverage of the material applied. The trend seems definite towards concentrates; we should proceed with caution in that direction, perhaps using 2 XX before we use 4 XX or 6 XX until we definitely know that the concentrate is for us in this state. Personally, I feel that the human element as it enters into spraying means much more than either the spray material or the sprayer.

A few of more than 100 different insect pests controlled by parathion . . .



1. Plum curculio (adults shown on apple). Attacks peach, apple, prune and plum, cherry and other fruits.

2. Common bean leaf beetle (shown on bean pod). Parathion also controls Mexican bean beetle, leafhopper, aphids, red spider, leaf roller, army worms and leaf miner on all beans. 3. Aphids (shown on tobacco bud). Parathion controls almost all aphid species.

Parathion gives broad protection... at low cost!

On many crops parathion alone gives complete control. On others it has reduced the number of other insecticides needed to control difficult groups of insects.

Write for the new Parathion Grower's Handbook. It includes over 200 accepted uses on more than 50 different crops . . . safety precautions . . . valuable information on dosages and times of application.

PARATHION INSECTICIDES ARE AVAILABLE FROM NATIONAL MANUFACTURERS

AMERICAN Cyanamid COMPANY

Manufacturer of Thiophos® Parathion Technical

Agricultural Chemicals Division

30 Rockefeller Plaza, New York 20, N. Y.

Berries and Vegetables

Wisconsin Berry and Vegetable Growers Ass'n.

TARNISHED PLANT BUG

May Be The Cause of "Catfaced" Strawberries

By Don Dever, Dept. of Entomology, U.W.

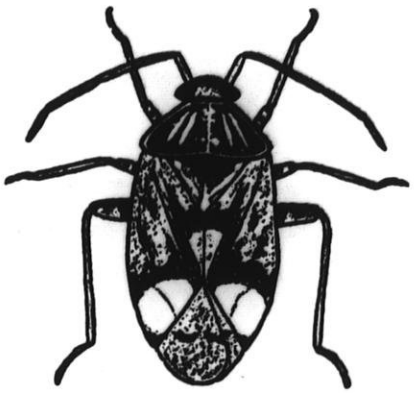
The tarnished plant bug (Lygus oblineatus Say) is well equipped to cause serious injury to strawberries. Provided with piercing-sucking mouth parts it can suck the sap of a great variety of plants. During the feeding process it introduces a poisonous substance into the plant which causes various sorts of injuries. **On strawberries, this injury appears as dwarfed or pitted buds and developing fruit.**

The insect overwinters in the adult stage. Early in the spring they are found feeding on the buds of fruit trees, causing serious injury to the terminal shoots and fruits. The adults are not easily seen as their coppery-brown color, flecked with darker brown, yellow and some green, blends with the plant. Their bodies are oval in shape being about ¼ inches long and ⅛ inches wide. They are marked rather conspicuously with five black dots.

The adults do not lay their eggs on fruit trees but prefer various herbacious weeds, vegetables, and flowers. They insert their eggs into stems, leaves, buds, or among the florets of the flower head. The eggs hatch in about 10 days. The small (1/25 inches), greenish-yellow young resemble the adults closely and after a series of changes gradually assume the adult form. This cycle is completed in 3 to 4 weeks, so that probably two to four generations occur each season. During the latter part of the season they occur everywhere but because of their protective coloration they are not readily noticed.

Control

A mixture of DDT and toxaphene is quite toxic to both the adults and nymphs. It can be applied as either a spray or dust at the rate of ½ lb. of technical DDT and ¾ lb. of technical toxaphene per acre. **The application should be made in the bud stage.** The insecticide should never be applied to the developing fruit. Everbearing plants should have **another application just before fall blossoms start.**



The Tarnished Plant Bug. It may be the cause of the "cat-faced" strawberry so prevalent last year.
Greatly Enlarged

SPRAY DILUTION TABLE

QUESTION: I have read instructions to use 1 gallon or 1 or 2 pounds of a spray material in 100 gallons of water. However, I only have a small garden and would like to know how much to use in 1 gallon.

ANSWER: This question is frequently asked so we are glad to present this dilution table from Mr. George E. Hafstad of the Department Plant Industry, State Department of Agriculture. If you follow the table through, you will find the amount given for 100 gallons, 25, and 1 gallon.

For 100 gal. Spray	25 gallons	5 gallons	1 gallon
1 gallon	1 quart	13 Tbs.	3 Tbs.
1 quart	1 cup	3 Tbs.	2 tsp.
1 pint	½ cup	1½ Tbs.	1 tsp.
1 lb.	¼ lb.	2½ Tbs.	1½ tsp.
2 lbs.	½ lb.	5 Tbs.	1 Tbs.
3 lbs.	¾ lb.	7½ Tbs.	4½ tsp.

All measurements standard and level. Tbs.: tablespoon; Tsp.;teaspoon.

STRAWBERRY INSECT CONTROL

Strawberry Leafroller—By its habit of feeding on and folding the leaves, this insect often causes severe injury or death of the plants. Parathion controls this pest even when it is enclosed in the leaves. It is effective both as a dust (1 per cent) and spray (¼ lb. per acre) but should not be used after fruit sets.

Spittlebug on Strawberries— These insects cause the formation of distorted leaves and fruit by their feeding and produce the noticeable spittle masses on the plants. Apply insecticide when the first spittle masses are seen; use one of the following dust materials: 5% toxaphene, 1% dieldrin, 5% methoxychlor, or 1% rotenone. Use only methoxychlor or rotenone if strawberries are blossoming or have set fruit.

Strawberry Weevil — This small beetle with the long snout kills the buds and fruits, and leaves them hanging on partly severed stems. A dust of 5% chlordane has given very promising results in the control of this insect but cannot be used within three weeks of ripening.

By Don A. Dever and C. L. Fluke, Dept. of Entomology, U.W.

IRRIGATION SYSTEM FOR SALE

FOR SALE: Several slightly used portable overhead irrigation systems at real bargain prices. I also have the agency for all popular brands of new pumps. Write: Eric Franke, Rt. 5, Sturgeon Bay, Wis.

Raspberry Spray Program

By E. L. Chambers

1st SPRAY. DELAYED DORMANT.

For: Anthracnose, Spur Blight and Powdery Mildew.

Time: About time the first buds show ¼ inch of green. (Cover ground area also).

Material: Lime sulphur, 5-6 gal., or 2 lbs. "DN" (dinitro) in 50 gal. water.

2nd SPRAY. PRE-BLOOM.

For: Anthracnose; Spur Blight; Red-necked Cane Borer.

Time: 1 week before bloom.

Material: Lime Sulphur, 1¼ gal., or Ferbam, 1 lb. and 2 lbs. Arsenate of lead and ¼ lb. skim milk powder, in 50 gallons water.

ADDITIONAL SPRAYS

For: Raspberry Fruitworm and Red-necked Cane Borer.

Time: 10 days after first blossoms appear. Repeat twice at weekly intervals if necessary.

Material: 2 lbs. Arsenate of lead and ¼ lb. skim milk powder, or 1 pint 4.5% Rotenone, or 2½ lbs. of Derris Root adding ¼ lb. skim milk powder, in 50 gal. water. *(Rotenone).

To facilitate spreading and sticking add ⅛ lb. Soybean flour to 50 gallons of spray.

While more likely to cause foliage injury Bordeaux 4-4-50 may be substituted for lime-sulphur sprays and with Bordeaux 1 lb. of the 50% wettable powder DDT can be substituted for Arsenate of lead.

*Where dusting is preferred, use a powdered derris root-talc dust containing 0.75% rotenone.

Ferbam, also known as Fermate, Karbam and Farradow, is a "safener" for lead arsenate and hence can be used alone with this material. It can also be combined with wettable sulphur but should not be used with Bordeaux mixture or lime. Spray raspberries only when insects and diseases warrant, because the foliage may be burned by sprays. Certain diseases including crown gall, orange rust, and mosaic cannot be controlled by spraying.

(1) Avoid planting plants from uncertified sources.

(2) Do not plant them where diseased plants have recently grown.

(3) Have plantings of red and black raspberries as much as 300 feet apart.

(4) Select resistant varieties.

(5) Remove and burn old fruiting canes immediately after harvest, also any diseased plants with as many of their roots as possible upon detection.

(6) Avoid spraying plants while in bloom or just prior to harvest.

(7) Good drainage contributes much to the success and long life of the plantation.

(8) Keep well mulched and free from weeds.

(9) Avoid applications of fertilizers especially those high in nitrogen content late in the summer so the plants will mature before low temperatures are experienced.

(10) Since mildew and other diseases are favored by poor air drainage avoid "pockets" or low spots surrounded by higher ground or dense new growth.

SUBTITUTES FOR MANURE INCREASE YIELDS

Dried cow manure, native peat moss, dried sheep manure, and ground tobacco were some of the manure substitutes for organic materials which increased yields of vegetable crops by as much as 40%, according to the Connecticut Agricultural Experiment Station at New Haven.

After running tests for several years with sweet corn, cabbage, and carrots as trial crops, the conclusion was reached that if these materials are used with the usual amounts of commercial fertilizers they are quite suitable as manure substitutes.

Increased yields resulted in each case but ground tobacco stems did not increase the yield on carrots.

It is well to remember that organic materials increase the water holding capacity of soils,—quite important during a dry season. The water holding capacity of the soil is not increased by some of the new soil conditioners on the market.

IRRIGATION ELIMINATES FROST DAMAGE IN STRAWBERRIES

By Harvey Kamnetz,
Cumberland, Wisconsin

On May 28, 1952, there was a heavy frost in the area (Northwestern Wisconsin) with the temperature falling to 28 degrees. As soon as darkness approached, frost was visible.

As the irrigation pipes were already set up in the field, sprinkling was started immediately with regular sprinkler heads as the low capacity type was not available. This sprinkling was maintained for a period of two hours. During this time ice had accumulated to a thickness of about ¼ inch. The hay cracked readily as I walked down the rows. About 11:30 P.M., it started to warm up so the sprinkling was stopped.

The blossoms of the plants were examined for the next 3 days for frost damage. The Premier Variety had about 10% damage and the Robinson and Beaver Varieties had about 5% damage. The fruit which was harvested was perfectly formed and no apparent damage was observed. This was significant because the strawberry crop in this area was almost a complete failure—even with patches which were covered during the winter. These berries were covered with hay at the rate of 4 tons per acre the previous winter.

I am convinced that irrigation is an investment that really pays off.

VALUE OF CHEMICAL WEED KILLERS

If crops of fruits and vegetables are cultivated during the summer months when there is likelihood of dry weather there may be considerable root pruning resulting in injury to the plants. Under such conditions chemical weed killers may have an important place.

NUMBER OF PLANTS FOR VARIOUS PLANTING DISTANCES

Rows	In the row	Total per acre
2 ft. apart	18 inches	9,680 plants
2 ft. "	24 "	7,260 "
3 ft. "	18 "	8,297 "
3 ft. "	24 "	6,223 "
4 ft. "	18 "	7,260 "
4 ft. "	24 "	5,445 "
3 ft. 8 in."	18 "	7,128 "

CHEMICAL WEED CONTROL IN STRAWBERRIES

By Charles F. Swingle, Sturgeon Bay

Because of our outstanding success in 1952 in controlling weeds in our strawberries with Crag herbicide No. 1, we plan to use it again this year. Any new plantings will be sprayed with 3 or 4 pounds per acre, about 2 or 3 weeks after planting. This delay is recommended to avoid any injury to the roots just getting established, though we saw no sign of injury last year. Then, 1 or 2 times, later, additional applications will be given as needed, at least 1 month apart.

Of course before spraying, we will make every effort to have the ground clean of weeds. With new plantings, this means both machine and hand cultivation just before application of the Crag. With the old plants, 1951 and 1952 plantings, after uncovering we will go through by hand, then spray with 4 or 5 pounds of Crag per acre.

Use Low Pressure

In either case we will use our low pressure weed sprayer and about 40 or 50 pounds pressure. I understand some growers had definite injury last year, using regular high pressure sprayers. We had more trouble last year getting our sprayer calibrated than with any other part of the job. We used 5 to 10 gallons of water per acre, but this year using slightly larger nozzle disks, we plan to step this up to 20 or 30 gallons per acre for ease in calibrating. We also found our farm well water was very hard, and did not work so well as Lake Michigan water. If we did not have the latter, I would check with the manufacturerers regarding the possibility of using a detergent or some other conditioner to permit the use of very hard water.

Our 1952 results agreed with those of other workers that Crag has no effect on weeds of any kinds after they are half an inch or more high. But it certainly did cut down on germinating seeds and saved a large part of our hand and machine weeding.

Of course, it is quite possible that Crag No. 1 could be put on the market in slightly different form this year—if so, I would follow whatever recommendations the manufacturer makes.

The dignified old lady, a pillar of the congregation, shook hands with the pastor after services. "Wonderful sermon!" she exclaimed. "Everything you said applies to somebody or other I know."

Berry Plant Market

STATE CERTIFIED STRAWBERRY PLANTS

We offer original strain of Beaver; Premier, Robinson; Catskill. Gem everbearing. Quality plants at reasonable prices. Plants are freshly dug just before shipment. KAMNETZ STRAWBERRY NURSERY, Cumberland, Wisconsin.

STRAWBERRY PLANTS FOR SALE

Wis. No. 214; Wis. No. 261; Improved Senator Dunlap, Catskill; Thomas. Hillfruit Dairy Farm. Victor Heinz, Rt. 1, Cleveland, Wis.

CERTIFIED BERRY PLANTS

We offer strawberry and raspberry plants for sale. Gem Everbearing; Premier; Dunlap (Junebearing): 1000 @ $15.00; 100 @ $2.00.

Streamliner; Evermore Everbearing; Catskill; Fairfax; Robinson; Thomas; Beaver Junebearing: 1000 @ $18.00; 100@ $2.25.

Latham raspberries: 1000 @ $40.00, F.O.B. Bayfield; 100 @ $5.00; 50 @ $3.00; 25 @ $1.75. Postpaid.

Viking raspberries: 1000 @ $25.00, F.O.B. Bayfield. 100 @ $3.50; 50 @ $2.00; 25 @ $1.25. Postpaid.

John Krueger, Rt. 1, Bayfield, Wis.

PLANTS FOR SALE

New Minnesota No. 321 Red Raspberry: 12 @ $3.75. Latham, Indian Summer, Taylor raspberry: 25 @ $2.75; 50 @ $5.00 100 @ $9.50.

Cumberland black raspberry: 12 @ $1.25; 25 @ $2.50; 50 @ $4.50; 100 @ $8.50.

Premier, Catskill, Beaver, Robinson, Dunlap strawberry plants: 25 @ $1.00; 50 @ $1.50; 100 @ $2.45; 200 @ $4.45; 500 @ $9.50; 1,000 @ $17.50. Prepaid.

Currants, grape vines, fruit trees, shrubs, shade trees, evergreens.

Mary Washington asparagus roots, 1 yr. old: 25 @ $1.00; 50 @ $1.50; 100 @ $2.50.

Hall Nursery, Elmwood, Wisc.

BERRY PLANTS FOR SALE

Latham Raspberry Plants: 1,000 @ $40.000; 100 @ $5.00.

Strawberry Plants: Beaver: 100 @ $1.75; 1,000 @ $12.00. Bearmore: 100 @ $2.00; 1,000 @ $15.00. Premier: 100 @ $2.00; 1,000 @ $15.00. Gem Everbearing: 100 @ $2.50; 1,000 @ $18.00. I. H. Bowen, Alma Center, Wisconsin.

PLANTS FOR SALE

For Sale: Strawberry and Raspberry Plants. Premier; Robinson; Wis. 214; Fujiyama, and Superfection strawberries.

June and New Durham fall bearing red raspberries.

Al Kruse Nursery, 615 Effinger Road, Baraboo, Wis.

BERRY BOXES

For Sale: Berry Boxes and Crates. For Price List write Ebner Box Factory, Cameron, Wis.

DORMANT SPRAYING A NECESSITY

By E. L. Chambers

There are many pests that the nurserymen have to deal with that cannot be as effectively controlled at any other time than while the trees and shrubs are in their dormant stage. Before the new growth appears in the spring, these trees and shrubs will withstand applications of the concentrated chemicals frequently required to destroy certain of the more serious pests.

Oil sprays should not be applied on days when the temperatures are below freezing. Damage to the trees may result where oils have been used just before a drop of below zero temperature. Lime sulphur and other sprays must not be applied around buildings when the wind drift will discolor the paint temporarily. Carbolineum, while safe and effective against poplar and willow borers, should not be applied to maple and other trees with tender bark because of danger of serious injury to this bark.

From the Editor's Desk

STOP DIGGING HOLES TO FERTILIZE YOUR TREES

We have often wondered why someone didn't run some tests to see if it was just as good to fertilize trees by spreading the fertilizer on top of the ground around the trees than to go to the laborious method of drilling holes into the soil. We were therefore quite pleased when the Extension Service of the U. S. Department of Agriculture in their special garden bulletin stated: "Some tree specialists say that the fertilizer should be put 15 to 24 inches down into the soil . . . . . In Ohio this method of placing the fertilizer has been compared with applying the fertilizer on the surface of the soil. So far there appears to be no difference between the two methods of application, one seems to be as good as the other—at least as far as Ohio experiments are concerned."

Orchardists all over the United States apply fertilizer on top of the ground and they certainly get results from it. Shade trees require no different treatment than fruit trees, so drilling holes looks like another fad.

MISLEADING ADVERTISING ABOUT HARDY SHRUBS AND ORNAMENTALS

Mr. C. P. Holway of Evansville states: "I hope you will find a corner in the magazine to warn readers against the sort of newspaper advertising, particularly in papers published in Chicago, which are offering as "hardy" and able to grow "anywhere" shrubs and trees that WON'T grow in Wisconsin.

"These include **azaleas, flowering dogwood (Cornus florida),** and now **camellias!** Authorities I have checked with say some azaleas and the dogwood **might** grow in favored locations close to Lake Michigan, but not elsewhere in Wisconsin.

"Experienced gardeners either know better or will enquire of the Department of Horticulture, U.W. However, many beginners order these plants and suffer disappointment and discouragement. I am sure Wisconsin Nurserymen will agree with this.

LOBO AND HUME APPLE VARIETIES FOR NORTHERN WISCONSIN

A letter from Mr. Dawson Hauser of Bayfield, prominent fruit grower of that area, gives his experience with the **Lobo** and **Hume** varieties. In the late 1930's Mr. Hauser was a member of our Fruit Variety Testing committee. We made a trip to Ottowa, Canada, where the **Lobo** and **Hume** varieties were inspected in the experiment station orchards. Mr. Hauser was impressed with the possibilities of Lobo and Hume and purchased 100 trees of each the following year, which were planted in his and in some of his neighbor's orchards. Now, after having had several years experience with bearing trees he writes as follows:

"It would seem that these varieties will replace Wealthy in the Bayfield area. **Lobo** is proving to be a good yielder and although it may lack McIntosh quality, many people think they are eating **McIntosh** when they try it. Hume has not been as good a producer thus far, but folks who tasted samples, beg for more of this variety. Hume has a richer flavor than McIntosh and is darker in color. In some sections they say that Hume is too dark, but this is not true here. Both Lobo and Hume should be treated as fall varieties as we would Wealthy.

"Red Melba is a fine McIntosh type for earlier use. Milton also seems very good although the yield of both is still uncertain in this area.

NARCISSUS, DAFFODIL OR JONQUIL. WHICH IS IT?

Narcissus is the Latin name for the genus which includes all of them but in ordinary usage the name is given to the group that has short trumpets such as the Poet's Narcissus. Also in common usage, the name Daffodil is given to those that have long trumpets in which the trumpet is almost as long or longer than the petals. Jonquil is an entirely different type of plant. They have rush-like or round foliage and short cupped yellow flowers. Actually we often hear Daffodils called Jonquils, which is a mistake. Not many Jonquils are being grown by our gardeners.

NEW CHEMICAL FOR THINNING APPLES

A new chemical, napthaleneacetamide, for thinning apples has recently been placed on the market. It is sold under the trade name of ACP Amid-Thin, etc. Limited trials with this material have been conducted and the purpose of this short article is to give you what information we have on it.

This material has been used on Delicious, Jonathan, Black Twig and Minkler. It appears to give considerably less injury to the foliage than does napthaleneacetic acid which is the active ingredient in the presently used material. No injury was noted at concentrations as high as 100 parts per million when applied at normal date of thinning.

As to effectiveness in thinning, the presently used material, napthaleneacetic acid, appears 2½ to 3 times as effective as the new material.

This material may have an important place in thinning early summer apples such as Transparent and Duchess and on varieties of fall and winter varieties that show considerable "flagging" and dwarfing of leaves when sprayed with our presently used materials.—**Delbert D. Hemphill, in Horticultural News, by the Missouri State Horticultural Society.**

DO OUR GARDEN SOILS NEED LIME

Don't Use Lime Unless Tests Indicate Its Need

"About 95% of city garden soils in Wisconsin do not need lime and many should not have an application of lime, " states Prof. Harold H. Hull in charge of the Soils Testing Laboratory, Univ. of Wis.

Professor Hull says that many city garden soils in southern Wisconsin already have too much lime and that tests show the pH to be as high 8. On such soils lime would be detrimental, locking up some of the minor elements, making them unavailable. The reason for this high pH is watering with city water which contains lime, and secondly, applications of wood ashes and various forms of lime by gardeners in the belief that lime is very beneficial.

Professor Hull makes the recommendation, therefore, not to apply lime unless you first have your soil tested and find that lime is indicated. Flowers and vegetables do very well on soils testing pH 6 to 7. If you wish to grow potatoes, it is well to have the soil a little on the acid side—it helps prevent scab.

In the sandstone areas of northern Wisconsin the soils are more acid than in the limestone regions. Along Lake Michigan, in the first and second tier of counties most of the soils do not require lime for garden crops. Watering with "hard water" over the years provides more lime than gardeners realize.

Professor Hull said "Over the years we seldom get a sample of garden soil that shows a need of lime in Wisconsin".

OUR COVER PICTURE

The McKay Nursery Company of Madison loaned us the picture shown on the cover this month. By planting more trees, shrubs and flowers our land will become greener and more productive for a more abundant life, beauty and recreation.

Smoking cigarettes makes women's voices harsh and shrill. If you don't believe it, just drop a lighted one on the carpet.—Mukwonago Chief.

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

President
DR. R. H. JUERS
Wausau

Vice President
RALPH BURDICK
Edgerton

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MRS. JOHN BAYLESS
Rt. 2, Two Rivers

Treasurer
DR. H. A. KASTEN
315 Washington St., Wausau

Planting And Early Culture Of Gladiolus

By Dr. James H. Torrie, Dept. of Agronomy, U. W.

Soon it will be time to plant your gladiolus corms. For best results glads should be grown in an area where they will receive sun most of the day and where the drainage is good. They usually do very well without much fertilizer, but require plenty of water especially during the period just prior to blooming.

How To Treat Corms

Before planting it is important to discard all corms which show any signs of disease. Many growers now dip their corms at harvest or after cleaning to assist in the control of disease. If you have not followed this picture it is good insurance to treat your corms just prior to planting. Probably the safest dip for amateurs is lysol. **Use 1½ tablespoonfuls of lysol** per gallon of water and dip for 3 hours. Plant immediately after treatment. Many people dust their corms with Arasan, full strength. This can be done any time during the winter and it will not injure the corms. For small lots I often dust my corms after cleaning with a mixture of either Arasan or Spergon and 5% DDT. The DDT is added for control of thrips. When I do this or dip my corms in the fall I do not dip again in the spring.

How To Plant

The soil should be worked thoroughly to a depth of 6 to 8 inches as soon as possible in the spring. Glads are usually planted in rows. However, they will do well in borders providing that they are not shaded by other plants. Rows are opened 4 to 6 inches deep for large corms, depending somewhat on the texture of the soil. In light soils plant deeper than in heavy soils. If gladiolus are not planted deep they are liable to lodge especially during the blooming period after a heavy rain. The rows are spaced from 18 to 36 inches apart depending upon the equipment available for cultivation and the size of the planting area. The corms are placed 3 to 4 inches apart either in a single or a staggered row. Smaller corms are planted shallower about 3 to 4 inches deep. In Wisconsin planting can start as soon as the land can be worked up until the last week in June. If this procedure is followed plus planting corms of various sizes and varieties of different maturity you will have bloom from the middle of July until freeze-up in the fall.

Fertilizers

In regard to fertilizer the best policy is to build up your soil in previous years. This of course often is not feasible. Unless there is a marked deficiency of some major element in your soil, glads are not likely to respond to direct applications of fertilizers. It will do no harm and may do some good to apply a complete fertilizer to the bottom of your trench. This should be thoroughly worked into the soil and then pull in some loose soil so that the corms will not come into direct contact with the fertilizer. This necessitates that the original trench be made a little deeper. I have a hard enough time getting the trench deep enough as it is. An occasional side dressing during the growing season with fertilizer may result in larger blooms. Go easy on nitrogen fertilizer for glads.

Hill The Plants

Several weeks after the gladiolus have emerged and the small weeds in the row are not beyond the 2 to 3 leaf stage. I usually hill my plants being sure that I completely cover all the foliage of the weeds. The reason for this is two-fold. In the first place most of the weeds in the row will be smothered (which is much easier than hand weeding) and secondly, the hilling will help to prevent lodging later on. (I invariably do not get my trenches deep enough to start with.) Weeds between the rows can be controlled easily by the use of a small hand-pushed rotary hoe. Later on I like to mulch between the rows both to keep down weeds and to conserve moisture.

How To Plant Cormels

In regard to the cormels (bulblets) which are often slow in germinating, especially with certain varieties, extra care is necessary. For small lots cracking of the outer husk will often help. Sometimes I have accomplished the same thing by alternately wetting and drying the cormels for several weeks prior to planting. The cormels are planted thickly in rows from 1½ to 2 inches deep. It is important to keep the ground moist at all times until emergence is fairly complete. Packing the soil, unless it is extra heavy, after planting will help. Better success is usually obtained when the cormels are planted in separate rows

and not with the corms. This is because it is easier to give them extra care.

Cut Large Corms

Another practive which I follow when I wish to increase my stock of a new variety or seedling rapidly is to cut my large corms in half. First the husk must be removed. Large corms will have two or more buds or eyes. Cut the corm through the middle between the two buds, being sure that you have root areas on both parts. Dust the surface with sulphur. In the fall you will harvest 2 good corms in place of 1 and usually twice as many cormels plus 2 good blooms during the growing season.

CONTROL OF THRIPS AND MITES ON GLADIOLUS

By Dr. R. B. Neiswander, Ohio Univ. N. A. G. C. Paper as presented by H. E. Halliday, Madison

DDT is the standard recommendation for thrip control in the field—2 quarts of 25% DDT emulsion to 100 gallons of water. Other materials such as **chlordane, parathion** are equally effective, but availability of DDT and the toxicity to humans of parathion were responsible for the DDT recommendation.

Storage control of thrip was not touched upon—**DDT emulsion** most effective in field; **DDT dust** next and **DDT wettable powder** next most effective in field.

If mites are a problem, a combination of DDT and **aramite** gives good results. **Aramite plus DDT** - 2 qts., 25% emulsion to 100 gallons of water. A new product, **Malathon,** is also good for mites and should be used if it is necessary to control aphids. It is used at the rate of 1 pound of actual malathon in emulsion to 100 gallons of water. The amount of emulsion to 100 gallons of water will depend on the per cent of malathon in the emulsion. This product is considered very much safer than parathion. An excellent dahlia spray is 1 pound actual DDT in emulsion plus 1 pound malathon to 100 gallons of water. **Metacide, dimite,** and **E. P. N.** are also good miticides. **Ovotran** is very good for spider mites on evergreens. It can be used as a spray or dust and has a good residual effect.

New Portable Sprayer

A new high pressure portable power sprayer, John Bean Division, was shown in colored film. This portable John Bean sprayer is on the market. This machine appears to be good and could have many uses in spraying trees, flowers, and shrubs. It has an attachable boom and makes a good weed sprayer for lawns.

THE GLADIOUS FOR 1953

The 28th annual edition of The Gladiolus For 1953 published by the New England Gladiolus Society, Horticultural Hall, 300 Mass. Ave, Boston 15, Mass., is full of excellent articles of value to all gladiolus growers. This issue is dedicated to President Eisenhower by his classmate the Editor Col. Harold E. Small. This volume alone is worth more than the annual dues for membership which may be sent to the Glad Society Treasurer, since we are affiliated with the N.E.G.S.

MARATHON COUNTY CHAPTER NEWS

The Marathon County Chapter at their February meeting set the date of their annual bulb auction for Sunday afternoon, March 15 at 2 p.m. in the City Hall Council Room. Ed Schaepe is Chairman with Archie Spatz, Auctioneer.

The annual picnic and judging school is planned for August 2, to be held at Marathon Park, Wausau.

Archie Spatz was appointed Show Chairman. The date of the show will be set at the March meeting.

John Perkins of Neillsville was appointed Program Chairman to be assisted by Mrs. Ed Kramer.

A film "Glad Growing in Florida" was shown and enjoyed. **By Mrs. Ed Kramer, Pub. Chm.**

TWIN CITIES GLADIOLUS SHOW

The Twin Cities Glad Society will have its regional Glad Show on August 23 at Oconto, Wis., with the Oconto Kiwanis Club as the sponsor. With this fine group to work with and a hard working Vice President on the spot, we hope to be able to have an exhibition up to the high standards for which this region is known.

All glad growers are asked to keep this show in mind and plan to be with us so the first show in this promising community may be a success. **By Arnold Sartorius, Porterfield, Wis.**

THE NEW CATALOGS

By Ralph Burdick, Edgerton

Having heard catalogers described as "rascals" in a recent article I did considerable research on the subject and after reading nearly fifty catalogs cannot help but concur. The reason of course being that they are now presenting the gladiolus so attractively to the public that no one can resist their purchase. The true two legged thrip or "glad bug" of course usually has to be forcibly restrained by the little woman anyway, or he would purchase all the new ones in sight.

Seriously though, many catalogs received this year have been a real work of art. Noweta Gardens catalog with its many colored plates, and the use of arrangements for illustrations will go a long way towards popularizing our favorite flower. Five or six others—Elmer Gove in particular—are doing almost as good work with color. Pictures can be very important in selling any product and every year more are used in the catalogs. Wisconsin's Cosmopolitan Glad Gardens' book perhaps has more black and white plates than any other received.

Other catalogs have such a wealth of information that they could almost serve as reference books, giving such information as introducer, year of introduction, show winnings, days to flowering, number open under field conditions, height, length of flower-head, propagation, ability to open under various conditions, florist appeal, suggestions as to their use in baskets and arrangements, and even go so far as to tell you of the drawbacks of some varieties! A better job along these lines should be attempted by all catalogers.

It is evident that the miniatures are becoming very popular, over half now listing at least a few. Foreign introductions are apparently not as popular, many having been dropped and even the Canadian introducers are offering very few new ones while adding many U.S. introductions.

If you are able to read these "rascals" catalogs and still refrain from spending more than you intend ——— well ——— your sales resistance is definitely above par!

If you scatter thorns on your road through life, don't go barefoot.

Gladiolus Varieties

By Ralph Burdick, Edgerton

Continued from Feb. and March

THE ORANGE CLASSES

(20-22 and 24.)

The orange, 300 class is represented by **GOLDEN BLEND,** a mixture of orange and yellow in a lovely color combination. **VALENTINE,** 421, has a very pretty floret shape and color, salmon orange with a deep orange blotch shaped like a heart. About 7 will open and even bulblets will produce very good spikes. **MELLOW MOON** is another appealing color combination a very light creamy orange holding about eight open on average height stems. **ATLANTIC** of the older varieties is perhaps the best from an exhibitors standpoint since it will open 10 or more in formal placement and will hold well. Old **ORANGE GOLD** is still indispensable None of the 500 oranges tried this year had any appeal, most of the highly touted new ones having very poor color.

SALMON VARIETIES, (30 and 32.)

If you want one to win for most open try **GLORIOUS,** a 300 salmon which will open 12 or more. **JINI MARIE,** in the 500 series, is a good show variety, plenty open, a good color and placement, but the heavy flowerhead conspires with a slightly weak stem to give a spike that should be staked. **CRAGFORD** and **GORGEOUS DEB** in the giant size are much alike in that both are extremely ruffled and fluted. **CRAGFORD** however is much deeper and has striking butterfly shaped florets. Both will hold plenty open. The earlier introductions in this color class which have been good were **BOISE BELLE,** and **GOLDILOCKS** a little known even brighter and prettier edition of Boise Belle, **CAPSICUM** a pleasing cool clear salmon with a flecked or sanded throat, and **BOLDFACE** and **TITAN** in the giant class. **TITAN,** a late bloomer, gave massive formal spikes that were shoulder high in spite of dry weather.

ANY OTHER COLOR 90

FLAIR is the only recent introduction in the any other color class that I feel was outstanding. A yellow cream flushed rose with a large lavender blotch, it has perhaps the heaviest texture of any glad and makes eyecatching long lasting corsages. VAGABOND PRINCE, TINIAS ELITE CHOCTAW, and MAPLE LEAF were outstanding among the older varieties.

FOR WEED CONTROL IN GLADS

Crag Herbicide No. 1

This material is effective only on germinating weed seeds and very small weed seedlings and has very little or no effect on weeds one inch or taller. The gladiolus plants tolerate this chemical both before they emerge and up to the time they are about 10 inches tall, so the chemical can be used 8 to 12 days after planting and then again about 5 to 6 weeks later. Three pounds per acre on a sandy soil and 4 pounds on a heavy soil in 40 gallons of water is an average rate for best weed control without injury to the gladiolus. The same rate should be used for the second application. For small scale applications use one level tablespoon in one gallon of water for 100 feet of row 2 feet wide. Applications made after the gladiolus are 8 to 12 inches tall are best accomplished by spraying at each side of the row toward the base of the plants. **By Dr. R. F. Carlson, Mich. State College, in The Gladiolus.**

Nursery News & Notes

For The Wisconsin Nurserymen's Association

WISCONSIN JOINS "PLANT AMERICA" PROGRAM

Local, state and federal government officials, as well as some 35 private organizations are supporting a movement to replant our forest, farms, cities, roadsides, churches, schools, homes and factory grounds.

The objective of the movement is to conserve the land, make it greener and more productive for abundant life, beauty and recreation.

Twenty-six other states, including Iowa, Indiana, Michigan, and Minnesota have already instituted state programs as part of the "Plant America" project.

The committee in charge of the Wisconsin phase of the project is headed by Governor Kohler and includes representatives from the Wisconsin Garden Clubs, the Wisconsin Chapter National Shade Tree Conference, the Wisconsin Park and Recreation Association, the Master Landscape Gardners Association, the Soil Conservation Service, the State Horticultural Society, Friends of our Native Landscape, the Wisconsin Florist Association and the Wisconsin Nurserymen's Association.

Radio broadcasts and news stories urging increased planting of vegetation on home grounds for beauty and utility, beautifying cities, roadsides, parks and gardens will be used by the committee.

Governor Kohler asked for a greater consciousness on the part of the public and pointed out that they have a moral obligation to furnish and maintain all land as the most precious American heritage.

Governor Walter Kohler signs "Plant America" Proclamation, with representatives of organizations promoting the movement looking on. From left are Joseph S. Elfner, Secretary, Friends of our Native Landscape; James G. Marshall, Madison Park Superintendent, representing the Wisconsin Park and Recreation Association; Henry J. Rahmlow, Secretary, Wisconsin State Horticultural Society; and Howard Anderson, President Wisconsin Nurserymen's Association.

Objective of the "Plant America" program is supporting a movement to replant the nation's forests, conserve land, beautify cities and roadsides and provide a greener and more productive land. The project is backed by 9 State organizations.

PIONEER ROSES

The Milwaukee Rose Society made a state wide survey in 1948 of living rose bushes brought to Wisconsin by pioneer families. More than 50 such rose bushes were located. A Centifolia was found dating back to 1844. Among the varieties found, these have been identified: Centifolia, Moss, Scotch, French, Damask and Sweetbriers. For example, Harrison's Yellow, a Scotch rose, and still growing, was brought to Plymouth, Wisconsin in 1855 from Harwich, Massachusetts, by Jonathan Walker. John Greenleaf Whittier immortalized Jonathan Walker in the poem, "The Branded Hand."

In Rose Tips, by the Milwaukee Rose Society.

We Like To Sell
Nursery Stock In Asphalt Pots

By John Gartman, Gartman's Gardens, Fond du Lac, Wis.

Growing and selling potted nursery stock makes for better satisfied customers and hence better profit because when the customer comes to the nursery the plant is all leafed out and in many cases, in bloom. We use Cloverset pots and when we have time we make our own. You can make them out of asphalt building paper. We use the heavy grade for trees, shrubs, roses and some of the larger perennials. For the smaller perennials we use the lighter grade of paper.

Potted Roses

Roses are the first to be potted. This we do in the later part of March. After we have them potted we keep them in a shed until the weather gets warmer around the first part of April. By doing this they make root growth and there is not the danger from drying out as there would be out of doors. If you set them outside be sure to cover them with burlap for a week or so. We cut our roses back to about six inches from the graft. We only cut the big heavy roots enough to fit in the pot. We do not trim the small roots for if they are a little too long we spread them in the pot. We do not trim back climbing roses much for if you trim them back like hybrid teas they will not bloom the first year.

Shade Trees

Next we pot up small shade trees, flowering crabs and shrubs, trimming the tops to shape them. In shade trees we pot Elm, Maple, Mountain Ash and Crimson King Maple. Remember, they can be sold all summer.

In shrubs we pot Flowering Almond, Forsythia, Flowering Plum, Redleaf Barberry, Hydrangeas, Lilacs, Mock Orange, Lodense Privet, Spireas, Tamarix, Weigelia and many others. Flowering Crabs and the Tree Hydrangea make ideal potting plants and in vines we pot Boston Ivy, Engleman Ivy, Silverlace, Clematis and Heckrotti Honeysuckle.

Perennials

We have about 1½ acres of perennials, and it used to be costly to take customers out in the field and spend an hour or so. Now we pot the better varieties. We have frames 6 feet wide

and fifty feet long in which we set our potted material, all plainly marked as to name and price. In this way we walk only fifty feet instead of several thousand releasing more time for the next customer.

We have a billboard with 12 leaves and here they can see the perennial cuts in color. In fact we have trees, evergreens, vines and everything we sell displayed in colored cuts on this bill board. We have many customers that buy all their plant material from this bill board and they like this idea. It cost us only $20.00 to make this and we like it better than the advertised types as ours fastens to the wall and we lose no floor space.

Preparing the Soil

Oriental Poppies and Peonies are good potted items for there is always demand for them in the Spring.

In preparing the soil we are still making slight changes every year as experience dictates. We find that if the soil is too rich we cannot get good root action immediately after potting, and if the soil is not rich enough we cannot get good growth during the growing season. Roses, in particular, require very rich soil. While it is commonly thought that they appreciate heavy soil, we believe this to be a mistaken idea since the soil must be light enough to absorb and retain considerable quantities of moisture. We provide this condition by using good, top, pasture soil, adding about ten per cent peat moss and ten per cent shredded cow manure. This makes a fairly fertile soil, not too rich to retard root growth in the early spring but porous enough to absorb the fertilizer which we apply once a month during the growing season. This fertilizer is in liquid form and is applied when watering the plants.

Spacing

Proper spacing insures better plants, so as soon as the leaves begin to show we begin spacing the plants. Unless plenty of space is provided for the plants they will not develop bushy and will become too leggy. We move the plants at least every ten days to prevent rooting in the soil under the pot, which would cause it to wilt when sold. When moving the pots we try and keep our displays full and pleasing to the eye. They seldom pass our rose display without buying one or more.

SCHOLARSHIP AWARD

One of the scholarship awards granted by the Wisconsin Federation of Garden Clubs this year went to another generation of a long line of nurserymen, Tom Pinney Jr. He was the recipient of one of the two awards made this year in recognition of the 25th anniversary of the Federation. The selection was made by a committee of the College of Agriculture.

Tom Jr. is the son of Mr. and Mrs. Tom Pinney of the Evergreen Nursery Company of Sturgeon Bay.

Garden Club News

The Garden Club of Wisconsin

FORAL DESIGN SCHOOLS BY THE GARDEN CLUB OF WISCONSIN

Lecture and Demonstration by Mrs. Edward Ray, Lancaster, Ohio

TUESDAY, MAY 19: YWCA Auditorium, 610 N. Jackson St., Milwaukee. Auspices of the Milwaukee Region.

WEDNESDAY, MAY 20: Peace Lutheran Church. Oshkosh. Sponsored by the Winnebagoland Region.

THURSDAY, MAY 21: Waupaca. Sponsored by the Central Wisconsin Region.

The Program

9 to 9:30 a.m. Registration.

9:30 - 11:45 a.m. The use of color in design.

12 M. Noon luncheon. Details to be announced.

1 - 3:30 p.m. Creative table settings. Color and texture.

Mrs. Ray will illustrate her lectures with kodachrome slides, charts, and appropriate materials. She will also give demonstrations of artistic arrangements.

Examinations will be held for members who are planning to become accredited judges. We urge all members to take these examinations.

These meetings are open to all interested gardeners. Bring your friends. There will be a small registration fee at each school.

SPRING MEETING BLACKHAWK REGION— GARDEN CLUB OF WISCONSIN BENDER'S WISCONSIN HOTEL JEFFERSON. MONDAY, APRIL 20.

PROGRAM

6:30 p.m. Pot Luck supper. Bring a covered dish.

Mrs. Edward R. Ray, Lancaster, Ohio, who will lecture at our Horticultural and Design Schools in May. Mrs. Ray is Editor of the Garden Path, official publication of the Ohio Association of Garden Clubs with more than 15,000 members. She comes highly recommended.

7:30 p.m. Business meeting. Announcements of coming events. Plans for Flower Arrangement Schools and annual convention in September.

Timely garden topics. Illustrated with slides. By H. J. Rahmlow, Madison.

Ideas for landscaping your home grounds. By Prof. George Ziegler, Landscaping Extension Specialist, Dept. of Horticulture, U.W.

MILWAUKEE REGIONAL MEETING

The Annual Spring Meeting of the Milwaukee Region of the **Garden Club of Wisconsin** was held in the First Baptist Church, Fellowship Hall, West Allis on Thursday, April 9. The Yearbook Contest was discussed by Co-chairmen, Mrs. Wallace Freund of West Bend, and Mrs. Severin Swensen of West Allis. Arrangements were made for the Floral Design School to be held in the YWCA on May 19. The afternoon session featured movies on gardening.

SPRING WORKSHOP - MILWAUKEE REGION YWCA, MAY 5, 1953

On Tuesday, May 5th at 9:30 a.m. in the Milwaukee YWCA, Fourth Floor Auditorium, the Spring Workshop of the Milwaukee Region of the Garden Club of Wisconsin will be held. A Registration Fee of 50c will be charged to defray expenses. As the workshop will be open only to members of clubs in the Garden Club of Wisconsin and members-at-large, it is important that everyone attending bring their membership cards for identification.

The theme of the Workshop will be "Colorama."

The Program

9:30 a.m. Registration.

10 a.m. Color: Theory and Practice. By Mrs. Victor Schmidt.

10:45 a.m. Color-blending with containers and accessories. By Mrs. Val Suttinger.

11:05 a.m. Color-blending with table coverings. By Mrs. Ray Luckow.

11:25 a. m. Glamour in colored plastics. By Mrs. Owen Pritchard.

12 M. Luncheon

1:00 p.m. Line arrangements, with background. By Mrs. Roy Sewell.

1:30 p.m. Mass arrangements. By Mrs. L. G. Stewart.

2 p.m. Table settings, Textures, etc. By Mrs. Norbert Gresbach.

Question period.

Note: Secretaries of Garden Clubs affiliated with the Garden Club of Wisconsin and State Horticultural Society may obtain membership cards free for members by writing the Society.

AFRICAN VIOLETS

FOR SALE: African Violet leaves: Old and New Varieties. Send stamp for price list. Rooted cuttings and plants at the Greenhouse. Mrs. Chester Graham, Fennimore, Wis.

BROOKFIELD SCHOOL PLANS MEMORIAL

On Arbor Day this year, the Brookfield School in Waukesha County will hold a program dedicating a living memorial to those of the district who have made the supreme sacrifice for their country in World Wars I, II and Korea. The occasion will also revere the memory of Mr. Ben Peterson who devoted much of his time to the betterment of his community.

The program will include the planting of two large flowering crabs on the school grounds, supplied by the Krahn Nursery. The principal and the teachers are working with Mr. Krahn and his son Dick and the entire program is under the sponsorship of the Brookfield Garden Club of which Mrs. Ahrend is President.

HONOR ALL-AMERICA ROSES

Twenty All-America Rose Selections won top honors at the nation's rose shows during 1952, according to a recent article in the American Rose Magazine. Most of these were staged under the auspices of the American Rose Society.

Peace, the All-America Rose Selection for 1946, received prizes in 36 shows; Charlotte Armstrong, 1941 winner, received top honors in five shows; Heart's Desire, the 1942 selection, received major awards in two shows; Mme. Chiang Kai-shek, a 1944 choice, received one award, and Mirandy, an 1945 All-America rose, was honored in eight shows. Other 1945 winners which received new plaudits were Floradora and Horace McFarland.

The 1947 All-America rose, Rubaiyat, received honors in seven shows. Five 1948 winners to receive recognition were Diamond Jubilee (two shows), Nocturne (four shows), Pinkie (one show), San Fernando (one show) and Taffeta (two shows). Tallyho, an All-America winner in 1949, was honored at six shows.

The 1950 winners were represented in 1952 by Fashion, which won prizes in five shows, and Sutter's Gold, which took a prize at one show.

The most recently available All-America Selections were all represented in the winning lists. Fred Howard took the honors in one show; Helen Traubel starred in another, and Vogue carried off prizes in four other shows.

CHICAGO FLOWER SHOW SCHOOL

The Garden Club of Illinois will present its 16th Chicago Flower Show School on May 6-7, in Fullerton Hall of the Art Institute of Chicago; and on Friday, May 8, at the Conrad Hilton Hotel, Chicago. Lecture topics will include landscape design and horticulture. On May 7, the lecture on Flower Arrangement and Color will be given by Mrs. L. E. Dodson of Larchmont, N.Y. For information, contact the Garden Club of Illinois, Palmer House, Chicago.

AFRICAN VIOLET SHOW IN MILWAUKEE

The Milwaukee County African Violet Society will sponsor its second African violet show May 9 and 10 at the Wauwatosa Recreational building. The hours will be 11 a. m. to 9 p.m. on May 9; 11 a. m. to 6 p. m. on May 10.

HOW TO GROW AFRICAN VIOLETS

A new Circular Number 437, entitled "How To Grow African Violets" has just been published by David Bosley and Gail Beck, Department of Horticulture, University of Wisconsin. It is a 4 page bulletin and describes the care of African violets in a brief form. It is available free. Write Bulletin Mailing Room, College of Agriculture, Madison.

There's no sense in advertising your troubles. There's no market for them.— West Allis Star.

Some people are like owls—they get the reputation for being wise just by hooting at everything. — Milwaukee Sentinel.

WHY WE LIKE PRIMROSES

By E. L. White, Ft. Atkinson

Around our house we have rows of primroses and in the spring they are very bright and showy, especially in front of the evergreens. Several times, when the primroses were in bloom, customers, native to Central Europe, have spied them. Then what exclamations. Why! they grew in their old homeland; in the meadows and pastures, on the mountain sides. The Alpine meadows were sprinkled with them. They could hardly take their eyes from them. I think they were sometimes made a little homesick by seeing them.

They are showy; they are pretty; they are easy to grow and are hardy perennials. Seed may be sown in the spring in the house or cold frame or after the ground warms up, in the garden. Transplant as needed to keep from crowding and set in a permanent place in the fall. A light mulching during our winter is advisable to prevent ice damage and drying out during any snowless open periods.

Divide For Increase

The mature plants split into several "heads" and may be divided for increase. Our experience is that spring is the best time to divide, but the divisions will not bloom for a year.

They like plenty of moisture, do not like the hot afternoon sun and will stand some shade. During the hot dry summer days the plants wilt when the dirt gets a little dry but perks up in a few minutes after being watered.

Primulas, the species name for primroses, are natives of the north temperate zone. Hortus lists over 100 species of which only five are native of North America; the rest being native of Europe and Asia. One species is the cowslip of England and Europe that you read about in English stories.

Plant breeders have been hybridizing the primroses and have many new colors. Why not try some?

RED SPIDER CONTROL

Reports in various magazines indicate that red spider, which is the insect so often serious on evergreens, perennial phlox and other plants during hot weather can be controlled with the new material **Aramite.** If you try it this year, please advise us on results for publication in this magazine.

Let's Grow Zinnias

GOOD VARIETIES OF ZINNIAS FOR YOUR GARDEN

These Varieties Have Good Color And Form

Dahlia Flowers (2½ to 3 Feet High)

Crimson Monarch. Best Red.
Dream. Deep Lavender, Beautiful.
Eldorado Rose. Deep Salmon.
Golden Dawn. Golden Yellow.
Exquisite. Light Rose.
Illumination. Deep Rose.
Polar Bear. White.
Scarlet Flame.

California Giants (3 to 4 Feet High)

Brightness. Deep Rose.
Crimson Queen. Best Crimson.
Enchantress. Pink.
Golden Queen. Golden Yellow.
Miss Willmott. Soft Pink.
Purity. Clear Blue White.
Rose Queen. Deep Rose.
Salmon Queen. Dark Violet.

Fantasy (2½ to 3 Feet High)

Orange Lady. Bright Orange.
Rosalie. Intense Rose.
Stardust. Deep Golden Yellow.
White Light. Pure White, excellent for flower arrangements.

Pumila
"Cut And Come Again" Type

Snowball
Pinky. Rose Pink.
Spun Gold. Butter Yellow.
Aurea. Golden Orange.
Salmon Rose. Good for Cut Flowers.

Lilliput Pom-Poms (1½ to 2 Feet High)

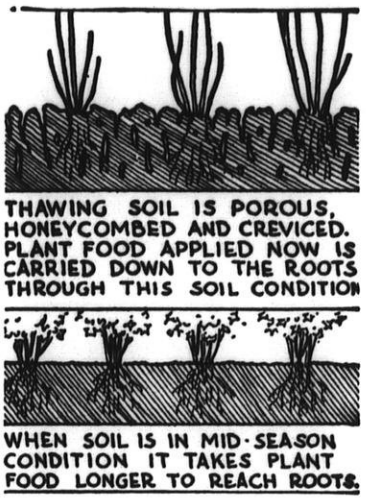
Canary Yellow
Crimson
Dainty Gem
Golden Gem
Rosebud
Salmon Rose
Scarlet Gem
Valencia
White Gem

Tom Thumb Mixture. Small double flowers. Plants 6 inches tall.

New and Dwarf Types

Persion Carpet. (New Honorable Mention, All-American Selections, 1952).
Red Riding Hood. Scarlet, Button Type.
Riverside Beauty. A rich Azalea-pink.
Peppermint Stick. Very colorful.

Gardener to neighbor, "One of your very delicious chickens was in my garden yesterday morning."



It seems as though the older generation is the one that worries about how the middle generation is bringing up the younger generation.—**Bonduel Times.**

Someone has said: "Best people are those who can give something without remembering, and those who can receive without forgetting."—**Mid-County Times.**

DON'T FORGET TO GROW ZINNIAS

A flower show is being planned for the annual convention held in September at Fort Atkinson. There will be classes for zinnia specimens and also arrangements using zinnias.

The schedule will be published in a later issue of Wisconsin Horticulture. By Mrs. Donald Kirkland, Horticultural Chrm.

ANNUALS FOR SHADY PLACES

It is well known that annuals are not lovers of shade. However, some annuals succeed in partial shade. Among them are Sweet Alyssum, the China Aster, Clarkia. Godettia, Myosotis (Forget-me-not), Pansy and Petunia.

Some gardeners report that certain of the Marigolds will do well in moist, shady spots and the Dwarf types, Yellow Pygmy and Primrose are satisfactory. We suspect, however, that none of these annuals will bloom profusely unless they receive some sun light during the day.

Lily of the Valley does very well in a shady spot.

Garden Gleanings

THE LUXURY LOVING ASPARAGUS CROP

Asparagus is one of our most important vegetables. There is an excellent market for asparagus and Wisconsin has the soils in which to grow it. Quite often, however, we do not succeed due to lack of fertilizer. An article by Mr. Frank App, Director of Research at Seabrook Farming Corporation in New Jersey tells how it should be grown. Here are some quotations from his article in **Horticultural** News of the New Jersey Horitcultural Society.

High Yields Possible

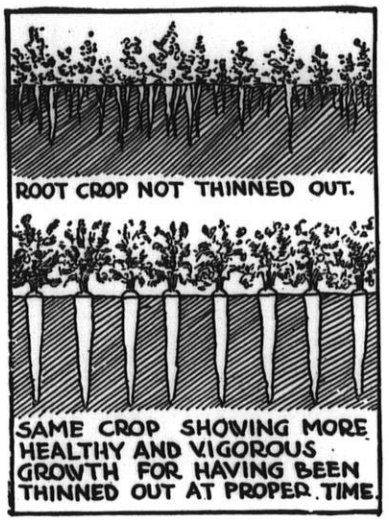
"On the better soils, it has a long life, providing the bed is properly started with high fertility levels and these levels kept high. Under such conditions, growers should obtain yields of 4,000 lbs. or more pay weight asparagus and an equivalent in the corresponding amount for the market as fresh.

"After the settting of the roots, until the time of cutting, 1,000 to 1,500 lbs. of 5-10-10 should be applied per acre, the amount again depending upon the fertility level of the soil. A well prepared field for asparagus should have ample organic matter extending well down so as to include a good surface soil of 10 inches.

"Under ideal soil fertility levels, the calcium should be 1500 lbs. or more depending upon the type of soil, the magnesium about 1/10 as much, while the potash should be 300 to 400 and the phosphorus 30 or more pounds per acre. These levels should be attained before planting or as soon thereafter as possible.

"The year following the setting of the bed, it should have another application of 1,000 to 1,500 lbs. of 5-10-10 depending upon what the soil analysis shows the requirements to be for plant food.

"The rule of thumb application in the past has been 2,000 lbs. of 5-10-10 fertilizer to be applied usually in split applications. This furnishes 100 lbs. of nitrogen, 200 lbs of phosphorus and 200 lbs. of potash. Such application usually leaves considerable residue and the potash and



phosphorus accumulate but the nitrogen leaches away. Consequently these accumulations become high and more than what is needed for the optimum crop. We should reduce the ratio of phosphorus to potash and nitrogen and use a 1-1-1 ratio anywhere from 100 to 150 lbs. of each element per acre.

Methods Of Applying Plant Food

"Many growers follow the system of supplying half of the fertilizer before the bed is prepared for harvesting in the Spring and the other half after the harvesting period. It probably doesn't make much difference when the phosphorus and potash is applied but it is very important when the nitrogen is applied.

"Some of the better growers are applying their fertilizer in early May because they want to stimulate the plant for better production in this most difficult part of the harvesting season. Following the harvesting season, we still have the problem of furnishing or maintaining a nitrogen level that will produce a good cane growth which is essential to make the buds for the following years harvesting.

Chemical Weed Control

"We have experimented with and successfully used commercial Crag Herbicide No. 1. At the present time, we believe this is the most practical chemical of the various ones we have tried. It must be used with **proper care** and at the **right time** and with the **right amount of water.** We believe the most practical way is to make the first application of Crag 1 immediately after the first or second cultivation, applying 2 lbs. to 40 gal. of water per acre. This is a short period after the cutting begins. A second application should be made which is ordinarily three weeks later after the first application. This should maintain good tilth and avoid weeds."

DOES YOUR BITTERSWEET PRODUCE FRUITS

Gardeners often complain that their bittersweet plants do not bear the fruits for which they were planted.

When the plants are in bloom, look at the blossoms with a hand lens or reading glass to see if the flowers have pistils or are female flowers, or whether there are only stamens. It is important that the plant have female flowers so that there may be a crop of the showy fruit.

The staminate or male flowers do not bear fruit and the plant bearing only these flowers might just as wel be discarded.

HOW MANY LEAVES HAS A TREE

A apple trees has from 50 to 100 thousand leaves according to Edward A. Connell, Arborist at Stamford, Conn. He made a tree leaf measurement survey and found a sugar maple 50 feet high had 162,500 leaves; an oak 700,000 leaves; a native American elm more than 5 million, which is enough to cover 4 acres of ground or nearly one mile of a 40 foot highway.

IN PRUNING LILACS— BE CAREFUL

The buds for next year's flowers on lilacs are only an inch or so below this season's blooms. In pruning off the dead flower stalks therefore, be very careful not to cut off next year's flowers.

Removing the old flower heads on lilacs is a matter of improving the appearance of the shrubs. It would have no effect on the amount of next year's bloom unless the flowers were cut off at about the time they begin to fade. Flower bud formation for next year's crop begins very early— about the time of petal fall.

Do, Garden Lovers—
Plant Lilacs In Wisconsin

By Mrs. Edward Brown, Waupaca

Lilacs will grow any place an apple tree will thrive and is even hardier and longer lived. They love the sun, the air, the rain, the cold and the snow; and, so far as I know, are the best loved and most adaptable of any shrub in the northern USA.

They are something to dream about in the winter, to look forward to in the spring and to be altogether happy with when you gather the sweet blossoms.

They are wrapped up with our earliest New England history in 1652. In Thomas Jefferson's "Garden Book" written in long hand is a note under April 2, 1767: "Planted lilacs and almonds"; while in one of George Washington's diaries on March 3, 1785 there was an entry about lilacs.

Like so many plants the lilac originated in China; were cultivated in Persia as early as 1200 and were known at an early date in Turkey, Italy, England and France.

The great French horticulturists like Lemoine, Morel, Baltet, Briot, Chenault have done more to improve the lilac than any other group of plant wizards.

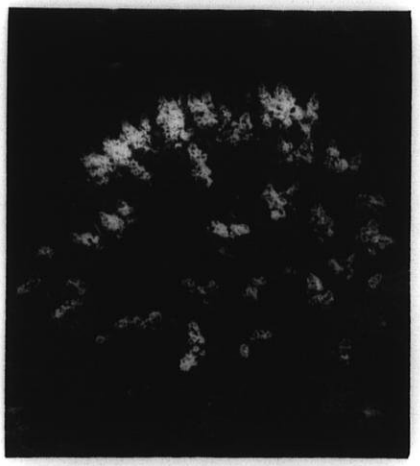
Cultivation

A heavy loam, well fertilized, in a limestone country is ideal for lilac needs, but even in the sandy loam of Waupaca County, my lilacs have grown and thrived.

Dig a hole 2 or 3 feet deep and as wide, dig in well-rotted manure and about ⅓ of a bucket of bone meal for the lilac is a coarse feeder. Then water the ground thoroughly and let it stand all summer. In the late fall, after the leaves drop, plant your lilac bush and firm the soil, water and mulch. Plant bushes not nearer than 7 or 8 feet apart, and after they bloom cut off all seed pods.

After they bloom give them some food every year or two and you can go on your way rejoicing for you have made a permanent and beautiful investment.

If plants are set out in the spring the ground should be prepared in the fall. Order bushes 2 to 4 feet high, **on their own roots.**



A white French lilac. The lilacs may be used as tall screen hedges or as specimen shrubs.

Book On Lilacs

The best little inexpensive book on lilac culture I know is John C. Wister on Lilacs, it's History, Growth and Propagation, published by Orange Judd Co., Inc. in New York. It came out in 1930.

Lilacs, like all plants are best ordered from firms in Wisconsin or adjacent states.

Varieties

Every garden should have as many good lilacs as space and funds permit. I am particularly fond of **white** lilacs. Among my favorites and still topnotchers are: Ellen Wilmot (Lemoine), double, pure white; Edith Cavell (Lemoine) finest creamy white double; and Mt. Blanc (Lemoine) lovely single bloom, very hardy and floriferous.

The two best light Wedgewood blue are: Pres. Lincoln (Dunbar) early, very sweet smelling, and a profuse bloomer; De Caisne (Leboine), very lovely light blue with pink tip, rather shy bloomer, a gem.

Two very fine light pinks are: Lucie Baltet (Baltet), lively pink, single, shy bloomer; and Belle De Nancy (Lemoine) old, but very satisfactory.

In the Magenta or reddish lilac pink, Madame Morel (Morel) is a vigorous grower with huge single panicles.

Ludwig Spaeth (Spaeth) is a best loved single reddish purple and blooms luxuriously.

Among dozens of fine lilacs, these are my favorites: Madame Antoine Buchner (Lemoine), beautiful double feathery lilac rose; Katherine Havemeyer (Lemoine), double cobalt lilac with mauve overtones—early; Leon Gambetter (Lemoine) double luxurious clusters, shading from deep to delicate mauve; Pres. Poincare (Lemoine), lovely double panicles of French blue and wine color; Thunberg (Lemoine) is late, a very compact, well shaped bush, blooms profusely every year and has a double floret of light and dark violet.

Early Hybrids

Then there are the early hybrids, crosses between the French hybrids and wild species, of which I have Lamartine and Birryer, and one of the late species Reflexa or Nodding lilac. Among the lilac species I also have Josikea and Villosa, both late, profuse blooming, handsome bushes, rather tall.

And lastly there are the tree lilacs from the Auur River sections of Asia —very hardy small trees. The Japanese lilac and the Pekin lilac both are very hardy and lusty growers.

There is a beautiful specimen in Weyauwega.

Everyone having an opportunity should visit Lilacea Park at Lombard, Illinois, a few miles west of Evanston and near Dundee, Ill., when you are in the vicinity.

Plant Lilacs

Do, garden lovers, plant lilacs. They are beautiful, dependable and altogether lovely. Alfred Noyes expressed it so well:

"Come down to Kew in lilac time, in lilac time, in lilac time;
Go down to Kew in lilac time (it isn't far from London!)
And you shall wander hand in hand with love in summer's wonderland;
Go down to Kew in lilac time (it isn't far from London!)

Timely Garden Topics

HARDY PERENNIAL BELLFLOWERS

By C. P. Holway, Cooksville, Wis.

Most of the praise given campanulas goes to Canterbury-bells and to their variation called cup-and-saucer. It subtracts nothing from their showy beauty, wonderfully rich in a massed planting, to point out that they are perennials, and therefore, here in Wisconsin, troublesome.

New plants must be started every year, shifted later into the border for next-year's blooming, and then removed. Unless a coldframe is used, or unusually effective winter covering, the young plants may not survive the winter.

On the other hand, Campanula glomerata dahurica (unfortunately, there seems to be no easy name for it) is a hardy perennial, enduring for years even under neglect, that faithfully supplies the June border with flowers of intense deep blue. The clustered blossoms are not as big or as showy as those of the Canterbury-bells, but the color is strong and clean.

Equally hardy is the peach-leaved bellflower, C. persicifolia, sometimes called peachbells. Its cool, icy-blue flowers come first around peony time and then persist in lesser numbers throughout the season. There is a white peachbell too; but there are better whites for the garden, and few others so clear a blue.

THE NATIONAL ROSE SOCIETY LARGEST IN THE WORLD

The American Rose Society is the largest plant society in the world. The African Violet Society of America is the second largest.

The African Violet Society has made a remarkable growth in the relatively few years since it was organized.

COMMENTS ABOUT VEGETABLES

About 9½ million tons of the 27 important vegetable crops for the fresh market were produced in 1952 and had a value of 836 million dollars which was 12% more than the year before. Largest increase was in winter vegetable production.

DISEASES OF THE AFRICAN VIOLET

By Geo. Hafstad

Plant Pathologist, Wis. Dept. of Agri.

The African violet, Saint Paulia, is at present, probably America's favorite house plant. One reason for its popularity is its relative freedom from disease, yet there are several diseases which may trouble the grower.

Botrytis

This is a fungus disease which normally attacks the flower and leaves. In the flower this disease causes a brownish discoloration; on leaves, a similar, though darker, color. To control this disease, it is recommended that diseased flowers and leaves be removed and destroyed. Allow more air space between plants and dust lightly with sulphur. High humidity and low light intensity favors the disease so plants should be placed in a drier area and given more light.

Mildew

This disease is also caused by a fungus and is somewhat similar to Botrytis. Mildew on African violets, however, produces a whitish growth that is more noticeable than that of Botrytis. Mildew also commonly attacks the flowers and they show, in addition to discoloration, various deformities or curling. It can be controlled by dusting with sulphur.

Common Rot

This disease is caused by several organisms or combination of factors. A general wilting of the plant and a softening and rotting of the stem are symptoms of crown rot. Sometimes the entire crown decays. It may be due to overwatering, injury, nematodes, or other soil organisms which weaken the plant, permitting entrance of rot organisms. Control of crown rot consists of good cultural practices, not planting too deeply or overwatering, and sterilizing all soil and pots. The removal of all infected parts is another must in control of crown rot. Some growers sprinkle the soil with Semesan to reduce infection.

Leafspot

This is the most common trouble of Saint paulias and is usually due to the fact that the leaves have come in contact with cold water or have been unduly chilled. Water used for African violets should always be a few degrees warmer than room temperature. Neither should the plants be watered when in direct sun, as at such times, leaf temperatures are considerably higher than at other times Care in watering will avoid common leafspot.

SOILLESS GROWING METHODS GOT YOU CONFUSED?

If you're confused by exaggerated claims for soilless methods of vegetable growing you can get the other side of the picture in U. of Cal. College of Agriculture (Berkeley, Cal.) Circular 347, "The Water-Culture Method for Growing Plants Without Soil."

Here are some statements from the report, revised January 1950:

"—most claims for the advantages of nutriculture are unfounded.

"—its commercial application is justifiable under very limited conditions and only under expert supervision.

"—plants cannot be spaced closer than in rich soil.

"—water requirement is no less in nutriculture.

"—nutritional quality of the product is the same.

"—climatic requirements are the same."

—From the Market Growers Journal

CENTURY LONG RECORD OF COMMERCIAL FERTILIZERS GOOD

Some experiments that were started at Rothamstead, England, in 1839, indicate that commercial fertilizers alone will keep up the yield of wheat. The plots that have been in wheat continuously since 1839 with no fertilizer of any kind yield about 12 bushels to the acre. Those which received 14 tons of barnyard manure to the acre or heavy applications of commercial fertilizer yield about 36 bushels to the acre. On the average the commercial fertilizer produces as much as the annual applications of manure. There has been no difference in the quality of wheat produced or in its susceptibility to disease.

Wisconsin Beekeeping

Official organ of the Wisconsin State Beekeepers Association

APRIL IN THE APIARY

The past winter has been one of the mildest we have had in many years. Very few colonies were lost during the coldest months this year—in fact, normal colonies supplied with adequate food certainly should not have been lost regardless of whether they were packed, un-packed or wrapped.

Brood rearing started somewhat earlier than normal and proceeded at a good rate. As a result, colonies consumed more honey than during colder winters. Most beekeepers report their colonies went into winter heavy with honey which is fortunate or there would have been more starvation than during an average year.

Watch The Food Supply

Our bees can still starve unless we keep them well supplied with honey or sugar syrup. A weekly inspection is not out of order. Don't worry about opening the hives during mild weather. It will do no harm to give an adequate inspection to determine the amount of honey and pollen present, whether or not there is disease or if the queen is still all right and laying normally. Only by regular observation and inspection can the amateur beekeeper learn how to properly take care of his bees. The idea that we should never open hives in winter or spring probably has caused more dead colonies than any other factor, because we did not become aware of the shortage of food.

Watch Pollen Reserve

Since a colony cannot raise brood unless both pollen and honey are present, we must still continue to feed soy bean flour should we have long cool, rainy periods which prevent the bees from gathering pollen. If brood rearing slows down in April it will have a serious effect upon the amount of honey we will get in June due to small field populations.

DISTRICT MEETINGS WISCONSIN BEEKEEPERS ASSOCIATION

CENTRAL DISTRICT MEETING

Marshfield, Central State Bank
WEDNESDAY, APRIL 15, 1953.

Program begins at 10 a.m. Luncheon at noon. Program continues in the afternoon until 4 p.m.

SOUTHWESTERN DISTRICT MEETING

Sparta, Courthouse
THURSDAY, APRIL 23, 1953.
Lunch in Restaurants.

PLAN NOW FOR SWARM CONTROL

Swarm control starts just as soon as the colonies have a large enough population to fill their brood chambers.

Regardless of how many empty hives you may have **underneath the brood chamber** in which the queen is laying they still can become overcrowded. **The queen normally moves in an upward direction.** Just as soon as the occupied brood chamber is filled with honey, pollen, brood and bees, an empty brood chamber should be placed on top so the queen may go upward into it. If you use the three-brood chamber method, you will find the queen will go down and lay in the middle brood chamber, but in late April both may become quite congested, resulting in early swarming if not manipulated.

Swarm control with reversing three brood chambers consists of placing the chamber with the most brood, honey and pollen on the bottom board. The one with the next largest amount in the center and the emptiest one on top. This enables the queen and bees to move upward and soon a very large population can be accommodated without congestion.

Early crowing sometimes results in development of the "swarming fever" which is afterwards difficult to control or overcome.

FRANK GREELER

Mr. Frank Greeler, 82, life-long beekeeper of Neillsville, passed away at his home from a heart attack on March 5.

Mr. Greeler was one of the oldest beekeepers in the State. He was an inspector for more than 25 years, and President of the Clark County Beekeepers Association for many years. He always attended the conventions and will be missed by all beekeepers. We extend sympathy to the bereaved family.

HOW TO REPLACE QUEENS

Question: What is the safest method of requeening a colony that has a failing queen.

Answer: The safest way, since queens are quite expensive, is to make up a small nucleus with one or two combs with hatching brood on which have been shaken enough bees to adequately cover the brood. If this is done on a warm day, and the old bees allowed to fly back home immediately so that we can see whether or not there are enough young bees remaining to take care of the brood, we can then place the cage with the queen between the two combs of brood, poke a match through the candy and allow the bees to release the queen. Young bees will accept a new queen without any difficulty.

After the queen is laying and has assumed the appearance and manner of a queen at home with her bees, the nucleus can be united with the colony to be requeened without trouble. Simply remove the old queen, spray the colony and the nucleus with sugar syrup (including the new queen) and unite them.

THE HIGHEST KNOWN FLIGHT OF THE BEE

By Marvin W. Kosanke, Ripon

From time to time we read of reports and observations in various publications and periodicals concerning the height that bees may attain during flight. Just recently I came across such an item while I was reading an account of Colonel John C. Fremont's Journal of his first expedition in the high Rockies.

On the 15th of August, 1842, Fremont and his party had just ascended one of the highest peaks of the Rocky Mountains on the continental divide. The men were sitting down on a large rock, resting after a very tiresome climb, and marveling at the scenery about them when a solitary bee came winging from the east and lit upon the knee of one of the men.

To say the least, the entire party was much surprised as they had believed that they were beyond the region of any animated life as they had encountered no animal life except a small sparrow-like bird early in their ascent that day.

Fremont commented that it was a very strange place to encounter such an insect, here on one of the highest peaks of the Rockies whose elevation was **13,750 feet above the Gulf of Mexico** and where there was nothing but rock, snow and ice.

Immediately after the bee had alighted it was seized and put between the pages of a large book in which there were flowers that they had collected while on their journey. Colonel Fremont thought it might have been a little cruel to end its life but that they only carried out the law of this country where all animated nature seems at war, but they had at least put it in a fitting place, among the flowers that it had loved.

PARCEL POST RATE ON LIVE BEES GOES UP

A radio announcement in February stated that the parcel post rate on live bees would be increased on April 1 by 20c per pound. If a 2 pound package weighs 4 pounds gross, this would be an increase of 80c per package. Inquire at your post office before ordering your bees by parcel post.

WILL PRICE SUPPORT ON HONEY CONTINUE

Many beekeepers are wondering if the price support will be continued and what percent of parity will be chosen. We will report the government's decision as soon as it is announced. Mr. E. H. Adee of the Nebraska Beekeepers Association attended a meeting of Government officials in Washington in December and reported his trip in the Nebraska News Letter in part, as follows:

"We spent three days meeting with various groups. All groups in the industry were represented and with the exception of a certain amount of disagreement on price support, worked harmoniously together. On price support, we asked for a continuation of the present program at the present support level. The only flaw here was that the party that wanted a lower price support wanted honey to sell cheaper at the consumer level. It seems to me that in that respect, it was assumed that price alone should sell honey and very little consideration given to what the **producer should receive.**

"We asked for a continuation of the present export subsidy of 4½ cents per pound and were informed it is the policy of the Department to gradually lower the subsidy payment until they are out of it. Due to a honey crop failure in some countries the amount exported under subsidy this year is unusually high. The amount under loan and purchase agreement is not large but the total of the amount moved under subsidy and under loan and purchase agreement is above a year ago.

The Promotional Program

"We were given a good idea as to the size and scope of the October promotional program and it did move honey in many areas where there was cooperation all down the line. We asked for the same program for next year and if we get it, we were informed there should be more cooperation at both the local and state level.

"We found that the Food and Drug Department was very dissatisfied with the condition existing in honey houses and packing plants. Some had been found in very unsanitary conditions. They were considering a clean up drive. We asked for the opportunity to help draw up the rules and regulations so as to make them apply to honey working conditions and not be so drastic as to be almost impossible to comply."

ABOUT HONEY

Are you honey homemakers having a bit of trouble with a balky youngster who won't eat eggs? The age-old solution to this problem lies in the eggnog. But try making it a **honey** eggnog and the child will not only drink it, but will suggest it as a between-meal snack. It's good served on cereal.

Back in ancient times honey was so prized a possession that often the bridegroom was obliged to bring forth a certain amount of honey before he could claim his bride. The Hindus, the Egytians, the Romans, all incorporated honey into the bridal ceremonies.

Because honey is available to everyone today, it has lost some of its luster and glamour. But it has lost none of its goodness. Honey has come up through the ages as a good, pure, sweet food. We are lucky to be marketing such an innately desirable product.—**From Amer. Honey Inst.**

WHY ANTIBIOTICS HELP

The word 'antibiotic' is a new one in our language but one that we must all get used to because antibiotics have become a part of our every day life.

Will they be used in beekeeping? It begins to look that way. We need more research to find how these things may help beekeeping the same as they are helping in the animal world.

A recent article by the USDA states that antibiotics help baby chick growth because they protect the young bird while it gets used to the germ world. Slow growth of baby chicks in the first few weeks has come to be regarded as "normal" for chicks. Actually they were getting adjusted to the microbes around them—without the help of the antibiotics we have today. When fed antibiotics, they grew much faster than those not so fed.

If you want to find out how old you really are, just put on a pair of ice skates and try skating again.—**Cumberland Advocate.**

NATIONAL APIARY INSPECTORS MEETING

Continued from March

By John F. Long, Madison

A considerable amount of time was spent on the pros and cons of sulfa feeding; its results and what we can expect in the future. The concensus of feeling of the majority of inspectors present was that sulfa feeding, as done by the average owners of bees, has failed to be of help in curing or preventing the spread of disease. Often inspectors find yards in which had the owner destroyed one colony of bees in time, his entire yard might have been saved. In other words, our present methods of feeding sulfa, to date, have not helped in reducing the amount of disease in any state. There is also still considerable question before it will ever become a control method for any state, according to reports from the various state inspectors.

Of interest to many Wisconsin beekeepers would have been a talk by Mr. H. M. Krebs, former Chief Apiarist of the state of California, on their official wax rendering plants. I believe at the present time they have two officially approved wax rendering plants. Hive bodies of infected combs are brought to these wax rendering plants where the combs are melted down and rendered into wax; sufficient heat being used to be sure that all bacteria are killed before hive bodies and frames are washed or exposed to outside air. Regulations for operation are such as to place plants under strict inspection to prevent the spread of disease. Cost of operation is maintained by charging about fifty-five cents per hive body. Where a larger number of hive bodies can be obtained within short driving distance of the rendering plant they no doubt are practical. Here in Wisconsin it is doubtful if the savings would pay for transportation cost.

A short discussion on pesticide losses was led by C. F. Turnipseed of Washington. There is no doubt in the mind of all present that bees do suffer from pesticide losses. A few states do have laws and regulations covering their use but there still seems much needed research and constant watching by all beekeepers concerned since new pesticides are about as numerous as the pests they try to control.

To be continued

BEES WINTER WELL AT RIPON

Our bees are in very good condition this spring—with no losses and populations high. There has not been much spotting around the entrances and all colonies have been free from moisture. I wrap my colonies with dark Sisal-Kraft paper and place a sheet of celotex between the outer and inner cover. Have a small apiary in a well protected location where I do not wrap or use any celotex. Colonies winter well, too.

The growth of legumes was kept at a minimum last fall due to drought. Seedlings were covered with a light blanket of snow during most of the winter and we have not had much freezing or thawing up to mid-March. Honey has been selling very well with a better demand for comb honey than in the past few years. Intend to increase comb honey production.

Marvin W. Kosanke, Ripon, Wis.

EFFECT OF COLD ON QUEENS

By P. Raynaud, France

In raising golden queens the author has found that queen cells given to very small nuclei, with little brood and 50-60g. bees produced (a) 35% loss of queen cells, (b) 60% queens of darker color, (c) 5% normal queens. Queen cells given to medium nuclei, with 2 small combs of brood and 300-600 g. bees, led to (a) 2% loss of queen cells, (b) 5% queens of darker color, (c) 93% normal queens. No crossing was possible. The author believes that the loss of queen cells and the darkening were due to insufficient warmth, and concludes that for rearing queens, even in the summer, nuclei should have at least 500 g. bees; queen rearing will be more successful in milder climates. Warmth is necessary for successful rearing of all brood; beware of putting a comb with foundation between brood combs, and do not divide colonies rashly, or take bees from a hive unless it is very certain that there is a surplus. (500 g. equals 19 oz.)—**Trans. by M. Simpson, In Bee World, (England).**

HELP WANTED

WANTED: Helper interested in bees to work in our apiaries and packing plant. Experience not essential. Excellent wages, bonus, other benefits. Real opportunity for advancement. Schultz Honey Farms, Ripon, Wis.

WISCONSIN horticulture

May, 1953

WISCONSIN HORTICULTURE

The Official Organ of the Wisconsin State Horticultural Society

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At Ski-Hi Fruit Farm
The Bassett's Say

Tree Brush Is Valuable

"Tree brush pruned from fruit trees is worth $25 to $50 per acre", said District Horticultural Agent Jerry Mandigo at a soil conservation meeting in Michigan last year. He said that an average annual pruning in an orchard will yield from 5 to 10 tons of brush. "A ton of brush has practically as much value for the soil as a ton of manure in organic matter and plant food content."

"A ton of brush is the equivalent of a hundred pound sack of 10-3-7 fertilizer—or an acre of brush is equal to from a quarter to a half ton of 10-2-7 fertilizer".

Brush Cutting At Ski-Hi Fruit Farm

A. K. Bassett and son Arthur Jr., of Baraboo, Wis. have been cutting brush for several years and they find it an excellent practice. The picture shows the machine and Arthur Jr., feeding the brush. He gives the following description of the machine.

"We purchased the Basic Unit and two sets of blades from the Asplundh Chipper co., Jenkintown, Pa. These blades cut like a planer and must be kept very sharp. We find that we must sharpen them every other day when we are in full operation, so that they cut finer chips. The chips are from 3 to 4 inches or longer. The chipper takes a branch up to 6 inches in diameter at the butt. We use the larger wood for our own furnace which gives wonderful heat.

"The engine is a Ford Industrial, with 27 actual H.P. and brake test of 110 H.P. "CV" belts are used. We mounted these basic parts on a home-made trailer which we attach to our farm tractor.

"Here are the actual costs: Ford Industrial Engine—$487.00; Labor, parts, clutch, etc.—$160.56; 2 pulleys—$70.00; 9" chipper and freight—$976.17; a total cost of $1,693.73.

"We felt that it really cost too much, but after considering its advantages, we will be compensated in years to come. The trailer mounted ones at the factory cost $2,400.00 so we made a considerable saving by mounting it ourselves.

'We feel that we are able to dispose of the brush faster so that it isn't left in piles in the orchard for any length of time to attract wood borers.

"It eliminates fire hazards and also eliminates loading and unloading trimmings so is a labor-saver as well as a time-saver.

"The chips are valuable mulch left right in the orchard. If this mulch were purchased it would cost from $10 to $15 a load."

Arthur Bassett Jr., feeding brush into the "brush chipper." He feels that if the brush were purchased it would be worth from $10 to $15 per load as organic matter and fertilizer for the soil.

The farmer's young bride from the city was having a great deal of trouble making oxtail soup. Every time the water got hot, the ox would take his tail out of the pot.

NOTES ON NEW INSECTICIDES

Many new insecticides are coming onto the market. Growers are often confused as to which are best for certain insects and whether or not they are compatible with fungicides. Mr. W. W. Stanley, Biologist of Tennessee, gives the following information on some of these new materials in the April issue of Tennessee Horticulture.

Aramite: Aramite is not compatible with alkaline materials. It is recommended only for the control of spider mites and is available as a wettable powder and emulsion concentrate. It is only slightly toxic to warm-blooded animals.

Dieldrin: Dieldrin is compatible with sulfur, alkaline fungicides, and the various new fungicides. It kills by contact and stomach action. It is highly persistent and also kills by

Continued on page 195

May In The Orchard

Spraying During Bloom. Russeting On Golden Delicious. Scab Effects Fruit Quality. Prune the Young Tree.

Wisconsin's orchards will bloom in May. Just before, during and after bloom is the time when scab spores are likely to affect the leaves and fruit. It is the period when the leaves must be kept covered with fungicide to kill the spores when the wind deposits them on the new tender leaves.

Questions About Scab Control

Question: Should I spray more often during a year when the weather is cold and wet than in an average year?

Answer: Yes. If a ground spray has not been applied, then, in an unusually cool, wet period before and after bloom, spray every seven days, so says Dr. J. D. Moore of the Plant Pathology Dept. U.W.

Liquid lime sulphur can be used until the calyx spray. Puratized and Tag can also be used until the calyx spray.

Question: What material should be used in a spray during bloom?

Answer: If the weather during the blooming period is cool and wet and lasts a long time, then a spray of liquid lime sulphur at 1 part to 75 parts of water or any one of the milder materials should be used—**without** any insecticides.

Question: Is there any objection to using a lime sulphur spray throughout the season.

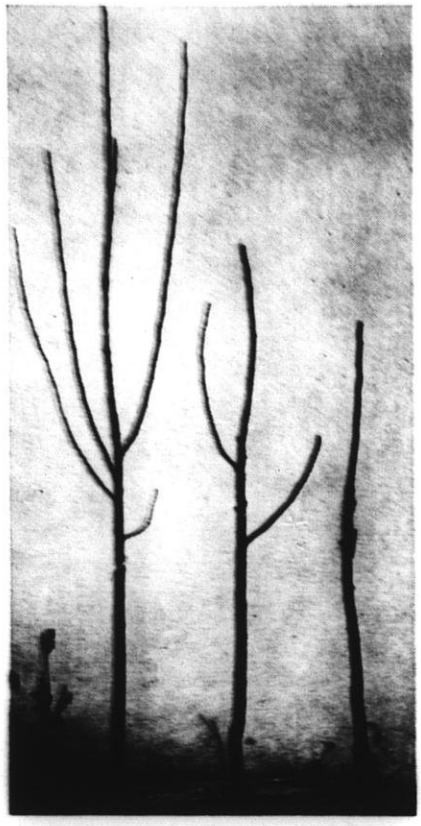
Answer: Yes. During hot weather and sometimes during a wet period or one of high humidity, lime sulphur can cause injury to leaves. Also DDT is not compatible with lime sul-

the upper side?

Question: I have been getting russeting on Golden Delicious and Haralson. What material can I use to eliminate this?

Answer: Use one of the Captan materials such as Fungicide 406, or Othocide.

Question: I have been unable to control curculio in my orchard and they have been a serious problem. What is the best material to control them?



PRUNE THE 2-YEAR OLD APPLE TREE AT PLANTING TIME

Tree at left: A fine 2-year-old tree. At planting time reduce number of branches as shown in center tree.

Center tree: Prune to 2 well crotched foundation branches and leader. Leader about 18 inches long; side branches 12 to 14 inches long.

Tree at right: Had only very narrow crotched branches, not suitable for good foundation. Pruned to whip and leader reduced to 12 to 16 inches of 1-year-old growth.

Answer: Use Dieldrin at ¼ pound actual Dieldrin to 100 gallons of water (1 lb. of the 25% material is the same).

Scabby Fruit Affects Quality

Question: Does scab on fruit affect the taste of the fruit and can scabby apples be used for juice.

Answer: Yes. Serious scab infection does affect the taste and quality of the fruit. If scabby apples are used for apple juice the juice will taste terrible. This has been discovered at the juice processing plants in Door County.

Question: How long is it before we can see a scab spot after spores germinate on leaves or fruit?

Answer: In the spring and early summer the time is short—two or three weeks. As the season advances, the leaves become more resistant and in late summer it may be 8 weeks before scab spots are visible. This means that when you first see a scab spot, the infection occurred as long as 8 weeks before that.

Question: Is the under surface of the leaf more susceptible to scab than the upper side?

Answer: Yes. In the latter part of the season it is often the under surface of the leaf on which the scab will be visible and most serious.

Question: Has apple scab been known for a long time?

Answer: Yes. At our fruit growers meetings Dr. Moore showed a slide of a bowl of apples in a painting made by an artist in about the year 1600 with apple scab on the fruit. The artists in those days painted things just as they saw them and assumedly scab was considered an uncontrollable blemish on apples or may not have even been considered a blemish.

FRUIT & VEGETABLE GROWERS SUPPLIES

Order Your Requirement Now For Spring Delivery

Pruning Equipment

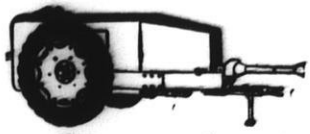
Saws
Pruning Snips
Grafting Tape
Tree Seal
Tree Wound Paint

Fertilizers

Ammonia Nitrate
Vigoro
Vertagreen
Mixed Fertilizer
(All Analysis)

Sprayers

We carry a complete line of John Bean Sprayers in stock. There are models and sizes to meet your needs. We have a complete Repair Parts



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Ferradow	Tag
Carbomate	Z-78
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Vegetable Growers Supplies

★

Dithane D 14	Parzate (Liquid)
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Our Most Destructive Insect Enemy Of Apples

The Codling Moth

The codling moth, unless controlled is easily the most destructive insect enemy of the apple. Originally it was a native of southeastern Europe but now ocurs in all of the apple growing regions of the world. It was introduced into New England before 1750 and gradually spread westward reaching Iowa about 1860, and Wisconsin shortly thereafter.

Larvae

The larvae of the codling moth hibernates in tough silken cocoons under loose pieces of bark, in crevices in the tree or in nearby fences or other shelter. An apple storage shed is a good place for them to overwinter. The cocoon is thin but quite tough and is made largely of silk.

The Moth

The moth emerge for a period of several weeks from the cocoons, but the majority appear shortly after the petals fall from the blossoms, the exact time depending upon the season. If the weather is warm, egg laying soon begins, but in cold weather the moths may remain inactive for a period. The average life of the moth is about 10 days and each female lays from 30 to 100 eggs.

The spring brood eggs hatch in 6 to 10 days. The newly hatched larvae first may feed on the foliage but usually crawl to the fruit which they enter in the majority of cases at the blossom end. Therefore it is important that a spray be applied at petal fall when the calyx lobes are spread apart and the young apples stand upright on the stems. Then if arsenical spray is applied with force, the poison is driven into the calyx cups and the young larvae will get it when entering the fruit.

The Apple Maggot

Apple maggot flies emerge about mid-July. Pictures and control measures for this insect will be discussed in our June issue.

Young lady acknowledging an introduction: "Oh, I've heard so much about you. Now I'd like to hear your side."

The Adult Codling Moth. This moth lays eggs which hatch into the large worms that infest apples. It is about ¾ inch long; wing spread is about 1 inch. Its first appearance is shortly before petal fall. The second brood appears about 55 to 60 days later. It flies most freely in late evening. The first important spray for it is at "petal fall." And again in the first cover spray.

Directory Of Officers

County Fruit Growers Associations

CALUMET COUNTY: Pres. Ervin Winkler, Brillion; Vice-Pres. Peter Woelfel, New Holstein; Sec.-Treas. Melvin Buboltz, Brillion.

DOOR COUNTY FRUIT GROWERS CO-OP: Raymond Barnard, Sturgeon Bay; Vice Pres. S. S. Telfer, Ellison Bay; Sec. J. V. Gilbert, Sturgeon Bay; Treas. L. L. Reinhard, Fish Creek.

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One Teen-Ager to another: "I just love charge accounts—they sure go farther than money!"

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METHOXYCHLOR
TEPP
SPRAYCOP* COPPER FUNGICIDES
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Other Products

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Filmfast* Spreader-sticker
Genifilm* "L" Spreader-sticker

*Reg. U.S. Pat. Off.
†G. C. Trade-mark

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WHATEVER PEST CONTROL problem this coming season brings . . . there's the right Orchard Brand Product to do the job for you. Each was developed out of intensive laboratory research. Each has been proven by performance in leading commercial orchards.

CLIP THIS AD and take it to your Orchard Brand dealer. It will be a handy guide in buying the right products to use in your cover sprays.

For example, here are the recommended spray materials for use on Apples.

For Scab:
- **Ferbam Spray Powder** (organic fungicide containing 76% ferric dimethyl dithiocarbamate)
- **Micro Dritomic Sulfur** (wettable sulfur)
- **Puratized Apple Spray and Puratized Agricultural Spray** (organic mercury fungicides)

For Mites:
- **Genite 883 Spray Powder** (p-chlorophenyl p-chlorobenzene 50%)
- **Genithion P-15 Spray Powder** (contains 15% Parathion)
- **15% Aramite Spray Powder**
- **Aramite EM-2 Emulsifiable Concentrate**

For Curculio:
- **50% Methoxychlor Spray Powder**
- **Dieldrin EM 1½ Emulsifiable Concentrate** (up to first cover only)
- **50% Dieldrin Spray Powder** (up to first cover only)
- **Genithion P-15 Spray Powder**
- **Lead Arsenate, Standard and Astringent**

For Codling Moth:
- **Genitox S-50 and S-75 Spray Powders** (contain 50% and 75% DDT)
- **Lead Arsenate, Standard and Astringent**
- **Genithion P-15 Spray Powder**

For Red-banded Leaf Roller:
- **50% Dieldrin Spray Powder**
- **Lead Arsenate, Standard and Astringent**
- **Genithion P-15 Spray Powder**

For Aphids:
- **Nicotine Sulfate Solution**
- **Genithion P-15 Spray Powder**

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How Chemical Thinning Works

Wisconsin Scientists Report Tests On Several Apple Varieties

Blossom and fruit thinning of apples will do wonders for the crop, and chemical thinning looks like a promising, inexpensive way to do it.

Here's How These Chemicals Work

Two to four times the concentration of spray needed to hold apples on, applied at full bloom or up to three weeks after bloom, causes the tree to set apples which would normally drop.

After a while, these apples drop off in greater numbers than they would have normally — presumably because there are more of them and the competition for food is greater.

The apples which remain on the tree then grow to a larger size. Although there aren't as many apples, more of them are of marketable size. The yield may be lower, but the apples are worth more, as a rule. The end result is generally a better profit with less labor.

Tested in Door County and Madison

F. A. Gilbert sprayed trees in Horseshoe Bay orchards with one of these chemicals known as "App-L-Set" ten day or two weeks after full bloom. Thee concentrations were used — 4, 8, and 16 ounces for each 100 gallons of water.

On Wealthy trees, Gilbert says, the 8 and 16 ounce treatments gave good results. On Delicious trees, the 4 and 8 ounce concentrations gave satisfactory results in 1951 when applied two weeks after bloom to prevent foliage injury.

B. E. Struckmeyer and R. H. Roberts have tested the sprays at Madison. Their results show that the amount of thinning depends on several things, such as the apple variety and the weather.

One of their experiments showed there is **little danger of overthinning trees which have a smaller number of blossoms.** In a Wealthy orchard, they hand thinned some clusters of blossoms to two, others to three blossoms, and others remained unthinned.

Then, they sprayed with mixture of insecticide and chemical thinner. The hand-thinned clusters weren't thinned any further by the spray. This suggests that some growers may be able to go through an entire orchard including the chemical thinner with the regular spray, even though some trees have fewer blossoms than others.

Watch the Weather

Struckmeyer and Roberts warn against thinning too heavily when trees blossom in rainy cold weather. This kind of weather interferes with pollination. Bees don't get around to as many blossoms as they would in better weather.

The unpollinated blossoms do not set fruit. Neither do frost-injured blossoms. Wait until you're sure of how many blossoms are going to set fruit before you thin, they warn.

One apple on every fourth or fifth spur gives a good commercial crop. These chemicals will thin the fruit as late as three weeks after full bloom.

This gives you a chace to see how many blossoms are going to set fruit. Then, you can thin them accordingly.

Here, briefly, are the results of a number of tests on different varieties:

Wealthy responds very well to chemical thinning—particularly if there's a heavy crop of blossoms. On the average, apples from sprayed test trees have been about a half inch larger than those from unsprayed trees.

Cortland, sprayed at the calyx stage, was thinned to a good commercial crop. Later spraying, however, didn't thin the crop enough.

Jonathan and **Dudley** trees are easily thinned. Watch the timing and concentration of your spray carefully when you thin these varieties, the scientists say.

McIntosh generally doesn't need thinning. The natural drop is usually large enough that apples are of a good size.

Delicious and **Starking** haven't neeeded thinning in most parts of the state during the past two years. On these varieties, as well as McIntosh, the scientists recommend waiting until ten days after full bloom—then spray if the trees need thinning.

WISCONSIN APPLE INSTITUTE PLANS APPLE PROMOTION PROGRAM

New Officers Elected

Mr. Gilbert Hipke, New Holstein, was elected President; Henry Mahr, Caledonia, Vice President; and Armin Frenz, Route 2, Cedarburg, Rec.-Sec.-Treasurer at the Spring Meeting of the Board of Directors, Wisconsin Apple Institute, on April 7th. H. J. Rahmlow is Cor. Sec. Ex-officio.

Mr. H. J. Schubert, Madison, past President conducted the meeting and was appointed delegate to the National Apple Institute Convention at Roanoke, Virginia, June 16-19. H. J. Rahmlow was appointed alternate.

STATE FAIR EXHIBIT COMMITTEE. Mr. Henry Mahr, Elroy Honadel, Jr., Hales Corners, and LeRoy Meyer, Hales Corners, were appointed as Exhibit Committee for the Wisconsin Apple Institute's booth at the Wisconsin State Fair in August. H. J. Rahmlow was appointed advisor to the committee.

NEW RECIPE BOOKS TO BE PRINTED. Another edition of the recipe book "Use Wisconsin Apples—52 New Ways" was approved by the Board. The edition of 15,000 printed in 1952 were entirely gone before the end of the season and many orders were returned. Any Wisconsin apple grower may purchase the recipe books at $5.00 per hundred. Send orders as soon as possible to the Wisconsin Apple Institute, 424 University Farm Place, Madison.

PUBLICITY DIRECTOR. The Board voted to employ a publicity director to work during the summer months—late June until September, on the publicity program for apples. A home economics journalism student with special training in radio has already been contacted and will work in the office of the Horticultural Society under the direction of the Secretary. Board members expressed the opinion that more promotion and publicity will be needed this coming year than during the past year.

The sum of $10 was donated to National Apple Week Association for the promotion of National Apple Week in late October.

The Board voted to join the Wisconsin Berry & Vegetable Growers

Continued on page 195

Avoid Residue Problems!

Use Du Pont MARLATE®

Methoxychlor Insecticide

TO CONTROL CHERRY FRUIT FLY AND FRUIT WORM

You can use "Marlate" all season, including close to harvest, to prevent "wormy" cherries. Spray residue of "Marlate" methoxychlor insecticide on the fruit controls these insects without being hazardous to consumers.

Use "Marlate" also on early apples, peaches, plums and other fruits that require insect control right up to picking time.

"Marlate" controls Oriental fruit moth, plum curculio, codling moth, apple maggot, Japanese beetle, leafhoppers, and certain other fruit pests. Furthermore, it gives exceptional results on vegetable and forage crops where other insecticides often create a residue problem.

"Marlate" 50 is a 50% methoxychlor wettable powder formulated for general spray application. The emulsifiable oil formulation, "Marlate" 2-MR, is especially recommended for late-season applications on cherries where minimum visible residue is desired.

DU PONT CHEMICALS FOR THE FARM INCLUDE: *Fungicides:* MANZATE,* PARZATE* (zineb and nabam), FERMATE* ferbam, ZERLATE* ziram, Copper-A (Fixed Copper), SULFORON* and SULFORON*-X Wettable Sulfurs . . . *Insecticides:* DEENATE* DDT, MARLATE* Methoxychlor, LEXONE* Benzene Hexachloride, KRENITE* Dinitro Spray, EPN 300 Insecticide, Calcium Arsenate, Lead Arsenate . . . *Weed and Brush Killers:* CMU, AMMATE*, 2,4-D, TCA and 2,4,5-T . . . *Also:* Du Pont Cotton Dusts, DuPont Spreader-Sticker, PARMONE* Fruit Drop Inhibitor, and many others.

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[*On all chemicals always follow directions for application. Where warning or caution statements on use of the product are given, read them carefully.*]

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BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

APPLE INSTITUTE PROGRAM

Continued from page 192

Association in directing a resolution to Wisconsin members in Congress to oppose any revision of the Insecticidal and Fungicidal Act which would make it more difficult to keep their crops free from insect and disease pests. The Farm Bureau is leading the fight on this matter.

More Money Needed

President Gilbert Hipke calls the attention of all Wisconsin apple growers to the financial needs of the Institute. In order to carry on an active program more money is needed and all apple growers should join the Institute. The dues are $5.00 membership plus 50c per acre of bearing orchard. This amount goes to pay National dues, the cost of sending out a frequent news letter to all members and conducting a publicity program—the salary of the publicity director who will carry on a very active newspaper, radio and television promotional program during the harvest season.

All apple growers should send their dues to Mr. Armin Frenz, Rt. 2, Cedarburg, Wis. Do it today.

NEW INSECTICIDES

Continued from page 187

residual action. Dieldrin is generally safe on most types of foliage. It is available either as an emulsifiable concentrate containing 18.5% or 1.5 lbs. of active ingredient per gallon, or as a 50% wettable powder. It is specifically recommended for plum curculio at the rate of 21 fl. oz. of emulsifiable concentrate or ½ lb. of 50% wettable powder per 100 gallons. It does not successfully control the codling moth, Oriental fruit, or spider mites.

Malathon: Malathon is a phosphate compound developed by the American Cyanamid Company. It is not stable in alkali and has very little phytotoxicity. The material is considered to be much safer—50 to 100 times less toxic to warm-blooded animals—than parathion. It can be purchased either as wettable powder or emulsion concentrate. Malathon kills a large number of insects but is especially noted for its control of **aphids and red spider.** Use at the rate of 1½ pints of 50% emulsion concentrate per 100 gallons.

ORCHARD FOR SALE

FOR SALE: 18½-acre Apple Orchard. 1400 trees, a modern 6-room home, storage facilities and equipment. On Federal Highway 12, near Baraboo, Wis. John Leatherman, Realtor, Baraboo, Wis.

Berries and Vegetables

Wisconsin Berry and Vegetable Growers Ass'n.

REPORT OF SPRING MEETING WISCONSIN BERRY & VEGETABLE GROWERS ASSOCIATION

Important Resolutions Adopted

The board of Directors of the Wisconsin Berry and Vegetable Growers Association met in the forenoon of Monday, April 6. which was followed by an afternoon meeting of Association members. Several important actions were taken and an excellent program was presented.

Favor Requiring Legal Weight of a Box of Berries

One of the principle questions discussed was the proposal that the State law be changed to state the number of ounces for a standard container of both strawberries and raspberries. The following resolution was adopted. "That we favor a change in the Wisconsin Law by specifying the minimum and maximum weight of a legal container of strawberries and raspberries and that a committee of five be appointed by the President to study the weight of berries and report at the annual convention on their findings."

The opinion expressed by growers was that there is now no practical way in which one can determine how many strawberries a quart should contain. Mr. Barlament demonstrated what is being done with the metal-rimmed container—the top rim is pushed inward, making it smaller, enabling operators to make additional quarts of berries out of a case. By designating the minimum and maximum weights of a quart, the consumer could request that the box be weighed and thereby be safeguarded in her purchase. It would help producers who are selling an honest pack.

"Johnny,' said the teacher, "how many seasons are there?"

'Two—baseball and football."

Board of Directors, Wisconsin Berry and Vegetable Growers Association meets at Oshkosh in April. Seated from left: Charles Swingle, Sturgeon Bay, V.P.; Harry Barlament, Green Bay, Pres.; E. L. White, Fort Atkinson, Sec.-Treas.; Charles Braman, Waupaca. Standing from left: Chris Olson, Berlin; Charles Greiling, Green Bay; Gerald Hipp, Janesville; F. W. Van Lare, Oconomowoc.

SUMMER MEETING WISCONSIN BERRY & VEGETABLE GROWERS ASS'N

Green Bay, Tuesday, June 9, 1953

10 a.m. Assemble at the Berry and Vegetable Farm of Harry Barlament on Highway 41 and 141, 4 miles N.W. of Green Bay. Visit berry test plots and see many varieties of vegetables. Discussion by speakers to be announced.

---

12 m. Luncheon at Pamperin Park on Highway 29, 4 miles W. of Green Bay. Baked Ham Dinner furnished by the Lodge at $1.00 per person.

1:30 p.m. Short business meeting and program.

2 p.m. Tour of several other berry and vegetable farms. Stops to be announced.

Speakers will be from the Departments of Horticulture, Entomology, Pathology, State Department of Entomology, and Horticultural Society.

Committee on arrangements: Chairman, Clarence Greiling, Green Bay; Charles Swingle, Sturgeon Bay; Harry Barlament, Green Bay.

Luncheon committee: Mrs. Harry Barlament and Mrs. Clarence Greiling, Co-chairmen; Mrs. Charles Swingle; Mrs. Charles Braman, Waupaca; Mrs. E. L. White, Ft. Atkinson; Mrs. Chris Olson, Berlin; Mrs. Floyd Burchell, DePere; and Mrs. Gerald Hipp, Janesville.

HOW MUCH DOES A QUART OF BERRIES WEIGH

Problems Involved In Weight Regulations For Berries

At the spring meeting of the Wisconsin Berry & Vegetable Growers Association at Oshkosh, April 6, Mr. William Waterman, Chief of the Department of Weights and Measures, State Department of Agriculture, gave the growers some facts in regard to the present law regulating the size of containers used in marketing berries. Here are some of the statements made.

The Present Law

Chapter 98.16 (8) states: "A standard crate, box or basket for apples, pears, plums, peaches, and other fruits not secondarily contained in quart or other boxes within such crate, box or basket, shall have an interior capacity of 2,150 cubic inches, exclusive of cover."

Section 98.16 (10) provides: "All sales of blackberries, blueberries, currants, gooseberries, raspberries, cherries, strawberries, and similar berries in quantities of less than one bushel shall be by the quart, pint or half pint dry measure, and all berry boxes or baskets sold, used, or offered for sale within the state shall be of the interior capacity of not less than one quart, pint, or half pint dry measure. In addition to the penalty prescribed in section 98.26, the illegal boxes and baskets and the fruit therein contained may be confiscated in case of violation of the provisions of this subsection".

In checking the California Department of Agriculture's Regulations on the sale of strawberries we find two interesting facts: first, California permits the sale of strawberries in pint boxes (33.6 cubic inches) only, and, second, strawberries shall have 12 ounces minimum contents with a tolerance of 2 ounces in excess.

Going back to the U.S. Standard Container Act we find in Section 25: "The standard basket or other container for small fruits, berries, and vegetables shall be of the following capacities, namely dry one-half pint, dry pint, dry quart, or multiples of the dry quart. (c) The dry quart shall contain 67.2 cubic inches".

In discussing this matter with one of our department attorneys, he stated that a weight requirement on strawberries must be written into the law. Inasmuch as Section 98.10 provides for weights per bushel, it is not within the authority of the department to establish any other weights of this type by department order. This means that you must decide what you want and then proceed through legislative channels. Before this is done, it appears several problems should be answered. Some of them are:

1. How much does a quart (67.2 cu. in.) of strawberries weigh?
2. Do large berries weigh more or less than small berries?
3. Do Everbearing berries in September weigh the same as June berries?
4. Will Wisconsin 261 have the same weight as Dunlaps?
5. Do berries weigh the same at Port Wing that they weigh at Warrens or at Beloit or Green Bay?
6. A box of berries weighing 24 ounces this Monday evening will weigh how much tomorrow afternoon or Wednesday morning before they leave the grocer's shelf?
7. Do berries produced in a wet year or under moist conditions weigh the same as those produced under dry surroundings?

Most of the answers to these questions can be obtained with little difficulty by you berry growers, but it appears essential you have these questions answered before you proceed. We as state sealers will assist by checking scales (Please! no household type) used by you to determine these weights. I am sure City Sealers might go a step further and do some of the actual weighing.

DUSTS AND LATE PLANTING CONTROL ONION MAGGOTS

Dieldrin and aldrin at 50 pounds of 1% dust per acre can prevent maggot damage to onions grown for sets.

C. C. Doane and R. K. Chapman say that early-planted onions often come through the soil at the time onion maggot flies are most numerous in the field. These flies lay their eggs on or around the onions and the maggots enter the bulbs to develop.

Onions of excellent quality came from plots treated with aldrin and dieldrin. At least two dustings were necessary—one when the onions were coming through the soil followed by a second application two weeks later. —From What's New In Farm Science, U.W.

DON'T PRUNE ONION PLANTS TOO SHORT

When you're transplanting onions, don't prune them off too short.

Growers normally prune the tops from transplanted onions to make planting easier and help the plant adjust to changed conditions. But two years of tests by James G. Moore show that too much pruning can lower yields.

He didn't find any real differences in the size or weight of onions from plants pruned to four and five inches long. Plants that had been pruned to three inches, though, produced smaller and lighter onions.

The onions from four and five inch plants were 21 per cent heavier, on the average, than those from three inch plants. And the onions from the longer plants were about 5% larger in average diameter, Moore says.

When the plants were spaced three inches apart, about 65% of the onions were three inches or more in diameter. Spaced at four inches apart, almost 86% of the onions were three inches or larger. —From What's New In Farm Science, U. W.

ANTIBIOTICS SEEN FOR PLANT SPRAYS IN FUTURE

Research by U.W. Experiment Station plant disease specialists and biochemists suggests that farmers may some day use antibiotics for controlling plant diseases as well as animal diseases.

At least 3 materials show some promise—helixin, toximycin, and antimycin. Under experimental conditions, sprays of these three antibiotics have protected tomato plants against early blight.

Antimycin was discovered by Curt Leben and G. W. Keitt when they were working on the control of apple scab in 1945.

Toximycin is effective against fungi and certain bacteria. In weak concentrations it seems to stimulate root growth on tomato cuttings. From What's New In Farm Science (condensed.)

Fertilizers For Strawberries

THAT PERENNIAL QUESTION—HOW MUCH FERTILIZER TO APPLY ON STRAWBERRIES

A report in the New Jersey Horticultural News states that Sparkle is now the most widely planted strawberry there and adds that fertilizer tests indicate that this variety needs more nitrogen than others. A spring application of nitrogen is found to increase berry size during the late picking, thus overcoming the greatest disadvantage of Sparkle.

One grower uses 2,000 pounds of 5-10-5 fertilizer per acre. That's a lot of fertilizer and costs a great deal of money. If it gives results—if the net income received is more than the cost of fertilizer by a good margin, it will be profitable. However, Wisconsin growers should not jump to conclusions that what applies in New Jersey applies here. We recommend that when fertilizers are applied on strawberries that several rows be left as a check so that you can determine whether the fertilizer has given beneficial results, enough to justify the cost.

Organic Matter

Past experience in Wisconsin has shown that commercial fertilizers have not given the kind of results indicated in this article—that organic matter in the soil is most important. Our soils contain more minerals than do those on the Atlantic coast.

Very often when the strawberry grower applies fertilizer and thinks his success is due to fertilizer, we ask: "Did you leave some check rows unfertilized?" The answer usually is: "No, I didn't. I felt that I wanted to fertilize them all and get the best results." This would be all right if we were positive of the results. But we aren't.

Nitrogen Fertilizer on Strawberries

Nitrogen fertilizer applied in the spring of the bearing year is advisable on sandy soils if the plants show a pale or yellowish leaf color due to lack of nitrogen. An application of about 100 pounds per acre of ammonium nitrate spread in among the plants is often very helpful. On heavier soils, high in fertility, this is not necessary and may be detrimental because it may produce a large leaf growth resulting poor pollination and soft berries. Study your soils and experiment with fertilizers.

There is indication that soluable nitrogen fertilizer used in water applied to the plants at planting time as a starter solution may be very beneficial.

LIKES EARLY JUNE RASPBERRY

Miss Freda Schroeder, a berry grower of Loyal, Wisconsin, writes: "I would like to give the early June raspberry a few good words. We started growing raspberry plants in 1940 at our nursery after being cleaned out with mosaic in 1937. We then started with Indian Summer, Latham, Sunrise, Taylor and a few years later with Early June. However, the same year I planted Early June I also planted two rows of Latham and two rows of Sunrise—all in the same type of soil. In 1951 we had our first severe winterkill and the only variety that came through without injury was Early June. The Latham only produced 25% crop and Sunrise 50% of normal.

Berry Plant Market

From the Editor's Desk

A UNITED HORTICULTURE

Professor L. H. Mac Daniels of Cornell University, Editor of the American Horticultural Council News Bulletin tells in the February Bulletin about his visit with Mr. Liberty Hyde Bailey who will soon be 95 years old and who is considered the Dean of all American horticulturists.

Speaking on the need for a united horticulture he tells about Mr. Bailey's opinions as follows.

"Of all the countries in the world, none needs a Council of federated organizations any more than does this country. In emphasizing this, he pointed to the increasing narrowing of interests on the part of organizations as a further reason for needing a federated body. While recognizing the need for a change which he has abetted, he decried the passing out of horticulturists as such, and their displacement by people who professed to be only pomologists, orchidologists, propagators, breeders, rosarians, and similar specialists. 'If horticulture is to be represented as a unit, as it is in other countries, it is essential that America have a single body of broad interest capable of serving the needs of horticulture as a whole. This body is necessary, not only for us, but as a source of contact for the scores of horticultural interests in other countries. Your American Horticultural Council should become that body.' So spoke L. H. Bailey and we concluded our conservations."

The Council invites membership. Annual dues for individuals and firms are $5.00. For organizations, $10.00. Remittances made to George Lawrence, Bailey Hortorium, Ithaca, New York.

VEGETABLE QUEEN TO BE SELECTED

The third annual American Vegetable Queen contest entries are being received until June 15th, by Paul Ruetenik, Chairman, Vermilion, Ohio. The contest is sponsored by the Vegetable Growers Association of America.

A bulletin explaining the contest may be had by writing Mr. Ruetenik, or by contacting local or state vegetable grower organizations, or your county agent.

While all entries must be in the hands of the Chairman by June 15 the selection of the queen will be made at the 45th annual VGAA convention at the Chase Hotel in St. Louis, December 3. The state queen selected for the national honor will receive a cash award in addition to an all expense trip to St. Louis for the Queen and her mother.

Vegetable queens are very active during National Vegetable Week and throughout their reign in the promotion of good will, for National Vegetable Week and vegetable consumption.

BALANCED NUTRITION STOPS CHERRY LEAF CURL

Tests in the orchards of Door county farmer cooperators are helping Station scientists in their fight against cherry curl leaf.

These tests, after only one season, have shown the value of complete fertilization in correcting the deficiency symptoms — nitrogen alone doesn't supply the necessary elements.

Curl leaf is evidently caused by a lack of potash. Leaves of deficient trees turn brown, curl upward, and may die. Although the trees can survive under a rather severe deficiency of this type, growth and fruiting are limited.

Trees treated with nitrogen alone yielded 6½ pails of cherries. Those treated with nitrogen plus five pounds of high potash fertilizer (0-0-60) yielded almost 11 pails, and trees which received nitrogen plus ten pounds of 0-0-60 yielded more than 15½ pails.

Furthermore, the trees receiving potash yielded larger cherries which ripened more evenly. Trees fertilized with nitrogen alone yielded 60 per cent fully mature cherries; those treated with nitrogen plus ten pounds of 0-0-60 yielded 87½ per cent mature cherries.—**From What's New In Farm Science, U.W. (condensed.)**

POISON IVY CONTROL IN ORCHARDS

By L. G. Holm and F. A. Gilbert, Dept. of Horticulture, U.W.

Poison ivy may be controlled by spraying the plants with ammonium sulfamate (Ammate) as soon as they are in full leaf in June and until about mid-August. A second spray application may be necessary a few weeks after the first spraying when the remaining ivy is in full leaf again. In some cases a third spray may be required for a complete kill.

The spray is made up by dissolving **one pound of ammonium sulfamate (ammate) in one gallon of water. A spreader-sticker** should be added to the solution. One gallon of solution will treat about 200 square feet.

The spray should be directed so it hits and covers the ivy but does not come into contact with the tree bark so as to cause injury to the tree. Use a low pressure sprayer.

Ammate is safe to use and leaves no harmful residues in the soil. Since the chemical is slightly corrosive to metals, the spray equipment should be thoroughly washed immediately after use.

You can't take it with you—the government gets it before you do.—Cuba City News Herald.

6th ANNUAL ROSE SHOW BY THE MILWAUKEE ROSE SOCIETY

Whitnall Park, June 20

The Milwaukee Rose Society, affiliated with the American Rose Society, announces its 6th Annual Exhibition of Roses on Saturday, June 20th, 1953, in the Administration Building of the Whitnall Park Botanical Garden located at Hales Corners, just southwest of Milwaukee.

The theme of the show is "New Dawn". There will be both specimen and arrangement classes which will be judged by 10 a.m. June 20th.

Competition is open only to members of the Milwaukee or American Society.

Exhibitors should advise Mrs. Rushen A. Wilson, Chairman, 3233 S. 21st St., Milwaukee 15, for space.

The show is open to the public and is free of charge. In addition the beautiful rose display of the Whitnall Park Botanical Gardens, containing many varieties of roses and perennials will be open for visitors.

WISCONSIN IRIS SHOW

Milwaukee, June 6, 7

The Wisconsin Iris Society will hold its annual Iris Show, June 6 and 7 at the Mitchell Park Conservatory, Milwaukee. The hours of the show are from 1:00 p.m. to 10:00 p.m. on Saturday and from 8:00 a.m. to 10:00 p.m. on Sunday. The show is open to the public without charge.

There will be exhibits of specimen blooms, and arrangements featuring iris. This year an added feature is an open class in both the horticultural and arrangement divisions for non-members of the Wisconsin Iris Society. Members of the American Iris Society are welcome to enter all classes.

A copy of the show schedule and additional information may be secured from the secretary, Mrs. H. W. Goodrick, District 763, Box 138H, Milwaukee 14. wis.

MRS. A. K. BASSETT

Mrs. A. K. Bassett of Ski-Hi Fruit Farms, Baraboo, 71, passed away on April 22 after a short illness.

Mrs. Bassett was a tireless worker for the interests of horticulturists. In the early days, she held offices in the Horticultural Society Auxiliary and, with her husband, A. K. Bassett, Sr., always attended the annual convention.

The Society extends deepest sympathy to bereaved family.

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

President
DR. R. H. JUERS
Wausau

Vice President
RALPH BURDICK
Edgerton

Secretary
MRS. JOHN BAYLESS
Rt. 2, Two Rivers

Treasurer
DR. H. A. KASTEN
315 Washington St., Wausau

DIRECTORS
Walter Axel, Sheboygan
Dr. R. H. Juers, Wausau
Raymond Kasimir, Spaulding, Mich.
Dave Puerner, Milwaukee
Leland Shaw, Milton
Otto Kapschitzke Jr., Sheboygan
Walter Krueger, Oconomowoc
Jerry Merchart, Marinette
John W. Perkins, Neillsville
Archie Spatz, Wausau
John Bayless, Two Rivers
Ralph Burdick, Edgerton
Hugo Krubsack, Peshtigo
Charles Melk, Milwaukee
G. H. Thompson, Manitowoc
H. J. Rahmlow, Madison, Ex-Officio

The Annual Spring Meeting

Method Of Electing Directors Changed. Host Chapter To Share In Proceeds Of State Gladiolus Show.

The Wisconsin Gladiolus Society held its annual spring meeting and bulb auction at the Athearn Hotel, Oshkosh, on April 12th. The Treasurer's Report showed a balance of $428.48 on that date.

The Board of Directors had met in the forenoon and presented recommended changes for the constitution for consideration.

Election Of Board Members

An amendment to change Article IV of the Constitution was adopted by both the Directors and the membership and now reads as follows.

"The Board of Directors shall consist of two members to be elected annually by each affiliated chapter of the Wisconsin Gladiolus Society and six members at large to be nominated and elected from the floor at the annual fall meeting of the Society. Each member at large shall be elected for a period of two years, three to be elected each year. An affiliated chapter shall have at least ten or more members in the State Society".

A motion was passed to define how a Chapter may be eligible for Board membership, as follows.

"A chapter to be entitled to members on the Board of Directors shall affiliate all of its active members with the State Society, excepting that out of state members or associate members of a chapter need not be included. Dues for the chapter shall be collected by the chapter Treasurer and submitted to the State Society Treasurer."

WISCONSIN GLADIOLUS SOCIETY BOARD OF DIRECTORS MEET

Seated from left: Ralph Burdick, Edgerton, V.P.; Dr. R. H. Juers, Wausau, Pres.; Mrs. John Bayless, Two Rivers, Sec.; Dr. H. A. Kasten, Wausau, Treas.; G. H. Thompson, Manitowoc. Standing from left: Jerry Merchart, Marinette; Otto Kapschitzke Jr., Sheboygan; John Bayless, Two Rivers; John Perkins, Niellsville; Walter Axel, Sheboygan; Archie Spatz, Schoefield.

Chapter Participation In Show Profits

This motion was passed: "At any state shows 65% of the net profits shall remain with the local chapter and 35% shall go to the State Society. In the event of a deficit the local chapter shall assume 65% of the loss and the State Society 35%. All the show expenses shall be assumed by the local chapter with the exception of the trophies which shall be furnished by the State Society".

Mr. Walter Axel of Sheboygan was appointed by the President to purchase 6 trophies for the forthcoming show, which will be held at Two Rivers on August 8-9.

It was voted that the State Society eliminate the payment of cash prizes for commercial exhibitors. Ribbons of merit will be given.

A motion was passed that commericial growers be furnished space free of charge at any State show providing the exhibitor notifies the host chapter at least a month in advance of the show.

Mr. John Flad of Madison made application for a State Seedling Show to be held in connection with the Madison Chapter Show on August 9-10. Motion to grant this request was passed.

Mr. H. E. Halliday, delegate to the NAGC Convention gave a report of the proceedings. The report will b

sent to chapters on request and will be published in Wisconsin Horticulture in timely installments.

The question of compulsory inspection of bulbs was discussed at some length and will be given further consideration.

The meeting closed with a bulb auction under the supervision of Archie Spatz. of Wausau.—**By Rose Bayless, Secretary.**

GLADIOLUS SHOW DATES

August 2. Annual show of the Southern Wisconsin, Northern Illinois Gladiolus Society at the grade school at Jefferson, Wis.

August 8-9. Wisconsin State Gladiolus Society annual State Gladiolus Show at Two Rivers, Wis.

August 9-10 (Sunday and Monday). Annual show and State Seedling Show by the Madison Chapter, Wisconsin Gladiolus Society. First National Bank Building, Madison.

COMMITTEES FOR STATE GLADIOLUS SHOW TWO RIVERS AUGUST 8-9, 1953

Show Committee: Jess Hamilton, Manitowoc, Chairman; John Gates, Two Rivers, Co-chairman; John Bayless, Two Rivers; Leo Touhey, Manitowoc; Walter Krueger, Oconomowoc.

Superintendent of Judges: Gordon Shepeck, Green Bay.

Schedule Chairman: Walter Axel, Sheboygan.

Nominating Committee: Charles Melk, Milwaukee, Chairman; Hugo Krubsack, Peshtigo; Gil Thompson, Manitowoc.

Editorial Committee: Ralph Burdick, Edgerton, Chairman; John Perkins, Neillsville; Walter Krueger.

Auditing Committee: Gil Thompson, Chairman; Walter Axel; Dave Puerner, Milwaukee.

MADISON CHAPTER ELECTS

The Madison Chapter, Wisconsin Gladiolus Society, elected the following officers at their meeting in April. President, Gerald Wilke; Vice President, Miss Burdean Struckmeyer; Secretary-Treasurer, Mrs. Ted Woods.

The Chapter voted to affiliate with the State Society and the members paid their State dues. Elected to the State Board of Directors to represent the Chapter for the next year were Mr. John Flad, Madison, and Ed Lins, Spring Green.

STANDARD FOR JUDGING A NEW VARIETY OF GLADIOLUS

By Carl Fischer

Each year several hundred new varieties are placed on the market, each bidding for the attention of the buying public. Obviously each of these cannot be a world beater. Experience teaches that a small percentage stay in commerce very long and that but a handful prove to be outstanding. So it is desirable that a more stringent criteria for judging be used. I recommend the following:

1. Is it different or superior to existing varieties? A knowledge of varieties already in commerce is of prime importance. Nature is so original that no two seedlings are ever alike, but is it sufficiently different in some of its attributes to be a definite or superior break?

2. Is it beautiful? All beauty may be analyzed by the same standards, be it the Greek Parthenon, a lovely painting, a sunset or a flower. Beauty may be characterized in: A. Form and B. Color. Does your potential introduction excel in one or both of these attributes?

3. Has your variety been sufficiently tested? All too often gladiolus are introduced at sky high prices with very little stock in existence. A variety should have bloomed 4 years as an absolute minimum and 5 to 6 years is much better. If your seedling is a world beater, the world will find out about it regardless of whether you introduce it this year or two years hence. Send it to the trial grounds or send it to your friends to make sure that it will perform well in Connecticut, California, Missouri and Minnesota. Then, too, one just can't determine all the growing traits in a variety in 2 or 3 years. Growing conditions vary from year to year. For instance, I didn't know until just this year that one is apt to experience difficulty in germinating bulblets from old bulbs of Noweta Rose. Seven years after its appearance I now have been able to determine that it has this difficulty. Not so with bulblets grown from bulblets, however.

4. Is it healthy? One can't put enough emphasis on health! It may well be put first on the list of salient attributes. **If a variety doesn't grow well, throw it away quick!**

5. Is it a good propagator? Why introduce a variety if you can't disseminate it freely? The public can't be tantalized forever.

6. Does it germinate? Often a variety will produce bulblets but they won't grow. Often bulblets will germinate if held over for a year. Lloyd Weeks is to be complimented for telling us to hold over a for a year, the bulblets produced from bulbs of Poinsettia.

I am glad for all the interest shown in this lovely flower. I don't recommend glad hybridizing as an easy path to fame or riches. It takes a lot of hard work and a few disappointments to produce a good variety, to say nothing of a world beater. But I know of few things more refreshing to the soul than to go out in the garden when the flowers are morning fresh to behold the beauty that God has given us. TRY IT! Your reward is great! **—In Gladland News, Indiana.**

WISCONSIN GLADIOLUS HYBRIDIZERS

By Ralph Burdick, Edgerton, Wis.

Perhaps many of us do not realize the position of importance in the gladiolus world that Wisconsin is rapidly assuming by virtue of the excellence of the introductions made by her many hybridizers. A study of the N.A.G.C. Variety list for 1952 shows that approximately 5% of the U.S. introductions still in commerce were products of Wisconsin hybridizers and many of these have a record of longevity that speaks well of their excellence.

The seedling sections at most of the State Shows have been well filled and this evident interest in the improvement of the gladiolus can only mean that our state will continue to progress and by the stimulation of the interest of more and more embryo hybridizers can undoubedly hold and enhance the position already attained.

In forthcoming issues of Wisconsin Horticulture an attempt will be made to introduce some of these successful hybridizers and to tell you a litale about their aims and the ideal for which they strive.

Nursery News & Notes

For The Wisconsin Nurserymen's Association

A PROCLAMATION

WHEREAS, The beauty of our state is an asset to all its citizens, surrounding us with a congenial and pleasant environment which benefits us in every phase of our daily lives; and

WHEREAS, Not only does our fine Wisconsin landscapes offer us great spiritual and cultural values; additionally it is an important economic factor in that it attracts a large and lucrative tourist trade; and

WHEREAS, The natural beauty of our land and cities has been immeasurably enhanced by the planting of native and foreign flowers, shrubs and trees by individuals, groups and communities; and

WHEREAS, A score of Wisconsin organizations have banded together in sponsorship of a "Plant Wisconsin" program as part of the national "Plant America" movement which is gaining such widespread support in the United States;

NOW THEREFORE, I, Walter J. Kohler, Governor of the State of Wisconsin, with the advent of the spring season do hereby proclaim the slogan

"PLANT WISCONSIN"

as one deserving of our enthusiastic participation in 1953, and I urge that individually we make a special effort to utilize the arts of landscape gardening to beautify our homes, farms and factories and that our communities do likewise for our public buildings and grounds.

IN TESTIMONY WHEREOF I have hereunto set my hand and caused the Great Seal of the State of Wisconsin to be affixed. Done at the Capitol in the city of Madison this sixth day of March in the year of our Lord one thousand nine hundred and fifty-three.

WALTER J. KOHLER
GOVERNOR

A FIVE-ROW TRANSPLANTING MACHINE

A five-row transplanting machine which will plant up to 85,000 seedlings per day has been developed by the Nepco Lake Nursery and is now in use.

This planting machine is built around an Allis-Chalmers Model G. tractor and has been geared down to 1/10 mile per hour making it possible to plant trees one and one-half inches apart in rows. The five rows are spaced 11 inches apart making it possible to cultivate the young plants with the same tractor that did the transplanting.

All transplanting features of this machine can be removed from the tractor and restored to its original speed in one and one-half hours. After the transplanting units have been removed the tractor will be used for cultivating the transplant beds for the growing season.

REPELLENTS STOP RABBIT DAMAGE

A new repellent chemical called zinc dimethyl dithiocarbamate-cyclohexylamine complex has proven quite effective in preventing rabbit damage in gardens. It is a product of the B. F. Goodrich Chemical Company and is distributed through Larvacide Products, Inq., 117 Liberty Street, New York 6, N. Y. This repellent is available under the trade name "No Nib'l." It is a powder and can be dusted or mixed with water and used as a spray to lightly treat the leaf surfaces of peas, beans, and other plants. It should be used only during the early stages of growth before edible parts are used.

Spraying garden plants with 40 per cent nicotine sulphate in the evening is fairly effective against rabbits, but sprays must be applied almost daily to stop their attacks.—From Rodent Control News, U.S.D.I.

Son: "Dad, how much does it cost to get married?"

Father: "There's a small $2 down payment, and then monthly installments in the amount of your pay check for the rest of your life."

A 5-Row Transplanting Machine. This machine will plant up to 85,000 seedlings per day. It was developed by Nepco Lake Nursery, Port Edwards, Wis., and is now being used there.

It Is Detracting—Or Enhancing

Effective Foundation Planting

By Brenda E. Newton, Massachusetts Hort. Society.
Sketches From Photos Adapted By Charlotte Bowden
From Horticulture. (Mass.)

1

Foundation Planting—a hackneyed phrase this, and a much abused practice which we have inherited along with many other fashions to adapt as best we can to our present day living. Sad to relate, our general "best" in this connection has not been very good. Foundation plantings, as we see them along the streets of our cities and towns, are patterned so often after the vogue of the Victorian era when houses were large and porches were high. The massed collections of

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THE SKETCHES

1. Scraps of starved plants in poor soil are placed at wide intervals in the hope that some day they will cover the cement blocks at the base of this compact little house. Unfortunately, they are by nature incapable of stretching sideways that far.

2. Spreading yews are usually satisfactory under windows, but this alternate placing of high and low plants gives a restless effect.

3. Evergreens of forest-tree size are competing with the dimensions of a tall house.

4. The effectiveness of plants which naturally would make a fitting foundation for this house is somewhat offset by "boxey" pruning.

5. A few small plants so assembled as to be generally in scale with this tiny home on its pint-size lot.

6. A simple setting in varied plant material is fittingly low for the attractive features of this semi-Cape Cod house.

7. Planting restrained in amount and height suits the charming informality of a house which hugs the ground. Besides yews, several young euonymus, plus a few clumps of dwarf iris and small spring bulbs, add distinct seasonal appeal.

8. Hedge and crowded planting of trimmed evergreens in a limited space are stealing the show from the house itself.

tall growing evergreens in assorted shapes and colors that were so popular then literally swamp our small, low-lying houses of today. In desperation, some home-owners chop off the heads of such plants, year after year, and trim them into stodgy shapes, trying to force them to fit their locations. But attempts like these cannot remedy matters permanently. So let us look at the situation in a simple, straightforward manner.

Planting along its ground-line is merely one of the means we have of making any home or building look as attractive as possible on its property. There are no standard requirements for this so-called foundation planting, no specifications stating that certain types of plants must be assembled always in a special way. And there are only a few generalities to guide us. For instance, such a planting should never be "overdone". If two, or a half dozen plants are enough to make the place look well, there is no need to use more. Nor is it necessary to include only evergreens. Some deciduous shrubs and flowering plants also serve the purpose. The arrangement may be formal or informal according to the entrance and some bulk at the corners, if that seems desirable. It should mask unfortunate features in the architecture wherever possible, always helping to make its proportions more pleasing, but never ought it to conflict with or hide the good lines of a building.

Aside from these cautions, we are free to select only those plants which by character of growth, color, and ultimate size will, when tastefully arranged, provide an appropriate setting for our particular house, regardless of what its dimensions may be. Naturally, in making this pleasing picture, we are prepared to consider other facades of the foundation as well as the front.

MOST WISCONSIN GARDEN SOILS ABUNDANTLY SUPPLIED WITH LIME

By C. J. Chapman, Soils Department, University of Wisconsin

Soil tests on samples of soil sent in by city people taken from their gardens and lawns are almost invariably well supplied with lime. I'd say that 95 per cent of the soils are neutral or alkaline (non-acid) with a pH well above 7.

But it's still true that most city folks mave the idea that their soil is sour and that acidity is the reason for their trouble in growing grass, vegetables or flowers. But the facts are an over supply of lime may be more responsible for their troubles than is the lack of lime.

If the soil is a little on the wet side or is shaded by the house or trees, city people will say, "I think my soil is sour," where in reality the pH on that soil may be up to 8—way on the alkaline side. Actually it's the shade together with the omnivorous appetite of these trees for both plant food and moisture that is responsible for the poor vegetables or flowers in these gardens.

One reason why back lot gardens are usually well supplied with lime is the fact that ashes from the fireplace; in fact, wood ashes from old wood burning stoves were applied to gardens in the early days. But perhaps the most important reason for the high lime content of both gardens and lawns is the fact that city water is frequently high in it's calcium or lime content. At least that's true in cities with so-called "hard water." (Water "softeners" take the calcium and magnesium out of the water.)

Effect of Too Much Lime

Bear in mind the fact also that where soils are alkaline or where lime is applied and where the reaction of the soil is raised by a pH of 7 or higher you may do some damage. First, by throwing out a solution trace minerals such as manganese, boro, cobalt, etc. These trace minerals are important in human diets. In fact, certain deficiency diseases in humans and animals have been traced directly to a lack of certain of these so-called trace minerals.

Nature intended soils to be slightly acid; in fact, for certain species of wild flowers the soil should be distinctly acid. Leaf-mold in our forests develop quite a high degree of acidity and flowers indigenous to forest soils are most of them acid loving.

The Alkalizing Craze

Modern doctors tell us that we are off the deep end on this craze for alkalizing the system. It is contended by some doctors that kidney and gall stones, even possibly arthritis, are due to accumulations of calcium which nature intended to be eliminated by the solvent action of nature's fluids. Instead of alkalizing we might better, in some cases, acidify both blood and urine.

Have your soils tested. If they are definitely acid, let's say in the range of 5.0 to 6.0, O.K., apply some lime. Raise the pH to about 6.2 excepting for certain species of wild flowers which may actually require a very acid soil. Strawberries, watermelons and potatoes are acid tolerant and even acid loving.

It's not very reassuring these days to be told you're as sound as a dolla[r].

Garden Club News

The Garden Club of Wisconsin

MESSAGE FROM THE PRESIDENT

Gain New Ideas At Our Floral Design Schools

Our forthcoming schools of Floral Design to be conducted by Mrs. Edward Ray of Lancaster, Ohio, offer splendid opportunity for our members to gain new ideas and gather facts and information most helpful in the art of flower arrangements and creative table settings.

Members of the Garden Club of Wisconsin and others interested in the work are invited to attend one of the schools. This series is one of the important events of the year's program. So, let's rally to the occasion and assure a large attendance.

Mrs. Ray will illustrate her lectures with kodachrome slides, charts, and appropriate materials. She will give demonstrations of artistic arrangements.

The meetings are open to all interested gardeners. Bring your friends.

—Mrs. Chester Thomas, Pres.

FLORAL DESIGN SCHOOLS

By The Garden Club Of Wisconsin

Lecture and Demonstration
By Mrs. Edward Ray,
Lancaster, Ohio

TUESDAY, MAY 19: YWCA Auditorium, 610 N. Jackson St., Milwaukee. Auspices Milwaukee Region.

WEDNESDAY, MAY 20: Peace Lutheran Church, Oshkosh. Sponsored by the Winnebagoland Region.

THURSDAY, MAY 21: Waupaca Armory. Luncheon at Trinity Lutheran Church on East Badger St., $1.00. Sponsored by the Central Region.

The Program

9 to 9:30 a.m. Registration.

9:30-11:45 a.m. The use of color in design.

12 M. Noon luncheon organized, at each school.

1-3:30 p.m. Creative table settings. Color and texture.

Examinations will be held for members who are planning to become accredited judges.

Open to all. Bring your friends. Registration fee at each school.

Committees

Committee on Arrangement of Schools

Chairman, Mrs. L. G. Stewart, West Allis; Mrs. Val Suttinger, West Allis; Milwaukee Region. Mrs. Harold Poyer, Fort Atkinson, Blackhawk Region. Mrs. Myron Erickson, Iola, Central Region.

MILWAUKEE REGION COMMITTEES. Mrs. Charles Bierman, President Milwaukee Region, Presiding.

Artistic Arrangements and Table Settings: Mrs. Roy Sewell and Mrs. Lester Sweeney.

Flowers: Mrs. Val Suttinger.

Tickets: Mrs. Arthur Knorr.

Registration: Mrs. Edgar Bergman and Mrs. John Dooley.

WINNEBAGOLAND REGION COMMITTEES. **Publicity:** Mrs. Olin Geiger and Mrs. John Rasmussen.

Registration: Miss Anna Phillipson and Miss Amy Jorgensen.

Hostesses: Mrs. Edwin Brismaster, Chairman; Mrs. Ward Schroeder; Mrs. Ervin Friederich; Mrs. N. W. Stratford.

Flowers: Miss Anna Christensen and Miss Anna Phillipson.

Luncheon: Mrs. Gordon Carey, Chairman.

CENTRAL REGION COMMITTEES. **Luncheon and Tickets:** Mrs.

Garden Club Officers at Central Region Meeting, Rosholt, April 16. Seated from left: Mrs. F. C. Wipf, Iola; Mrs. George Willett, Iola; Mrs. Charles Braman, Waupaca, Regional President; Mrs. Chester Thomas, Milwaukee, State President. Standing from left: Mrs. Curtis Hanson, Scandinavia; Mrs. Glen Lockery, Rosholt; Mrs. Myron Erickson, Iola.

George Hathaway; Mrs. Leo Jackson; Mrs. A. M. Christofferson.

Registration: Mrs. Curtis Hanson; Mrs. Alton Hanson; Mrs. Sam Salan.

Advertising: Mrs. Marlin Steinbach; Mrs. Warren Jenkins; Mrs. R. C. Cleaves.

Hostesses: Mrs. C. H. Braman; Mrs. Chester Brandum.

Flowers: Mrs. E. D. Baker; Mrs. E. E. Bratz.

NEW OFFICERS ELECTED BY REGIONAL GROUPS

At a meeting of the **Milwaukee Region,** Garden Club of Wisconsin, in April, the following officers were elected for the coming year. Mrs. Charles Bierman, Wauwatosa, President; Mrs. Edgar Bergman, Wauwatosa, Vice President; Mrs. J. W. Dooley, 7724 W. Rogers St., West Allis, Secretary; Mrs. Arthur Knorr, Milwaukee, Treasurer.

The **Blackhawk Region** met in Jefferson for a pot luck luncheon in April and elected the following officers: Mrs. Harold Poyer, Fort Atkinson, President; Mrs. Allan Ley, Rome, Vice President; Mrs. William Slater, 308 S. 4th St., Fort Atkinson, Secretary; Mr. Clarence Fromader, Jefferson, Treasurer.

LANCASTER GARDEN CLUB HAS NATION'S OLDEST TWINS

Identical twins, Mrs. J. C. Croot and Mrs. Rachel Keyes, both over 90 years old are still active members of the Lancaster Garden Club. They do the work in their garden and take part in many activities. We believe that they are the nation's oldest twins, or, at least, the nation's oldest twins active in garden club work and we congratulate them and their club.

The Lancaster Club joined the Horticulture Society this past year and has a very active membership. Some of the projects planned for the coming year as outlined in their yearbook are the following. Each month a study of 2 or 3 varieties of flowers on which reports will be made at the meeting. For May they will study peonies, iris and violas. In June they will have a breakfast together. In July, an annual picnic and study hemerocallis, thalictrum or phlox. In August there will be a demonstration on flower arrangement, and in October one on dried flower arrangements. In November, Christmas decorations will be studied and the year will end with a Christmas party in December. H. J. Rahmlow spoke to the club in April.

BROOKFIELD GARDEN CLUB NOTES

The Brookfield Garden Club is a husband and wife club. Some of the outstanding events on our program are: "Remember When"—a vacation movie by Harry Eschenburg of a trip to Yucatan and Guatamala. In February, a lecture on "Hot Beds and Cold Frames." In March, colored slides and lecture on Whitnall Park by John Voight, Supt. April, "How To Grow Gladiolus Successfully" a lecture by Mrs. W. Seer.

In May we'll take a trip to Kickapoo Valley by bus during the blossoming season. We will also have a violet show and an exchange of plants; also a lecture on Beekeeping by Mrs. Wallace Freund.

In June we will have a pot luck luncheon in the garden of Mrs. Grauvogel. In July and August we will visit one another's gardens and take pictures to be shown at our winter meetings. **By Martha Trupke, Secretary.**

WANTED—FLOWER SHOW DATES

To all garden club Secretaries: please send us the date and place for any flower shows you are planning for this coming season. We will publish a directory of flower shows and special events by garden clubs. Items for any month must reach the office of the Horticultural Society by the 17th of the month preceding publication. The magazine is not delivered until about the 12th of the month. Thus, for the June issue which will reach our readers about June 12th, items should be sent in by May 17th. We do not have an issue in July.

COLBY GARDEN CLUB NEWS

The Blue Sky Garden Club of Colby will have a plant sale in May and is planning to present a flower picture to the new library.

The original painting is by the French artist Degas, and is named "Chrysanthemums and the Woman."

They will plan an annual flower show in August.

FROM THE MANITOWOC MEN'S GARDEN CLUB

We are initiating a garden test program for all members within our club. This is in addition to the garden test program of the Men's Garden Club of America. Tests will be conducted on All-America all time greats in the vegetable line including such varieties as lima bean, Fordhook 242; squash, Early Prolific Straightneck, and many others. Also Comanche Petunia and Royal Carpet Allysum. Members will report on the advisability of growing these and others in our climate as well as their adaptability to soils; the use of soil conditioners, sprays, etc. Results will be compiled for future use and the tests should prove beneficial to gardeners in this area and will create added interest in growing these crops.

We are planning our annual garden tour and picnic which this year will wind up at the Rose Gardens of Dr. Schwor at Mishicot. These tours in the past have been very popular and have attracted many guests.—**By Otto Engel, Sec.**

AMHERST GARDEN CLUB NEWS

The Amherst Garden Club has adopted the following projects for 1953: Flower Show to be held some time in June. A Wayside Contribution of $50.00 to the Portage County Fair Association to be used towards a building for flower exhibits. A continuation of a flower bed in the park. Contributions of flowers in season for the Nelsonville Convalescent Home.—**By Mrs. Lester Anderson, Sec.**

Editor's Note: Congratulations on the project to raise money for a flower show building at the County Fair.

WELCOME—THE GREEN GARDENERS

The Green Gardeners are a new garden club in West Allis and during April joined the Garden Club of Wisconsin and the Wisconsin State Horticultural Society. We extend a hearty welcome to the Green Gardeners and hope that they will have many years of happy garden club activities.

Officers of the club are: President, Mrs. Roberta Mitchell; Vice-President, Mrs. Lu Fisher; Secretary, Miss Jeanette Hoehnke, 7801 West Beloit Rd.; Treasurer, Mrs. Alice Joy.

Garden Club Programs

WEST ALLIS GARDEN CLUB NEWS

The West Allis Garden Club held its April meeting in Mitchell Park with Mr. Brossman, Superintendent, as speaker. The club members took an active part in the Association's meeting on April 21. Conservation of our birds and natural resources is the principal topic for several meetings. We plan to distribute zinnia seeds to our members as a club project this year. The best blooms will be used for exhibit purposes. Slides on artistic arrangements and other garden subjects will feature several programs.

Holiday decorations will be discussed for our festive days. A Christmas party will high light the closing meeting.—**By Mrs. A. Rupnow, Sec.**

WAUWATOSA GARDEN CLUB NEWS

At the March meeting of the Wauwatosa Garden Club Mr. Walter Krahn of Krahn Nursery demonstrated his successful technique in starting and transplanting seedlings in flats.

The newest in planting soil is mica, a form of rock, composed of several minerals; which has been put to 3000 degrees heat. This expands and breaks them into small particles and is excellent for starting seeds. It is called Terra-lite. And when should these seedlings be started? Mr. Krahn definitely believes April 1st is the day. (Here is an advantage in reading Wisconsin Horticulture, as one learns what can and should be done in his own locality.)

With holes in a flat for drainage, fill with Terra-lite; then make trenches 2 to 4 times as deep as the size of the seed to be planted. Cover lightly. Soak. Put in a warm place, preferably to have warmth from the bottom. It will take 6 to 7 days for the seeds to germinate. Then bring flat to window in basement or hot bed. See that there is fresh air around but do not chill.

Later, when transplanting to another flat or pots, use a small plug to make the holes and use an ordinary table fork for lifting the delicate seedlings. Care must be taken in handling as the transplanting itself is a definite setback. Use good soil mix but not a heavy one.

Particular mention was made as to the cuttings of geraniums. Mr. Krahn suggested a covering of sand over the Terra-lite to protect the roots better.

Free packages of zinnia seeds were given to club members through the courtesy of Vaughn Seed Co.—**By Martha Getzlaff Koch.**

BERLIN HOME GARDEN CLUB NOTES

The Home Garden Club of Berlin has a very interesting schedule ahead for 1953. The lessons are taken care of by members and cover the following: Chrysanthemums, (illustrated with slides from the Lehman Gardens); Geraniums; Plants for shady spots and sun baked areas; Wild Flowers for summer gardens; Bulbs for Autumn color; and Winter bouquets. These lessons are followed by a general discussion and exchange of ideas.

The City of Berlin is planning a Riverside Park and recreation center and the big project of the year for our club will be to help beautify it when ready. Another project which is an annual affair is making Christmas favors for the ladies in the Brown Wilcox Home for the aged and for those in the Keller Nursing Home, both in Berlin.

In June we have an outdoor breakfast at the farm home of one of the members. In July we entertain our

Continued on page 211, Col. 3.

Garden Gleanings

GAY DOORYARD GARDENS FROM SEED OF LOW ANNUALS

Low growing flowers which produce sheets of color can be used effectively in door-yard gardens, especially in the front yards of modern one-story homes. The simple lines and absence of ornamentation in the house design find a pleasing echo in simple floral plantings which depend for their effect on color masses rather than intricate designs.

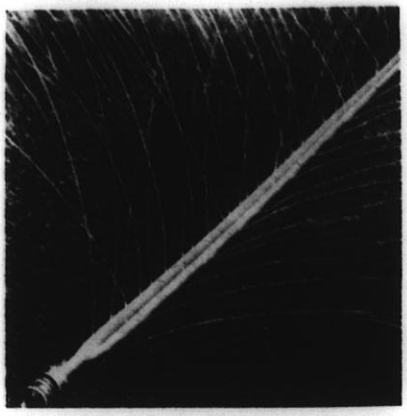
Modern door-yard gardens are as simple as possible in design, in order to center attention upon the beauty of the flowers. These are grouped in masses of one color, so arranged that each mass harmonizes with and sets off the others. Annual flowers of low, compact growth will flower without ceasing until freezing weather, even in the northern states, and are easily grown from seed, when started early under protection, or in the garden itself as soon as the weather permits.

If seed is sown directly in the garden, flowers may be delayed 2 to 3 weeks. Sweet Alyssum will grow quickly from seed and either a dwarf white variety, or the dark purple Violet Queen Alyssum may be used. If the plants are sheared when they grow too tall, flowers will be increased, and a low growing border constantly maintained.

IT'S BEEN USED FOR A LONG TIME, TOO—ERUNAM

Gardeners who plan to apply some of the new synthetic soil conditioners this spring had better not raise their hopes too high, a nationally known agronomist advises. Unless your soil is practically impossible to garden in now, the conditioner cannot do more than improve the structure somewhat.

If you have poor to ordinary to good soil, there is a conditioner which has worked miracles for others. It improves the structure of the soil and adds fertility, which the synthetic compounds do not. Some people do not mention it in polite society, but the name of this wonder working substance, **spelled backward, is crunam. From Badger Farm Bureau News.**



50 FT. SPRINKLER WEIGHS ONE POUND

This double, lightweight, plastic sprinkler can spray an area more than 12 feet wide by 50 feet long at average water pressure! You can drape it over your hillside, twine it around your flower beds, shape it to any contour of your landscaping, or just lay it straight on your lawn . . . It will do a perfect sprinkling job in any position. Turn it over and it becomes a soaker! The Andrews Plastic Sprinkler will not rot or mildew, even if stored wet. The spray is so fine it's gentle on flowers. Complete with brass connector. 20 ft. length $2.50; 50 ft. length $4.75, postpaid. Andrews Sprinklers, Dept. WH, 6612 Sunset Blvd., Hollywood 28, Calif.

USE YOUR COFFEE GROUNDS ON THE GARDEN

Dried coffee grounds have value in the garden—as organic matter and as a fertilizer. Dried coffee grounds contain 2 per cent nitrogen, .32 per cent phosphate and .28 per cent potash.

Somewhat high in nitrogen they will be excellent for the lawn and for such leafy plants as tuberous rooted begonias. The organic matter they contain is of value, too. They can be used at the rate of 150 pounds of dried coffee grounds per 1000 square feet of garden, according to Prof. C. J. Chapman of the Soils Department, U.W.

For general crops on which more phosphorus and potash should be used add a fertilizer such as 0-20-20 or 3-12-12.

The difficulty in using coffee grounds will be getting uniform distribution so they will not be visible on the lawn. Several light applications might be best.

HIGH-ANALYSIS FERTILIZERS

A growing tendency to use high-analysis fertilizers in greenhouse work has been found to be logical because of the greater economy resulting with reduced bulk in shipping and handling, fewer sacks and lower freight. Many of the concentrated fertilizers are more readily soluble than those with a lower analysis and can be used in liquid form, saving time and labor in application. However, as not all are soluble, you should check the type first before buying if you plan to use the fertilizer in liquid form.

There have been many arguments advanced in the past few years by the so-called organic gardeners against the use of chemical fertilizers and particularly against the use of the high-analysis brands. The claim has been made by such persons that these chemicals burn out the soil and are injurious in other ways.

In reality, there is no foundation for these arguments; experiments have proved that greatly increased yields have been produced by the use of chemical fertilizers. The plants are not interested in where the various ingredients come from, as long as they are supplied with the nitrogen, phosphorus, potassium, calcium, iron, magnesium and other elements necessary for growth.

Actually, nitrogen is the same whether it comes from ammonium sulphate or from dried blood.—**From the Florist Review.**

GARDENS OPEN TO PUBLIC

Gardens and hundred-year-old homes in the village of Cooksville, Rock county, are being opened to all interested persons on June 6 and 7 between 1 and 5:30 p.m., under auspices of the Cooksville Mothers' club. The mothers will charge a fee for the benefit of the club's village school fund. Cooksville is located at the junction of state highways 59 and 138, and is 6 miles south of Stoughton.

In The Home And Garden

COLOR IN MODERN INTERIORS

By Mrs. Victor H. Schmitt

Nature colors, nature forms, and natural materials have been used predominantly by interior decorators in the past few years. Leaves, both fresh and dried, driftwood, stones, bark, sand and soil, and the sparkle of fresh flower colors, such as shocking pink, cerulean blue, and bittersweet can all be found in abundance. This is easily understood when we see all the beautiful picture windows being built into modern homes. Thus nature is brought indoors and becomes part of the decorative scheme.

Flower Arrangements Must Harmonize With Surroundings

Consequently, flower arranging takes a more prominent place in the home than ever before. It now is part of the decorative scheme, and more thought than ever should be given to the colors used. Not only should the colors and texture in the materials used be in harmony with the containers but also with the surroundings.

The theories of color use seem vague and mysterious to some. In their attempt to put "color" into their floral arrangements, beginners frequently find that they have used too many unrelated colors. More advanced students of color find that two or three related colors or even one color in several tints and shades will make a far more effective floral arrangement.

The Three Color Harmonies

The three most commonly used color harmonies are the monochromatic, analygous, and complementary. The first uses one color in varying tints and shades; the second uses closely related colors which are neighbors on the color wheel. Yellow, yellow green, green, and perhaps even blue green would make up such a combination. Those who desire greater contrast in a color harmony may prefer the complementary which uses a color and some of the color found directly opposite on a color wheel. For instance blue is complemented by orange, red by green, and yellow by violet. Care should be taken to remember that the color of the container as well as the colors in the background should be considered as part of the whole setting.

THE NEW DAYLILIES

By Mrs. C. L. Barthels, Wausau.

For a busy gardener there just isn't another perennial as showy and satisfying as the Hemerocallis—especially the newer varieties. The newer Daylilies have large flowers that last much longer, in many beautiful shades and colors, require a minimum of care, plus complete hardiness.

New Varieties

Some of the newer varieties that bloomed in our garden the past year are **Annette**, a low growing plant, but with large 6" very dark red bloom. **J. T. Russell**, a tall plant bearing many 6" clear yellow flowers. **Painted Lady**, a sort of cinnamon yellow of huge 7" size and these stayed open until late at night. **Skylark** is a very tall variety with 4" lemon, heavy textured bloom. **Gold Cargo** is a beautiful gold color and very large size. An old variety that we like very, very much is **High Boy**, with flower stalks over 5" tall with large clear yellow bloom. We have never had a stalk break regardless of wind, in fact we enjoy watching it sway back and forth in the wind. **Hyperion** has been in our garden for quite a number of years and certainly deserves its popularity.

New varieties planted last year that have not bloomed are **Pink Mist, Velvet Queen, Baby Cheeks, Pink Ruffles, Heather Rose, Rose Dubarry** and **Royalty.** Anyone with the space but little time can, with care in selecting varieties, have bloom from spring until frost, for landscape effect, color in the border and for enjoyment in the home.

KEEPING CUT FLOWERS

Investigations by F. A. Pokorny and J. R. Kamp at the University of Illinois (Ill. State Florists' Bulletin No. 146) have shown that the pH of the solution in which flowers are kept greatly influences their longevity. This has been found to be true regardless of temperature. While flowers kept at 35 degrees lasted longer than those kept at 45 degrees, within any one temperature range, those at a favorable pH outlasted all others.

Tests with a range of pH 2 to pH 8 showed that the favorable range lay between 3 and 5, with preference indicated for the midpoint of this range. It is recommended, therefore, that the pH of water for cut flowers be adjusted to 4.

It is to be noted that most commercial preservatives tend to reduce the pH of water. A water supply kept at pH 8, the usual concentration, is reduced to pH 6 when a commercial preservative is used. It was found that these preservatives are not markedly effective except in the pH 3 to 5 range.

In the experiments pH was adjusted with diluted sulphuric acid, but further work is being done to determine better materials to use by the florist and housewife. **From the Florists' Review.**

BERLIN GARDEN CLUB

Continued from page 209

husbands at a picnic. The guest speaker for the evening is Mr. Douglas Hunt, Wautoma, a member of the Conservation Commission. In September Mr. Ray Wood, Fond du Lac, will conduct a demonstration and clinic on "Dish Gardens". The December meeting is a party at which each member will exhibit an original Christmas decoration. — **By Hilda Huebner, Sec.**

Timely Garden Topics

BOOKS FOR YOUR GARDEN LIBRARY

"Landscape with Shrubs", by Samson, $3.50. "Gloxinias—How to Grow Them", by Peggy Schultz, $2.95. "Annuals for Every Garden", by Dorothy Jenkins, $3.00. "Bulbs for Beauty", by Charles Mueller, $3.50. "Tuberous Begonias" by Brown, $2.75. "Complete Book of African Violets", by Wilson, $2.95. "Iris For Every Garden", by Mitchell, $3.50. "Roses For Every Garden", by Allen, $3.95. "New Book of Lillies", by Graaff, $3.50. "Enjoy Your House Plants", by Jenkins & Wilson, $3.00.

New Books On Flower Arrangement

"Joy of Flower Arranging" by Wilson, $3.95. "Period Flower Arrangement", by Marcus, $10.00. "New Flower Arrangements For Everyone", by Biddle & Blom, $3.50. "The Complete Book of Dried Arrangements", by Underwood, $4.95.

MAKE TWO PLANTINGS OF SNAP BEANS

For a steadier supply of fresh snap beans from your garden make at least two plantings 15-18 days apart.

Beans will yield two crops. The first crop can be picked for about three weeks. If all these beans are picked, the plants will usually be smaller than the first crop.

But with a single planting, you'll pick few, if any, beans in August and September.

Recent trails by James G. Moore have shown that two spring plantings spaced about three weeks apart will give a more continuous supply. The yield may be about 15-20% less than the yield from the same number of plants all planted at the same time, but there should be a suppiy of beans all summer.

When the first planting has yielded its first crop, the second planting will be coming into production. The second crop of the first planting will be ready next and finally the second crop of the second planting. The total yield is slightly smaller because earlier plantings generally yield best.—**From What's New In Farm Science. U.W.**

FRENCH HYBRID MOCKORANGES

By Mrs. Chester Thomas, Milwaukee

Many years of gardening have brought me countless joys and thrills over the colorful and unusual in flowers, shrubs and trees, but I cannot recall an experience of greater joy than the time, two years ago, when my new Hybrid Philadelphus (mockorange) burst into bloom.

The pure intense whiteness of the blossoms, in profusion on every shrub, creating a most striking effect and filling the air with a delicate fragrance will be always a highlight of my gardening pleasure.

To have the utmost in variety in a shrub border, I highly recommend this hardy and easily grown Hybrid as a truly worthwhile addition to your planting.

Atlas (Giant Mockorange). Giant flowered mockorange, sensational with its pure white 3 inch single blooms. It is hardy, of easy culture, grows most anywhere, upright habit and covered with immense blooms that are magnificent for cutting. Height—6 feet.

Innocense (Alabaster white Mockorange). The long arching branches carry a wealth of large single pure white flowers. The slender branches are heavily laden with intensely white flowers. Ultimate height—6 feet.

Enchantment. Erect branches covered with thick panicles of double white flowers. Striking effect. Does quite well in light shade. As the name implies, it will enchant you. Ultimate height—6 feet.

Belle Etoile. The milky white flowers are most unusual with a light purple blotch in the center. Ultimate height—5 feet.

Norma. Handsome, lacy-edged, starlike blooms are produced on a tall plant literally by the thousands. Ultimate height—10 feet.

BUSH CLEMATIS

By C. P. Holway, Cooksville, Wis.

Wisconsin gardeners who know the beauty of the climbing clematis but no other are always pleased when they discover the handsome perennial bush varieties, and, chief among them, the Davidiana group. ("Bushing" clematis would be a better description, for they are all herbaceous.)

In our garden in Cooksville (Rock County) no sort of weather and no pest have ever seemed to bother Clematis Davidiana. In late summer, when it flowers with tight clusters of hyacinth-like blossoms in dark amethyst blue, at the nodes along the stems, it spreads a fine fragrance, so that a sprig or two will scent a room.

Another variety, Davidiana Azure, bears lighter-colored flowers. Both plants do well in light shade; I have one that has thrived for many years under a tall spruce. A third variety, Davidiana Profusion, I have not grown. It, too, is credited with full hardiness, freedom from pests, fine fragrance, as well as an abundance of deep-blue flowers in midsummer. It comes on at a time when there are few other blues in the border.

Equally hardy is the white-flowered bush clematis, Mandchurica. A mature clump produces a fluffy mound of bloom, standing two to four feet high, the tips of the many stems carrying feathery panicles resembling flowers of the climbing Clematis paniculata.

Admittedly, these bush varieties are all floppy, but a peony hoop easily solves the problem. All cut well for vase and container arrangements.

Religion is meant to be bread for daily use, not cake for special occasions.

Wisconsin Beekeeping

Official organ of the Wisconsin State Beekeepers Association

Colony Management During May

A colony having a poor queen may prepare to supercede the queen during May or early June and even though the colony is not very strong, the presence of supercedure queen cells may result in swarming. It is probably easiest to check colonies frequently enough so that queen cells can be removed before they can be sealed. Then the supercedure will take place after the honey flow starts when the "swarming season" is over. If sealed cells are found and swarming is likely, then the colony should be divided.

Colony Expands Brood Nest Upwards

Dr. C. L. Farrar writes in Circular 702: "The normal behavior of the colony is to expand the brood nest upward in the hive. Reserve pollen is placed in empty cells within and around the brood nest in a narrow band. Excess pollen is more likely to be stored in combs immediately below the brood nest whereas honey is usually stored around and immediately above the active brood nest where the queen is laying. During periods of heavy yield, honey and pollen will be stored in any available space within the hive. However, unless room is provided in a normal position for an expanding brood nest and the storage of honey and pollen, the colony will not maintain maximum brood rearing, and if the space is severely restricted the colony will prepare to swarm. Swarm preparations reduce the colony's storing morale. while actual swarming, by dividing the working population, may result in the loss of the honey crop."

May Need To Feed During May

There is a very critical period of food shortage, strange as it may seem, during the month of May. It is the period between fruit and dandelion bloom and the beginning of the clover honey flow in June. This is usually a period of about 2 weeks during which, in most sections of the state, there are very few flowers blooming —at least not enough to provide much nectar. In years past we have actually observed strong colonies engaged in active brood rearing, come to the verge of starvation late in May or early in June during this period.

Watch the colonies closely late in May and see that there is plenty of honey available to last them until the clover flow.

INSPECT FOR DISEASE THIS MONTH

Writes Dr. C. L. Farrar, Chief of the Central States Bee Culture Laboratory, Madison in Circular No. 702: "Colonies should be inspected frequently for disease. Strong colonies are likely to rob early in the spring and they may assume that colonies are free of disease because no disease was found on the previous inspection, since a new infection may break out at any time, particularly during the spring or late in the fall."

E. R. ROOT

Mr. E. R. Root of Medina, Ohio, passed away in Medina on April 19, in his 91st year.

Mr. Root was well known to Wisconsin beekeepers, not only as Editor of one of the best known books on beekeeping, "ABC and XYZ of Beekeeping" but also, when still alive, by participation in the annual summer meetings of the Wisconsin Beekeepers Association where he made many friends.

He was a life-long worker in the interest of beekeeping and increased consumption of honey. When a young man, he talked on Chautauqua programs on the value of honey and gave demonstrations with bees. Several years ago the University of Ohio gave him an honorary Doctorate degree for his educational activities.

HONEY PRICE SUPPORT PROGRAMS ANNOUNCED FOR 1953

The U. S. Department of Agriculture announced in April that honey will be supported during the 1953 marketing season, which starts today (April 1,) at a national average price of 10.5 cents per pound. This is 70 percent of the current parity price adjusted to the 60-pound container level. The 1952 crop of honey also was supported at 70 percent of parity, but the actual national average honey support price was 11.4 cents per pound.

Price support for honey within a range of 60 to 90 percent of parity is mandatory under the Agricultural Act of 1949. This is the fourth continuous year for such a program.

Prices for honey will be supported through farm-storage loans and by the offer of the Commodity Credit Corporation to purchase honey delivered by producers under purchase agreements. As under the 1952 honey price support program, beekeepers or cooperative associations of beekeepers can apply for loans and purchase agreements directly to county offices of the Production and Marketing Administration. Honey export and diversion programs also will be continued during the 1953 season on bases similar to those of the 1952 programs. The rate of payment on honey exported or diverted will be 4 cents per pound as compared to 4.5 cents a pound paid last year.

Detailed information regarding the foregoing programs, including support prices for classes of honey and areas of production, will be available in the near future.

May In The Apiary

The month of May is one of the most critical of the year for the beekeeper. The amount of rainfall we receive during May, the condition of the honey plants—especially white and alsike clover, may determine the honey crop we receive during the month of June. A serious drought during May can change our hopes to despair, while sufficient rainfall may result in a clover crop that will yield abundantly.

We cannot control the weather but we can to some extent control the amount of honey we receive during any conditions we may have by working for a maximum field population during June. There isn't much we can do now to stimulate brood rearing—that should have been done in March and April. The important thing from now on is swarm control. And how important it is!

The pictures on this page show a method of swarm control by reversing brood chambers. This method is very successful and is used by many beekeepers. It was first suggested to us by the Central States Bee Culture Laboratory at Madison some years ago.

The Pictures

UPPER PICTURE: Shows a strong colony at the time when the three brood chambers must be reversed in order to control swarming. The upper brood chamber is filled with brood, pollen and honey.

LOWER PICTURE: The brood chamber has been reversed. The chamber with the most brood, pollen and honey is on the bottom board. Number 3 is now on top and has plenty of room.

Reversing Eliminates Congestion

When colonies have filled their hive space with brood, pollen and honey, they will prepare to swarm. Preparation for swarming is often hastened by a few days of inclement weather when the field bees are confined to the hives.

After reversing, the queen will move upward to brood chamber number 3 and begin egg laying. This will draw into number 3 the nurse bees necessary to feed the larvae thereby eliminating the crowded conditions which existed in the upper picture.

During the dandelion and fruit bloom honey flow, number 3 in the lower picture may become filled with honey and pollen. This can be avoided by placing an empty super on top when the honey flow begins.

If queen cells are found located along the lower edge of the combs, they should be destroyed. Remember that if the queen cells are destroyed before they are sealed, then swarming can be controlled. However, if the queen cells are capped over it may be too late—the colony may have the "swarming fever" and swarming can then only be stopped by division of the colony.

HONEY PROMOTION

The American Honey Institute furnished honey display material for three Schuster Stores in Milwaukee. This display is on now during Honey for Breakfast Week. Any one of these stores is among the largest in Milwaukee. Their advertisement was headed:

Honey From All Over The World

A few honeys listed were.

Western Sage Honey with twig in glass pail—16 oz. 95c.

Minnesota Land O'Clover in decorated jars for children—7½ oz., 27c; 14 oz., 49c.

Wisconsin Honey—8 oz., 20c; 16 oz., 34c; 5 lb., $1.65.

Florida Orange Blossom—16 oz., 49c.

Canada—Miel de la Trappe Honey—2 lb., $1.59.

Latest estimate on 1952 births is 3,889,000. What a number of potential Honey eaters!

How many of these babies did you give an infant feeding formula from the American Honey Institute? The card carries the Seal of Acceptance of the Council on Foods and Nutrition of the American Medical Association.

EVERY WEEK IS HONEY WEEK!

No wonder a hen gets discouraged. She never finds things where she laid them.—Fox Lake Representative.

Husbands are like furnaces—you have to watch them or they'll go out.—The Sun.

REPORTS FROM BEEKEEPERS

FROM VIROQUA. Bees came through the winter very strong with no losses due to weather conditions. Spring buildup seems to be very good and bees were carrying in pollen by April 5. All clover came through the winter. We did not have any frost in the ground during this winter and had a good cover of snow. The only magic I know of to get a good crop is to have strong colonies with good queens with extra queens to replace those that are not tops. **By Newton Boggs.**

REPORT FROM MARSHFIELD

Bees came through the winter fine, practically no losses. We winter in the cellar. I've heard of some heavy losses, but don't know why. Spring build-up is normal. There was only a little growth of clover last fall due to a dry spell, but the winter snow cover was good.

My suggestion for a good honey crop is to see that the bees have plenty of food—honey and pollen, and protection from cold winds so they will be ready if we have a good clover flow. That is the kind of honey most people want. **By E. L. Schroeder.**

FROM RIPON

On April 9 we had unpacked only 8 yards and are finding our colonies have wintered very well. Stores are adequate and we do not anticipate feeding at all. The amount of brood is from 4 to 10 combs. First pollen in on March 29, but cool weather prevented bees from flying very much.

Clover looks promising in spite of dry conditions last spring. White clover is evident and may produce quite a bit of early honey.

Prospects look encouraging and we suggest the beekeeper watch colonies carefully, provide ample stores and good queens so that optimum populations are on hand when the flow begins in June. **By Joe Mills.**

FROM FOREST JUNCTION

Bees came through the winter very well this year. During April the weather was cool and cloudy. The bees were able to gather pollen only twice up until April 11th. Spring build-up, however, was good. There is some clover in spite of all the dry weather last fall and late summer but not very much. Where bees are in good shape, flowers available and weather favorable we will get a pretty good crop.—**By Leonard Otto.**

ACTIVE DEMAND FOR PACKAGE BEES

Package-bee shippers in southern states report an active demand has developed for package bees, with some reporting the demand heavier than for the past three or four years. Practically all queen breeders report a very heavy demand for queens, with some reporting they are unable to fill all orders. Reports from northern producing areas show no general overall pattern on expansion or retraction in size of apiaries for 1953. In some areas intentions to expand are reported, while in other areas no expansion is anticipated and in a few areas some producers report they are attempting to sell out or reduce the size of their apiaries.

Honey Demand Varies

In a number of areas the demand for extracted honey in large bulk lots was reported as good and that supplies remaining in producer's hands for commercial selling are relatively light. On the other hand, demand was reported as slow in a few areas with producers reporting they have been unable to move supplies at desired prices. The market was steady. **From Semi-Monthly Honey Report—USDA.**

MIGRATORY BEEKEEPING IN OTHER COUNTRIES

Migratory beekeeping is practised in many countries, but it reached its climax in Australia, where two beekeepers moved 1,600 hives more than 2,400 miles for flows lasting 6-9 months. In the Punjab (India) regular migration between the plains, foothills and higher hills has been found profitable; and in South Africa, migration to the aloe. In Germany migration to specific flows is common and profitable, and much thought is given to the design of movable beehouses. In Denmark the clumsiness of the hives commonly used has discouraged migratory beekeeping, but a special migratory hive has now been designed and should open up opportunities for gathering larger harvests. English experiments show how greatly the distance of the hive from the crop can affect the yield. — **From Bee World, England.**

HONEY WANTED

State color, flavor and amount you have in first letter. Will pick up and pay cash. M. H. Lyons, Logansville, Wisconsin.

Wisconsin Horticulture

June 1953

WISCONSIN HORTICULTURE

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In Wisconsin, We Have

The Apple Maggot Problem

By C. L. Fluke, Dept. of Entomology, U. W.

Apple maggots or railroad worms continue to cause extensive damage in Wisconsin apples, being more severe in the small or home orchard. This more extensive damage to the smaller orchardist is probably due to improper sprays or the improper timing of the sprays.

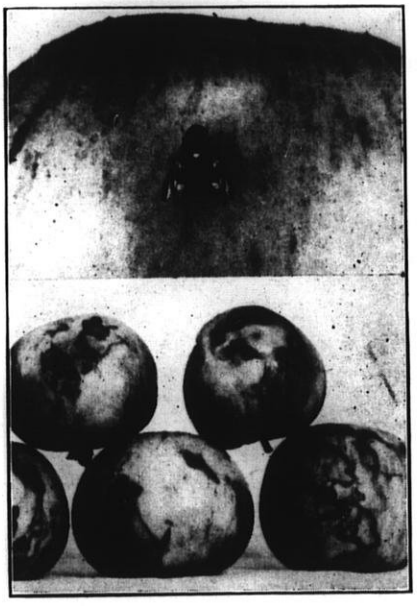
The past several years have been especially troublesome, aggravated by the moist seasons during July and August. Many of the flies have remained active throughout the late summer, laying eggs after the normal spraying season is over.

All common commercial varieties of apples are susceptible to maggot attack, the sweet or mild forms being most infested.

Control Materials

Of the spray materials on the market **lead arsenate, DDT** or **methoxychlor** are the best. DDT needs to be used more often as its effectiveness is lost after 10 days to two weeks. Methoxychlor is especially valuable near harvest as it can be used safely up to picking time.

The Apple Maggot Fly. The letter "F" appears on the wing. They emerge about mid-July, are rather tame, and not difficult to see if present. Look for them on the sunny side of trees, especially of sweet varieties.



Above: The Apple Maggot Fly about to sting and lay its eggs under the skin of an apple. Below: Characteristic apple maggot injury on apples. The larva had tunnelled around in the flesh and decay has started.

Bait Traps

To time the sprays, bait pails or bait traps should be used and spraying continued as long as many flies are caught. The simplest is a small pail filled with water to which is added a pinch of **Dreft** and a couple of tablespoons of **household ammonia.** Renew the solution every few days, keep it clean and always **keep the trap brimming full.** One isn't enough, **four or five** should be used and placed at convenient height on the sunny sides of the trees.

Circular 394 has been released and is available for those wishing a copy. Write direct to the Bulletin Mailing Room, College of Agriculture, Madison 6, Wisconsin.

ORCHARD TOUR MINNESOTA FRUIT GROWERS ASSOCIATION—WISCONSIN HORTICULTURAL SOCIETY LaCRESCENT, MINNESOTA

Wednesday, August 26

The Minnesota Fruit Growers Association has arranged for our annual joint Orchard Tour to be held in the Village Hall at LaCrescent, Minn. at 9 a.m. Wednesday, August 26.

Plans are being made to furnish buses for a tour of several orchards—no charge. Noon luncheon will be available.

There will be a program of speakers furnished by Minnesota and Wisconsin organizations.

ORCHARD TOUR AND MACHINERY DEMONSTRATION EAMES ORCHARDS, EGG HARBOR. DOOR COUNTY (COUNTY TRUNK E)

Tuesday, August 18, 1953

10 a.m. Orchard tour with discussion by staff members of the Department of Horticulture, Entomology and Pathology, U.W. Mouse control in the orchard. Orchard practices.

Noon. Luncheon Bring your own. Three restaurants in Egg Harbor but likely to be crowded. Sandwiches, coffee, etc. on sale at orchard.

1. p.m. Machinery demonstration. Power pruners. Graders. Brush cutters. Irrigation equipment. New apple containers.

Demonstration by newest model spray machines by Friend, Hardie, Mayer, Bean and Iron Age etc.

The Eames Orchard is one of the largest cherry and apple orchards in Wisconsin. Mark this date on your calendar.

See the largest grader and cleaner in the state in operation. Also one of the most modern packing sheds and cold storage plants in the mid-West.

Orchard Notes

BEES IN THE ORCHARD

Solitary Bees Numerous In Bayfield Area

Visiting a number of Bayfield area orchards with County Agent David Holt (now at Ashland County) we called on a grower who had some trees adjoining a cut-over forest area. Mr. Holt called our attention to a large number of "solitary" bees flying around. The trees were not yet in bloom but the bees were there.

Bayfield fruit growers have long felt that they were getting satisfactory pollination without the introduction of honey bees. Here is no doubt the reason: the presence of large numbers of solitary bees making their overwinter home in the many acres of cut-over land adjoining practically all Bayfield area orchards.

We cautioned growers to be careful not to apply an insect poison when trees were in bloom especially during the "pink" spray. It is often very difficult to use arsenate of lead or other insecticides during the "pink" spray and not to spray some open blossoms. However, as UW. Entomologist Dr. J. T. Medler pointed out in a conversation about the subject, the solitary bees do not increase in number as rapidly as honey bees. Therefore, if they are poisoned, build-up may be slow and growers may find a lack of pollinizing insects the following year or more.

It is in areas where large orchards do not adjoin cut-over land but are surrounded by farm land, that pollinizing insects are scarce and the introduction of honey bees becomes a necessity.

PLANT COVER CROPS

Plant oats or rye in late summer or early fall for a cover crop to provide organic matter for the soil. Seed should be planted quite thickly—about 50—100% more than when planted in the spring. The plants not only take up fertility which might otherwise be lost during fall rains but the amount of organic matter which can be plowed into the soil is quite considerable and of great value.

New Tree Puller. Will remove trees up to 6 inches in diameter.

NEW TREE PULLER AVAILABLE

A new tree puller is now available that will operate on any tractor with a 3-point hydraulic implement hitch. Called "Tree-Grubber," this puller works on the principle of resultant forces. The tractor, with Tree-Grubber attached, backs into a tree and pushes it horizontally. At the same time, the hydraulic lift is operated, which tends to lift the tree vertically. This combination of horizontal push and vertical lift exerts sufficient diagonal force to push the tree out of the ground at about a 45 degree angle.

Attached to small tractors, the manufacturer states that the Tree-Grubber will remove trees up to 6 inches in diameter. Trees are removed at the rate of about one a minute, depending on the condition of the ground.

Tree-Grubber is made in two models —one with 3-point hookup for Ford, Ferguson, Case Eagle Hitch, John Deere 40, Massey Harris and similar tractors, the other for WD Allis Chalmers. Weighing only 80 pounds, it is easily attached and removed from the tractor.

Tree-Grubber is manufactured by The Continental Manufacturing Company, Box 983, Kilgore, Texas.

IRRIGATION SYSTEM FOR SALE

FOR SALE: Several slightly used portable overhead irrigation systems at real bargain prices. I also have the agency for all popular brands of new pumps. Write: Eric Franke, Rt. 5, Sturgeon Bay, Wis.

WHAT IT TAKES TO BE A SUCCESSFUL FRUIT GROWER

From the ten essential factors listed below for requirements for successful fruit growing given by Dr. A. B. Burrell of Cornell University, one might think that only a genius could operate an orchard successfully. Nevertheless, there are quite a number of folks here in Wisconsin who do operate an orchard successfully so they must have the required qualifications. Here are the requirements in brief as listed by Dr. Burrell.

1. Reasonably favorable general business conditions.
2. A good location—relatively frost free, hail free site; with soil of at least moderate fertility, good depth and internal drainage.
3. Suitable varieties. Varieties that average a low price per bushel or give a low yield will seldom pay. Annual varieties usually outbear biennial varieties.
4. Good judgment in spending money.
5. Ability to choose good employees.
6. Ability to maintain high morale on the part of employees.
7. Ability to organize.
8. A studious nature—learning to do the right thing at the right time.
9. A liking for trees and seeing things grow. One need not be born with this—it may be acquired. Growers who have it spend frequent periods in observing their trees for pleasure and satisfaction.
10. Salesmanship. A good salesman gives the buyer a feeling of confidence in the seller as well as in the product. It implies making the buyer come back for more because of a satisfactory sale.

FRUIT FARMS FOR SALE

FOR SALE: Highly developed fruit farm near Bayfield, Wisconsin. 60 acres in all: 36 acres in fruit and other cash crops; 1100 apple trees; 5 acres strawberries; 9 acres raspberries; loam soil. Has all necessary equipment. New five room dwelling with furnace, bath, fireplace. With equipment $22,825.00; without $16,500.00.

45 acre farm near Bayfield, 400 apple trees, strawberries, very neat dwelling, five rooms, fireplace. Price $3,850.00.

For further details write Harry Peterson Agency, Ashland, Wisconsin.

FRUIT & VEGETABLE GROWERS SUPPLIES

Order Your Requirement Now For Spring Delivery

Pruning Equipment

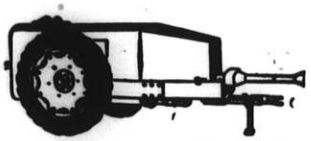
Saws
Pruning Snips
Grafting Tape
Tree Seal
Tree Wound Paint

Fertilizers

Ammonia Nitrate
Vigoro
Vertagreen
Mixed Fertilizer
(All Analysis)

Sprayers

We carry a complete line of John Bean Sprayers in stock. There are models and sizes to meet your needs. We have a complete Repair Parts



Department and can give your sprayer a complete overhaul job at any time. We have several models of Used Sprayers in stock for sale.

NU-GREEN AVAILABLE

SPRAY MATERIALS

Fruit Grower Supplies

DN-289	Spreader Stickers
Elgetol	Sulfron X
Krenite	Mike Sulphur
Dormant Oil	KoloFog
Lime Sulphur	Kolospray
DDT	Puratized
Ferbams:	Craig 341
Ferradow	Tag
Carbomate	Z-78
Fermate	Dithane D 14

Vegetable Growers Supplies

★

Dithane D 14	Parzate (Liquid)
Z-78	Parzate (Powdered)
Zinc Sulphate	DDT-50W
Wettable Rotenone	DDT-75W
VaPatone	Chlordane 40% Wettable
Spreader-Sticker	Chlordane—45% Emulsiable
Hexamite	

MACHINERY—Sprayers - Potato Harvesters - Vine Cutters - Potato Graders & Cleaners - Onion Graders & Cleaners - Vegetable Washer - Root Washers - Potato Laundry - Bolens Tractor - M.E. Tillers - Snow Blows - Apple Cleaners & Graders - Accorian Conveyors.

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In The News

INTERNATIONAL APPLE ASSOCIATION TO HOLD CONVENTION

The 59th Annual Convention of the International Apple Association will be held at the Hotel Sherman, Chicago, from Monday, August 10 to Thursday, August 13.

Many of our larger fruit growers may be interested in the program at this convention.

Mr. William Connell, member of our Board of Directors, attended the Association's annual meeting last year and reported the program to be very valuable.

CHIPPEWA COUNTY FRUIT GROWERS ASSOCIATION ORGANIZED

Fruit growers in Chippewa Falls area met on May 6th and organized the Chippewa County Fruit Growers Association.

Officers elected were John McIlquham, President; George Gannon, Vice President; County Agent H. G. Horne, Secretary; and James McIlquham, Route 5, Treasurer—all of Chippewa Falls.

The organization was completed through the cooperation of County Agent H. G. Horne who suggested to the growers that they elect officers in order that they have an industry committee to work with the County Agent's office.

The Association also affiliated with the Wisconsin State Horticultural Society. Speaker of the evening was H. J. Rahmlow, Secretary.

RECOMMENDS SECOR APPLE

Mr. Virgil Fieldhouse from Dodgeville writes: "We are boosters for the Secor apple for this part of Wisconsin and for points further south. It is a very long keeper, excellent quality and does not seem to be bothered by apple maggot."

Growers in the Jefferson County area share Mr. Fieldhouse's view on the Secor. Being a Jonathan cross, Secor requires a somewhat longer season than such varieties as McIntosh and may not do well much further north.

"No I don't mind you being here—but I don't know how that Poison Ivy feels about it."

THE SPARTAN APPLE BEING TESTED IN WISCONSIN

The Spartan apple, a cross between McIntosh and Newton, which was originated at the Dominion Experiment Station in Summerland, B. C., Canada, is being extensively tested in Wisconsin.

The cross was made in 1926 by Professor R. C. Palmer. The tree first fruited in 1932 and was named Spartan in 1936, being chosen because of the robust nature of the tree and the good characteristics of the fruit.

The tree is of the McIntosh type with strong limbs and crotches and desirable habits. Tests indicate that the Spartan is about as hardy as McIntosh under similar growing conditions.

The fruit is above medium size, somewhat of McIntosh shape but more symmetrical and uniform in outline, highly colored with a solid dark red blush. The flesh is firm, crisp, white and juicy. The quality is good, somewhat different from McIntosh and slightly sweeter. The skin is slightly thicker and tougher that McIntosh, suggesting somewhat superior handling qualities. The fruit of Spartan matures a little later than McIntosh and can be harvested about one week later.

FERTILIZING THROUGH THE LEAVES

Spray feeding or foliar feeding of plants has attracted a good deal of attention these days. The high-analysis, soluble fertilizers that are used in feeding through the leaves are often well advertised. Is this method of feeding all that it is cracked up to be? We asked one of the scientists of the USDA. This is what he said.

"Under certain circumstances, application of fertilizer solutions directly to the foliage ("spray feeding") may be highly advantageous. Such practice appears sometimes to have been made in several parts of the United States. Spray feeding with urea nitrogen, especially in the early spring, has been successful with a number of crops. Applications of phosphorus and potassium made in this way have been much less successful. Spray applications of minor elements are usually successful, probably because the requirements for such elements are low. Plants vary widely in the concentrations as well as total amounts of dissolved materials that may safely be applied to leaves. As an example, concentrations of 0.5 to 0.7% of urea are used on most kinds of plants.

"Various vegetable crops also have been fertilized through leaves with urea. The University of Maryland found that certain crops responded favorably while others gave no better yields than when soil applications of nitrogen were the sole supply. Dry weather was thought to favor usefulness of urea sprays.

"It would appear from these studies that foliar feeding is most beneficial under special conditions. On the basis of present research, plants growing under normal conditions make very little, if any, additional gain from foliar feeding as compared with the same quantities of plant nutrients applied to the soil. Because the cost per nutrient unit is considerably more than for an equivalent amount of nutrient in a conventional fertilizer mixture, further investigations of spray fertilizers are desirable before the home gardener growing vegetables and flowers undertakes extensive use of this method of plant feeding"—**From Extension Service Bulletin, USDA.**

June Roundup

HIGH TEMPERATURE INCREASES BLOSSOM SETTING OF TOMATOES

When the temperature is 80 degrees F. blossoms of tomatoes have the highest percentage of fruit set, according to experiments conducted by Michigan State College at East Lansing for 4 consecutive years. It was found that there is no relation between humidity and yield. The high temperature not only increases the blossom setting but increases the size of the fruit in the greenhouse.

FLY AWAY BIRD!

Not Wanted In Fruit Plantings

Birds will be troublesome again this spring and summer to many fruit and vegetable gardens and field crops. Protection of trees loaded with cherries from attacks by birds is difficult to do. Many devices set in the branches of trees will have some effect, but alternating various scares every day or so seems to be the only way to reduce the damage.

Suspending shiny pieces of tin or mirrors; tying or otherwise placing paper bags, pieces of paper, cotton, or rags in branches; and setting realistic paper or plastic or clay model owls, hawks, and snakes in branches, all seem to have a temporary effect against birds. The "Spirolum Whirler," a shiny paper of two colors, suspended by string at each end to give a spiraling movement in the wind, likewise has temporary value.

To protect field crops requires similar treatment. Exploding devices such as the "Automatic Acetylene Exploder" (sold by the Salt Lake Stamp Company, Salt Lake City, Utah) are quite effective. String tried to poles from 3 to 10 feet high, depending upon the height of the crop, will do well for a few days, but changes can be made by tying paper bags, tin, or mirrors to the twine. The spiraling device mentioned above is also used effectively when attached to poles. Shooting with a .22 calibre rifle seems to be more effective than shotguns to frighten birds in fields.—From Rodent Control News, USDI, Fish and Wild Life Service.

WHAT IS "QUICK FREEZING"

By J. D. Winter,
Dept. Horticulture, U. Minn.

Few people understand what "quick" freezing really means. Before reaching a conclusion, let's review some of the basic facts about freezing and storage.

The popular belief is that the large ice crystals formed during slow freezing rupture the cells. Research results do not support this view. In fact, very rapid freezing of meat is much more likely to cause rupture of the cell structure than slow freezing.

It is true that small ice crystals are formed during very rapid freezing, and larger ice crystals are formed when the freezing rate is slow. However, after the first formation of ice has taken place, further formation during storage continues as the crystals grow.

Actually, the rate of freezing is one of the least important factors in the preservation of frozen foods. With almost all foods, it makes little if any difference in palatability whether the food temperature is reduced to about 20 degrees F. i.e. through the freezing zone) within an hour or within 10 to 15 hours. It is important, however, to lower the food temperature below 40 degrees F. as quickly as possible to reduce the growth rate of spoilage organisms.

Handling Before Freezing

The way food is handled before it is frozen makes a big difference in the quality of "quick" frozen foods.

The proper handling of meat is essential. Deterioration in palatability of meats during storage is primarily due to oxidation of the fat. This oxidation proceeds, although at a reduced rate, while meats are held in freezer storage.

The prompt handling of vegetables from field to freezer is highly important for the retention of quality and nutritive value of "quick" frozen vegetables. Proper handling and processing at the highest stage of maturity is the key to success with "quick" frozen fruits.

Packaging

The packaging material and the method are of major importance, especially with meats. A good wrapping material for meat should be relatively impermeable to oxygen and moisture vapor. The wrap should be tight and snug, and the product should be wrapped as compactly as possible to offer the least possible surface area.

Storage Temperature

Storage temperature must be suitable to maintain the quality of frozen foods. A temperature of 0 degrees F. or lower is recommended.

"Quick" Freezing

Probably one of the best concepts of "quick" freezing is that the term implies the proper handling of the product all along the line until it is packaged, frozen, and placed in storage. The term is meaningless if applied only to the rate at which the food is actually frozen.—**In Minn. Farm Business Notes.**

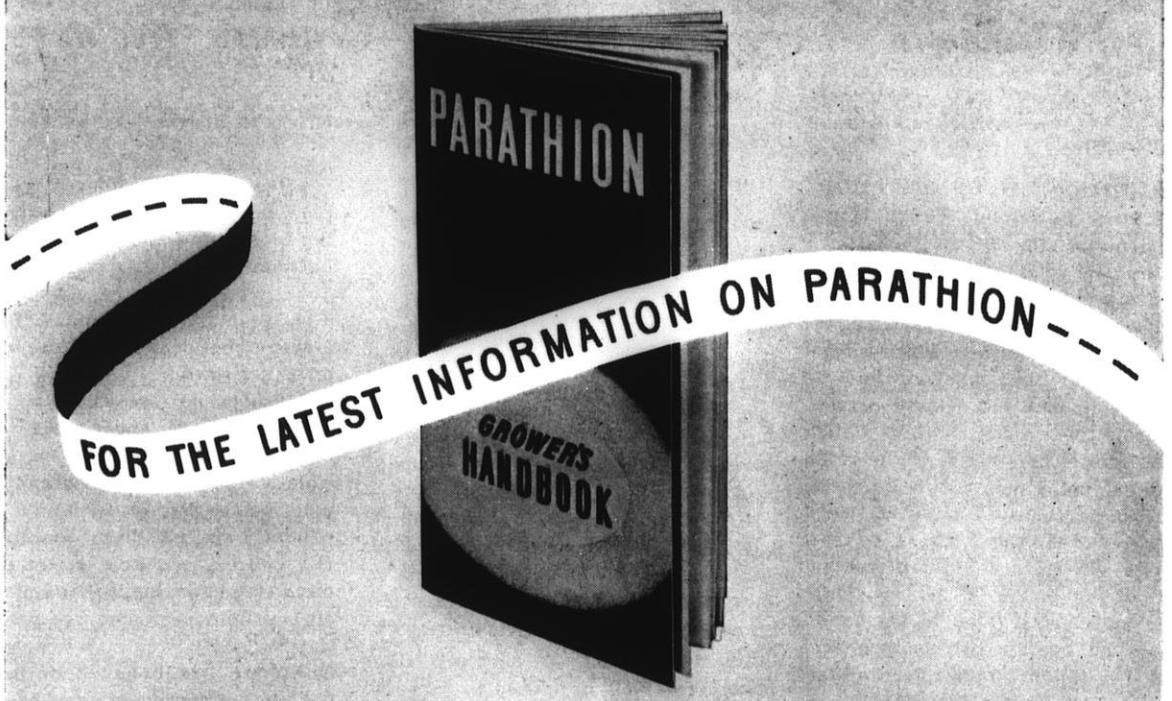
GRASS SILAGE PRESERVATION WITH SODIUM BISULFITE

Pennsylvania State College, Pa. has just issued a bulletin entitled "Grass Silage Preservation with Sodium Bisulfite," of interest to all farmers who wish to put up grass silage.

They state: "Very satisfactory silages have been made from unwilted forages by the use of sodium bisulfite powder applied at the rate of 8 lbs. per ton." These silages have been found to be superior because of reduced nutrient losses from the silo; better color and odor; more complete digestibility and increased palatability. Anyone interested should write for the bulletin for more detail. The sodium bisulfite is being sold by Wisconsin dealers such as Hopkins Agricultural Chemical Co., 740 Williamson St., Madison 1, Wis.

IN THE NEWS

An increase of 250% in the production of **Crag Fruit Fungicide 341** for the coming growing season has been announced by the Carbide and Carbon Chemical Company. Crag was in short supply last year. It is used primarily for the control of apple scab and cherry leaf spot. Crag 341 is a glyoxalidine fungicide and was developed by a fellowship at Boyce Thompson Institute, Yonkers, N.Y.



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Berries and Vegetables

Wisconsin Berry and Vegetable Growers Ass'n.

MARKETING THE BERRY CROP

By Harry Barlament, Green Bay

Instructing the Berry Pickers

Before we start picking berries, I get all my pickers together and show them how I want the berries picked. First of all, I show them how to look for the berries; then what ripeness to pick; how to pick off bruised berries and throw them away; how to watch clusters along the outside of the rows to avoid stepping or kneeling on them and crushing them. I have someone that checks on the pickers to see that ripe berries are not left behind and that the picker is not crushing berries by keeping them in his hand. As soon as one or two berries are picked they should be put into the box.

A Full Box of Berries

We do not grade our berries. Under no conditions should small berries be put into the bottom of a box with large berries on top. This just does not impress a customer and there is no excuse for a pack of this kind. A crate should have all well-filled boxes; not just the top half of the crate.

The ventilated box and crate, sometimes called the Michigan Crate, is the best. These boxes have a larger top, are metal rimmed and show off the berries well. The non-ventilated old-style Hallock Crate (square type box) has poor sales appeal; I do not advise this style, and it is not legal when shipped into Michigan.

So far, I have had only my regular packers pick my berries. In some localities where a grower may have difficulty in obtaining enough pickers it may be a solution to have people come in to pick their own berries, but I do not think it a wise policy for growers to open their fields to the public.

Give Good Measure

I want again to stress the point of giving good measure. I instruct my packers to be sure to fill up any boxes that come in from the field that do not meet this requirement. I find this one of the best means of advertising.

WHY LIMA BEANS FAIL TO SET PODS

By John A. Schoenemann, Department of Horticulture

Question: Last season my lima beans grew well, but failed to set pods. What could have been the reason for this trouble occurring?

Answer: Lack of pod set is actually a fairly common problem in growing lima beans and is usually due to one or more of the following reasons:

1. **Varieties**—The small-seeded varieties such as Henderson Bush will usually set and produce better than the large seeded varieties like Fordhook, under adverse growing conditions. Of the large seeded varieties Fordhook 242 is usually more dependable than ordinary Fordhook or Burpee's Bush.

2. **Fertility**—Balanced fertility is essential for satisfactory production. A medium supply of nitrogen with relatively high levels of phosphorus and potash are essential for good growth and set. From 600 to 800 pounds per acres of a 3-12-12 or 3-9-18 mixture broadcast before planting or up to 400 pounds per acre beside the row is suggested.

3. **Spacing**—Overcrowding of plants in the row can result in poor pod set. Small seeded varieties should not be planted closer than three to four inches apart in the row, while large seeded varieties will produce best at a spacing of around four to five inches between plants.

4. **Insects**—Leaf-hoppers feeding on lima bean plants particularly during the blossoming stage can cause severe blossom-drop with resulting poor set. Leaf hoppers may be controlled with a three to five per cent DDT dust or a spray containing ¾ pound of actual DDT per acre.

Considerable research is in progress at various experiment stations throughout the country on the possible use of hormone sprays to promote better pod set in limas. To date results have not been too favorable. However, newer materials and methods along this line may lend help on the lima bean pod set problem in the future.

Question: Are honey bees necessary for the pollination of lima beans.

Answer: Lima bean blossoms are largely self pollinizing. A poor set is therefore not due to lack of bee activity. The introduction of honey bee colonies is of no real help in lima bean production.

VEGETABLE GROWING QUESTIONS AND ANSWERS

By John A. Schoenemann

Department of Horticulture

Good Demand for Vegetables

Question: What are the prospects for the sale of fresh and processed vegetables in 1953?

Answer: We can look for continued high demands for fresh and processed vegetables, according to the United States Bureau of Agricultural Economics. Prospective 1953 spring plantings for a number of commercial vegetable crops are up over 1952. Increases are reported for asparagus, broccoli, cabbage and onions. For 1953 it is especially important to study your production operations. Costs for producing vegetables in 1953 are likely to be higher. Aim at higher yields, better quality, and increased production efficiency. Of special importance to growers this season will be the use of improved varieties, efficient fertilization, mechanization wherever possible,

chemical weeding, efficient disease and insect control, and better marketing and merchandising methods.

Minor Fertilizer Elements

Question: Should minor elements be applied as a fertilizer for all vegetable crops?

Answer: Minor elements need be applied for growing vegetable crops only where deficiencies are known to exist in the soil or where the crop in question is known to have an unusually high demand for a certain minor element. For example, onions usually respond to added manganese and copper, while beets are known to have a high boron requirement. Soil tests are your best guide for indicating possible soil deficiencies of the various minor elements.

Quack Grass In Asparagus

Question: Can quack grass in asparagus planting be controlled with chemicals?

Answer: Where patches of quack grass begin to establish themselves in asparagus plantings, 40 to 50 pounds per acre of TCA as a spot treatment may be used. This treatment, however, will also injure the asparagus in the areas so treated.

Annual grasses in asparagus beds can safely be controlled by using eight to ten pounds per acre of TCA once a season.

SAVE LABOR WITH CHEMICAL WEED CONTROL IN STRAWBERRIES

On new strawberry plantings "Crag Herbicide" kills germinating seeds of many of the broad leaved weeds and annual grasses. To be most effective the planting should be hoed clean just before the application is made, according to the Department of Horticulture, U. W. The first spray should be applied approximately 2 to 4 weeks after planting, and a **second spray may be applied 4 to 5 weeks after the first application.**

The second application may slightly retard runner rooting, but it is believed that the labor saving through better weed control will compensate for the possible slight delay in rooting.

The Spray Mixture

Make the spray mixture by dissolving from 3 to 4 lbs of Crag No. 1 in 40 to 50 gallons of water. This is enough to treat an actual acre of soil area. **To save on spray material the application may be confined to the plant rows 24 inches wide,** while the middles go untreated. In that way, 40 to 50 gallons will cover 2 acres.

From the Editor's Desk

OUR COVER PICTURE

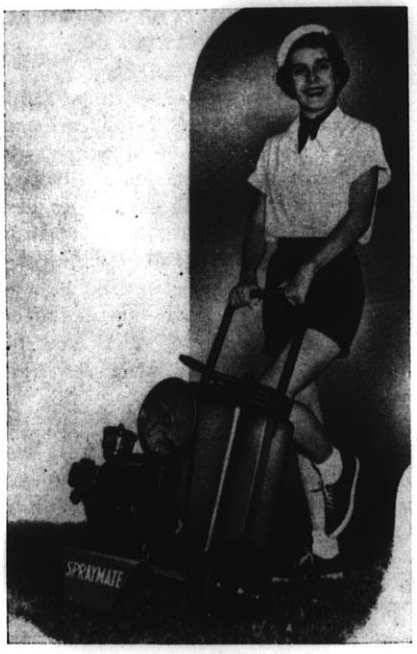
STRAWBERRY SHORTCAKE is the title of our cover picture this month, another painting by Mr. Chris Olson of Berlin, Wis. It could be raspberry shortcake too this month, but Mr. Olson grows ever-bearing strawberries so he and his fortunate customers can have fresh strawberry shortcake every day until freeze up. The painting, says Mr. Olson, was made in the month of October. The strawberries were fresh from the garden and the "flavor was as delicious and fresh as a spring breeze, their rich color and structure were a wonder to behold". As an artist we'll let Mr. Olson hold forth on the appearance of the strawberries, but we'll say, "What is better than strawberry shortcake—answer: two strawberry shortcakes and all at one sitting. You can put ice cream on yours if you want to, we'll take ours any way we can get them."

Also, we compliment Mr. Olson on a very fine painting of which our cover page is only a photograph we took which doesn't do it justice.

APPLE INSECTS—CAUSE FOR HEADACHES

Folks, if you should happen to see an apple grower walking around with a bottle of aspirin and a glass of water it may be because he is worrying about all the various insects that attack his crop.

Nor are apple insects new. Back in 1914, Slingerland and Crosby published a book entitled "Manual of Fruit Insects." They list 8 insects that attack the fruit; 38 insects that attack the buds and foliage; 13 aphids, scales, etc.; and 16 borers and miscellaneous insects. That's a total of 75 different insects. No wonder fruit growers have headaches, especially when some of these insects become resistant or immune to new insecticides that formerly controlled them. And when you eat a nice, clean, rosy-cheeked apple, free of insects injury and injury by fungus diseases — another problem, don't kick if in the cost of production there is an item for heachache powders.



A CONSUMER PRICED POWER SPRAYER

SPRAYMATE is the name of a new consumer priced power sprayer recently introduced by the John Bean Division and available from Bean dealers. This small, high-pressure power sprayer is considered ideal for use in controlling insect pests and plant disease in the small areas and gardens. The tank has a five-gallon capacity and ability to develop up to 200 lbs. of pressure. It can be used for weed and lawn spray at low pressures to insect control and shade tree spraying at high pressure. It can also be used for whitewashing.

NO MAGAZINE IN JULY

As has been our custom the Wisconsin State Horticultural Society will not issue Wisconsin Horticulture in the month of July.

We hope to be with you all in August and hope that July will find you busy and happy.

COMING EVENTS

June 17-18-19. Annual meeting. National Apple Institute. Roanoke, Virginia.

June 20. Saturday. Sixth Annual Exhibition and Rose Show "New Dawn". By Milwaukee Rose Society. Whitnall Park, Hales Corners.

August 18. Tuesday. Orchard tour and orchard machinery demonstration at Spencer Eames Orchard, Egg Harbor, Wis. Auspices Wisconsin State Horticultural Society and the Wisconsin Apple Institute, U.W. Departments of Horticulture, Pathology and Entomology cooperating.

August 26. Orchard tour for Wisconsin-Minnesota fruit growers. La-Crescent, Minnesota.

August 22-30. Wisconsin State Fair. Milwaukee.

September 17. Annual Convention. Garden Club of Wisconsin. Methodist Church. Fort Atkinson.

NATIONAL HEMEROCALLIS SOCIETY MEETS

The 1953 Annual Meeting of the Hemerocallis Society will be held in Evanston, Ill., July 16-18. Headquarters will be at the North Shore Hotel, Evanston (Davis St. at Chicago Ave.).

On Friday, July 17, buses will leave at 8:30 a.m. to visit gardens in the area. Some of the gardens contain over 1,000 named varieties. Visits will be made to the Mission Gardens and the University of Chicago Trial Gardens, the latter having 8,000 seedlings.

A number of men's garden clubs are cooperating with the Hemerocallis Society. For further details, write Elmer Claar, 1400 Lake Shore Drive, Chicago 10, Ill. Dues in the Society are $3.00 per year, payable to George Lenington, Box 139, Kansas City 41, Mo.

SPRAY TANK FOR SALE

We have a spray tank for sale. Write for details. Haas Orchards, Rt. 1, Box 7, South Milwaukee, Wis.

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

President
DR. R. H. JUERS
Wausau

Vice President
RALPH BURDICK
Edgerton

Secretary
MRS. JOHN BAYLESS
Rt. 2, Two Rivers

Treasurer
DR. H. A. KASTEN
315 Washington St., Wausau

Irrigate Your Gladiolus

By David A. Bosley, Dept. of Horticulture, U. W.

Irrigation or watering of gladiolus during the summer is always a puzzling job from the standpoint of when, how and how much to irrigate the plants.

We all know that water applied improperly can also spread disease organisms from plant to plant in the garden, so irrigation practices on gladiolus may not be as simple as they appear on the surface.

Water also is being used more and more to apply fertilizers in solution in gladiolus growing, and this practice also must be considered in any discussion of irrigation.

Soil Types and Drainage

First of all, soil type must come into the picture. Commercial glad growers look for a good source of soil to begin with, rather than attempting to change over undesirable soils. This eliminates about 50 per cent of their soil-water problems.

One of the most important factors to be considered in locating your gladiolus garden is that of adequate drainage. Beware of soils on which water accumulates after heavy rains. Poor drainage leads to slow and weak root growth, spindly top growth, and if serious, will contribute toward rotting of corms and further spread of soil diseases. A poorly drained soil also breaks down in structure and the soil particles pack together so tightly that the soil eventually becomes "puddled." This condition results in a hard, almost impervious crust formation on the soil surface which causes runoff of water, erosion if the garden has a slope of more than 5 per cent and poor aeration.

GLADIOLUS SHOW DATES

August 2. Annual show of the Southern Wisconsin, Northern Illinois Gladiolus Society at the grade school at Jefferson, Wis.

August 8-9. Wisconsin State Gladiolus Society annual State Gladiolus Show at Two Rivers, Wis.

August 9-10. (Sunday and Monday). Annual show and State Seedling Show by the Madison Chapter, Wisconsin Gladiolus Society. First National Bank Building, Madison.

August 22-23. Marathon County Chapter Gladiolus Show. YMCA. Wausau.

August 22-30. Wisconsin State Fair Gladiolus shows, West Allis.

A good, average soil for gladiolus would be preferably a sandy or medium silt loam which contains about 25 per cent organic matter by volume. This type of soil should drain freely, if the subsoil is porous, and it should result in easier planting and digging of corms plus freer cultivation during the summer.

Regular Watering Important

Regular and adequate waterings should be started when the top growth is about 5 to 7 inches high. This may not be necessary for early May plantings if the season is wet. However, in a dry, warm spring condition of the soil should be checked at least twice a week for excess drying. Loose, sandy soils low in organic matter will dry out faster than heavier clay soils. For this reason, corms can be planted about 4 or 5 inches deep in clay soils and 5 or 6 inches on sandy soils.

Whether you use an overhead sprinkling system or just soak the soil around the plants, it is important to provide a sufficient supply of water to reach the roots. Inadequate waterings have very little benefit for gladiolus. Here again it can be seen that a good porous sandy loam soil will allow quick percolation of surface water to the roots.

Overhead sprinkler systems are fine since they not only supply the needed water to the plant roots, but they also help to maintain a higher humidity in the planting. They are best used during extremely hot and dry days—probably they can be turned on twice a day for an hour during these times, in addition to the regular watering methods. The only precaution to be observed in using overhead irrigation systems, such as Skinner lines, is that of disease spread. When the florets begin to open, the overhead system of watering would best be replaced by soaking, since Botrytis spores can be spread very quickly through splashing water on the petals.

Fertilizing with Water

High analysis fertilizers, i.e., any with an analysis of 10-10-10 or above, are usually readily soluble in water and can be applied to the soil in an insecticide or fungicide spray tank. When applying fertilizer in this way, remove the nozzle from the hose line. Be sure to wash out the sprayer and run clean water through the lines after applying fertilizer, since these materials will corrode metal.

Simple siphons are now available

which can be attached on a bypass from the faucet end of the garden hose. These siphons supply a regulated quantity of fertilizer in solution which is mixed with the water and is subsequently applied to the soil.

When applying liquid feeds to glads if any material hits the leaves, it must be washed off quickly since burning will invariably result.

WISCONSIN HYBRIDISTS
DR. GEORGE H. SCHEER

Dr. George Scheer, now deceased, brought to his work of gladiolus breeding the scientific thoroughness and detachment that might have been expected of a physician and surgeon. Sheboygan born in 1878, he spent his entire life in that community in the practice of medicine and floriculture. Starting at the age of 5 in a corner of his horticulturist grandfather's garden, he was never thereafter without his plot of flowers. He was soon experimenting with the pollination of iris and had encouraging results, but after the purchase of some gladiolus bulbs in the 1930's his interests changed and he began mating the crosses which absorbed him the rest of his life.

Dr. Scheer credited correspondence with Professor Palmer, soon after Palmer's introduction of Picardy, as giving him his first real start in the right direction - that is, the keeping of accurate records and the application of rigid discrimination in the selection of glads to be introduced.

As an outstanding showman his presentation of his varieties at the shows were always well received. I am told that upon his showing of White Gold so beautiful and well grown were the spikes that he very nearly stopped the show.

The excellence of his introductions are attested by the number still in commerce and still winning after many years. To name a few: White Gold, long the leading commercial cream, consistent winner in the 306 class; Genghis Khan; Marseillaise; Eglantine; Phoebe; Burgundy; Deborah Sampson; and Patrician. **By Ralph Burdick, Edgerton.**

Paying taxes not only gives a man a stake in the government—it makes him fit to be tied.—**Cuba City News-Herald.**

MARATHON CHAPTER LOSES
Two Members

Mr. Albert F. Scholtz, our very capable and loved Treasurer died on Thursday, April 16, 1953. He was our Treasurer for the past 5 years and will be sadly missed by all of us. He was also a Director of the State Society for 3 years.

Mr. Val White, a faithful member and past President of our Society, died on Saturday, April 18, 1953. He, too, was a Director of the State Society for 3 years.

Al Scholtz and Val White had much in common — being neighbors, loving glads, and being genuine friends to everyone who knew them.

Our Chapter will miss these two men very much. We are proud to have had the opportunity to work with them and to know them. **Marathon County Glad Society. By Archie A. Spatz, Schoefield.**

MARATHON CHAPTER NEWS

The Marathon County Chapter of the Wisconsin Gladiolus Society at the April meeting set the date of the annual Glad show for August 22-23. It will be held in the YMCA Gymnasium, Wausau. Archie Spatz was named Show Chairman.

Prof. H. E. Halliday, Assistant Chief of the Division of Plant Industry, spoke on "Glad Diseases". Many members brought bulbs and a general discussion on identification of diseases and how to treat them was held.

At our meeting held on June 1st, Mr. David Bosley, Extension Specialist for Commercial Floriculture of the College of Agriculture as speaker on "Summer Care of Glads." **By Mrs. Ed Kramer, Pub. Ch'm.**

OUT OF STATE
GLADIOLUS SHOW DATES

July 19, Edwardsville, Ill.

July 25-26. Rantoul, Ill.

August 2. LeRoy, Ill.

August 8-9. Kankakee, Ill.

August 15-16. Garfield Park, Chicago, Ill. (Central International Show)

August 18-19. Eastern International Show. Binghamton, N. Y.

August 22-23. Springfield, Ill.

WISCONSIN STATE SEEDLING GLADIOLUS SHOW
MADISON, AUGUST 9-10

The Wisconsin Seedling and New Introduction Gladiolus Show will be held in conjunction with the Madison Gladiolus Show, August 9-10, at the First National Bank, Madison, Wis.

Seedling Schedule
Single Spike

Section A. 4½ and over.
Section B. Under 4½.
Section C. Three spike - any size.
Section D. Vase or basket - 12 spikes.

Recent Introductions
Introduced from 1949 - 1952

Section E. Single spike, any size.
Section F. Vase or basket - 12 spikes.

Color Classes
Seedling or Recent Introductions

All spike sections will be shown in 12 color classes.

Class 1. White and Cream
Class 2. Yellow
Class 3. Buff and Orange
Class 4. Salmon
Class 5. Scarlet
Class 6. Pink
Class 7. Red
Class 8. Rose
Class 9. Lavender
Class 10. Purple
Class 11. Violet
Class 12. Smoky and Any other color.

American Home Achievement Award

Section G. The American Home Achievement Medal is given to the most worthy undeseminated gladiolus whether shown by the originator or someone else. Separate entry required.

At least 3 spikes must be shown. All entries for this award will be scored.

RULES

The First National Bank, Madison, will be open for entries on Saturday at 2 p.m. August 8, and at 6 a.m., Sunday, August 9. Judging begins at 11 a. m. on Sunday.

MERIT SYSTEM judging will be used in Seedling and R.I. sections. Only "Excellent" ribbons (blue) given on seedlings.

Special Trophies

Trophies will be given on the usual major awards by the First National Bank.

Committees

Chapter President, Gerald Wilke, Madison, Show Manager; James Torrie; Ass't. Show Manager, Leighton Tucker; Supervisor of Judges and Schedule, Theo. Woods, Madison.

Nursery News & Notes

For The Wisconsin Nurserymen's Association

What's New In Merchandising Nursery Stock

The Wetli Offices and Garden Store Fills A Need For Better Merchandising

Wetli Landscape Service Office, Garden Store and Nursery is located in Green Bay on South Bellevue Street only a short distance from some of the finest residential districts of Allouez, De Pere, and Green Bay.

In 1952, we decided there was a need for a Garden Store and a better method of merchandising nursery stock. After a trip to Ohio in January and visiting many Cash and Carry outlets we had many ideas. Having help available at that time of year, we decided to build without hiring outside help and started digging for the footings on February 11. April 4, we moved in and began operating from our new building.

The building is 42 x 46 feet and the Lath house is 50 feet long attached to the north end of the building and the same width as the building. One half of the building is used for Garden Store with the general office, private office and lavatories in the remaining part of the building.

Each side of the building has an entrance, with the main entrance off the parking lot to the south of the building. Most of the traffic passes through the store to get to the Lath House. Employees come in the back door to the general office without interfering with the customers.

In the Lath house is kept a supply of Evergreens and potted plants such as Roses, Perennials, etc. To the west of the building are bins where we have many potted shrubs, and small shade trees.

The building and grounds are arranged so the customers have to do very little walking around to find what they want. Wheelbarrows are available for wheeling stock.

We have tried to stock the Garden Store with a complete line of Gardeners needs featuring many "New" Gardening aids. Our aim is to make our store a one stop Gardening Center.

There is a large expanse of lawn in front of the building with Shade Trees, and more landscaping is planned. North of the Lath house is a wide path of **Merion Blue Grass** with a display garden of Perennials and several thousand Tulips. Large quantities of Chrysanthemums are planted for fall show.

The building is constructed so it can be enlarged very easily. The cost was kept down by using our own help almost entirely, and we are very proud of the results as none of the men are carpenters by trade.

MALATHON CONTROLS MEALY BUG

A new organic insecticide has proved effective in controlling two greenhouse pests in experiments recently conducted at the Connecticut agricultural experiment station. In these tests, mealy bug and euonymus scale were wiped out by Malathon, an organic phosphate, which is similar to other chemicals on the market in its high insect-killing power but is far less toxic to man and animals.

Applications of Malathon brought mealy bug completely under control. A 100% kill was obtained when 1 quart of 50%Malathon emulsion in 100 gallons of water was applied with a pressure sprayer. The application was made when few eggs were present on the plants; no repeat treatment was necessary, as none of the eggs hatched after the spray.

WHAT TO DO IN THE GLAD PATCH IN JUNE AND JULY

By H. E. Halliday

Ass't. Chief, Division of Plant Industry, Madison

Thrip will be the most important pest problem for the majority of growers. Control should start early and continue all summer. A summer long journey will assure clean uninjured flowers and you will not be carrying heavily infested corms into storage.

A 5% DDT dust will produce good results. The dust should be applied in the evening or early morning. Chlordane or toxaphene are also effective.

If you wish to spray, excellent results can be obtained by using an emulsion of one of the above materials. Follow directions on the container for correct amounts to use.

Treatment should start when the plants are 5 to 6 inches in height, and it should be repeated every 10 days—oftener in case of severe driving rains.

Do not spray or dust after buds show color. Treatment can be resumed after spikes have been cut, and should be continued until digging time.

Garden Club News

FLORAL DESIGN SCHOOLS MOST BENEFICIAL

The three Floral Design Schools held at Milwaukee, Oshkosh and Waupaca, May 19, 20 and 21, were very well attended and educational.

Mrs. Edward Ray of Lancaster, Ohio, presented a great deal of valuable material in the form of printed outlines, charts, drawings, colored slides and illustrations with arrangements. It was an intensive course for the student of flower arrangement and judging. We heard many favorable comments about the valuable material presented.

Mrs. Ray is connected with the Ohio Garden Club Association, similar to the Garden Club of Wisconsin. After 20 years of activity they now have 18,000 members.

LAKE GENEVA FLOWER SHOW HORTICULTURAL HALL, AUGUST 7-8

The Lake Geneva Flower Show which attracts attendance from far and wide will be a most elaborate affair this year according to reports. Chairmen of the show are Mrs. P. K. Wrigley and Mrs. Earl Zimmerman. It is sponsored jointly by the Garden Club of Lake Geneva, and the Lake Geneva Gardeners and Foremens Association. It will be open from 1 p.m. Friday, through Saturday with a Fashion Show on Friday evening.

Officers of the Gardeners Association are: Fred Krueger, President; Herman Bolweg, Vice President; Don Gates, Secretary; Phil Robers, Treasurer. Directors: Gus Meister; Alvin West; LeRoy West; Emil Faber; and Clifford Esmund.

INTERNATIONAL GERANIUM SOCIETY ORGANIZED

The International Geranium and Pelargonium Society extends an invitation to all Geranium fanciers and growers to join them. Plans include the publication of a Society Bulletin and a Convention in September. Individual membership dues are $2.00. Address Paul W. Jackson, P.O. Box 231, Santa Paula, California.

OSHKOSH CENTENNIAL FLOWER SHOWS, PAINE ART CENTER AND ARBORETUM, OSHKOSH

The Oshkosh Horticultural Society and the Paine Art Center and Arboretum at 800 Algoma Blvd, Oshkosh announce a series of flower shows open to the public without charge from 2 p.m. to 5 p.m. each Friday and Saturday during a period of six weeks during July and August.

The shows will start on July 17-18 with exhibits of cut flowers, arrangement classes and African violets.

On July 24-25 there will be exhibits of Regal Lily, Petunias and collections of annuals with arrangement classes and house plants.

On July 31-August 1, there will be Phlox and Gailardia, arrangement classes and houseplants.

On August 7-8, horticultural classes, arrangement classes and tuberous rooted begonias.

On August 14-15, horticultural classes, gladiolus and arrangement classes.

On August 21-23 the show will be of **bouquets of one variety** of Asters, Marigolds, Salvia and Zinnias.

ANNUAL CONVENTION GARDEN CLUB OF WISCONSIN Of The Wisconsin State Horticultural Society

Methodist Church, Fort Atkinson, Wis. Thursday, September 17, 1953

Outstanding garden speakers and a flower show will highlight the 4th Annual Convention of the Garden Club of Wisconsin. Reserve the date now. Complete program in the August issue.

SIXTH ANNUAL EXHIBITION AND ROSE SHOW

June 20 — Whitnall Park

The Milwaukee Rose Society's 6th Annual Exhibition and Rose Show will be held at Whitnall Park, Hales Corners, on June 20, 1953, from 1 p.m. to 9:30 p.m.

Officers of the Rose Society are: Alfred Mueller, President; Dr. Leo Cogan, Vice Pres.; Mrs. Carl Velguth, Jr., Sec.; Co-Chairman, Mrs. Rushen Wilson; Staging Chairman, Mrs. John E. Voight.

AFRICAN VIOLETS

Exceptionally fine plants available in various sizes and prices. Visitors welcome at the greenhouse.

Mrs. O. F. Isenberg, 433—3rd St., Baraboo, Wis.

AFRICAN VIOLETS

FOR SALE: African Violet leaves: Old and New Varieties. Send stamp for price list. Rooted cuttings and plants at the Greenhouse. Mrs. Chester Graham, Fennimore, Wis.

Spring Meeting of Our Central Region

By Rose E. Braman, Pres. Waupaca

Those who could not be with us when members and guests met for the Spring Meeting of the Central Region of Rosholt on April 16, missed a big treat. Before the day was over, the 78 horticulturists in attendance were itching to exercise their green thumbs, and went home filled with enthusiasm.

The day's activities began at 9:30, and the friendly welcome of President Mrs. Harry O. Hanson of the Rosholt Club, reflected untiring efforts to make our meeting a success. From the first, the registration, hospitality, and luncheon committees were on the job and to them we say "well done."

Since we meet only twice a year there was much to be done and everyone present cooperated beautifully. A tribute was paid to the administration just ended, the growth in membership alone is proof of stimulated interest. The Park Ridge Club was welcomed as members of our organization, and the one thing that impressed me so much was the friendliness between members—so willing to share the good things with their neighbors. Judging from the many new faces it proves that "gardening" interest is on the increase.

Of interest to all was the invitation by Mrs. Curtis Hanson, President of the Scandinavia Club, to come to Scandinavia for our 4th Annual Meeting. This was heartily accepted and our meeting will be held in October, following our State Meeting. In making plans for this meeting we welcome suggestions from one and all. New officers will be chosen during the morning session of our Fall Central Regional Meeting. Members of the nominating committee appointed are Mrs. R. C. Van Raalte, Ogdensburg; Mrs. Frank Long, Clintonville, and Mrs. Jack Olson, Amherst.

Introduced were Mrs. Myron Erickson, our member of the State Judging School, and Mrs. George Willett, Vice President of the Executive Board, Garden Club of Wisconsin, who spoke briefly of flower shows she and Mrs. Erickson were privileged to attend in Florida during the past winter.

True hospitality was expressed in the flowers that greeted us as we entered the Auditorium. The luncheon tables presented a highly festive picture bringing spring indoors. We thank Sorenson's Floral Shop and J. A. Walters, Florist, Stevens Point, and the Guyant Florists of Amherst for their generous contribution. Our thanks also to the Rosholt ladies for the beautiful corsages which were waiting for us.

It was a distinct honor to have our State President Mrs. Chester Thomas with us. Needless to say, she possesses wide knowledge of Wisconsin Garden Club purposes, and a clear vision of accomplishments for our organization. She was a challenge and inspiration and through her dynamic leadership, the purposes of our organization will be carried out.

Interesting and delightful were the topics on "Herbs" given us by Mr. T. A. Potter of "The Potters" and "How to Grow Begonias in Your Home" by Mrs. Ray Kartack both of Baraboo. Each gave a very fine presentation, so instructive, for which we are very grateful to them.

We also express our appreciation and thanks to our mainstay, Mrs. H. J. Rahmlow, whom we are always glad to see and hear. He advocates that horticulture is the true foundation of all gardening, and his instructions help us to promote good gardens.

Thank you all for your loyal support.

Fresh Frozen Strawberry Jam

Put berries through a food mill (enough to make 3½ cups). Put 1 cup of water in a kettle, add 1 package of pectin. Boil hard for 1 minute. Remove from heat. Add berries and 5 cups of sugar. Stir for 5 minutes until sugar is thoroughly dissolved. Put into jars. Cool for 24 hours. Seal air-tight and freeze. — **From Victor Heinz, Cleveland.**

Club News

WEST ALLIS CLUBS MEET

Members of The Garden Club Association of West Allis and Vicinity and their husbands entertained at a Buffet Supper and program on April 21, at the First Baptist Church of West Allis. Invited as guests were members of The Westchester Garden Club, Brookfield Garden Club, Orchard Grove Garden Club, and Tess Corners Garden Club and their husbands.

The speakers of the evening were Mr. H. J. Rahmlow, Secretary of the Wisconsin Horticultural Society who spoke on "New Trends in Horticulture," and Mr. E. L. Chambers, Treasurer of the Horticultural Society and State Entomologist, whose topic was "Insect Control the Modern Way". A film "Tulip Time in Holland" was also shown by Mr. Elmer C. Berg.

It was a most interesting and enjoyable evening.

By Mrs. Fred J. Wrobbel

THE NORTH PRAIRIE GARDEN CLUB FLOWER SHOW

The Garden Study Club of North Prairie will hold a flower show, garden display and sale at the **Methodist Church on September 30**. Mr. H. J. Rahmlow, Madison, will be the speaker.

We are continuing our conservation and horticultural projects with the school children at Prairieview School. This year we purchased record albums of bird calls for them, and the lower grades made booklets on birds and invited us to a garden party at the school. The upper grades wrote booklets on conservation. **By Mrs. John Heintz, Sec.**

PLYMOUTH GARDEN CLUB NEWS

The Plymouth Garden Club will hold 4 out-of-doors meetings at the homes of members this summer. One will be at the historic Wade House at Greenbush. A Home Beautification contest will also be held. The June meeting will be at the home of Mrs. Gritt and Mrs. Wm. Curtiss, a place of historic interest. We will not have a flower show this summer but will hold a hobby show the first week in October.—**By Henry Winn, Sec.**

FORT ATKINSON GARDEN CLUB NEWS

In April the Fort Atkinson Garden Club celebrated its 24th anniversary. The majority of members are husbands and wives—16 couples in the club.

In June the entire club will take part in a tour by auto to the Morton Arboretum at Lisle, Ill. with a a potluck picnic dinner. In July the annual picnic will be held in the garden of one of our members.

The annual state convention of the Garden Club of Wisconsin will be held in Fort Atkinson on September 16. The club is making many plans for your entertainment. There will be a zinnia show in connection with the convention. October is guest night for our club and we are inviting neighboring garden clubs to be our guests. A Christmas party is enjoyed each year by our members.—**By Mrs. Roy Baker, Sec.**

MUKWONAGO GARDEN CLUB NEWS

The Mukwonago Garden Club members went on an all day tour to gardens at Cooksville, Rock County, June 7th. On June 21 we will hold our annual picnic and strawberry dinner at the Dr. Ralph Marsh home. In July will have a picnic and tour at Whitnall Park. On September 5-6, will hold our **annual flower show at the Mukwonago Masonic Temple. All Garden Club members invited.** Saturday, 2 p.m. to 10 p.m. Sunday, 10 a.m. to 9 p.m. No admission charge. **By Mrs. Lester Buell, Sec.**

WESTERN TOUR

A western tour is planned for the middle of July to the Bad Lands: Black Hills, South Dakota; Yellowstone Park; Salt Lake City and Denver. For details contact Mrs. Elmer B. Smith, 1430 N. 15th St., Sheboygan, Wis.

THE BROOKLYN BOTANIC GARDEN

"The Brookly Botanic Garden is a beautiful place," writes W. R. Leslie in the Weekly Notes of the Morden Experiment Station (Canada). He continues: "The 50-acre institution had its birthplace in 1911 on an ash dump and adjacent waste land. The creation of new landscapes was tied inseparably to botanical and horticultural research. The land and buildings belong to the City of New York. The long-term educational and scientific work in the Garden is supported largely from private funds—gifts, bequests and memberships. The Garden has one of the world's great collections of living plants; an outstanding library of about 50 thousand volumes dealing with every phase of horticulture and botany; it is open every day—no charge of admission."

It's the place to visit when in New York.

FLOWER ARRANGEMENT LECTURES

Duluth, Minn., August 6

Mr. and Mrs. Carl Starker, nationally known flower arranger and lecturer from Jennings Lodge, Oregon, will lecture and demonstrate on the art of flower arrangements at the Covenant Club, 117 W. First St., Duluth, Minn., on Thursday, August 6.

Mr. Starker has published a book "Western Flower Arrangements" now in its 3rd printing. A new book, Carl Starker's "Album of Arrangements" will be published soon.

In charge of the lectures in Duluth is Mrs. W. A. Swanman, 5232 Glendale Street, Duluth.

The Duluth Garden Flower Society will hold its 26th Annual Flower Show in the Hotel Duluth Ballroom on August 20-21.

WELCOME FRIENDLY GARDEN CLUB OF COLEMAN

We welcome to membership the Friendly Garden Club of Coleman who sent in their dues during May. This is the second garden club to join us in this section of the state—the Nearnorth Garden Club of Crivitz having been members for the year.

Garden Gleanings

INTERESTING FACTS ABOUT PANSIES

The name "Pansy" comes from the Frenche name, "Pensee," which means thought. The other less popular English name is "Heart's-Ease."

The internationally used latin name is **Viola tricolor maxima.** The small flowered and somewhat hardier are **Viola cornuta,** also sometimes referred to as "Tufted Pansies."

All Pansies or Violas originated with the crops of the tiny wild flower "Johnny-jump-up" and the small golden flowered **Viola lutea.**

The motherland of Pansies appears to be England. They definitely prefer this cool, damp climate.

Yellow is the strongest or dominating color in Pansies. Where it is combined with another color, it will gradually push back its opponent during a growing season, varying with the weather.

Seeds of Pansies will "pop" 2 to 6 feet out of the pods as they ripen. There are about 20,000 seeds in an ounce. It seldom germinates well after 1½ years.

Starting pansies is done as easily indoors in February-March as outdoors in July-August—if grown cool (40 to 50 degrees).

Pansies are semi-hardy. Well mulched, or where winters are mild they winter over nicely. But for best quality plants it is best to replace plants every second year.

Picking wilted flowers off is definitely a help to prolong flowering and improve their appearance.

Germination will take place in about 10 to 20 days if kept uniformly moist (never wet) and shaded until germinated. Barely cover seed.

Most failures to germinate seed are due to planting too deeply or letting seed bed dry out.

Leaf mold and peat moss (about ¼ each) are ideal for soil mixture. Grass clippings are fine also where planted permanently.

Seed storage of sun dried seed is best in an air-tight jar and where temperature changes are the least, preferably 40 to 50 degrees.—**By Arne Knutsson, In Ball Seed Co. Bulletin.**

FAVORITE IRIS

Each year the American Iris Society chooses favorite varieties of Iris. This past year the balloting was open to 4,500 members of the Society. Previous symposiums had been limited to accredited judges, according to Harold Knowlton, President of the American Iris Society.

Ola Kala leads the list for the fourth time. It is an intense yellow, very ruffled and a good grower in all parts of the country, originated by the late Jacob Sass. It received 1,009 out of 1,112 votes cast.

The following 12 iris have been on all symposiums from 1940 to date: **Amigo, City of Lincoln, China Maid, Elsa Sass, Fair Elaine, Gloriole, Golden Majesty, Great Lakes, Prairie Sunset, Sable, The Red Douglas and Wabash.**

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25 FAVORITE IRIS OF 1952

The date following the name denotes the year the variety was introduced; the figure in parentheses indicates its standing in the 1951 Iris Symposium, if it was among the top 100. DM means Dykes Medal winner (England).

1. Ola Kala '43 DM* (9)
2. Sable '38 (25)
3. Great Lakes '38 DM (16)
4. Blue Rhythm '45 DM (1)
5. Blue Shimmer '42 (3)
6. Lady Mohr '44 (6)
7. Elmohr '42 DM (14)
8. Chivalry '44 DM (7)
9. Snow Flurry '39 (30)
10. Solid Mahogany '44 (15)
11. Pink Cameo '46 (13)
12. Wabash '36 DM (48)
13. Master Charles '43 (8)
14. Minnie Colquitt '42 (23)
15. Bryce Canyon '44 (12)
16. Mulberry Rose '41 (21)
17. Amigo '34 (46)
18. Ranger '43 (19)
19. Helen McGregor '46 DM (5)
20. Azure Skies '43 (18)
21. Cascade Splendor '45 (11)
22. Amandine '46 (2)
23. Chantilly '45 (22)
24. New Snow '46 (10)
25. Cherie '47 DM (4)

BEST PERENNIALS OF 34 YEARS AGO STILL AMONG THE BEST

At the Annual Convention of the Wisconsin State Horticultural Society in 1918 Mr. John Hauser of Bayfield presented a paper entitled **"Ten Best Perennial Flowering Plants."**

It is interesting to note that Mr. Hauser's recommendations at that time are still good. He said:

"As to the old herbaceous perennials that one should have, I think the following is the order in which they may be named: peony, phlox, iris, hollyhock, delphinium, digitalis, campanula, Shasta daisy, pyrethrum, gaillardia, and coreopsis. That is really 11, but I think they all go together very well. There are some other kinds very desirable and not grown very extensively. The lupine, I think, is one of the coming perennials. We can grow it as an annual and it has considerable bloom in the fall. We have a great variety of color; pink, white and blue and I think it is a very desirable perennial."

Perennials Need Winter Protection

Mr. Hauser also said, in 1918: "As to the protection of perennials, I noticed in the December number of "Horticulture," this about the protection of herbaceous plants: Herbaceous plants that are really hardy will come through all right without any winter protection, and no amount of cover will pay. A light covering over the roots may be made, but it should be removed in the early spring. I do not know who wrote that, **but I am sure you will not agree.** We know that the most hardy plants in some localities, in some winters, will need protection and we know that a great many of the so-called half hardy varieties, if they are properly protected, can be grown in many places in our state."

Good way to keep up with the Jones folks is to take it easy for a while. Then, in a few years you'll meet them coming back.—**Marion Advertiser.**

An old Negro preacher wound up a long sermon on the woes of this world, with the following "Use me, O Lord, use me in Thy work—'specially in an advisory capacity."

Wisconsin Beekeeping

Official organ of the Wisconsin State Beekeepers Association

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WHAT HAPPENED TO THE APIARY THIS SPRING?

Bee colonies well supplied with honey and pollen reserves built up wonderfully well during April and May this year. Colonies, however, which ran short of pollen suffered from lack of brood rearing resulting in small populations during May.

Remember that "spring dwindling" may not be due alone to the death of field bees at any one period, but also to a lack of egg laying and brood rearing some 3 to 6 weeks earlier.

As an illustration of a strong colony let us say that it was well supplied with honey and pollen, had a good queen that laid a large number of eggs from April 1-15. Three weeks later, or from April 21st to about May 5th, the young bees would be hatching and increasing the population of the colony. Since there is a normal loss of old bees every day, a large number of young bees emerging daily would increase the strength of the colony so as to be quite noticeable.

Effect of Pollen Shortage

On the other hand, supposing that during the same period, April 1-15, the bees were unable to rear brood due to a shortage of pollen; then three weeks later, from April 21-May 5, the normal loss of old bees would exceed the emergence of young bees and the colony would become weaker.

Of course nosema infection would be a factor in spring dwindling because it would shorten the lives of the older bees and result in a population smaller than in a colony free from nosema. In fact, a colony infected with nosema and also short of pollen, could dwindle to the point where it would never recover to become a productive colony.

Inspect Early

Unfortunately there are still many beekeepers who do not believe in inspecting their colonies early and consequently never know exactly why their bees do not build up. In Wisconsin where our main flow from clovers may begin in early June, beekeepers who do not make every effort to have maximum brood rearing from the middle of March on, will never get a maximum crop of honey in June and early July.

ANNUAL CONVENTION WISCONSIN STATE BEE-KEEPERS ASSOCIATION FORT ATKINSON—OCTOBER 29-30

SUMMER MEETINGS

Wisconsin Beekeepers Association

July 20, Watertown Park Pavilion

July 21, Eau Claire Lakes Park

10:15 A.M.—Crop protection report from beekeepers present.

10:45 A.M.—Honey house sanitation, by Philip Kremer, Supervisor of Food Inspectors, Wisconsin Department of Agriculture, Madison.

11:45 A.M.—Business meeting.

12:00 to 1:30—Lunch hour—pot luck lunch to be served (bring a dish for each member of your family).

1:30 P.M.—"Know Your Honey" by Prof. V. G. Milum, University of Illinois.

2:30 P.M.—Comments from visiting editors and manufacturers present.

TREATMENT OF BEE STINGS WITH THE SYNTHETIC ANTIHISTAMINES

By J. Marsily, France, In Bee World (England)

The effects of bee stings are due to the action of histamine, some of which is contained in the venom, and more of which is liberated by the action of another constituent—a polypeptide, "apitoxin"—on the tissues. A first dose may cause sensitization, **i.e.,** liability to a much worse reaction to subsequent doses; desensitization may occur in time, but it is difficult to induce. The venoms of the aculeate insects and of vipers are similar in constitution and are said to sensitive one to another.

The antihistamine drugs are useful for prophylaxis and treatment; the author recommends promethazine hydrochloride (Phenergan() which may be used as a 2% cream or be taken orally as tablets or, in very severe cases, given by intramuscular injection.

GOVERNMENT OFFERS HONEY FOR SALE

The U.S. Department of Agriculture announced on April 20, that it will offer for sale honey that has been acquired under the 1952 honey price support program, amounting to about 7 million pounds which has not been redeemed by producers. The honey is available to buyers at point of storage. Interested buyers should contact the PMA Commodity Office serving their area. The nearest PMA office in Wisconsin is at 1006 W. Lake St., Minneapolis 8, Minnesota; also at 623 South Wabash Ave., Chicago 5, Illinois.

PRICE SUPPORT FOR HONEY

Government price support for honey is available for beekeeepers much the same as last year. The following prices will apply for 1953.

1. White or lighter table honey at 11.4c per lb. 2. Darker than white table honey at 9.4c per lb.

Application for price support should be made to the office of the County PMA committee in the county in which you are located. A complete "Honey Price Support" bulletin is available from that office or from Fruit and Vegetable Branch, PMA, Washington 25, D. C. Attention: E. M. Graham.

Pretending to be rich is the reason why so many people are poor.—**Bonduel Times.**

WHAT ARE ANTIBIOTICS

We've heard a lot about antibiotics during recent years. We've read about them. We use them—both for human beings and animals. We first used them to help combat infectious diseases. Then we discovered antibiotics helped promote growth. Studies aimed at finding out more about antibiotics are continuing.

But just what are antibiotics? Briefly, antibiotics are chemicals produced by bacteria, molds and other microscopic creatures. They interfere with and stop the growth of other microscopic life—including some of those which cause infectious diseases.

The antibiotics you hear so much about today were found on a long road of research, a road occasionally scenic but frequently rocky.

The antbiiotics which have survived the long series of bacterial, economic, toxicity, clinical and other tests include especially penicillin (from **Penicillium notatum**), streptomycin (valuable against tuberculosis), aureomycin, chloramphenicol (chloromycetin), terramycin and bacitracin.

The first two are perhaps the best known. Aureomycin, a golden yellow powder, is the first antibiotic to be used widely by mouth instead of injection by needle. Chloramphenicol also is effective by mouth.

How Manufactured

The production of antibiotics is a business requiring much investment and several kinds of technical ability. The antibiotics are typically made for the market in huge vats which sit on one floor with a high ceiling and protrude through the ceiling. These vats are manned in part on the floor above, by skilled workers. The best known medium (food) is piped into the vat, and the mass is "seeded" with the desired mold—carefully maintained for this purpose. Fermentation, very much as with yeast, is allowed to proceed under controlled temperature. The whole mass gradually becomes alive with the wanted mold. The antibiotic is poured into the "beer" by the multiplying organism.

At the appropriate time, this fermentation is released from the vat. The antibiotic is recovered by chemical and engineering operations. Much of the cost of an antibiotic is in the subsequent testing, retesting, packaging and distribution, rather than in manufacturing itself. **By Sidney W. Fox, in Iowa Farm Science, Oct. (Condensed).**

HOW OFTEN ARE LARVAE FED

Differentiation In Queenless Colonies, Especially Determination Of The New Queen.

By M. Kuwabara, Hokkaido Univ., Japan

Worker larvae 1-3 days old in a queenright colony were fed by the nurse bees 3 times an hour. In a queenless colony, worker and queen larvae 1-2 days old were all fed more than 10 times an hour; after 48 hrs. the rate of feeding of worker larvae gradually declined, but queen larvae were still fed at the higher rate and there was a temporary increase in feeding frequency, to 25 times an hour, at the time of the third moult. The nurses of queen and worker larvae were of the same age. In queenless colonies, worker larvae were capped more quickly than in queenright colonies (111 hr. instead of 130 hr.), and the worker pupae had 3 times as many ovarioles; the pharyngeal glands were also more developed. **—N. Spiers, In Bee World (England).**

WINTERING METHODS IN OTHER COUNTRIES

Wintering is still a favorite topic for experiment and discussion. In Canada the smallest losses occurred in hives with top and bottom entrances. In Scotland **large colonies** and adequate ventilation are recommended to reduce losses by Nosema, and the value of top ventilation is also stressed in France; on the other hand, in Germany bees have been wintered successfully in hives kept airtight from November to mid-March, and the humidity inside a hive covered with an impermeable material except for the entrance was found to be normal. Russian beekeepers are instructed to have **large colonies** well packed and in winter beehouses; a high concentration of carbon dioxide is considered desirable—the highest concentrations were found **in strong colonies** and with northern races of bees. In Yugolslavia, beekeepers who are forced to winter their bees on inadequate stores are recommended to restrict the colony to as few frames as possible, and to winter two colonies in one hive so that they help to heat each other. Aritificially heating the hives has been found to produce premature development of the colony. **From Bee World, England.**

NATIONAL APIARY INSPECTORS MEETINGS

By John F. Long

(Continued from April)

E. F. B.

European Foulbrood failed to receive the attention it deserved, probably still due to the fact that many states do not have enough European Foulbrood of a serious nature. By this, I mean colonies so heavily infected as to be a complete loss. But unless some miracle happens it will still be with us this year.

The Nosema Problem

I spent some time explaining to the group the damage that was being done annually to Wisconsin beekeepers by the continued importation of package bees from the South heavily infected with Nosema. It was hard for me to convey to them an idea of the loss that we were suffering. The loss was explained in two ways. (1) Results we obtain from packages, as well as the demoralizing influence of the introduction of Nosema-infected bees in any apiary. Failing to get the response I had expected, I asked this question "How many of the inspectors here have seen Nosema Apis under the microscope?" Two hands were raised. The others simply had never looked to see if they had Nosema bees in their state, going simply on some report which stated that no Nosema-infected bees had been found in samples from their state. Who said, "None are so blind as they who will not see?"

One little boy playing in the snow was having a wonderful time on his single ski—while the rest of his companions had the usual pair. A man stopped the boy and said to him, "Sonny, you ought to have two skis!"

The boy grinned up at him, "I know I ought to have, Mister. But you can have an awful good time on one ski if you only got one ski!"

Mother: "When that naughty boy threw stones at you, why didn't you come and tell me instead of throwing them back at him?"

Willie: "What good would it do to tell you? You couldn't hit the broad side of a barn."

STUDIES ON RED CLOVER POLLINATION

Seed Yield Varies with Distance from Honey Bee Colonies

Studies of Red Clover pollination have been carried on by the Iowa Experiment Station for several years. In 1952, the work included the study of proper placement of colonies for best Red Clover seed production.

The total of 33 colonies were placed on an 8 acre field of Red Clover along the east side of the field. This concentration of about 4 colonies per acre on Red Clover was deemed advisable due to close proximity of larger fields of Alsike Clover.

The seed crop was combined on October 5, and samples were taken at 100 foot intervals across the length of the field. The average yield of recleaned seed within 400 feet of the colonies was 142.4 pounds per acre as compared to 80.2 pounds per acre for the 400 foot wide belt across the far end of the field.

The conclusive information obtained is the distinct drop in seed yield beyond 400 feet from the colonies. This result coincides with the data obtained in 1950 and 1951. In 1950 the distinct decrease in seed occurred in the area between 400 and 600 feet from the colonies. In 1951 results showed the decrease to occur between 300 and 400 feet from the colonies.

The conclusions made by Mr. R. J. Walstron, Extension Entomologist, Iowa State College, in his article in the April issue of Information for Beekeepers, is "the correlation of the 3-year records emphasizes the need for placing colonies in the Red Clover fields to be pollinated. It also suggests the advisability of placing the colonies in groups in the field so that distance between groups are adjusted to take advantage of the maximum pollination occurring within distances of 300 to 400 feet from the colonies."

CUT COMB HONEY EQUIPMENT FOR SALE

Complete equipment for cutting and extractor for drying cut comb honey. For sale at a fraction of original cost. In good condition. Used for "Honey Hunks" which have excellent market. Write Wis. Hort. Soc. 424 Univ. Farm Pl., Madison, Wis.

HONEY NEEDED FOR STATE FAIR EXHIBIT

The State Fair Committee of the Wis. State Beekeepers Association is again asking for bids from beekeepers who can furnish honey to be sold at the Fair Exhibit.

Offers of case lots of various sizes of containers and colors are invited. Bids must be in by August 1st. Write Art Kehl, Chm., c/o G. B. Lewis Co. Watertown, Wis. either for more information or quoting the price on whatever sizes and types of honey you can furnish.

The State Fair honey exhibit is one of the important features in honey promotion. Thousands of prospective consumers see the exhibit and many may buy honey for the first time and become regular users.

PLANS TO TRY EVERGREEN SWEET CLOVER

Mr. Otto Zick, Rt. 3, Baraboo, long time beekeeper writes that he is planning to try the **Ohio Evergreen Sweet Clover** for bee pasture.

This variety of clover is quite late blooming and blooms over a long period of time, thereby being excellent for bees. However, this long blooming characteristic is not favorable for harvesting seed. There never is a time when all the seed is ripe. The difficulty of producing seed may mean that the seed will never be very cheap.

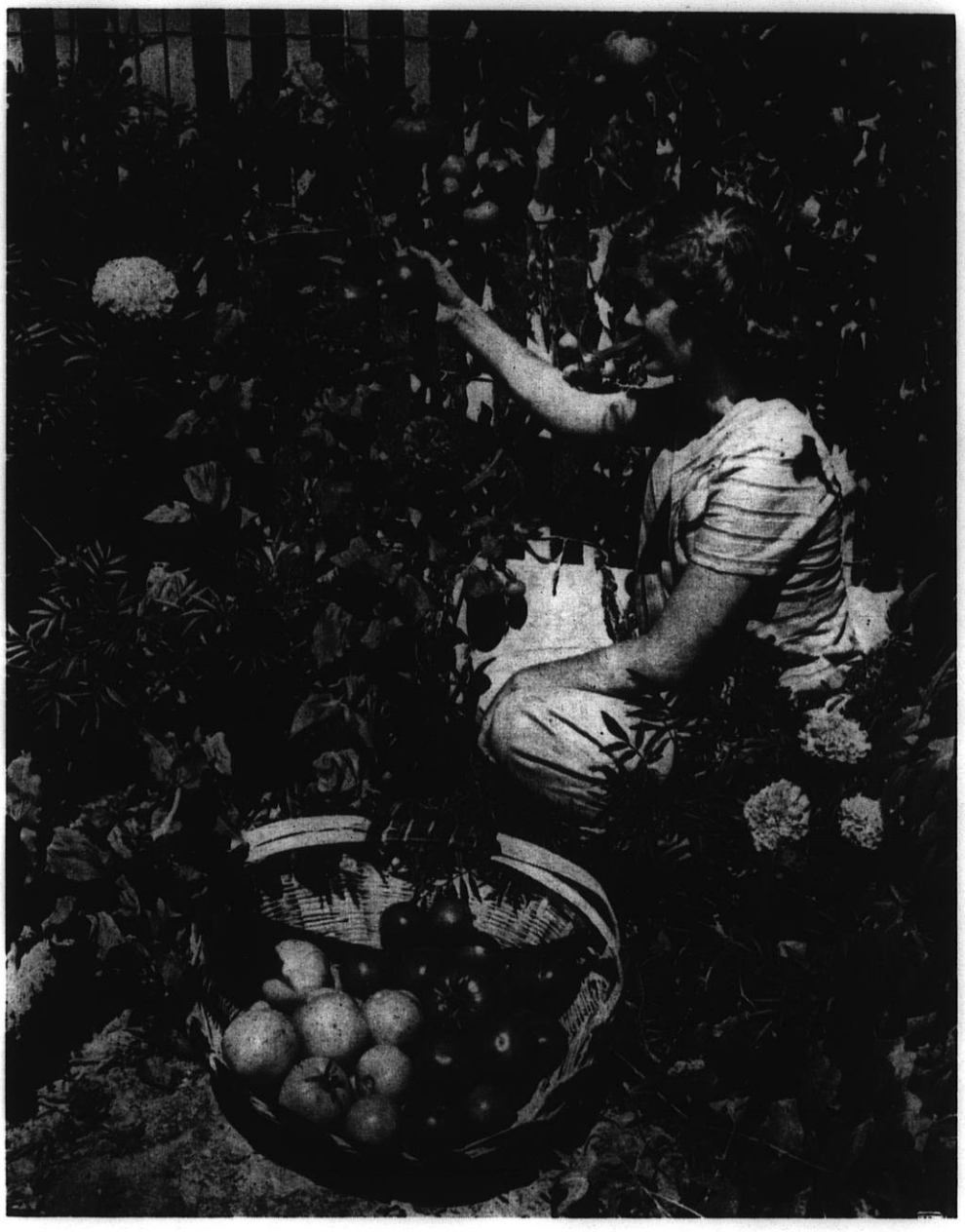
One of the problems of producing sweet clover is the presence of the weevil. If the weevil is present in large numbers when the seedlings come up they are often destroyed and a spray program should be adopted. Anyone interested in growing sweet clover should write to the College of Agriculture, Bulletin Mailing Room, Madison, Wis., for a copy of the bulletin "Sweet Clover Growing In Wisconsin".

For seed, write the Oklahoma Crop Improvement Association, Stillwater, Oklahoma, Seed is scarce.

HONEY WANTED

State color, flavor and amount you have in first letter. Will pick up and pay cash. M. H. Lyons, Logansville, Wisconsin.

Wisconsin Horticulture



August 1953

WISCONSIN HORTICULTURE

The Official Organ of the Wisconsin State Horticultural Society

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Subscription by membership in the Wisconsin State Horticultural Society. Annual dues are $1.25 per year. Organizations of 10 members or more may affiliate at special rates which will be sent on request.

Apple Marketing Studied

Wisconsin Apple Institute Board Meets To Consider Industry Problems

The Board of Directors of the Wisconsin Apple Institute met at a full day session at the Retlaw Hotel, Fond du Lac, on July 16.

Changes in the method of distributing apples under the School Lunch Program were discussed at some length. The National Apple Institute had considered a new plan whereby the schools would be given a certain amount of money with which they would buy apples in their local stores rather than receiving the apples under free distribution as in the past. The Board was rather favorable towards the older plan and passed a resolution to that effect.

NATIONAL PROMOTION OF APPLES. The Board was in favor of the national apple promotion program as being planned by the National Apple Institute at its annual meeting in Virginia last June. The problem of financing such a national program, however, is not an easy one. The Board members felt that the money now in the Wisconsin Apple Institute treasury must be used for plans already under way promoting apples in Wisconsin which are of great benefit to Wisconsin growers.

A resolution was passed that the Wisconsin Apple Institute will support the National Apple promotion program when it goes into effect by soliciting all apple growers in the state to send to the National organization a donation for that program.

The Board voted to accept the invitation of the Wisconsin State Horticultural Society to hold the annual convention in conjunction with that of the Society at the Retlaw Hotel, Fond du Lac on November 16-17.

NOMINATING COMMITTEE. Outgoing directors who have served for three years were appointed as a nominating committee by the President. They are: Merle Pennebecker, Waupaca; Armin Frenz, Cedarburg; Gilbert Hipke, New Holstein; R. L. Marken, Kenosha.

The Apple Crop

The USDA reported on July 1, a national apple crop of 102,320,000 bushel—a somewhat larger crop than last year's 98½ million. Wissonsin's crop was reported by USDA at 1,088,000 bushel, which is a little less than last year's 1,238,000 bushel. The state of Washington has the greatest increase: 28 million this year compared to 23 million last year. Michigan reporting 8½ million this year compared to 5½ million last year. All mid-Western states excepting Wisconsin report larger crops than last year.

The peach crop was reported by USDA at about 1 million bushel more than last year; 63½ million this year compared to 62½ last year. Greatest increase is in California, mid-Western crops being slightly under last year.

The pear crop is about the same as last year—30,910,000 this year compared to 30,947,000 last year. The largest pear producing states are California with 12 million; Washington with 7 million; Oregon with 6 million; and Michigan 1.1 million.

Apple Institute Needs Funds

Treasurer Armin Fenz of the Wisconsin Apple Institute reported a balance on July 16 of $976.81 in the treasury. This is not enough to carry on the extensive promotional progam being planned. A promotion director, Mrs. Joan Hood, has been employed during the harvest months to conduct a very intensive campaign through radio, television and newspapers. Twenty thousand new copies of the favorite bulletin Use Wisconsin Apples 52 New Ways" have been published. The Wisconsin Institute supports the National program and the National Apple Institute. Every commercial apple grower should join the Institute by sending the dues to Mr. Armin Frenz, Rt. 2, Cedarburg, Treasurer. The dues are $5.00 plus 50c per acre of bearing orchard.

Board of Directors, Wisconsin Apple Institute met at Fond du Lac, July 16 to discuss national and state problems on marketing apples. Seated from left: C. J. Telfer, Green Bay, Past President; Armin Frenz, Cedarburg, Rec. Sec.-Treas.; Gilbert Hipke, New Holstein, President; Henry Mahr, Caledonia, Vice-President; Harold Schubert, Madison, Past-President.

Standing from left: H. J. Rahmlow, Cor. Sec.; R. L. Marken, Kenosha; Bigelow Lourie, Gays Mills; Mearl Pennebecker, Waupaca; Art Bassett Jr., Baraboo.

How To Prevent
Pre-Harvest Drop Of Apples

Experiences in Michigan With TCPPA

By Arthur E. Mitchell, Dept. of Horticulture, Michigan State College

Annual Convention Paper

The introductory work of Gardner, Marth and Batjer using growth regulators on apples to prevent pre-harvest fruit drop has had a tremendous effect on the apple growing industry. That was only 13 years ago. Since then the application of naphthaleneacetic acid compounds (NAA) and 2,4-D for this purpose has become standard practice. Now a new compound, 2,4,5-trichlorophenoxyproprionic acid (TCPPA) has entered into the picture.

Results With TCPPA

The first report of TCPPA as a favorable compound to reduce pre-harvest drop of apples was made in 1949 by Hoffman and Edgerton of New York.

This compound was used at 20 parts per million on the variety, McIntosh. The authors not only included in this preliminary report the excellent property of the compound to prevent pre-harvest drop but they also included that there was an indication that TCPPA increased the red color of the fruit. In 1950 we in Michigan used this growth regulator on McIntosh. Under the conditions of the experiment, **it did not increase the amount of red color of the fruit** over that of the other treatments, NAA and check. Nevertheless, it was very effective in controlling pre-harvest fruit drop. However, Walter Toenjes, Superintendent of the Michigan State College Graham Experiment Station, did observe an increase in red color of the fruit of Jonathan, Red Delicious and Northern Spy from the use of TCPPA, but only when the fruit was allowed to hang on the trees longer than the normal picking period. These observations have been further substantiated by the reports of other workers.

During the past two harvesting seasons, fruit growers in Michigan have used TCPPA with comparatively little difficulty. Reports of growers are excellent sounding boards as to whether or not new chemicals or new methods

are favorable to the industry. It is for this reason that I am presenting some of the experiences and observations of the fruit growers who have been using TCPPA commercially in their orchards.

Observations by Growers

Mr. George Friday, located in Coloma in southwestern Michigan, has used TCPPA on Oldenburg, Early McIntosh, Red Delicious and Jonathan with varying results. In 1951 he used TCPPA at 20 parts per million on all varieties. As a result, the fruit of the Oldenburg was a **complete loss from becoming overripe.** The Early McIntosh fruit was in excellent condition 10 days after the application was made, but 5 days later one-third of the crop was lost owing to overmaturity. By contrasts the results from the **use of this compound on the later varieties were very favorable. When TCPPA was applied on McIntosh three weeks before harvest** the fruits receiving this treatment were more red and more mature at harvest time than those fruits sprayed one week later. Mr. Friday felt this happening was very favorable because he was able to pick this fruit first, and it was of better quality (more red color) for the fresh market. The Jonathan and Red Delicious varieties were sprayed twice with TCPPA using 20 parts per million. The fruits of these two varieties continued to hang on the trees and allowed for spot-picking throughout October. **Thus, only the better colored fruits were harvested at each picking and the poorly colored fruit was allowed to hang until it became more highly colored.**

Quality Improved

Mr. Dudley Phillips of the Midway Orchards, Lawrence, Michigan is a confirmed user of TCPPA. He makes the following statement: "We have found that the new material, Color-Set (The Dow Company TCPPA), has saved us several thousand bushels of apples because it held our fruit on the trees until the picking crews could get to them. It also saved in 'drops' at picking time normally occurring because of the handling of ladders by the pickers. Then too, with the better coloring of the fruit, we had higher grade apples that brought us better prices."

Fruit Drop Checked

A new user of TCPPA in 1952, Minard Farley, Jr., Farley Brothers Orchards, Albion, Michigan makes the following comments after the 1952 harvesting season: "During the harvesting season of 1952 the problem of fruit drop has been of no consequence, which we attribute mostly to the benefits of TCPPA sprays. We used TCPPA (Niagara Stickol) mostly at the rate of 10 parts per million. In comparing 10 and 20 parts per million on McIntosh we could see no difference in length of time of control or in the degree of control. Both concentrations gave satisfactory results. The check trees of McIntosh receiving no TCPPA spray dropped their fruit in the good old fashion way. The use of TCPPA has made it possible for us to make fractional pickings and to delay harvesting. The benefit derived from this has been truly gratifying. We picked 1,600 bushels of McIntosh where we saw only 1,200 at the beginning of harvest. Much the same experience occurred on Northern Spy. The increase in quality (color) has been just as marked as the story on bushels, all because it was possible to let the fruit hang longer without the worry of loss from drop."

Effect On Early Varieties

There is still a great deal to be learned about how TCPPA affects

the fruit when it is used on different apple varieties in various sections of the country and on trees varying in vigor. In 1951 growers in Michigan used TCPPA generally at the rate of 20 parts per million. On Oldenburg (Duchess) this concentration resulted in an almost complete loss of the crop in many cases owing to the accelerated rate of ripening of the fruit by the action of the growth regulator. The current suggestion for usage of this chemical on summer varieties is 5 to 10 parts per million. Lott of Illinois has stated that the rate of ripening of varieties maturing before September 1 is much more stimulated by TCPPA than varieties maturing after September 1. Studies carried on in Michigan varify the findings of Lott.

Effect On Storage Quality

In 1951 the question of how TCPPA affects the storage quality of McIntosh, Red Delicious, Jonathan and Northern Spy was ever present. Studies were carried on by Kessler, Lipsit and the writer to answer this question. It was indicated by these studies that if TCPPA is used as suggested and the fruits are picked before becoming overmature, treated fruit will store as well as untreated fruit. Also, it was found that fruits ripening after September 1 could be left on the trees for a limited time beyond the regular picking period to acquire added color without jeopardizing storage quality. However, fruits allowed to remain on the trees after the conventional harvesting period had to be watched closely to assure harvesting before they became overripe. Fruits of certain varieties such as Red Delicious that are allowed to hang on the tree too long acquire water-core. When not too severe, this malady is corrected in storage but the presence of water-core does affect the value of the fruit for immediate fresh market.

Summary

In the way of a summary the following statements may be made concerning suggestions to Michigan growers using TCPPA to control pre-harvest drop of apples:

1. On early summer varieties maturing at the time of Oldenburg (Duchess), TCPPA should be used at the rate of 5 to 10 parts per million. Spot-picking of treated fruit of this season should be carefully considered.

2. For varieties maturing at the time of Wealthy, TCPPA used at 10 to 15 parts per million is considered satisfactory. This range in concentration reduces the possibility of the fruit becoming over-mature before harvest. Here again spot-picking is necessary for high quality.

3. For varieties maturing at the time of and later than McIntosh 10 to 20 parts per million of TCPPA may be used without danger of the fruit becoming overripe. But, the time of harvest must be watched closely by the grower so that the fruit will be picked either at the proper stage of maturity for storing or for immediate fresh market. Ripe fruit does not keep well in common storage.

4. Increased red color of fruit from

(Continued on page 253)

How To . . .

Retail Apples At The Orchard

By the New York and New England Apple Institute

Some 50 enthusiastic apple growers who have been successful at retailing apples, swapped experiences and gave this Institute some valuable suggestions at Springfield, Mass., in February.

All sizes and types of orchard retail operations were represented, from fellows situated way back off the highways to men who have bulit their retail business beyond the capacity of their orchards and are obliged to purchase some stock.

Piecing together the high-lights of many thrilling talks, certain general factors stood out as obvious:

1. Retail marketing is universally profitable. It is often the only way to get a net return on No. 2 apples. With attention to cleanliness, it is possible to build a large outlet for cider at good prices, thus turning the lowly cider apple into an asset.

2. How to get customers to orchard retail stands. All used some form of advertising. Radio was deemed the quickest. Newspaper ads came next. Highway signs and arrows were generally used. Ample parking space was a must, as were neat and attractive buildings and surroundings. Many speakers emphasized the value of activities that would interest customers. Many sales stands were in packing houses where packing machines were in operation and at the cold storage buildings. Ed Knight keeps a two-color rabbit which hops about and delights the children; Harold Rogers, of Southington, Conn., uses the Indian motif, salesmen in costume and ponies for the children to ride; two others have model cider press rooms where the customers can look through big plate glass windows and see the cider made; one decorates his salesroom according to the seasons, Halloween, Thanksgiving and Christmas; Bob Josephy has built up a one-man festival, with the help of the PTA and other local organizations; another gives an apple to every child that comes to his place. In fact, almost all those who spoke had some side attraction to interest visitors.

3. How to take care of customers and secure repeat sales. Every speaker stressed the importance of establishing confidence in himself and his products. Have every item carefully marked with a price tag. Several have set prices at the beginning of the season and stuck to them.

Be sure the quality is the same in the bottom as at the top of any package. Give the customer any amount he wants to buy, One grower has a simple cider dispenser where the customer can help himself at 5c a cup. Beside it is a box of change so that the customer can make his own. He feels that by trusting others, he builds confidence in himself. Have enough sales people so that customers are not kept waiting.

4. Some interesting practices. Bob Josephy and Dorrance Green have their stands manned on week-ends only. Other days a member of the family comes out to wait on anyone who comes. For convenience they have installed warning bells, such as are used at filling stations, in front of their sales stands. As a general thing, cheaper apples were sold in larger packages, expensive fruit in 2, 4 and 8 quart containers. Some did not like to have any items priced below $1.00. Most used cash registers, but one believed it quicker to make change from the pocket. All agree that apples of a quality similar to those offered for sale in stores should be priced high enough to protect the retailer. Lower grades which do not compete could be sold cheaper. George Moore of First National Stores said that retailing apples at the orchard was the logical way to supplement store sales and create more apple customers. "Apples should be sold everywhere, like Coco-Cola." **Condensed from Apple Institute News, Feb.**

REMOVAL OF ABANDONED ORCHARDS POSSIBLE

Abandoned or neglected orchards can be removed under section 94.57 of the Wisconsin Statutes. This chapter provides "if the entomologist of the Department (of Agriculture) shall find on examination any nursery, orchard, small fruit plantations, parks, cemetary or any private or public premises infested with injurious insects or plant diseases he shall notify the owner or person having charge of such premises to that effect. And the owner or person in charge shall within 10 days after such notice **cause the removal and destruction of infested and infected trees.** . . . if they are incapable of successful treatment; otherwise such owners shall cause them to be treated as directed in the notice. No damages shall be awarded.

2. In case the owner or person in charge shall refuse or neglect to comply with the terms of the notice within ten days after receiving it, the inspector may proceed to treat or destroy the infested or infected plant or plant material. The expense thereof shall be assessed, collected and enforced as provided in section 94.54

Notify Bureau of Plant Industry

So—if you have in your neighborhood a neglected orchard which is harboring diseases and insects notify Mr. E. L. Chambers, Chief, Bureau of Plant Industry, State Capitol, Madison, who must then inspect the trees and notify the owner. If they are not taken care of, the Bureau must clean them up or destroy them at the owner's expense.

This question has been discussed at past meetings. The law is on the books —if you can make use of it.

FOR MORE MONEY FRUIT

AT HARVEST TIME

Use this...

Use Stafast if you prefer the Naphthalene Acetic Acid type. It's been used and proven since 1939 in orchards all over America. Contains Naphthalene Acetic Acid with Alkyl Aryl Sodium Sulfonates.

or this...

If you prefer the new Propionic Acid type, use Sta-set. It's backed up by four years of successful field tests and use...contains Triethanolamine Salt of Alpha-(2,4,5-Trichlorophenoxy) Propionic Acid.

Because these dependable ORCHARD® BRAND *Pre-Harvest Sprays help*

- ✔ reduce premature drop
- ✔ cut down windfall losses and harvest-time "knockdowns"
- ✔ improve the color, size and flavor of fruit
- ✔ increase your harvest of "money fruit"
- ✔ eliminate almost all necessity for spot picking
- ✔ ease labor problem by stretching out picking season

ORCHARD BRAND SPRAYS & DUSTS

Clear out tough Weeds and Brush in Orchards, Pastures, Fence Rows, etc.

use GC Weed and Brush Killers

● For weed and brush control *use General Chemical Low Volatile 2-2 Brush Killer* . . . contains a powerful combination of 2,4-D and 2,4,5-T. Gets such hard-to-kill woody plants as poison ivy, brambles, wild cherry. Also kills many annual and perennial broad-leafed weeds.

● For grass weed control use *General Chemical Sodium TCA Weed Killers, 50% Liquid Concentrate, 90% Powder.* Gets Crabgrass, Foxtail, certain other hard-to-kill grasses. Can be used in certain crops, on fence rows, roadsides . . . any place grass is a maintenance problem or a fire hazard.

Other General Chemical Weed & Brush Killers Include:

- 2,4-D Amine Weed Killer
- 2,4-D Ester Weed Killer
- 2,4-D Low Volatile Ester Weed Killer
- MCP Amine Weed Killer
- Potassium Cyanate Weed Killer
- Low Volatile 2,4,5-T Brush Killer
- Low Volatile 1⅓-⅔ Brush Killer
- Formula 7BD
- 40% Sodium Arsenite Solution

See your friendly Orchard Brand Dealer or write today for further information.

GC Allied Chemical

GENERAL CHEMICAL DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 Rector Street, New York 6, N. Y.

August Roundup

SPARTAN APPLE APPEARS ON NEW YORK MARKET

Many buyers gave their approval to the new Spartan apple which the Victor Joseph Co. sold through the New York Fruit Auction Corp. recently.

This was the first time the Spartan apple has ever been offered in New York. It was shipped from Kelowna, B. C., where 25 years of research have gone into its development and introduction. The new apple has white flesh resembling the McIntosh, and possesses some of the McIntosh characteristics, and is hoped to be less susceptible to bruising.—**From Eastern Fruit Grower.**

MECHANICAL AIDS FOR PICKING APPLES

In Washington State growers and scientists are working on the problem of perfecting mechanical picking aids. Several types of aids are reported in the July issue of Apple Research Digest, published by the Washington State Apple Commission.

Evidently, the mechanical picker has not yet been perfected as no mention is made of such a device. A mechanical picker was advertised last year made in the eastern part of the United States. Rather, all of the research is directed towards "picking aids." These consist of various types of hoists which elevate the picker to the top of the tree mechanically. Another device is a picking tube. The picking tube or sleeve consists of a large tube about the length of the man's arm into which the fruit is dropped when picked, then rolled to a bag fastened to the picker's waist. It is felt that improvement in picking will come through perfections in the picking process more than perfections in ladders or hoists. The greatest obstacle in the perfection of hoists for pickers is the high cost.

BOXKETS—NEW TYPE OF APPLE CONTAINER

The Wabash Fiber Box Co., 2000 N. 19th St., Terre Haute, Indiana, has sent us a circular on Boxkets, a new type of apple box in which our growers may be interested. They also produce a Jumbo-pack bushel box and also Jumbo-pack half-bushel box.

LADYBUGS—$8 A GALLON!
Destroy Vegetable Pests

You can kill off aphids, lygus bugs, flea hoppers, small worms and their eggs by placing handfuls of their natural enemies, ladybugs, at the bases of your vegetable plants 20 to 30 paces apart.

So says Geo. Quick, Phoenix, Ariz. dealer in ladybugs, who estimates 20 gal. of them will control pests on 100 acres of vegetables. He sells the "good" insects at $8 per gal. on advance orders, with $50 deposit. Each gal. contains 135,000 ladybugs and each bug eats about 45 other insects a day. The ladybug population grows 15 times bigger in 15 days.

"Released on crops, they keep on eating and multiplying till all the pests are gone," says Qiuck, "but never touch vegetation themselves."

—From the Market Growers Journal

TEST FUNGICIDES FOR LATE BLIGHT CONTROL

Bordeaux mixture, fixed copper, zineb, and manganese carbamate fungicides controlled late blight in 1951 potato tests.

D. C. Drake, R. K. Chapman, and H. M. Darling tested these fungicides in high gallonage sprays (100 gallons per acre) spaced ten days apart—a longer interval than growers ordinarily use.

Zineb and tribasic copper fungicides were also tested in low gallonage sprays of 15, 25, and 50 gallons per acre. At these rates they proved equally as good as in high gallonages.

Copper zinc chromate and a new organic fungicide, called Orthocide, weren't as good as the other fungicides for late blight control. —From What's New in Farm Science, U. W.

Antibiotic in Soil Sample from Arboretum at University of Wisconsin

A sample of soil from one of the old Indian mounds in the Aboretum Wingra Woods has yielded a mold which produces achromycin, an antibiotic effective against the parasite which causes African sleeping sickness. The soil was collected by Dr. B. M. Duggar and Dr. E. J. Backus, both on the staff of the Lederle Laboratories, Pearl River, N. Y., where the antibiotic was developed. Dr. Duggar is internationally famous as the discoverer of the well-known antibiotic aureomycin, and both he and Dr. Backus are former University of Wisconsin scientists.

—From Arboretum News.

WHEN TO PICK APPLES
J. R. Magness, U. S. Dept. of Agriculture

We have made studies as to the time of picking that will give the best storage quality in your fruit. We know you will run into difficulty if you pick too early, you will run into even more difficulty if you pick too late.

We have found the best criterion as to the time to pick is simply the interval from time of bloom. That may sound rather peculiar and yet we do find that rather consistently the apples reach the best storage maturity in about a definite interval from time of bloom. The time interval should not be used, however, as a completely arbitrary rule-of-thumb without taking into consideration the apparent condition of the fruit.

We know if fruit blooms very early it will tend to ripen early, but the interval from bloom will generally be a little longer if the boom season is early than if it is late. A light crop will also ripen a little faster than a heavy crop on similar trees.

Nevertheless, we feel that is a guide to when apples should be picked, the interval from time of full bloom is one of the best indicators. We take the time of full bloom as when the first petals are falling, and if you take that date and figure ahead, you won't miss too badly the right time to pick your apples. If the bloom is unusually early, the interval should be lengthened a few days, if the bloom is very late, the time interval should be shortened a few days.

The following table shows these time intervals for several varieties.

Number of Days from Bloom to Picking Maturity

Variety	To Start Picking	To Finish Picking
McIntosh	130	145
Jonathan	135	150
Delicious and color sports	145	160
Golden Delicious	145	165

Berries and Vegetables

Wisconsin Berry and Vegetable Growers Ass'n.

SUMMER MEETING FEATURES INTERESTING PROGRAM

Berry and Vegetable Growers Meet In Green Bay on June 9

The meeting of members of the Wisconsin Berry and Vegetable Growers Association at the Barlament and Greiling truck farms at Green Bay was marked by a most interesting program and good attendance.

Notebooks and pencils were much in evidence as members took down notes of what speakers Harry Barlament and Charles Greiling told about how they handled their strawberries and vegetables and when Professors Earl Wade, Dept. of Pathology; John Schoenemann, Vegetable Specialist, Dept. of Horticulture; George Klingbiel, Fruit Extension Specialist; Frank Gilbert, Supt., Peninsula Experiment Station; and Charles Swingle, grower of Sturgeon Bay, commented upon cultural methods for various crops. H. J. Rahmlow, Secretary, acted as Moderator.

Summary

Some impressions gained at the meeting:

1. Strawberry varieties must be tested on each individual farm before conclusions can be made as to their adaptability. Catskill was doing very well on the Barlament place, but not so well on the Greiling farm. Each grower should test the new varieties by buying 25 to 50 plants. When one is found that is adaptable, grow that one.

2. Fertilizers are being used in quite large amounts by some growers for strawberries. As a matter of economy, check-rows should be left without fertilizer to see if the addition of fertilizer brings a profit or pays its cost.

3. Irrigation is an important factor in strawberry production as well as that of many vegetables. It paid dividends this year.

4. New insecticides such as chlordane, dieldrin and parathion have made it possible for vegetable growers to eliminate insects that have been the cause of considerable loss in the past.

5. Virus-free strawberry plants are being grown on both Barlament and Greiling farms and Dr. Frank Gilbert outlined the program for production of virus-free plants at the Experiment Station. This is an important project and one that may lead to great benefits to the strawberry industry when virus-free plants become available to growers.

6. Sowing seeds directly in the field of such crops as cabbage, cucumbers, squash, melons, and then blocking them out is an economical practice as compared to growing plants in the seed bed and transplanting them.

7. Dr. Charles Swingle pointed out that experiments reported in the 1952 Yearbook of the USDA indicated that DDT inhibits the production of strawberry runners so it is well to use other insecticides on this crop.

Summer meetings of the organization have been so beneficial to growers that many more should attend them.

Raspeberries and strawberries are being grown successfully and with profit in the Fellner Cherry Orchard in Door County. Rows are spaced so a tractor can be driven over without injuring plants when spraying trees.

STRAWBERRIES AND RASPBERRIES CAN BE GROWN IN THE CHERRY ORCHARD

Newburg raspberries and Catskill strawberries are being grown successfully and with a profit in a young cherry orchard in Door County.

Joseph and John Fellner of Sturgeon Bay believe that growing small fruits for a period of about 6 years after the trees have been planted is a good practice. It enables them to make a profit from the fertilizer and other care they apply to the cherry orchard and it really benefits the trees because they do give them such good care.

Replacing Old Cherry Trees

As old cherry trees have served their usefulness, they are taken out. The land is put in good shape—organic matter being added in the form of manure, cherry pits and milorganite. If there is sod in the old orchard it is plowed under. A cover crop of oats is also plowed under in the fall.

The cherry trees are planted 20 feet apart. The strawberry plants are planted so one row is in the row of trees, and 4 in the center between the trees. They are spaced so that a sprayer can be driven over without injuring

the plants in spraying the cherry trees.

Raspberries are planted in 2 rows 5 feet on each side of the trees. The remaining space between the rows is not planted. The space between the rows of raspberries and trees is filled with straw mulch. Both raspberries and cherry trees can be sprayed at the same time, which they have found to be a good practice.

When the trees are about 6 years old, the berry plantation is discontinued. The land is then allowed to go into sod, and this with nitrogen fertilizer maintains excellent tree growth. In fact the Fellner Cherry Orchard in sod looked much better than some neighboring orchards which have been cultivated but on which not as much fertilizer had been used.

WHAT'S NEW IN VEGETABLE GROWING

From the bulletin What's New In Farm Science, published by the University of Wisconsin for 1952, we find the following interesting items about vegetable growing.

New Cabbage Meets Needs of Consumer

The Badger Market Variety is a new early cabbage with a round small head that isn't likely to burst open. It is the result of more than 10 years of work by Dr. J. C. Walker, R. H. Larson and G. S. Pound. Since the plants are smaller, growers can plant them closer together. That way the acre yield is about the same as for larger headed cabbage. Badger Market is resitant to the yellow disease.

COMING EVENTS

Sept. 7-9—Annual meeting, Potato Assn. of America, Univ. of Wisc., Madison; J. C. Campbell, treas., New Brunswick, N. J.

Nov. 30-Dec. 4—45th annual convention, Vegetable Growers Assn. of America, Inc.; Chase Hotel, St. Louis Mo.

Dec. 6-10—Annual convention, National Junior Vegetable Growers Assn., Tulsa Okla.; write Prof. Grant Snyder, Univ. of Mass., Amherst Mass., for data.

DDT Fails On Cabbage Worms

F. L. McEwen and R. K. Chapman reports that imported cabbage worms in the Racine-Kenosha truck crop area have become resistant to DDT. Dilan, at ½ pound per acre gave good control where DDT would not do the job. DDT had worked well for 5 years in the cabbage growing area, but wouldn't stop them in 1951. Different kinds of flies, mosquitoes, beetles, scale insects and lice have also become resistant to DDT which evidently develops after several generations are exposed to it.

Ice-fresh Sweet Corn

State-USDA marketing research is showing sweet-corn growers in the northeast how to maintain quality in roasting ears, and so avoid price markdowns that often wipe out profits on this vegetable. New Jersey experiment station studies, for example, demonstrate that packaging sweet corn in wet-strength paper bags with ice can save growers in Burlington County alone a quarter million dollars a year. They can market 52 ears of corn in an iced paper bag for 20 cents, compared to 33 cents for a conventional corn crate or 28 cents for a bushel basket. The iced bags also keep the corn fresher and give it more sales appeal to grocerymen and consumers.

STRAWBERRIES SENSITIVE TO DDT IN THE SOIL

Strawberry is highly sensitive to DDT — in fact, so very sensitive that merely dusting the rows of young mother and runner plant as for insect control, leaves enough DDT in the surface soil to interfere seriously with the formation of daughter plants. Apparently rooting at the nodes of the runner is markedly reduced by the DDT in the surface soil through which the young roots must pass if they are to become established and support a daughter plant. (Statement: page 288, of Insects: Yearbook of Agriculture, 1952, USDA.)

POTATOES DAMAGED BY INSECTS

Leafhoppers Cause Leaf Tips To Turn Brown

By R. K. Chapman,
Dept. of Entomology, U.W.

During a recent trip through Wisconsin the most noticeable insect damage on vegetable crops appeared to be that caused by leafhoppers on potatoes. This was particularly so on small plots of potatoes but many comparatively large fields were also damaged by hopperburn. The potato leafhopper is light green in color and feeds on the under sides of the leaves where they are not noticeable. Their damage to the plant is the result of the injection of a toxic material into the plant while they feed and cause the leaves to curl upward along the edges and then the tips and margins of the leaves turn brown and dried. The damage at first looks very much as though the plant is suffering from draught and later on as though it had been hit with blight.

A considerable amount of damage has already been done, but the plants can be improved in appearance and the yields increased by applications of DDT as a 3 to 5% dust at 30 lbs. to the acre; or, with the application of 1½ lbs of 50% wettable powder DDT to the acre as a spray. These treatments will also control any potato flea beetles or Colorado potato beetles which may be on the plants.

From the Editor's Desk

NEW HORTICULTURE HEAD AT U OF MINNESOTA

Dr. Leon C. Snyder, extension horticulturist at the University of Minnesota since 1945, succeeded W. H. Alderman as head of the department of horticulture at Minnesota on July 1.

Alderman retired on June 30 after 34 years at the University of Minnesota during which time he has distinguished himself for the work he has directed in breeding fruits, vegetables and flowers.

Dr. Snyder has become well known to thousands of Minnesotans through press, radio and television and through appearances at meetings in bringing the results of horticultural research to farmers and gardeners.

He came to Minnesota from South Dakota State college, where he was assistant professor in horticulture. Previously he had taught botany at the University of Wyoming.

THE GENEVA AREA FOUNDATION TO SERVE SOUTHERN WISCONSIN

In the heart of the city of Lake Geneva there stands a rustic vine-covered building. This is Horticultural Hall, which throughout its 42 years, has been a center for civic affairs, flower shows, etc. Within the building there is a large main hall with kitchen facilities and an open patio surrounded by a covered passageway. The nwely organized Geneva Area Foundation, which is managed by a Board of Trustees of three and a Board of Governors of ten, plans to perpetuate the purposes of the Lake Geneva Horticultural Society, who in 1911 formed the original corporation and built the building.

The articles of the Association made clear the aims of the founders as here quoted.

"The business and purposes of this corporation shall be the encouragement and promotion of the practice of horticulture in all its branches, and the fostering of an increased love of it among the people."

The Geneva Area Foundation plans to perpetuate the purposes of the Horticultural projects at Horticultural Hall. With that in mind, a room at Horticultural Hall has been privately furnished as a library and many splendid books have been donated by friends of the Foundation. The Services of a Horticulturist-Librarian have been secured for 3 days a week, thoughout the year.

This reference library and Garden Center will be open to the public and programs and movies of Horticultural interest will be given on Friday evenings as scheduled in local newspapers, starting after the formal opening June 27.

SUCCULENT PLANTS
Well Illustrated New Book Available On Succulents

Succulent Plants by A. Bertrand, author of Cacti, has just been issued by Philosophical Library, 15 East 40th St., N.Y. 16, N. Y. ($4.75).

The book is limited to a study of succulents of a horticultural interest, either by reason of their beauty or extraordinary appearance. There are 23 beautiful pictures in full color and 39 photographs. It is an ideal gift book. There are chapters on cultivation, propagation, enemies and the various families of succulents.

HORTICULTURAL SOCIETIES SECRETARIES MEET IN VIRGINIA

The first meeting ever held of Secretaries of State Horticultural Societies took place during the annual convention of the National Apple Institute at Roanoke, Viriginia on June 16.

Secretaries compared notes on activities, memberships, discussed magazines and publications, advertising rates and possibilities of mutual helpfulness in their programs of work.

Incidently, Wisconsin Horticulture came in for high praise by members of the group.

Secretaries of State Horticultural Societies at Meeting in Roanoke, Va., on June 16th.

Seated from left: C. W. Ellenwood, Wooster, Ohio; John Watson, Staunton, Va.; J. W. Ruef, State College, Pa.; S. P. Hollister, Storrs, Conn.; Carroll R. Miller, Martinsburg, W. Va.

Standing from left: H. L. Drake, Bethel, Kansas; Harold J. Hartley, Carbondale, Ill.; W. R. Martin, Columbia, Mo.; A. J. Farley, New Brunswick, N.J.; A. F. Vierheller, College Park, Md.; D. M. Dalrymple, Lockport, N.Y. R. L. Klackle, Purdue Univ., W. Lafayette, Ind. H. J. Rahmlow, Madison, Wis.

ORCHARD TOUR AND MACHINERY DEMONTRATION

Eames Orchards, Egg Harbor. Door County (County Trunk E)

TUESDAY, AUGUST 18, 1953

10 a. m. Orchard tour. Discussion on orchard management, spraying, mouse control etc.

Noon: Luncheon. Sandwiches and coffee for sale at orchard by local Church. (Bring own lunch if desired).

1 p. m. Orchard machinery demonstration. All the newest models. See the largest grader and cleaner in the state in operation. Also one of the most modern packing sheds and cold storage plants in the mid-West, on one of the largest cherry and apple orchards in Wisconsin.

Committees

Sponsoring Organization Committees: Arnold Neiman, Cedarburg, Pres. Wis. State Horticultural Society; Gilbert Hipke, New Holstein, Pres. Wis. Apple Institute; Marshall Hall, Casco, Vice-Pres. Wis. State Horticultural Society; Don Reynolds, Sturgeon Bay, Past Pres., Wis. Hort. Society; C. J. Telfer, Green Bay, Past Pres. Hort. Society; H. J. Rahmlow, Secretary, Hort. Soc.

Program Committee on Orchard Tour: County Agent G. I. Mullendore, Sturgeon Bay, Ch'm Dr. J. D. Moore, Dept Plant Pathology, U. W.; Dr. Don Dever, Dept. Entomology, U. W.; Dr. Frank Gilbert, Peninsula Exp. Sta.; George Klingbiel, Fruit Ext. Spec., U. W.; Harry Schuyler, Sturgeon Bay, fruit grower.

Committee on Machinery: Ransom Severson, Sturgeon Bay; Dr. Charles Swingle, Sturgeon Bay; S. S. Telfer, Ellison Bay; Jules Parmentier, Martin Orchard Co., Sturgeon Bay; Spencer Eames, Egg Harbor.

STATE FAIR APPLE EXHIBIT

The Wisconsin Apple Institute is planning a special exhibit on the use of apples at the Wisconsin State Fair, August 22-30. A Paul Bunyan Apple Pie will be featured. It will be an enormous pie—perhaps 6 feet in diameter. It will be shown in a glass-enclosed room in the Horticultural Building.

The special committee appointed by the Institute in charge of this exhibit are Mr. Henry Mahr, Caledonia, Vice-President of the Institute; LeRoy Meyer, and Elroy Honadel of Milwaukee, and H. J. Rahmlow, Madison, ex-officio.

ORCHARD TOUR

Minnesota Fruit Growers Association —Wisconsin State Horticultural Society.

La Crescent, Minnesota. Wednesday, August 26.

A.M. Assemble at Village Hall in La Crescent, Minn.

Tour of orchards in La Crescent area. In charge of local committee, Minnesota Horticultural Society.

12 m. Dinner at the La Crescent Methodist Church Program.

1:30 p. m. Tour continued.

COMING EVENTS

August 18. Tuesday. Orchard tour and orchard machinery demonstration at Spencer Eames Orchard, Egg Harbor Wis. Auspices Wisconsin State Horticultural Society and the Wisconsin Apple Institute, U.W. Departments of Horticulture, Pathology and Entomology cooperating.

August 26. Orchard tour for Wisconsin-Minnesota fruit growers. La-Crescent, Minnesota.

August 22-30. Wisconsin State Fair. Milwaukee.

September 17. Annual Convention. Garden Club of Wisconsin. Methodist Church. Fort Atkinson.

October 29-30. Annual Convention. Wisconsin State Beekeepers Association. Ft. Atkinson, Wis.

November 5-6. Annual Joint Convention. Minnesota Fruit Growers Association-Wisconsin Horticultural Society. La Crosse Hotel, La Crosse, Wis.

PLANT DISEASES IN ORCHARD, NURSERY AND GARDEN CROPS

A classic reference work for the practical man, the grower, nurseryman, market gardener and agricultural colleges and students interested in the growng of fruits, flowers, vegetables, ornamental plants and trees, has been published by the Philosophical Library, 15 East 40th St., New York 16, N. Y. (Price $18.50). Book contains 10 full page color plates, has 632 pages and approximately 350 illustrations. It is a gigantic work by two Danish Horticultural experts Ernest Gram and Anna Weber of world-wide reputation. Altogether over 10,000 copies have been sold in Scandinavia. The book is alphabetically classified for easy reference with the key system of diagnosis of disease, indispensible for students.

FRUIT FARMS FOR SALE

FOR SALE: Highly developed fruit farm near Bayfield, Wisconsin. 60 acres in all: 36 acres in fruit and other cash crops; 1100 apple tree; 5 acres strawberries; 9 acres raspberries; loam soil. Has all necessary equipment. New five room dwelling with furnace, bath, fireplace. With equipment $22,825.00; without $16,-500.00.

45 acre farm near Bayfield, 400 apple trees, strawberries, very neat dwelling, five rooms, fireplace. Price $3,850.00.

For further details write Harry Peterson Agency, Ashland, Wisconsin.

MALATHON CONTROLS FLIES AND MITES

Malathon, produced by the American Cyanamid Company, has been released by USDA for control of a variety of insects, mites and flies.

For fly control a spray at the rate of 1 oz.—(2 tablespoonsful) of emulsifiable liquid Malathon in 1½ quarts of water is sprayed to wet the surfaces where flies rest—except that it is not to be used in dwellings or where there is feed or feed products, and is not applied on animals. It can also be made as a bait spray by adding a sweetening such as sugar or corn syrup.

PREVENT PRE-HARVEST DROP OF APPLES

(Continued from page 245)

the use of TCPPA has been related to the degree of maturity of the fruit. This may be accomplished by allowing the fruit to remain on the tree beyond the regular period of harvest or by an increased rate or ripening of the fruit brought about by the stimulating effect of the growth regulator. In both cases the red color is related to the degree of maturity of the fruit and the development of the fruit should be watched closely to avoid undue losses from over-maturity. Present findings have indicated that TCPPA in itself does not stimulate red color of fruit.

5. Studies thus far indicate that TCPPA is one of the best growth regulators now available to control preharvest fruit drop of apples.

Gladiolus Tidings

For the WISCONSIN GLADIOLUS SOCIETY

President
DR. R. H. JUERS
Wausau

Vice President
RALPH BURDICK
Edgerton

Secretary
MRS. JOHN BAYLESS
Rt. 2, Two Rivers

Treasurer
DR. H. A. KASTEN
315 Washington St., Wausau

Thoughts About Gladiolus

By Walter C. Krueger, Oconomowoc

In my 24th season of growing gladiolus I find there have been many expericences which give opportunity to reflect upon varieties and trends through the years.

Famous Hybridists

During my first years of growing there were not more than one dozen American hybridists—Palmer, Diener, Kunderd, Mitsch, Kinyon and Prestgard heading the group.

Now the number of "pollen swappers" is in excess of 4,000—each hoping to find that mythical "best" gladiolus.

Great Varieties

The succession of great gladiolus, the ones that were the rage of their day, like W. H. Phipps, 10 to 14 open—Minuet, Betty Nuthall, Picardy, Burma, Miss Wisconsin and Spic and Span brings back fond memories. Of course you know that a well grown specimen of even the oldest of the group can win a major show. Why, then, the "rave" over 500 new introductions per year—the output of thousands of hybridists?

The buying public, amateur grade, buys glad bulbs like ladies buy hats—there must be several per season. Whether these hats (or bulbs) are better than previous additions is not considered. Newness is the criterion. Imported ones are highly prized.

The interest of the bulb trade is exactly opposite that of the hobbyist. The desire fewer varieties of greater functional beauty. Look in any trade publication for the evidence.

The paradox of interest is the bulb sellers dilemna—which group shall we serve?

1953 GLADIOLUS SHOW DATES

August 17-18 New England G. S. Exhibition, Horticultural Hall, Boston, Mass.

August 17-18 Minnesota G. S. 1st National Bank, St. Paul, Minn.

August 18-19 Eastern International Show. Binghampton, N. Y.

August 21-22 Empire State G. S. Chemung Co. Fair Grounds, Elmira, N. Y.

August 22-23 Northern Minnesota G.S. Hibbing Memorial Bldg., Hibbing, Minn.

August 22-30 Wisconsin State Fair Gladiolus Shows. West Allis, Wis.

August 22-23 Marathon County Show, YMCA. Wausau, Wis.

August 22-23 Illinois G.S. Central International. Springfield, Ill.

August 23 Twin Cities G.S. Armory Bldg. Oconto, Wis.

August 29 Empire State G.S. Masonic Temple, Oneida, N. Y.

September 4-5 So. Wis.—No. Ill. G.S. (Baskets and Vases) Walworth Co. Fair, Elkhorn, Wis.

September 6-7 So. Wis—No. Ill. G.S. (one and three spike) Walworth Co. Fair, Elkhorn, Wis.

Shouldn't 4,000 hybridists do better than 100? Yes, they should! Witness many new varieties, but since no matter how high or low the plane of quality, there are always the "top ten"! The best may die for want of distributors.

The push of new introductions has changed business policy. The cataloguer who in years past would refrain from listing a variety that he did not grow is pushed to list new ones by the concessionary offers of the hybrbidists.

The Future

These thoughts have been placed in a non-logical sequence with the purpose in mind to suggest to the novice hybridist that health of bulb, disease resistance and consistent performance should be stressed in seedling selection; that one good introduction will out-earn 25 beauties that are bound to die.

A field, that of selection of strain in a top variety is an area of activity that has hardly been touched.

May your days be glad days!

HOW FAR DO INSECTS FLY

Entomologists to Use Radioactive Insects, Insecticides in Study.

Entomogists of the U. S. Department of Agriculture are planning new uses of radioactive insects and insecticides to find out how far and how fast insects fly, how an insecticide kills an insect, and just how some insects (particularly house-flies and roaches develop resistance to insecticides.

Since insects do great damage themselves, and often carry diseases of plants, humans and animals the knowledge of how far they may travel in a known time helps the entomologist in insect control. An insect (or insects) tagged with one of the radioscopes can be detected by a counting mechanism, even when out of sight . . . for example, under the bark of a tree.

Radioactive blowflies released in previous Bureau of Entomology and Plant Quarantine experiments in the West were detected by Geiger counters in traps **20 and 28 miles from the point of release.**

CAN BULBS BE DUG IN SEPTEMBER

By Dr. James Torrie, Madison

Can gladiolus bulbs planted in early May be harvested by September 1st if necessary?

This question was recently raised by a grower who is faced with this problem due to sale of the land on which the bulbs were growing. Since flower production results in a heavy demand on the growing plant it would be advisable to remove all spikes as soon as they appear, without destroying any of the leaves. This will result in a greater storage of food reserves in the new corm than if the spike had been allowed to bloom. It is important to leave all leaves on the plant as the function of the leaves is to manufacture food reserves which will be eventually stored in the corms.

The greatest development of the corms occurs during the month of September in most years. Even if the spikes are removed corms harvested prior to September 1st will not have reached their maximum development and will be green or immature. Such corms are more liable to develop rots than mature corms. Hence, it would be desirable to dip such corms in a solution of wettable arasan or spergon, or dust them with either of these fungicides. Also it is desirable to cure the corms rapidly, using artificial heat if necessary. After drying, the corms should be spread thinly in trays in a well aerated room. If possible the humidity should be kept low.

The production the following year from immature corms will not be as good as if the corms had been able to reach full maturity before harvest. However, barring unforseen trouble, the immature corms should perform reasonably well the following year and produce new corms of normal size and quality.

Before the cage of a kangaroo stood a young lady, stunned. Near the cage was a sign which read, "Native of Australia." Disheartened, she turned away and cried, "To think that George threw me over for one of those things."

About the healthiest form of exercise in the world is walking around the block—you don't have to cross a street!—The Plymouth Review.

THE KRILIUM STORY

Soil Conditioners In Gladiolus Culture

By W. H. Woods, Cleveland, Ohio

N.A.G.C. Convention Paper Reported By H. E. Halliday, Madison

Products such as Krilium are synthetic polyelectrolytes. Their action in the soil is to prevent packing and provide a good crumb structure. The water holding capacity is greatly increased. A polyelectrolyte treated soil can hold a much higher percentage of water with no damage to plants than can untreated soil. Water holding capacity of soil is increased 43%. Aerobic soil organisms in the soil are encouraged. Anaerobic soil organisms in the soil are inhibited. This is good because most aerobic organisms are beneficial while most of the opposite is true of anaerobic organisms.

If row treatment is used it takes about 2½ lbs. per 100 feet of row. This is fairly expensive, but might be worthwhile for expensive varieties. Soil conditioners tend to lower the P. H. of the soil which is thought to be a good thing for gladiolus. Soil conditioners are not fertilizers, but they make it possible for fertilizers to do a better job. Soil conditioners keep a soil from packing and baking. The surface will never become hard and crusty. They are not helpful in sandy soil. Their use, so far, is limited to heavy soil.

A new development is the addition of carbon block to the soil (2 tons per acre.) Added to the top 2 inches of cold soil, it increases warm-up of the soil in the spring by absorbing more heat. It is said to increase the water holding capacity also.

WISCONSIN GLADIOLUS SOCIETY APPOINTS EDITORIAL COMMITTEE

Dr. R. H. Juers, President of the Wisconsin Gladiolus Society has appointed the following as an editorial committee for the Gladiolus section of Wisconsin Horticulture: Ralph Burdick, Route 1, Edgerton; John Perkins, 272 S. Clay Street, Niellsville; and Walter Krueger, 657 E. Washington St., Oconomowoc.

We welcome the assistance of this committee and hope that they can help make these pages of special value to all of the members.

THE GLADIOLUS SHOW AT JEFFERSON

Many Fine Seedlings Were Shown

The 4th Annual Seedling and Recent Intrdouction show at Jefferson on August 2 sponsored by the So. Wis.-No. Ill. Gladiolus Society was outstanding from the standpoint of quality of bloom and excellent new seedlings shown. Seedlings were shown from 3 different states and 46 out of over 180 were carefully scored by the 3-man judging teams who awarded "Excellent" ribbons to only 13 entries. Flad and Torrie of Madison won 5 of these including the seedling championship with a light-rose-pink No. 3507.

The show was very well attended and, for a change, there was no rain. Visitors came from 3 states.

Some Grand Champions

Mr. C. Himmler of Jefferson had 4 "Excellent" seedlings and other hybridizers in this area will need to extend themselves to win championships from him.

Edgewood, a rose, introduced in 1951 by Flad and Torrie of Madison swept the show as the Grand Champion spike. It is large (500 class) with 9 open on a 33 inch spike. Their Queen Mary, a deep salmon, won the R.I. 3-spike championship.

In the basket section, **Traveler,** a 1953 light rose, introduced by Flad and Torrie, won the top award. Every spike had from 8 to 10 open.

Melk Brothers exhibited the best 3 spike seedling entry, a brilliant orange-yellow. A beautiful floor basket of **Red Radiance** shown by Melk Brothers attracted much attention, as did a smaller basket of their orange seedling No. 48-131, which is often referred to as Orange Gold.

An interesting sidelight on the show was that Mr. and Mrs. Leon Nieb of Niles, Michigan, were present with their baby daughter Katherine Virginia, 6 weeks old, who has already attended her 3rd glad show. She was a radiant little beauty, who, when awake, made friends easily. Her father won several awards in Seedling and Recent Introduction sections.

People don't miss money they don't see or handle—that's why husbands and small taxpayers are so unconcerned.—Montfort Mail.

Nursery News & Notes

For The Wisconsin Nurserymen's Association

A GOOD WILL CHURCH PLANTING

Wisconsin Nurserymen's Association Landscape Church Near Milwaukee

By Chas. Hawks, Jr.

A committee consisting of Walter Remond, Frank Thierfelder and Ed Eschrich of Milwaukee and Charles Hawks Jr. of Wauwatosa was appointed by the Wisconsin Nurserymen's Association to make a good will planting in the Milwaukee area. Milwaukee was picked for such a planting because more people would see the planting here than elsewhere in the state.

Select Church on Highway 41

After considering several public buildings such as schools, churches and libraries, the committee decided that a small Catholic church recently built on Highway 41 south of Milwaukee was the best located as this is the most traveled road in Wisconsin. Walter Remond contacted the parish priest, Father Frank Drabinowicz, of St. James Church, and received his pleased consent to a planting of this kind. Father Drabinowicz also agreed to furnish all the necessary labor by calling upon the men of his parish.

The church is of a simple one story colonial design, having been made from barracks moved to the site from Mitchell Field after the war. Three entrances face the highway and it was at these that an assortment of evergreens were planted consisting of Brown's, Hick's and Spreading Yew. At the ends of the building flowering crabs and American Elm were set to frame the structure.

The planting material was delivered to the church early Saturday morning May 16th and at 9 a. m. 30 to 40 men and boys were busy with shovels, picks and wheelbarrows setting the plants as directed by the nurserymen's committee.

By noon the planting was completed and a sign set up facing the highway informing the public that this was a contribution of the Wisconsin Nurserymen's Association to the national effort of "Plant America".

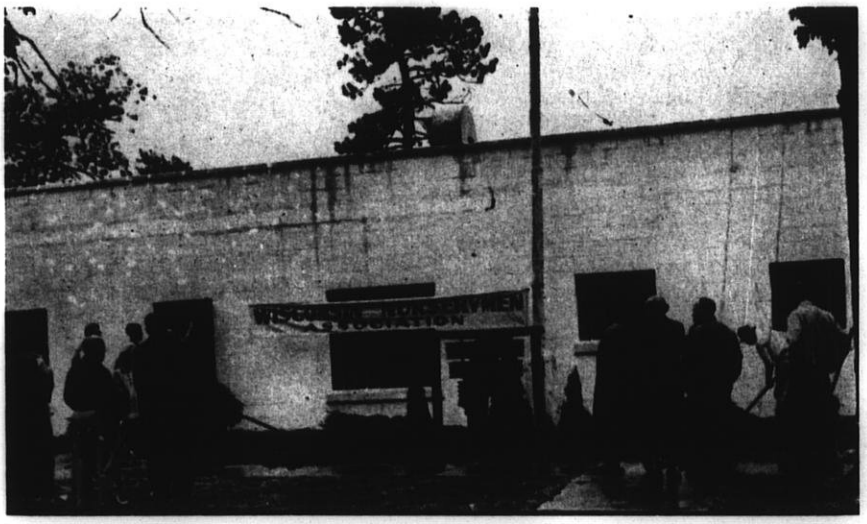
Observations In Wisconsin Nurseries

Two of the most stubborn pests in nurseries throughout the midwest, and which have been very troublesome in Wisconsin, have apparently met their Waterloo this year. The two pests are lecanium scale on taxus, and European elm scale.

We have noted two nurseries where a concerted effort has been made to eliminate them, and the effort seems to be successful. Further check will be made to ascertain if the results are as good as they seem now. Malathon, parathion, and DDT with nicotine were the materials used. Combined with the effectiveness of these materials was a very thorough spray job. The sprays were also applied at the right times.

We will give you more detailed and specific information as to dosages at a later date in order that you all may take advantage of them next year.

Strawberry leafroller has also been serious. A 1% parathion dust is a very effective control. It can be applied to plants after fruiting and also to new settings which will fruit next year. Parathion is a very toxic material and strict observance of the manufacturer's directions is necessary.—From the State Entomologist's Office.



"Landscaping in the Rain" might be a suitable title for this picture showing members of the Wisconsin Nurserymen's Association planting evergreens in front of the Vocational School at Tomahawk during their Annual Summer Meeting June 27-28. The entire planting job, consisting of about 24 evergreens was donated by the Wisconsin Nurserymen's Association. This is an annual project and a planting is made to landscape a public building in each city where the Association holds its summer meeting. A light rain was falling steadily while the planting was being made, but the nurserymen did not let it interfere with the project. Note the number of "kibitzers".

Garden Club News

ANNUAL MEETING—CENTRAL REGION GARDEN CLUB OF WISCONSIN

Lutheran Church—Scandinavia, October 13, 1953

Details in September issue.

DON'T FORGET TO BRING YOUR ZINNIAS

Don't forget to bring your zinnias to the Flower Show which will be held the day of the convention, September 17 at Fort Atkinson, Wis.

There will be classes for Specimen Bloom Zinnias and "Bouquets" as well as arrangements.

Zinnias are practical as well as beautiful flower show subjects because of their lasting qualities. They lend themselves admirably to artistic arrangements.

We urge all members to bring their zinnias to the show so that it will be an outstanding success, thereby "crowning" our efforts to make this a "coronation" year for the "Queen" of annuals—the Zinnia. **By Mrs. Donald R. Kirkland. Hort. Ch'm.**

CENTRAL REGIONAL PRESIDENTS MEET

Mrs. Charles Braman, Waupaca, President of the Central Region, Garden Club of Wisconsin writes that all 13 presidents of the garden clubs in the Central Region met for a luncheon in Waupaca, July 14 to discuss plans for the Regional meeting in October, select candidates for Honorary Recognition, and transact other business. Mrs. Braman mentioned there is **much interest** in the garden club organization here. All meetings are well attended and there is always a wonderful feeling.

AFRICAN VIOLETS

For Sale: Leaves and Single crown plants of Old Favorites and New Varieties. Send stamp for price list. Mrs. Frank Sperka, Rt. 2. Crivitz, Wis. 13 miles west of city on Hy W.

4TH ANNUAL CONVENTION, GARDEN CLUB OF WISCONSIN

Affiliated with the Wisconsin State Horticultural Society

METHODIST CHURCH, FORT ATKINSON—THURSDAY, SEPT. 17, 1953

Program

9:30-10 a.m. Registration. Fee 50c.

10 a.m. Convention called to order by President, Mrs. Chester Thomas, Milwaukee. Response and welcome by Mr. Ray Breitweiser, President, Ft. Atkinson Garden Club.

Business meeting. Committee chairmen reports.

10:30 a.m. 5 Minute Reports by regional delegates on "Outstanding Plant Material in Our Member's Gardens".

10:50 a.m. Music. By Gloria Rees Dunbar, Lyric soprano. TV, Radio and Concert Artist. Mrs. C. C. Wiegert, accompanist.

11 a.m. Arizona, Land of Contrast: It's Flowers and Mountains. Illustrated with colored slides. By Mrs. E. A. St. Clair, West Allis.

12 M. Luncheon in Church. View zinnia show.

1:30 p.m. Call to order. Mrs. Chester Thomas, President, Garden Club of Wisconsin presiding.

Garden Club Year Book awards. By Chairmen Mrs. Wallace Freund, West Bend, and Mrs. Severin C. Swensen, West Allis.

Presentation of Honorary Recognition Certificates for outstanding achievement in gardening and garden club work. By E. L. Chambers, Treasurer, Wisconsin State Horticultural Society. Introductions by Regional Presidents.

2 p.m. "Meet The Press"; a Skit written by Mrs. John Dooley and Mrs. Louis Reinsch. Staged by the Home Gardeners of West Allis. Directed by Mrs. John Dooley.

2:30 p.m. Lake Lore. Illustrated with colored movie. By the Rev. Howard L. Orians, Monroe, Wis.

Parking place back of Church.

Committees

General Chairman, Mrs. Harold Poyer; Co-Chairman, Mrs. E. L. White; Registration, Mrs. E. L. White; Hospitality and Welcome, Mrs. Dean Roberts; Luncheon, Mrs. Henry Michels; Flower Show, Mrs. John Kiesling; Publicity, Mr. E. L. White; Table Decorations, Mrs. Ray Breitweiser; Arrangements in Club Room, Mrs. Roy Baker; Flower Show Staging, Mr. Harold Poyer. All of Fort Atkinson.

Convention Flower Show

Garden Club of Wisconsin

First Methodist Church, Ft. Atkinson, September 17

Section A. Artistic Arrangements

Class 1. Contemporary Arrangements

Score: Design, 20 points; Balance, 20; Proportion, 20; Rhythm, 20; Emphasis, 20.

Class 2. Line Arrangements

Score: Design, 40; Color combination or Harmony of form, 15; Distinction, 20; Relation to container, 15; Condition, 10.

Class 3. Mass Arrangements.

Score: Design, 20; Color harmony, 30; Distinction, 20; Relation to container, 15; Condition, 15.

Class 4. Miniature Arrangements. (Not over 3 inches)

Score: Scale, 40; Design, 30; Harmony of color, 20; Condition, 10.

Class 5. Small Arrangements. (Not over 8 inches)

Score: Same as Class 4.

Class 6. Table Arrangements. Specify type (Dinner, Supper, Buffet, Breakfast, etc.)

Score: Color harmony, 25; Design, 25; Suitability for type of table, 20; Distinction, 20; Condition, 10.

Class 7. Arrangement Using Zinnias with Fruits and Vegetables.

Score Design, 25; Distinction and originality, 25; Color combination, 35; Condition, 15.

Class 8. Nosegays

Score: Design, 30; Color harmony, 20; Distinction and originality, 20; Condition, 15; Suitability, 10; Technique, 5.

Specimen Bloom

Section B. Zinnias

Class 1. 1 Bloom—Giant. Class 2. 3 Blooms—Medium. Class 3. 5 Blooms—small types

Score: Clearness of color, 20; Form, 20; Size according to variety, 15; Foliage, 15; Stem, 10; Condition, 20.

Exhibitors must furnish own containers.

Section C. Bouquet of One Variety

The object of showing small annuals and perennials as bouquets is two-fold.

1. To exhibit high quality blooms. 2. To show them so they will appear to best advantage. Flowers should be shown in proportionate-sized containers; small flowers growing on short stems in low bowls, tall flowers in vases. All bouquets should be oval in form, to be viewed from all sides. No other foliage, flowers or accessories allowed.

Score. Quality of flowers, 50 points; Arrangement of flowers, 30; Suitability of container, 20.

To be judged by the Merit System. Bouquet of:

1. Petunias; any type or color
2. Marigolds: any type or color

Zinnias

3. Midgit or Mexicana type
4. Cupid or Tom Thumb type
5. Pumilla type
6. Fantasy type: Melody; Rosalie; White Light, etc. (Twisted petals)
7. Lilliput type (Very double flowers)
8. Giants: (California: Crimson Monarch; Purity; Crimson Queen; etc.)
9. Cactus Hybrids: Floradale Scarlet; Riverside Beauty; etc.
10. Dahlia type: Dream; Crimson Monarch; Exquisite; Golden Dawn; Illumination; Polar Bear; Will Rogers, etc.
11. Peppermint Stick
12. Persian Carpet
13. Any other

Rules and Regulations

1. All entries must be placed and ready to be judged by 9:30 a. m.
2. All Horticultural specimens must be grown by the exhibitor.
3. The committee will supply containers for Giant size specimens. Exhibitors to furnish small containers for 3 and 5 bloom classes.
4. Artistic arrangements must be the work of the exhibitor. Flowers for artistic arrangements need not be grown by exhibitor.
5. Any other type foliage may be used in artistic arrangements.
6. All entries must be removed at close of convention.
7. One entry in each class.
8. Tables for artistic arrangements covered with white paper. Exhibitors may use a standard fabric or suitable colored paper under containers.
9. Competetive system of judging will be used for specimen bloom classes. Merit System of judging to be used for artistic arrangement classes, and for Bouquets of One Variety.

FLOWER SHOW AT COLEMAN SATURDAY, AUGUST 22, 1953

The Friendly Garden Club is having a flower show on Saturday, August 22, 1953 at the Coleman High School—Gymasium. The show will have exhibits of flowers, fruits and vegetables. Everyone interested is invited to enter exhibits and attend the show. Many of the entries will be judged by the merit system.

The show is open from 2 to 6 p.m. and from 7 to 9 in the evening. Entries must be in by 10 a. m.

MAUSTON FLOWER SHOW

The Mauston Garden Club will hold its Annual Flower Show at the Mauston High School at Mauston on August 12. The show will be open from 2 p. m. to 10 p. m. All gardeners are invited to attend.

By Mrs. Charles Remington, Sec.

NEARNORTH GARDEN CLUB NEWS

The Nearnorth Garden Club of Crivitz will have charge of a special flower show exhibit at the County Fair. The purpose of the booth will be to show arrangements at their best in a setting and background for which each arrangement was created. Arrangements will be made by individuals and by the group. The purpose is to create more interest in garden club work and to gain membership. The Fair secretary has added quite a number of additional classes to the premium list this year so the flower show should really be outstanding. The Secretary is Mr. V. H. Quick, our County Agent, who is a real lover of flowers and has given much thought to building up this part of the Fair.

By Arnold Sartorius, Porterfield, Wis.

A Short History Of The Zinnia

By Mrs. Donald R. Kirkland, Hort. Ch'm., Garden Club of Wisconsin

The Garden Encyclopedia states: "Zinnia: a genus of herbs and small shrubs of the Composite Family native to North and South America, much grown as annuals in northern gardens for their abundant, cheery, double flowers in a wide range of colors.

"These forms have been developed from the Mexican species (Z. elegans), the many varieties being decorative in the border, valuable for massing or for edging and fine for cutting. They are particularly rich in shades of rose and orange and new greatly improved varieties show many lively harmonious color variations. They are divided according to height. Tall—30 inches or more; Medium—to 20 inches; Dwarf—from 12 to 15 inches."

According to historians, the ancestor of our beautiful modern zinnias was a humble and unattractive weed, magenta-purple in color and with cone-like flower heads. In the year 1757, Johann Gottfried Zinn, botanist and professor of Medicine at the University of Gottingen, Germany, was in Mexico searching for medicinal herbs and among seeds taken back with him was the ugly weed, fore-runner of our modern zinnia.

In India about 1850, a double flowered plant was discovered and seeds of this were sent to a firm in Paris in 1858. The flower was exhibited for the first time in 1860. Early in 1861 a natural-size illustration appeared in the London Gardner's Weekly. It was after this that the Zinnia became a popular garden annual.

In 1886 Herr Lorenz of Germany introduced a Zinnia plant which became known as the Giant Mammoth Strain. In 1890 the Peter Henderson Co. of New York were developing strains to high perfection both as to form and color. It was about this time the color-break began taking place. The Badger Seed Co. of California developed the strain which became known as the Giant Mammoth or California Giants. This firm also developed the Dahlia flowered Zinnia.

Also about this time Luther Burbank was patiently developing zinnias but there is no record of his having introduced a zinnia strain. After his death W. Atlee Burpee carried on with some of Burbank's selections and introduced them as Super Giants which include newer shades and unusual bicolors.

This is just a brief history of the amazing development of the present day Zinnia and it seems likely the coming years will bring forth greater developments.

We gardeners owe a great deal to the great patience of hybridizers.

One difference between the high school and the college is that the high school student says, "I don't know," in answer to a question, while the college students say, "I don't recall."

—Phillips Bee.

JEFFERSON GARDEN CLUB NEWS

The Jefferson Garden Club members are interested in the Zinnia growing project. Many unusal colors and varieties are being found in the gardens of our members. The August meeting will include a report on "Truffles!" We will participate in the flower show at the state meeting September 17.

By Mrs. Myrtle Moore, Sec.

ELLSWORTH GARDEN CLUB FLOWER SHOW

The Ellsworth Garden Club will hold its annual flower show on **Saturday, September 12.** Dahlias, annuals, roses and other flowers and plants will be among the entries. There will be a doll buggy and bicycle parade at which prizes will be given. The show is open to the public at 2 p.m., judging from 11 a.m. to 2 p.m. Entries must be in place by 11 a.m.—**By Mrs. Elliott Fosmo, Sec.**

Garden Gleanings

WAUWATOSA GARDEN CLUB NEWS

In May the Wauwatosa Garden Club held an annual sale of excess plants brought by members. Socially, the May meeting is one of the highlights of the year.

June means a picnic and a tour to the rose garden of the August Peters with 4 to 5 hundred rose bushes the center of attraction. While walking along the driveway admiring 18 tree rose bushes one need only glance to the left and find a promising bed of zinnias, a bed of Independence, a new and different rose. Another was of regal lillies, and two beds of dwarf dahlias. The tuberous begonias on the north side of the house also beckoned a glance.

The climbers were exquisite. New Dawn, a pale pink; Thor, a large red; and Elegance, a yellow: but Paul's Scarlet outnumbered all the rest. Mr. Peter uses wire uprights to prop the climbers which make it possible to have them anywhere in the garden instead of the old way of leaning against a building.

A brief stop was made at the A. O. Andersons' where an average yard was found to have a fruit tree, flowers and vegetables. They have an apple tree, grape vine, tomatoes where the tulips had been and also Indian corn. Mrs. Anderson has developed a flower garden that shows bloom from early spring until the last chrysanthemum says goodbye.

Finally, about 35 members were welcomed with a cool refreshing drink at the home of the George Kruells' on No. 80th St. Mr. Kruell is touring Germany but he had sent a letter of welcome wishing the picnickers a happy time.

The Kruell's garden has shade trees for cozy retreat; fruit trees; currant and raspberry bushes; a vegetable garden and a border with plantings of unusual choice flowers. The evening closed with a delightful supper on the lawn, games with prizes. By the time it turned dark each club member had put some thought on paper making a lengthly letter to George Kruell.

Our September meeting will cover the annual dinner, and flower show with Mr. H. J. Rahmlow as speaker and judge.—**By Martha Getzlaff Koch.**

GARDEN TOUR "VOTE"

Clematis In First Place

By C. P. Holway, Cooksville.

Gardeners may be interested in which plants, out of the more than three hundred species and varieties, were most asked about when over 1,300 visitors toured our Cooksville gardens in early June. Most talked about were the pale lavender blossoms of the large-flowered vine **clematis "Mme. Villard."**

Second place was without question shared equally by mature specimens of the tropical-looking **Ohio buckeye, Aesculus glabra,** and the fin-barked **spindlewood or winged euonymus, E. alatus.** This was the more remarkable since neither was in full flower or bearing mature fruits.

Next most asked about were a **native larch (tamarack),** a European larch, and a hedge of dwarf purple osier. The latter is generally sold as **blue-leaf Arctic or Alaskan willow.**

Single-flowered peonies, particularly an early pale pink with a large golden center named "Lotus," excited the most comment. They were followed, in order of the attention they drew, by Savin juniper, Siberian iris (especially the tall, dark "Caesar"), the tiny maiden pink from Eurasia, Dianthus deltoides, Harison's yellow bush rose, and the ornamental onion, Allium karataviense.

HOW TO STORE DELPHINIUM SEEDS

If you harvest your own delphinium seed or purchase some and do not wish to plant them until spring, they can be kept over by storing in an air-tight container and placing in the refrigerator. Delphinium seed stored at room temperature becomes worthless in less than a year. However, stored in an air-tight container in a cool place, it may germinate well if kept for a number of years.

Delphinium seed can be planted in August very much as you would plant radish seed, in a flat or cold frame or open ground. If sown in the fall, however, we will have the responsibility of carrying the young plants over winter which is not always easy to do in Wisconsin.

USE YELLOW LIGHT BULBS TO MAKE YOUR LAWN PARTY MORE PLEASANT

The night flying insects are color-blind in the human sense of the word. Their eyes are sensitive only to blue light and to the near-ultra-violet rays, almost invisible to humans. Therefore, to attract bugs you use a blue or ultraviolet light.

However, use yellow incandescent light bulbs on porches and at entrances to your home if you do not wish to attract the insects.

Illuminate outdoor picnic tables with a spot or flood light mounted at a distance so the bugs will drop to the ground there instead of on people. Illuminate the immediate area with yellow lamps and place blue or white bulbs or a black light insect lamp at some distance from where people congregate.

HOW TO STORE TULIP BULBS

Tulip and daffodil bulbs must be stored in shallow, screen-bottomed trays. Never leave them in baskets or boxes because they will surely rot.

The bulbs should be kept in a cool, dry place during the summer. When they are dried to a point where the roots come off easily they can be cleaned by removing soil and old roots, but great care should be used to prevent bruising and the skin should not be broken or mold may start.

Separate the larger bulbs from the small. The larger can be replanted in the fall to produce blooms for next spring. The smaller ones must be grown for several years before they will bloom.

NEW BULLETIN ON ROSES

Roses For The Home is the title of the most recent Home and Garden Bulletin, No. 25, of the U. S. Department of Agriculture. The well-illustrated publication describes types and culture of roses, the most popular of garden flowers, as well as the control of insects and diseases. Rose breeding and propagation are briefly described in this up-to-date bulletin. Your county agent or home demonstration agent should have copies. If not, write to the Office of Information, U. S. Dept. Agriculture, Washington, D.C.

Wisconsin Beekeeping

Official organ of the Wisconsin State Beekeepers Association

AUGUST IN THE APIARY

THIS IS THE TIME TO: Extract all your white honey as rapidly as possible before any of the later fall honey becomes mixed with it. Some folks like dark, strong honey but the percentage of consumers that do is small. Those that don't like it really object to it.

BEGIN PREPARING COLONIES FOR WINTER. Plan your manageent so that as much honey as possible will be stored above the brood area in the brood chamber so that fall feeding will not be necessary. At present prices of honey and sugar it just isn't economical to feed.

Auger hole entrances in upper brood chambers should be closed now to force the bees to enter on the bottom board so they will be more inclined to rear brood in the lower brood chamber, storing more honey for winter in the upper chamber.

All extracting supers should now be placed on top of the colonies, preferably, if you have had foul brood, numbering each colony and its supers, returning the supers to the same colony. Since we do not get much surplus honey in many parts of the state following mid-August, it will be well to place the supers above the inner cover with the small escape hole open. The bees will clean out the supers, bring the honey down into the brood chamber for winter, but in case there is a strong honey flow, they will bring honey through the escape hole into the super.

WOMEN'S AUXILIARY OFFICERS

The officers of the Women's Auxiliary of the Wisconsin State Beekeepers Association elected at the convention at Green Bay in October, 1952 are as follows. President, Mrs. Wallace Freund, West Bend; Vice President Mrs. Joe Elsinger, Knowles; Sec.-Treas. Mrs. Ray Gibbons, La-Valle.

The Annual Summer Meetings

Industry Problems, Honey Quality, Promotion and Honey House Sanitation Considered

The July summer meetings of the Wisconsin Beekeepers Association have always been a friendly get-together of the commercial and semi-commercial honey producers. Important in the agenda is the discussion among beekeepers themselves on the honey crop in various parts of the state, the prospective wholesale and retail honey prices and the price of beeswax.

The Honey Crop

This year's honey crop will not be up to that of last year. In some sections where rainfall was timely, the crop is reported as good, but in most parts of the state weather conditions have been such that the crop is only from 25 to 75% of normal. Many beekeepers complain of honey dew which has affected the flavor and color of the clover crop. Unless weather conditions change in July and August—with more rainfall resulting in a better fall flow, this years crop will be considerably under that of the past two year's, at least in many parts of the state.

Mr. Phillip Kramer, Supervisor of Food Inspectors, Madison, outlined ideas for the honey house. It should have floors and walls which can be scrubbed and cleaned—separate room for extracting, away from storage and heating rooms and with close supervision of sanitation and insect control.

The Color of Honey

Professor V. G. Milum, University of Illinois, gave an excellent talk on the composition and color of honey. He said that the color of honey varies with the amount and rapidity of the honey flow. Honey dew often tasts bitter and can spoil the flavor of clover honey. Honey with a low levulose content such as dandelion will granulate quickly.

To control granulation and fermentation Prof. Milum recommended that the supers be put back on the colonies, to be cleaned out, immediately after extracting. They can be placed above an inner cover with the small hole open. Otherwise dextrose crystals will form during the winter which will contaminate the honey the following year. Yeast will start fermentation. The best temperature to stop both granulation and fermentation is 160 degrees F. for 30 minutes. A lower temperatue such as 140 to 145 degrees F. for 30 minutes is all right if we wish to store honey for only a short time. It will prevent fermentation but will not prevent granulation over a long period. For a strainer he recommended sugar sack toweling, but the honey must then be strained while hot.

Prof. Milum made the statement and had honey samples to prove it, that honey stored in the light remains lighter than honey stored in the dark over a period of time and providing that the heat is kept away. Honey will darken rapidly if stored at a temperature of 80 degrees F. or above, and will begin to darken at a temperature of 57 degrees and higher, a little by day and month by month. Honey which has not been heated, especially if it has a high moisture content, will ferment after granulation.

Special Honey Promotion Planned

The U. S. Dept. of Agriculture is planning a **special honey promotion program in October.** Mr. Patterson of the PMA office in Chicago was present at the meetings and stated that during October beekeepers will be asked to contact their local stores and

help distribute promotional literature and should make special exhibits of honey wherever possible.

Mr. Patterson stated that last year the U. S crop was 293 million pounds which was much higher than anticipated. However, by special promotion the crop cleaned up well and there is very little old honey left at the present time. He also stated that the Price Support Program on honey ends June 30, 1954 and may not be renewed, depending on action in Congress; that without price support, honey would be selling at from 6 to 7c per pound today. He also mentioned that 4 honey promotional shows have been arranged over WTMJ-TV in October. Mr. Henry Schaefer, President of the National Federation urged all beekeepers to respond to the request for help in the special honey promotion program in October.

HONEY POSTERS AVAILABLE

All Beekeepers Urged To Display Posters Promoting Honey

The American Honey Institute, Madison, Wis. has printed two new and beautiful posters promoting honey. One is: A Delicious Treat! HONEY ON ICE CREAM, showing a drip cut pouring golden honey on ice cream. This can be displayed whereever honey is sold. It should certainly interest the consumer in your product.

Another is HONEY ON GRAPEFRUIT ADDS EXTRA GOODNESS. On this poster is a plate of grapefruit and a bottle of honey. The honey is being put on the grapefruit with a teaspoon. The colors are most attractive. Prices are 3 for 25c; 12 for $1.00. Display them at your stand and in your honey house or wherever your honey is sold.

TIME AND DISTANCE IN THE LIFE OF THE FORAGING BEE

By R. Beutler, Zoological Institute, Univ. Munich, Germany

It was found that a bee could bring home 20 loads an hour when collecting syrup 1 to 2 yards from the hive, but only 3 loads an hour if the syrup was 2 - 3 km. away. It is shown that the amount of sugar used up in flying is small compared with the amount collected but that, even so, a bee leaving the hive to work a source far away took more sugar in its honey sac and in its midgut than one working a nearby source. (Pollen foragers took much sugar with them, water foragers little). It is concluded that a forager regulates her sugar content in accordance with an energy expenditure yet to take place; it is not yet known whether such information is received, along with that on direction and distance, from other foragers. **—Reported by V. G. Milum in Bee World, England.**

THE BEHAVIOR OF WORKER HONEYBEES AT THE HIVE ENTRANCE

By C. G. Butler & J. B. Free, Bee Research Dept., Rothamsted Exp. Sta., Harpenden, England.

From numerous observations and experiments involving the interchanging of hives, introduction of bees from other colonies, marking of bees and simulation of robbers, the following conclusions have been drawn. Guard bees, which vary widely in age, are not present at the hive unless the colony has been alerted, by disturbance or by the presence of robber bees or numbers of bees strayed from other colonies. They attempt to intercept and inspect bees on the alighting board. Robbers are recognized by their peculiar swaying flight, other bees by their scent. Bees that have drifted accidently to the wrong hive usually assume a dominant attitude, if they are laden foragers, and enter the hive without hesitation or difficulty. Others, mostly young bees, submit to extensive examination or mauling, during which they frequently offer food to the guards and on its refusal "strop" their tongues. It is suggested that this is a displacement activity, since it differs in many ways from normal "stropping." These intruders are not stung while they remain submissive. If they succeed in remaining in the colony for 2 to 3 hours they are accepted. Robbers on the other hand are seized without prior examination and immediately try to break away. This behaviour releases in the guard the instinct to sting but—if a fight ensues—either guard or robber may be stung to death. **—From Bee World, England.**

The average man's ideas of tasteful interior decoration in the home will always be a square meal.

THE RELATION BETWEEN THE FORAGING RANGE OF HONEYBEES AND THEIR HONEY PRODUCTION

By C. R. Ribbands, Bee Dept. Rothamsted Exp. Sta., Harpenden, England

In the experiments described increase in foraging distance was consistently associated with a decrease in colony gain, by a variable amount. Weather seemed the most important factor; it had the greatest effect on days of low temperature, little sunshine or high winds. The sugar used up by bees in flying the experimental distances was negligible. It is argued that advantages may be derived by moving bees to suitable crops, especially pollen crops which require only a few minutes to gather. Distance effects are cumulative, because better early season forage produces more foragers for subsequent crops. Nearby crops provide steadier work, assisting in swarm prevention. The results indicate disadvantages of concentrating colonies on a few sites; in unfavorable weather the concentration is likely to be too great for the forage available.

Reported by V. G. Milum, in Bee World, England.

CONSUMERS COMPLAIN ABOUT FLAVORS OF STRONG HONEY

Perhaps you have heard it, too; the Editor has heard it many times this fall—complaints from house wives about the "strong flavor" of honey they buy at some stores. Often this is not honey put up by beekeepers in Wisconsin but honey bottled by some out-of-state packing plant.

One lady reported to us recently: "We use honey all the time, but when we are forced to buy some brands at our store, often we don't like the quality—its too strong. We can taste it for a long time afterwards, so we just stop using it."

It will pay beekeepers to investigate and see what folks like and not sell them honey they don't like. Far better build up our consumer demand by giving them the kind of honey they like—and sell the other kinds for commercial use, cooking and baking.

A baby sitter is someone you pay to watch your television while your child cries itself to sleep.—The Cassville American.

HONEY IN THE SCHOOL LUNCH PROGRAM

Interest in Honey Increased

The Wisconsin School Lunch Program used 6,951 cases of 5 pound pails of honey in schools and institutions during the past school year of 9 months according to officials of the School Lunch Program of Wisconsin in Madison. Interest in the use of honey has greatly increased in schools and institutions over what it was 5 years ago, the officials said. School cooks have now learned how to use the honey efficiently in baking and as a spread and are looking forward to having it again this coming year.

One of the problems, we were told, is that a few years ago, dark, strong honey was brought in to Wisconsin which the children didn't like. The government learned a lesson and henceforth that type of honey will not be distributed.

Some of the State institutions have prepared a mixture of butter and honey as a spread which is very delicious and makes use of considerable honey.

FLOODS DESTROY LOUISIANA BEES

Beekeepers in the state of Louisiana suffered severe loss of colonies during a flash flood in the month of May. Reports are that the 14 inch rain flooded the whole country and many beekeepers lost from 25 to 60% of their colonies. The only bees left were those in the hills. One beekeeper with about 6,000 colonies lost half of them. Cattle were driven to high ground and one yard was partly destroyed by cattle.

Sometimes it helps us get a better slant on our own problems to hear about the sufferings and troubles of others. Often our own problems aren't half as big as we think they are.

RED CLOVER AND HONEY BEES

The value of red clover to honey bees has been controversial for a long time, but studies of the factors influencing nectar secretion and pollination—which are being carried out in the interests of farmers as well as beekeepers—appear to indicate that environmental conditions influence the sugar concentration of the nectar, but that the amount of light received by the plant governs the actual weight of sugar produced. It may be possible to breed strains which give high yields but, from pollination studies, close proximity to the fields may be as important in determining whether the bees will work the crop. The work of Ribbands emphasizes this point. Many statements of the **foraging range** of bees have been made, but while it is true that bees can and sometimes do work crops at considerable distances from the hive, the **yields of honey decrease with increasing distance.** In these experiments the effect was most pronounced in unfavorable weather, but even in fine weather a reduction of up to 25% in colony gains was attributable to the increased flying time for a distance of ¾ mile. **C. B. Dennis, Oct. Bee World.**

BIRDSFOOT TREFOIL EXCELLENT HONEY PLANT

Mr. Conrad Kruse of Loganville reports that he has planted Birdsfoot trefoil on poor, sandy hillsides in sections where he has bees; that the flowers are visited freely by the bees and they obtain considerable nectar.

The trefoil, in favorable locations for its growth, makes tremendously large plants and is especially good for building up poor, sandy soils. It should not be planted on a rich heavy soil, however.