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Wisconsin Horticulture

VOL. XLIX

JUNE, 1964

NUMBER 1

JUNE IN THE ORCHARD

G. C. Klingbeil, Extension Specialist

Fruit Production, University of Wis.

To date the prospects of a good apple crop in Wisconsin are promising. In most areas bloom was heavy, it progressed rapidly with at least a day or two of weather favoring insect activity. You may be interested in full bloom dates around the state.

It is interesting to note that in most cases full bloom of Delicious was very close to McIntosh; this is not usually the case. Likewise, the spread from the southern state line to the most northern areas was just a little over two weeks; generally it is three or more.

According to data from several sources, the period of time elapsing from date of bloom to maturity for McIntosh is from 130 to 142 days with 135 to 140 being optimum for storage quality. With the Red Delicious variety, it is somewhat longer. Studies show that maturity is reached in 140 to 160 days with 145 to 150 days necessary to insure reasonable quality and good storage life. The bud sports of Delicious generally do not mature much earlier than the regular strains, however, color development will occur earlier. According to this then, McIntosh that

bloomed May 10 should have maturity to insure good storage life about September 21 and Delicious that bloomed May 12 should be ready by October 5. Apples of these varieties will be harvested for the fresh market before the optimum dates, but growers should consider the data for those being selected to go into storage for marketing at a later date.

The scourge of many apple growers—"fire blight" has again made an appearance but it is too early at this writing to determine the severity. First reports were that the disease was first noted on both blossoming spurs and terminals the last week in May. In one orchard in Central Wisconsin it appeared on several varieties in severe proportions on May 28.

The Door County cherry crop has all the earmarks of near record proportions. All the old "rules of thumb" by which good crops are predicted have occurred; thus, if favorable conditions continue, it may be a better year for cherry growers.

A woman with a fashionable new dress isn't satisfied until the man she likes most and the woman she likes least have seen it.

Location	County	McIntosh	Red Delicious
Galesville -----	Trempealeau -----	May 8 -----	May 10 -----
Beloit -----	Rock -----	May 10 -----	May 11 -----
Gays Mills -----	Crawford -----	May 11 -----	May 13 -----
Oshkosh -----	Winnebago -----	May 11 -----	May 15 -----
Waupaca -----	Waupaca -----	May 14 -----	May 15 -----
Menomonie -----	Menomonie -----	May 15 -----	May 16 -----
Sturgeon Bay -----	Door -----	May 20 -----	May 22 -----
Bayfield -----	Bayfield -----	May 22 -----	May 24 -----
Kangaroo Lake -----	Door -----	May 25 -----	May 27 -----



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Published monthly excepting July and December by the Wisconsin State Horticultural Society and the Wisconsin Apple Institute.

Subscription and Society Membership \$2 per year.

Harvey J. Weavers, 4215 Mohawk Drive, Madison, Wis. 53711. Phone Madison 233-3146
Sec'y - Treas. — Editor

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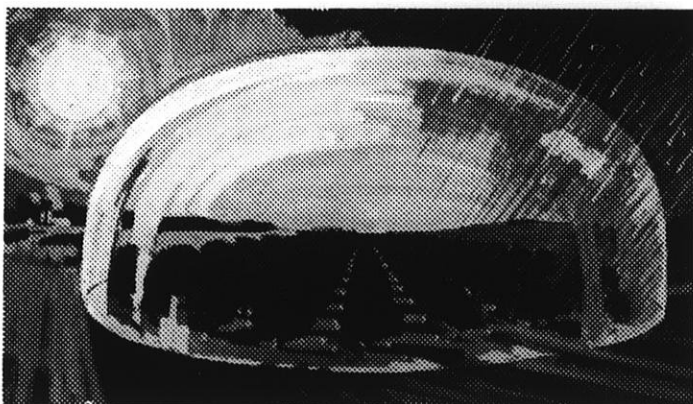
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Marlon L. Schwier, Madison

Events of Interest to Horticulturists

- July 9 — Horticultural Society Board of Directors' Meeting — Clemens' Orchard, Mequon.
- July 21 — Summer Beekeepers' Meeting — Watertown.
- July 22 — Wis. Apple Institute Board of Directors Meeting — Sturgeon Bay
- July 22 — Summer Beekeepers' Meeting — Eau Claire Lake Park Experiment Station Farm
- July 23 — Apple Growers' Machinery Exhibit and Field Day — Sturgeon Bay, Door Co.
- August 10 — Western Wisconsin - Minnesota Apple Growers' Field Day—Gays Mills, Wisconsin
- August 12 — Entry Day for Apples — Wis. State Fair.
- August 14 - 23 — Wisconsin State Fair
- October 21-22—Annual Convention — State Beekeepers, Madison
- November 30 - December 3 — Michigan State Horticultural Society Convention.
- December 2 - 3 - 4 — Annual Meetings Wis. Hort. Society — Wis. Apple Institute — Conway Hotel, Appleton
- December 14 - 15 — Western Wisconsin - Minnesota Fruit Growers' Meeting—Hotel Kahler, Rochester, Minnesota.

"How would your wife carry on if you should die tomorrow?" the insurance salesman asked his prospect.

"I don't reckon that would be any concern of mine, he answered, "just so long as she behaves herself while I'm still alive."



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DOOR COUNTY ON JULY 23

The Annual Fruit Growers Field Day, as announced in the April magazine, will be held on July 23rd. The Headquarters is the Experiment Station farm, three miles north of Sturgeon Bay on Highway 42. It starts at 10 a. m. but plan on being there early, so you will be able to do justice to the many exhibits of new machinery, equipment and supplies that will be shown.

EXHIBITS, TOURS, DEMONSTRATIONS, DISCUSSIONS will make the day a big one, indeed. Don't miss it. Mark your calendar, so you won't forget the date. Plan to ration your time, so that you can visit with the equipment and supply people. Tell them you see their ads in the magazine.

Strawberry Day a Success

The Strawberry Growers Field Day held on June 3rd, at the Hipp Farm, Janesville, and at the A. A. TenEyck Farm, Brodhead, was attended by a good sized group of interested growers from all over the state. Congratulations to Messrs. Hipp and TenEyck and Prof. Klingbeil and his associates from the University for an informative, worthwhile day.

Motel Accommodations in or Near Sturgeon Bay

For those folks who intend to travel to Sturgeon Bay the day preceding the annual Wisconsin Apple Tour and Equipment Show on July 23, we are listing the motels in or near Sturgeon Bay. Because this is cherry harvest time and tourist season, we recommend making your reservation in advance.

Ash's Harbor Motel, Babe and Ray's Motel, Dun Romin Motel, Holiday Motel, Lorraine Motel, Cherry Land Motel, Shorewood Motel, Star Dust Motel, all of Sturgeon Bay; Adventure Inn Motel, Driftwood Motel, LeRoy's Motel, Mariner Motel, all of Egg Harbor.

W. A. I. Board of Directors Meeting

The Board of Directors of the Wisconsin Apple Institute will meet the evening of July 22 at 5:30 at Horseshoe Bay Farms near Egg Harbor. This will precede the annual Fruit Growers' Tour and Equipment Show which will be held the next day at the Sturgeon Bay Experiment Farm.

Food and Drug Attacks Labels

The Federal Food and Drug Administration reports that it considers vegetable oil products for which health claims are made misbranded. Commissioner Larrick says, his agency will concentrate, especially on such phrases as "polyunsaturated," "unsaturated," "low in cholesterol," "Ask your doctor," "Better for your health" and "better for you, because it's made

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\$3.40 Dozen any quantity

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\$3.45 Dozen any quantity

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\$3.30 Dozen any quantity

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from 100% golden corn oil. The agency, says Larrick, made extensive studies and surveys of the situation, as it affects the consuming public before the decision to move against this type of labeling was made.

The "1964" Horticultural Question

By Associate Editor A. R. Kurtz

How can the interests of the Horticultural industry in the state be served best? This question is being studied by the respective boards of the Wisconsin Horticulture Society and the Wisconsin Apple Institute. There is no single answer, nor is it easy to come up with a series of answers that will satisfy all of the diverse interests in the horticultural field.

Group action or the "organized approach" is essential in order to perform those things that individuals, special-

ized though they may be, cannot do for themselves. There is little argument on this score.

The real challenge that horticultural groups face in the mid-sixties, organization wise, is simply this: Can the total horticultural interests be served best by individual or independent organizations in each of the specialized horticultural areas with little or no coordination between these groups? Or, would the interests be served more effectively if the independent horticultural groups were to be maintained as they have developed in the state, but to go one step further, affiliate in an over-all "horticultural federation." There is a parallel for this kind of organization in the livestock of the state.

Organization alone is not the answer. Independent associations, federated or not, must have vital, active programs of work if they are to survive and if they are to serve the real needs of the

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Free Literature

industry. No association can afford to ride along on the achievements of past generations, nor can it become a strong, dynamic force if its foundation is purely a social one.

There are some who feel that the best answer is to maintain and develop further, independent and specialized groups; while others feel that there is sufficient common ground within the horticultural field to bring together in a federated organization those specialty or independent associations to perform those functions which are beyond the resources and capabilities of independent groups.

These functions might include the editing of an expanded Wisconsin Horticulture Magazine, and the employment of a full-time executive secretary to develop and coordinate the educational, promotional, and legislative interests of all horticultural groups. Developing the details, obviously would need considerable study and elaboration.

History tells us that the Wisconsin Fruit Growers Association which had flourished from 1853-1859 took steps to reorganize. This was finally accomplished in 1865 when the corner stone for the Wisconsin Horticulture Society was laid. The needs of that day dictated, in a sense, the nature of the organization. Likewise, 100 years later, 20th Century developments dictate the approach necessary to serve the needs of today.

What could be a more fitting observance of a century of horticultural progress and development in Wisconsin than a revitalization of the Horticulture Society to meet the needs and serve the interests of this important industry today and for the future.

Maybe the tailor who cuts our girl's bathing suits ought to be in charge of the government budget . . .

An apple was used by Eve to tempt Adam.

What Do Horticulture Graduates Do?

Dr. O. B. Combs
University of Wisconsin

The actual job of a horticulturist will vary with the training and interest of the individual. Floriculture graduates may manage commercial floral production establishments. Or they may operate retail flower shops or garden centers. Others may work with seed companies in crop improvement, production or sales.

Fruit crop graduates may operate commercial orchards or small fruit plantings. Or they may work with nurserymen to propagate and sell fruit plants. Others may have management or sales positions in some segment of the extensive fruit production and handling industry.

Nursery management graduates may operate commercial nurseries where

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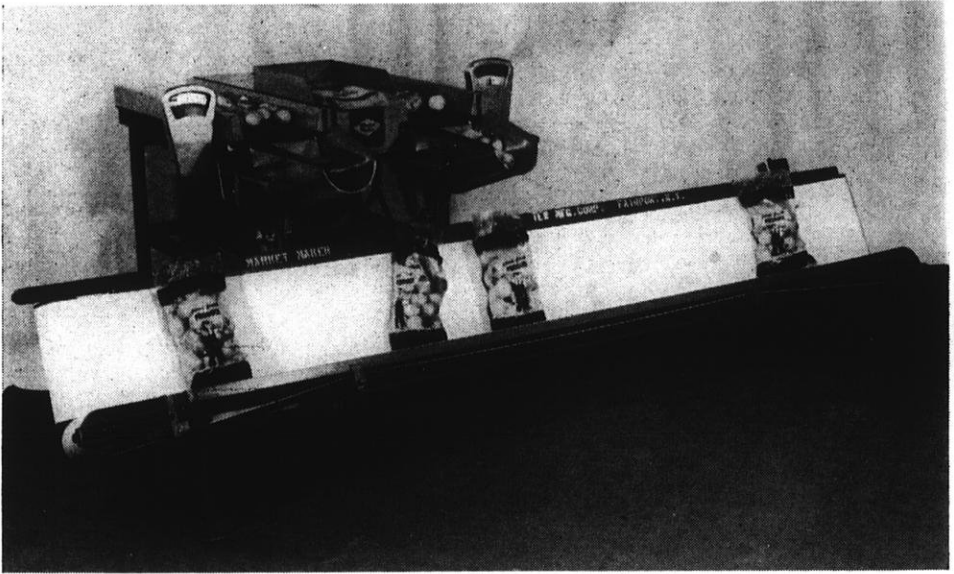
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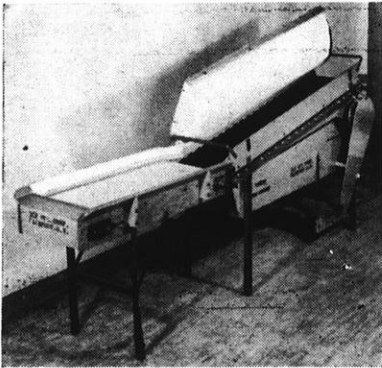
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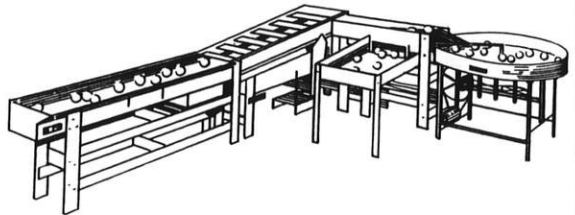
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woody ornamental trees, shrubs and vines are propagated and sold. Or they may work with arboretums, highway departments, parks or other public or private units where a knowledge of these plants is required.

Horticulture graduates who are especially interested in turf grasses and other ground covers may work with golf courses, arboretums or parks. They may also work with highway departments on the establishment and maintenance of roadside areas. Or they may manage farms on which turf grasses are produced for use in the establishments of lawns around homes or other buildings.

Vegetable crop graduates may produce vegetables for sale either fresh or for processing. Or they may work for processing companies in the production and handling of vegetables for canning or freezing.

Most horticulture graduates are qualified for employment in industry working with concerns that produce and sell fertilizers, insecticides, fungicides, herbicides, horticultural supplies and equipment.

Horticulture graduates with proper training and interest may choose to become teachers, researchers or extension workers in our Land Grant Colleges. If they are to serve effectively in these areas they will find it necessary to continue their academic studies through an advanced degree. Teachers and researchers will likely specialize in such areas as plant breeding, plant physiology, morphology or cytogenetics.

Persons interested in extension may work with florists, fruit growers, vegetable growers, nurserymen, or turf producers. They may work as statewide specialists, area specialists or in individual counties.

Opportunities for properly trained horticulturists are numerous and extremely varied.

Editor: This article follows "What is Horticulture" by Dr. Combs in the May issue. Both were taken

from a recent radio talk on Careers in Horticulture by the writer over radio station W. H. A.

Habits of Consumer Affects Your Markets

Marlon L. Schwier

Eating Habits:

Per capita consumption of food last year was at an all-time high, up half of 1% over 1962 and 4% higher than the 1947-49 average. The trend is to lighter breakfasts, more coffee breaks, and diets of lower calories—more proteins.

The average daily diet now provides 3,190 calories compared to 3,250 in the 1947-49 period. Last year the average American ate:

- 21.4 pounds more meat—mostly beef
- 11.9 pounds more chicken
- 3.5 pounds more turkey
- 2.3 pounds more cheese
- 69 fewer eggs
- 42.5 pounds less fruit (mostly citrus)
- 22 pounds less flour
- 15 pounds less potatoes

Fresh fruit and vegetable consumption is down, however, canned and the frozen products have shown sizable gains.

Buying Habits and Trends:

Prices and food quality are the biggest drawing cards attracting housewives. However, specialty stores, particularly on such items as eggs, produce, and dairy, are receiving wide acceptance.

A recent survey by the Pennsylvania State University shows that housewives do more than three-fourths of the grocery shopping. Over 50% shop only once a week, mostly on Friday with Thursday a close second.

A recent article in the Progressive Grocer magazine on a survey conducted to determine the optimum shopper revealed the following:

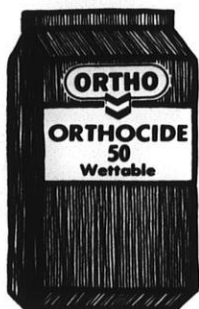
"The average customer spends 29 minutes in a store, passes 57% of the product locations, makes purchases

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from only 14% of them and spends \$12.84 per trip. The women in the age bracket 18-35 are the largest group ever --the best educated--the most mobile ever--the most quality conscious, and depicts a new independence and discrimination in shopping habits. They are no longer influenced by either friends or Mother in deciding what to buy and they no longer conform to the latest fad."

Marketing Techniques:

Food distribution is a highly competitive field. Facilities are many and buying is being concentrated in fewer and fewer hands. To meet this problem, farmers had better move rapidly in the direction of coordinating their production and marketing efforts so as to have only a few sellers of their products to match the few buyers. This might be the surest way to meet inequities in the marketing system. The odds are not very even when you have a thousand sellers and only one buyer.

Promotional program should be aimed not to just sell the product but to sell for a specific use. The meat industry has been doing this for years--special cuts for special uses, roasting, broiling, boiling, etc.

Named Midwest Chief



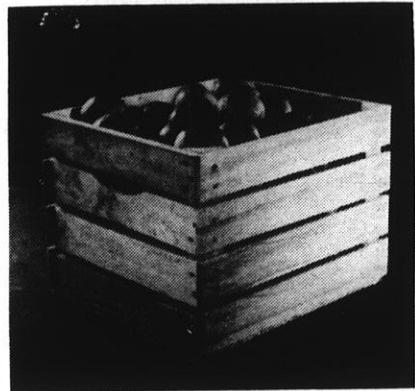
The Ortho Division of California Chemical Co. announces the appointment of R. C. Yapp to head up its entire Midwest Marketing operations. Yapp has named Victor J. Ruh as Sales Manager of the Pesticide Division. He says his division will specialize in the highly complex field of pesticide products, crops to protect, growing conditions and the many insects and plant diseases which are a constant threat.

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New Favorite Recipes Available

The Wis. Dept. of Agriculture has just unveiled a new edition of favorite recipes from America's Dairyland. Marlon Schwier, our associate editor, says "the book is new, modern, colorful and filled with practical, tested recipes which use a wide variety of Wis. products." We have heard favorable comments about it. There are 143 recipes in it. Ten covering the use of Wisconsin fruits. Single copies are available for \$1.00, but in lots of 25, the price is 75¢. If interested, write to the Wis. Dept. of Agriculture, Hill Farms Office Bldg., Madison, Wis.

Spray Residues

In view of the newer, more sensitive testing equipment and techniques presently being used by laboratories of all

control agencies, it is advised that all fruit growers READ, STUDY and carefully FOLLOW LABEL DIRECTIONS on all insecticides, fungicides and / or weedicides or herbicides used. Keep a record of all materials used, amounts used, and dates of application as well as the dates of harvest. Always follow the directions on the label. That is your safeguard.

Blacklight Insect Traps

Philip W. Smith
Wis. Dept. of Agriculture

Insects found at night by humans around sources of radiant energy dates into antiquity. In their attempt to systematically study insects entomologists have always taken advantage of this phenomenon and, thus, artificial light has helped add to our knowledge of insects. Man's continuous desire for light between sunset and sunrise has prompt-

NEW ECONOMY APPLE BOXES



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Base Color — Coral White
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Prices on 1/2 Bushel Size

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500 — 999	13 ³ / ₄ ¢ each
1,000 — 2,000	12 ³ / ₄ ¢ each
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ed the production of artificial light.

Blacklight is a common qualitative term applied to light waves between 3200-4000 Angstroms. Since human vision detects only light between 3800-7600 Angstroms, most of the blacklight spectrum is invisible. The quality and quantity of energy emitted by blacklight lamps corresponds to the light response of many insects.

Most of the insects caught in blacklight traps are nocturnal species which are inactive during the day. Stating that nocturnal insects are "attracted" by light raises many questions. The light in traps is often credited with being effective over great distances when in reality the flight pattern of insects is perhaps the most important factor in the size of trap catches. The quantity of light falling on a given area rapidly diminishes as the distance from the trap increases. One would think that a light

at night would "repel" night flying insects, and while this may be true some distance away, traps only provide information of those insects close enough to be caught. The light stimulus insects receive apparently is greater than other stimuli, and they tend to exhibit characteristics of their daytime inactivity.

Codling moth, red-banded leafroller, and fruit tree leafroller adults are caught in light traps; and their flights can be charted to aid in the better timing of control treatments for a particular geographical area or climatic zone. It is necessary but often difficult to correctly identify these small moths. At the beginning of the season charting may be accurate, but in orchards with a good spray schedule difficulty is soon encountered. In order to determine the periodicity of these pests which are not as strong fliers as many other agricultural pests traps give best information



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- Leg hinged by all metal hinge assembly.
- Bottom steps extend from outside to outside, allowing more working space.
- Sturdy single leg for ease of setting.
- Top is capped with metal brackets.

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when placed near uncared-for trees.

Light trap improvements may furnish more information which when correlated with other orchard insect and disease knowledge will help in the development of future control programs. The use of light traps for direct control by trapping is unrealistic at this time and offers little if any hope for the future.

Here and There

A Wis. Insect Survey Bulletin is published, during the insect season, by the Wisconsin Dept. of Agriculture, Plant Industry Division, Hill Farms State Office Bldg., Madison, Wis. 53702. It's a good publication.

Fred A. Doerr, Gilmore Valley Orchard, Winona, Minn. writes that everything looks nice up his way. He says he enjoys the Wis. Horticulture magazine and is most happy to renew his membership and subscription.

Carbaryl is a common or trade name now being widely used for the insecticide Sevin. This trade name has been accepted by the International Organization for Standardization.

Measuring worms are active in many areas of the state. This is the pest that works on the leaves of shade trees, elm, oak, ash and box elder, say entomologists of the State Conservation and Agriculture departments.

G. J. Hipke, New Holstein, well known Wis. horticulturist says, "it may be well for Wis. fruit growers to seriously consider planting of more processing apple varieties as this may be the most likely profitable area of fruit production in the years to come."

June Dairy Month promotion calls attention to Wisconsin's leadership in the dairy field. We noticed that ladies, who did such a fine job of serving the lunch

at the Albert TenEyck Strawberry Tour stop, on June 3rd, had a nice, big piece of Swiss cheese with each piece of pie. Naturally that is Swiss cheese country.

Horticulture Society memberships and subscriptions are coming in at a pretty good rate. If you have not sent in yours, make it a point to do so.

Apple juices, and/or cider, and/or combination drinks are real delicious and a real refresher. Reports indicate that they are becoming popular and sales are good.

Cost of Insect Control in the Apple Orchard

Dr. John L. Libby, Extension Ent.,
University of Wisconsin

All prices listed are the 1964 retail price for the amount of each material per 100 gallons of spray mixture as recommended in University of Wisconsin Circular 520C—Insect and Disease Control for Apples - Cherries - Strawberries.

Malathion—2½ lbs 25% W. P.	\$1.33
Genite—1½ pts. EM-923	1.23
Mitox—1 lb. 40% W. P.	1.60
Tedion—1 lb. 25% W. P.	1.61
Chlorobenzilate—1½ lbs. 25% W. P.	1.65
Kelthane—1½ lbs. W. P.	1.65
DDT—2 lbs. 50% W. P.	0.50
TDE—1½ lbs. 50% W. P.	0.82
TDE—2 lbs. 50% W. P.	1.10
Dieldrin—½ lb. 50% W. P.	0.72
Lead Arsenate—3 lbs. standard ...	0.84
Diazinon—1 lb. 50% W. P.	2.10
Guthion—¼ lb. 25% W. P.	2.13
Sevin—2 lbs. 50% W. P.	1.02

All prices were figured on the cheapest common container such as a 50 lb. bag of wettable powder.

On the total cost for 100 gal. of spray per season charts the "High" range represents the most expensive possible combination of sprays while the "Low" range represents the least costly combination of sprays.

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The insect control programs used in these cost studies are the same programs in Circular 520C and are also the programs, applied in the apple spray schedule comparison plots at Sturgeon Bay. Circular 520C can be secured from Dr. Libby.

Washington State Statistics

The following information is interesting. Note the trend taking place in ratio of plantings to removals by variety.

Red Delicious

Year	Planted	Removed
1958	7	1
1959	6	1
1960	3	1
1961	11	1
1962	13	1
1963	12	1

Standard Delicious

Year	Planted	Removed
1958	1	66
1959	1	31
1960	1	95
1961	1	62
1962	1	80
1963	1	8

Golden Delicious

Year	Planted	Removed
1958	73	1
1959	6	1
1960	6	1
1961	18	1
1962	30	1
*1963	86	1

Jonathans

Year	Planted	Removed
1958	1	19
1959	1	5

1960	1	2
**1961		
1962	1	3
1963	1	2

Rome Beauty

Year	Planted	Removed
1958	2	1
1959	7	1
1960	2	1
1961	6	1
1962	1	2
1963	1	2

Winesaps

Year	Planted	Removed
1958	18	1
***1959		
1960	1	6
1961	1	3
1962	1	6
1963	1	8

* Two large growers caused the ratio to be particularly high. However, the ratio for 1963 was 32 to 1 even without the two large growers.

** Plantings slightly exceeded removals.

*** Plantings and removals about equal.

QUALIFIED

A patient walked up to the new superintendent of the mental hospital.

"We like you much better than the last superintendent," he said.

"Why is that?" beamed the new official.

"Oh, sir, you seem more like one of us."

Wisconsin Horticulture

VOL. XLIX

AUGUST, 1964

NUMBER 2

AUGUST IN THE ORCHARD

G. C. Klingbeil, Extension Specialist
Fruit Production, University of Wis.

STOP DROP SPRAYS

Wisconsin apple growers have the prospects of harvesting an excellent crop this year. One of the tools to aid in an orderly harvest may be the use of stop-drop sprays.

Such sprays, of course, are only useful on varieties that tend to drop prematurely, McIntosh being the prime example. There are certain regulations that must be followed concerning the uses of these materials.

1. 2, 4, 5-TP. Tolerance, none. Dosage, 20ppm. No preharvest limitations.
2. Naphthalene acetic acid (NA). Tolerance, 1ppm. Dosage, 20ppm. Do not apply within two days of harvest.

NA is the most commonly used material. It has a limited active effectiveness, 7 to 10 days, which generally means two applications. It usually becomes effective in two to three days after application. 2, 4, 5-TP has been effectively used by Wisconsin growers. It is active over a longer period of time, becomes effective in about three days after application but may have some adverse effects on fruit. There are reports that shelf-life of fruit sprayed with this material may be shorter and because it is effective for a long period of time fruit may become over mature on the tree before they are harvested. None of the stop-drop chemicals should be used on summer apples.

Growers having an acreage of McIntosh should seriously consider the use of stop-drop sprays.

MOUSE CONTROL

Don't wait too late to get mouse poisons! Indications are that normal populations are presently in most orchards which means sufficient mice to do considerable damage. Several materials or preparations are available for use: 2% zinc phosphide, corn oats bait, strychnine treated oats, zinc phosphide rodenticides, and endrin (to be used as a ground spray). Ready mixed mouse baits can be obtained directly from:

U. S. Fish and Wildlife Service
Branch of Predator Controls
Experiment Station Purdue University
Lafayette, Indiana 47907 (city
or they can be purchased from some local sources.

Some orchardists may prefer to mix their own bait using homegrown grains. A zinc phosphide cracked corn bait suitable for machine or hand broadcast application can be prepared as follows:

Coarsely cracked corn	----	50 pounds
Zinc phosphide	-----	1 pound
Corn or vegetable oil	-----	1 pint
Methyl Green Dye	-----	¼ ounce

In preparing the mixture, work outdoors or in a well-ventilated shed. Wear rubber gloves and avoid breathing the dust or fumes. Mix the methyl green dye with the dry zinc phosphide, then add the oil to form a thin paste. Pour the mixture over the corn in a suitable metal container, mix thoroughly with a hoe or other tool until the corn is evenly coated. The bait can be stored for several months in a cool dry location. Do not carry over from one year to the next. About 8-10 pounds will be required to broadcast-treat one acre.

Clean the utensils used thoroughly and dispose of the cleaning material by burying at a suitable location.



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**Wisconsin's Largest
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WISCONSIN HORTICULTURE

Published monthly excepting July and December by the Wisconsin State Horticultural Society and the Wisconsin Apple Institute.

Subscription and Society Membership \$2 per year.

Harvey J. Weavers, 4215 Mohawk Drive, Madison, Wis. 53711. Phone Madison 233-3146
Sec'y - Treas. — Editor

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Events of Interest to Horticulturists

August 10 — Western Wisconsin - Minnesota Apple Growers' Field Day—Gays Mills, Wisconsin

August 12 — Entry Day for Apples — Wis. State Fair.

August 14 - 23 — Wisconsin State Fair
Aug. - Sept — County Fairs

October 15 - 24 — National Apple Week

October 21-22—Annual Convention —

State Beekeepers, Madison
November 30 - December 3 — Michigan State Horticultural Society Convention.

December 2 - 3 - 4 — Annual Meetings
Wis. Hort. Society —
Wis. Apple Institute —
Conway Hotel, Appleton

December 14 - 15 — Western Wisconsin - Minnesota Fruit Growers' Meeting—Hotel Kahler, Rochester, Minnesota.

The rich may not live longer—it just seems so to the poor relatives.

FOR SALE

John Bean Cub Apple Grader

Grades 2 and 2½ inch sizes; has an additional section with 2½ in. chain size. Has polishing attachment. Two people can operate machine successfully.

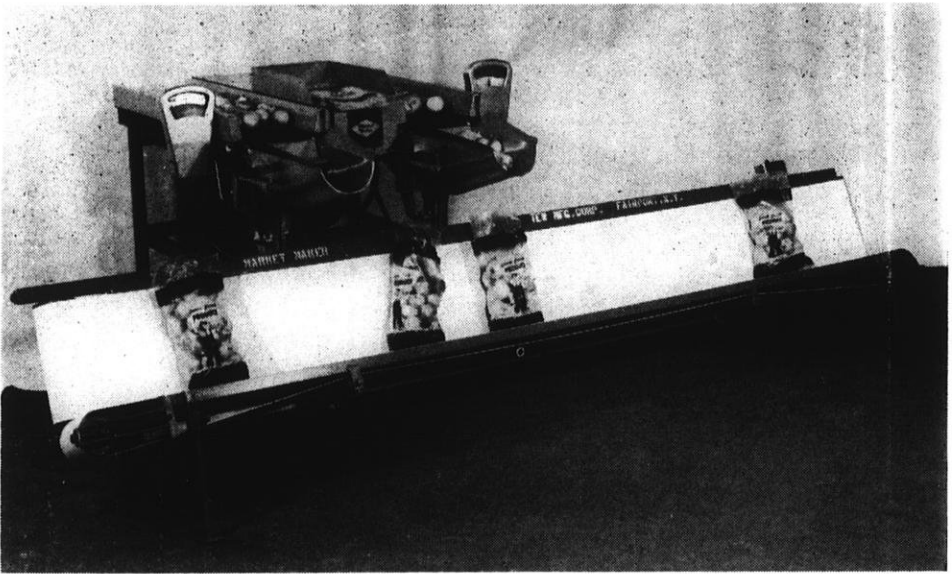
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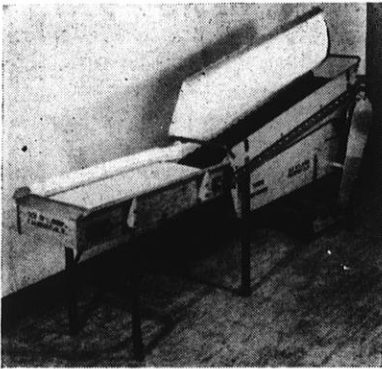
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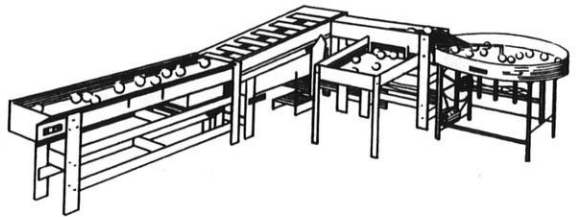
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Telephone 567-6635

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FRUIT PER BUSHEL

Did you ever have a customer ask how many apples in a bushel?

Diameter	Amount of Apples
2¼"	about 250
2½" - 2½"	about 185 - 195
2½" - 2¾"	about 135 - 145
2¾" - 3"	about 100 - 110
3" - 3¼"	about 90

STOP BRUISING

The number of bruises on an apple in the eyes of a consumer is often the main factor that determines quality. Growers know that bruises do more than just make an apple look bad. Bruises may reduce the grade, they shorten storage life, may offer a source of entry for decay organisms and affect the normal enzymatic changes and respiration of the fruit. Reduction of bruising starts in the orchard. This

means proper training of each picker. Show them how to pick and most important see that they follow instructions. Such seemingly unimportant items as emptying the picking bag into field crates or bulk bin, careful crate handling, dumping and many others are all important factors that will determine the number of bruises on the fruit when they come off the end of the packing line. Practices that will reduce bruising will not take place unless the management of an orchard makes an effort to conduct a simple training program among the employees aimed at improving apple quality by reducing bruising.

An excellent way to knock the chip off your neighbor's shoulder is to pat him on the back.



Chefs Arthur Kurtz and Marlon Schwier at Wis. Apple Institute Board Meeting at Egg Harbor serve barbecued chicken to Pres. George W. Premo, Vice President Don Rawlins, and Sec'y Harvey Weavers.



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Appleton, Wis.
Phone: RE 4-0210



Apple Sale Promotion

The Wis. Apple Institute Board of Directors at their July 22nd meeting budgeted \$1,000 for Point of Sale Apple Promotion work. This will be more than matched by Promotion funds from the Wis. Dept. of Agriculture and other Industry tie-in promotions.

The program will be handled by Marlon Schwier of the Agriculture Dept.'s staff. You will be hearing about this program in the next few months, as every section of the state will be covered.

Sturgeon Bay Field Day

The summer Field Day at the Peninsular Experiment Station on July 23rd proved to be a busy, interesting day for all participants. Getting under way at 10 a. m., it didn't wind up until 5 p. m. On the program were research reports, demonstrations, exhibits, new equipment and orchard tours. Some 200 people braved the hot weather to help make the day a success.

Boards Meet

The Board of Directors of the Wis. Horticulture Society held their summer meeting at the home of President and Mrs. Walter Clemens, Mequon, on July 9th. The agenda outlined by the President kept the Board busy until late afternoon.

The Wis. Apple Institute Board met at Horse Shoe Bay Farms, Egg Harbor, on the evening of July 22nd. President George Premo, kept his board members discussing such subjects as promotion, advertising, sales and organization effectiveness.

A three member committee consisting of James Frostman, Henry Mahr, and Willard Nieman was appointed to meet with a committee of the Wis. Horticulture Society consisting of Frederick Meyer, LeRoy Meyer and Walter Clemens to discuss and explore further co-

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A real money-maker for you! Place
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Let's sell more apples with the use
of Apple-Slicer-Corer!

ordination and consolidation of the two organizations.

Following adjournment the group toured the new Horse Shoe Bay Orchards, apple storage facilities under the direction of Howard R. Erickson, Manager.

PROMOTION PRODUCES

This is the time to put all that available promotion material to work. The following items have proven popular and productive.

1. Recipe Books — "Apple Lover's Guide to Good Eating." Vol. III, 4" x 9", fifteen pages of new and tested information on Sauces, Freezing, and Canning, Appetizers, Relishes, Main Dishes, Salads, Breads, Pies, Cookies, Cakes and Desserts. \$5.00 per 100 for members postpaid; \$7.50 per 100 postpaid to non-members. Customers are always happy to get new recipes.

Stamp the name and address of your orchard on each copy.

2. Bumper Strips — Day-Glo strips (red and white on black) 4" by 15" stating "Enjoy Wisconsin Apples." For cars and trucks. 10 for \$1.00 postpaid. Can also be used inside and outside of salesroom, in roadside orchard or at driveway entrance. All growers should have a few.

3. Juicy Posters — 41" x 54", color, paper poster, young boy with apple caption—"Nothin's Better'n Apples." Attractive background for salesroom wall. \$1.00 postpaid to members; \$1.50 postpaid to non-members. An attractive number.

4. Over-wire hangers—3 red apples in a 4 color lithograph print, approximately 20" x 16". Very attractive — 10 for \$1.00 postpaid. Dresses up and adds color to the sale room.

5. Billboard Poster—19' 6" long by 9'

NEW ECONOMY APPLE BOXES



Beautifully Designed:
Base Color — Coral White
Printed Red and Green!
All 200 lb. Test Corrugated

Prices on 1/2 Bushel Size

499 or less	14 ³ / ₄ ¢	each
500 — 999	13 ³ / ₄ ¢	each
1,000 — 2,000	12 ³ / ₄ ¢	each
2,001 — 5,000	11 ³ / ₄ ¢	each
5,001 & Over	11 ¹ / ₄ ¢	each

Allow three weeks for delivery.

All prices F. O. B. Oconomowoc.

All boxes come already stitched one side, bottoms are sealed by glueing, taping or stapling.

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high. Eight sheets. For standard billboard. Wording "Enjoy Wisconsin Apples," five foot red apple, W. A. I. emblem, words—"Meal Time—Any Time." Ample space for name and location of orchard. \$3.00 plus delivery for members. Non-members—\$4.00 more. Present supply contracted for.

6. Apple Slicer - Corer (Ludwig). Stainless steel blades — \$6.00 per dozen postpaid. For resale or give away to good customers.

Send order and check to Wisconsin Apple Institute, 4215 Mohawk Drive, Madison, Wis. 53711.

Apples at State Fair

Henry Mahr, LeRoy Meyer and Elroy Honadel have begun working on the booth for the Wisconsin State Fair. Apple cider, apple delight (a type of turnover), apples, recipe books and apple corers will be sold. This will help to promote Wisconsin apples. Pay us a visit at the Fair and see what Wis. Apple Institute is doing for you to promote apples, say the members of this hard working committee.

National Convention

The National Apple Institute Convention at Bedford Springs, Penn. was attended by Mr. and Mrs. Henry Mahr, Oak Creek, and by Marlon Schwier, of the Wis. Dept. of Agriculture. The convention was very successful. It was attended by 275 growers from all sections of the nation.

In 1964 there will be an estimated 140,000,000 bushel crop. Wisconsin's estimated crop is 1,600,000 bushels, up 13%. To move this size crop we must have a quality product and a good package. A resolution was passed favoring a national promotion program for apples regardless of their regional origin. "This I believe is a big step forward for the apple industry. Demand for apples must be created by the apple grower. No one else is going to do it," says Henry Mahr.

Label Apple Packages Correctly

In the past the Wis. Department of Agriculture has worked very closely with apple growers in the administration of the State Weights and Measures and labeling programs. With the approaching marketing season Wisconsin growers will find useful information in the following outline on weight and label requirements.

In packaging apples, the following should be kept in mind:

1. The name and address of the packer must appear, either on the package, or on an insert placed in the package.
2. The name of the food. (If produce is sold in plastic film bags in which the product can be seen, this is not necessary.)
3. An accurate quantity must be expressed in weight, except that meas-

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The first Apple Processing concern in Wis. is ready to contract for N. W. Greening apples for process. Our capacity is limited. Contact us as soon as you can determine your crop.

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Spray regularly with ORTHOCIDE and scab won't stand a chance. ORTHOCIDE is fast acting, and also penetrates into the surface of fruit and foliage, to give better protection between sprays.

ORTHO[®] is gentle. It's not likely to cause russetting—even in muggy weather—even on green and yellow varieties. So you can spray regularly, from pre-pink right on through the season.

And (used regularly) ORTHOCIDE can have remarkable side-effects. Foliage often gets fuller, deeper in color. You get better apples, and more of them.

In short, you get a lot more from an ORTHOCIDE Spray Program.



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ure or count can also be used to express quantity if these methods are customary and will give accurate information to the consumer.

4. The words "when packed," "full," "jumbo," or words of similar import that tend to mislead the producer may not be used with quantity declarations.
5. In packaging the product please anticipate shrink when the packages are sold. The average weight of the lot must equal the declared quantity.

Optional information which may be included but is not required would be the name of the variety: Wealthy, McIntosh, etc.; Size: $2\frac{1}{4}$ - $2\frac{1}{2}$, $2\frac{1}{2}$ - $2\frac{3}{4}$; and the grade such as Fancy, U. S. No. 1, etc. To sell in Minnesota, this is compulsory, but is not required in Wisconsin.

Boxes when used must also state the quantity accurately. In selling apples by volume, the grower should keep in mind that one bushel equals 2150.42 cubic inches. (Box companies generally know this requirement, and therefore, if boxes are stamped with one bushel, or binary submultiples of the bushel, the volume should compare with the standard.)

"We would be happy to help you with any other specific questions that you may have relating to the required labeling or quantity," says Claire L. Jackson, chief of the department's Dairy, Food and Trade division.

Sound Marketing Practices A Must, Says Schwier

Tremendous time, talent and cost has already been expended to produce top quality Wisconsin fruits and vegetables. The big question now is "Are the products which you have so carefully nurtured throughout the growing season going to receive the proper marketing attention?"

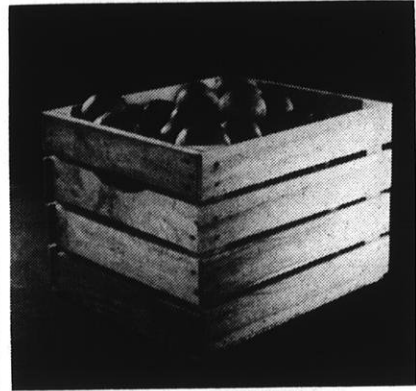
Wisconsin agriculture generally can

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be complimented for its efforts in the production of agricultural products. Professionalism and perfection are the two best words to describe the job being accomplished. But when it comes to marketing, apathy or indifference often characterizes the attitude of many producers. The disheartening fact is that it takes only a few individuals to upset the entire marketing procedure.

For those who minimize the importance of sound marketing techniques, let us review some of the essential practices which should be followed:

First, marketing starts with the harvest. Generally the producer's ability along with help from Mother Nature, results in a high quality product. Improper techniques, such as harvesting before maturity, over-ripeness in the case of apples; rough handling, failure to realize the perishability of the product and exposure to weather—too much sun, rain or cold—definitely affect quality and reduce the potential income to the producer. Proper attention and care at harvest-time must be first on every producer's marketing list.

The second major step is proper grading and packing procedures. The first requirement here is good equipment. The small volume producer may not need the kind of machinery used by the large volume operator, but proper equipment in good running order is essential to an efficient operation. Improper and poorly operating machinery can ruin good quality produce and wipe out potential profits.

First class equipment cannot do the job alone. Good grading practices must be followed as well. The emphasis should be toward premium packs instead of packing to grade tolerances. It doesn't pay to "crowd" a grade. Packing well within tolerance gives some leeway for variations and offers insurance for quality at arrival.

Use of state-federal inspection services to verify grade, together with

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Insect Control*
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Hang it up
Watch 'em drop

Kills flies, gnats, mosquitoes and other flying pests.

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These unique resin strips contain a solid 20% Vapona formulation that provides excellent knock-down and killing power. One strip controls pests in a room 10' x 10' x 10'. Economical. Lasts up to 3 months.

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\$3.45 per Strip (Postpaid)

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shipping point inspection certificate, gives shipments more prestige and offers less reason for buyers to question the quality of the load.

Give proper attention to the packing and package program. Avoid bruising the product during packing. Bruises, along with poor color, give your product a shabby look. Remember, the eye controls the purse strings, and a poor pack will not bring repeat purchases.

The third and final important step in marketing is negotiating the sale of the product. To accomplish this objective, the producer has two choices. One, to do it himself; two, to hire the job done.

In today's complex marketing procedure, the first choice is a highly questionable selection. Marketing today requires the services of an individual who is a professional in the field. He must have the ability and techniques to converse with buyers, he must know the market conditions on local, state and national levels, and have the ability to sense when or when not to accept or reject a sale.

In addition, he should have knowledge of the integrity, business ability and financial responsibilities of the accounts to which he is selling. A few lost loads can cut deeply and quickly into potential profits.

If the above requirements seem burdensome and beyond the realm of possibility, then every producer may select the alternative—to have his marketing done by an expert in the field.

Forming or joining an existing sound sales agency or hiring experienced personnel usually pays sound dividends. Following this step, could place your year's work in the black instead of the red.

By Marlon Schwier
Wis. Dept. of Agriculture

Isn't it peculiar that middle age always starts a few years earlier for the other fellow?

What's Eating My Rhubarb?

By John L. Libby

Extension Specialist in Entomology

During late May and June many people with rhubarb want to know what is boring into the stems of their plants. Most of the time the culprit turns out to be the common stalk borer. To make the problem even more difficult it is generally too late to take effective control measures and save the plant once the problem is noticed. This is due to the fact that the common stalk borer does just as the name suggests, that is, bores into the stem of the plant. Once the borer is inside the stem it is well protected from insecticide sprays or dusts.

A general feeder, the brown, white striped caterpillar works in the stems of many plants including vegetables, flowers, and weeds. It spends the win-

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ter as grayish ridged eggs on grasses and weeds. These eggs hatch in early May and the borers move from the grasses to the heavier herbaceous plants in our gardens and weeds, such as dock, in the area. Any attempt at controlling the stalk borer in the spring must be aimed at preventing its entry into the plant stems. To do this you can remove any dock or other weeds in the garden or surrounding area. A band of DDT or chlordane dust placed around the garden or on the soil around plants susceptible to attack, such as rhubarb, potato, and tomato, may kill the borers as they migrate to the gardens before they bore into the rhubarb stalks or plant stems.

Women are to blame for most of the lying done by men. They insist on asking questions.

Joins University Entomology Staff

Dr. George Mallory Boush has joined the staff of the Dept. of Entomology as an Associate Professor. He will be involved in teaching and will conduct the fruit insect research program. The research program will involve studies concerned with insects and related pests of apples, cherries, cranberries, strawberries, and other fruit crops of Wisconsin.

Dr. Boush received his undergraduate training in biology at the Virginia Polytechnic Institute and his Master of Science and doctorate degrees in entomology from Ohio State University. Mallory brings a broad background of training and experience to his new position. He has served as entomologist with the Mexican Agricultural Program of the Rockefeller Foundation, Mexico City, and was chairman of the Dept. of Zo-



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All Columbia Fruit ladders are extra light in weight, more rigid and meet safety regulations.

- Top fits flush with sides.
- Leg hinged by all metal hinge assembly.
- Bottom steps extend from outside to outside, allowing more working space.
- Sturdy single leg for ease of setting.
- Top is capped with metal brackets.

FOLLOWING SIZES AVAILABLE:

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7' - 11.76	10' - 16.80
8' - 13.44	12' - 20.16

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ology and Entomology of the University of Bagdad. Dr. Boush has gained further experience in teaching and research as Assistant Entomologist at V. P. I., Associate Professor of Entomology at the University of Kentucky, and most recently as Associate Professor of Entomology at the V. P. I. research station, Holland, Virginia.

Dr. Boush states that he is looking forward to meeting the growers, learning their problems, and reporting on research programs at grower meetings.

Here and There

1. How long into the fall do apple maggots emerge or enter the apple crop?

Apple maggot emergence in Wisconsin orchards usually begins in late June and continues throughout July and August with a few flies appearing in September. The peak fly emergence usually falls between July 20-31. In the 1963 season we hit a peak emergence in Door County on July 27 with a fairly strong fly emergence continuing through mid-August and then trailing off into September. Therefore, good spray coverage must be maintained throughout July and August for adequate apple maggot control.

2. How does one detect mite injury?

When a mite infestation becomes severe the foliage will become off color or "bronzed". However, the fruit grower can detect the presence of a mite infestation in an orchard before this stage of damage is reached. Look at the underside of the leaf and you will note webbing along the mid-rib. Upon close examination you should be able to see adult European red mites or two-spotted mites moving on the leaf surface. The mites and mite eggs can readily be seen with the aid of a 10X or 20X hand lens. Keep a constant lookout for a mite buildup in your orchard as they can really go through a "population explosion" during the hot dry

summer and early fall months.

—Replies by Prof. John Libby

Tree Watchers Report Trouble

Trees, a part of Wisconsin's heritage, may have been taken for granted in the past, but not so now say officials in the Plant Industry Division of the Wisconsin State Department of Agriculture. Particularly, shade and ornamental trees appear to attract the attention of Wisconsin citizens more since the advent of Dutch Elm disease.

Judging from inquiries, home owners are watching their trees more closely and show concern about suspected tree-growth problems. In many springs, evergreens show injury symptoms but most of the concern this year seems to be with the broad-leaved trees.

Deformities called "galls" on oak, hickory, hackberry, and silver maple

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100 - 250 Doz.	3.65 Dozen
251 - 500 Doz.	3.50 Dozen
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leaves are common but seldom cause trees to die. Raised galls first green, turning reddish, and finally black on upper leaf surfaces of silver maple are prevalent again in 1964; but the taller the tree the less they are noticed and rarely are control measures warranted. The same is true for most of the gall-making insects.

Here and There

The Howard Ericksons buy fresh cherry pie at a Home style bakery in Egg Harbor. Now that is real cherry pie. The bakers are ladies, and, yes, they use fresh Wisconsin cherries. There is a restaurant in connection. We noticed that on the morning of July 23 some of the fellows were treating themselves to cherry pie with ice cream for breakfast. We had a little chat with the bakers.

The operation of a new machine, a cherry picker, was demonstrated as part of the field day program. The \$10,000 machine really shakes those cherry trees; the cherries come rolling off and end up in a tank filled with cold water. They tell us that six of these machines are in operation. When the crop is good, and ripe and with a two shift, sixteen hour a day operation, picking costs can be reduced to one cent a pound.

Did you ever see a fish boil, or taste the results? If not, you missed a real treat. About 100 of those in attendance at the Sturgeon Bay Fruit Field Day participated at a noon luncheon feature.

The fruit produced on a dwarf apple should be pretty much the same as fruit of the same variety produced on a standard tree.

The national and Wisconsin cherry crops are big. Wisconsin's crop is about double that of last year. Estimates are that it may reach 30 million pounds. The apple crop is likewise going to be a bumper one, a real crate buster.

Named foods editor of the Wisconsin State Department of Agriculture on July 1 was Miss Georgia Wilson, who will serve in that capacity with the Farm Products Promotion Section of the Marketing Division.

In her new position, she will prepare information on the use of Wisconsin's farm products by home makers and institutional representatives. She will be available to participate in the activities of the Wis. Apple Institute and the Wis. Horticulture Society.

Carroll Kripner, Sec'y-Treas. of the Jefferson-Rock Co. Fruit Growers Assn. and a Horticulture Society Board member, sent in a list of 33 members for the State Horticulture Society from his group in July. This is the largest number to come in from the entire state. Congratulations, Carroll.

Reports indicate that strips impregnated with an insecticide are doing an amazing job of fly and insect control, if used and installed according to manufacturers directions.

Wisconsin Horticulture

VOL. XLIX

SEPTEMBER, 1964

NUMBER 3

September in the Orchard

**G. C. Klingbeil, Extension Specialist
 Fruit Production, University of Wis.**

Consumers prefer apples that are tasty, well colored and free from injury. Wisconsin growers produce such fruit but often lose quality by harvesting immature fruit. There are many criteria for judging maturity but one of the simplest is the number of days from full bloom. In a normal year maturity is reached as follows:

McIntosh	125-130 days
Jonathan	135-140 days
Red Delicious	145-155 days
Golden Delicious	145-160 days

Highest storage quality is maintained if apples are harvested on the low end of the scale while fruit for fresh market or retail sale should be harvested at the high end of the scale. Trees having light crops may reach maturity slightly earlier. Full bloom dates for various areas of the state were listed in an earlier issue (June) of *Wisconsin Horticulture*.

Apple Storage Scald

Apple storage scald is not uncommon in the Cortland, Secor, Macoun, N. W. Greening, and some other varieties and has caused considerable financial loss to the many apple growers in Wisconsin. Storage scald is physiological in nature and therefore, is not associated with disease-causing organisms or insects. Scald development may be associated with immaturity of fruit, lack of adequate storage ventilation and an accumulation of certain gases in the storage which the apple itself generates in the ripening process. Scald usually appears after the fruit has been in storage for some time and usually develops first on the green side of the fruit. It shows as a brownish discoloration sug-

gestive of a burned or scalded condition. The affected area remains firm for a time, but as the disorder progresses the discolored areas become darker and the flesh of the fruit under the discolored portion begins to soften. The skin may then be easily broken which allows secondary decay organisms to enter. This ultimately results in complete decay of the fruit. When fruit affected with scald (often difficult to detect in its early stages) is removed from storage and allowed to remain in warm temperatures, the progression of scald and breakdown of the fruit may progress very rapidly.

Scald can be reduced on susceptible varieties by harvesting the fruit at proper maturity, moving the fruit into storage immediately after harvest, and providing adequate storage ventilation. Scald can further be reduced by wrapping the fruit with mineral oil impregnated paper or mixing similarly treated shredded paper with the fruit. The latest and most effective means to produce scald is to dip or spray the fruit with a solution containing diphenylamine (DPA). DPA is registered for use and has a residue tolerance of 10 ppm on apples.

Immediately after harvest fruit should be dipped in a solution containing 1,000 to 2,000 ppm diphenylamine, drained, and put into storage. In Wisconsin tests, both the 1,000 and 2,000 ppm solution were effective. The fruit must be thoroughly drained in order to prevent injury that may occur from puddles left in the stem or calyx end of the fruit, or the bottom of containers. Thorough coverage is also essential. Growers using the material should keep accurate records as to harvest dates and storage dates and should mark containers that contain treated fruit.



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Published monthly excepting July and December by the Wisconsin State Horticultural Society and the Wisconsin Apple Institute.

Subscription and Society Membership \$2 per year.

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Events of Interest to Horticulturists

September 1 to October 31—"Wis. Apple Time"

September — County Fairs

September 26 & 27—Apple Festival,
Gays Mills.

October 3—Christmas Tree Festival,
Ogema.

October 4—Apple Festival, Bayfield

October 6-8—Wis. Farm Progress
Days, Beaver Dam

October 15-24—National Apple Week

December —

Wis. Fruit Grower Meetings

Dec. 2—Strawberry Growers Ass'n

Dec. 3 & 4—Wis. Horticulture Society
Wis. Apple Institute,
Conway Hotel, Appleton

December 14-15—Western Wisconsin-
Minnesota Fruit Growers'
Meeting—Hotel Kahler,
Rochester, Minnesota.

There is nothing like a dish towel for wiping that contented look off a husband's face.

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Grades 2 and 2½ inch sizes; has an additional section with 2½ in. chain size. Has polishing attachment. Two people can operate machine successfully.

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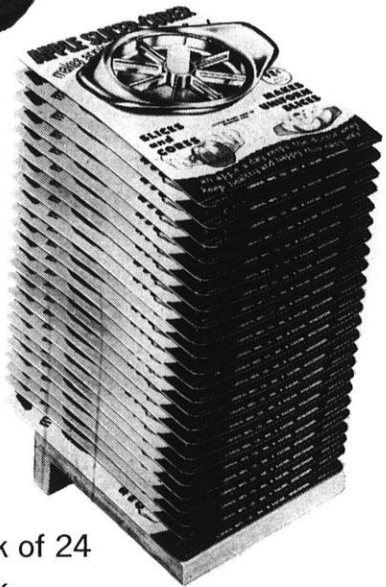
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Nieman Orchards, Cedarburg—10 firsts.
Walter B. Schultz, Lake Mills—8 firsts.
Meyers Orchards, Oak Creek—6 firsts.
Hi View Orchard, Cedarburg—6 firsts.
Frank Meyer, Greenfield—4 firsts.
Kickapoo Orchards, Gays Mills—3 firsts.
Darrel Sherman, Edgerton—3 firsts.

Other prize winners were Leonard Zinn, Hartford; Vernon Zickert, Deerfield; Harold Ouwenel, Milwaukee and Loren Osman, Milwaukee.

August 14-23 apples were the big attraction at the 1964 Wisconsin State Fair. The Wisconsin Apple Institute

provided a most popular and educational exhibit in the Agricultural building. The attention getter was a miniature Model T Ford pulling a sailboat which was filled with juicy, crisp Wisconsin apples. Every day the little Model T led the way in the parade advertising "Enjoy Wisconsin apples."

In the booth ice cold apple cider, apple delights, apple corers, recipe books and apples were sold. Betty Mahr, daughter of Henry, was in charge of the booth. She was ably assisted by Mary Seeber. During the 10 days of the exhibit 650 gallons of cider and 6,780 apple delights were sold.

Bill Hoelt, farm reporter for WTMJ,

WISCONSIN APPLE INSTITUTE BOOTH 1964



WIS. STATE FAIR—The charming young ladies, left to right, are Betty Mahr, Mary Seeber, and that's Alice in Dairyland in the little Ford. Yes, it runs. The boat was designed and built by Walter Clemens, Mequon.



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interviewed Henry Mahr about apple sales and apple promotion. This interview drew many additional people to the booth to buy apple products.

Another promotional activity at the Fair took place in the Women's Bldg. The Mrs. Elroy Honadel, Henry Mahr and Walter Clemens demonstrated their favorite apple recipes. During the demonstrations, apple varieties, uses and storage hints were discussed.

The purpose of the State Fair Apple Institute booth to promote Wisconsin apples and to make people aware of the uses and varieties of apples. It is planned and arranged by the Institute State Fair Committee of Henry Mahr, Chr., Leroy Meyer and Elroy Honadel.

It's Apple Time in Wisconsin

September 1 - October 31, 1964

A complete program of apple promotion merchandising and publicity is being conducted throughout Wisconsin during the months of September and October. Wisconsin house wives will be alerted through the press, radio and television as well as through their retail food stores that Wisconsin apples are plentiful and can be used in a variety of ways.

Television programs have been arranged for WTMJ, WITI, Milwaukee; WISC, WKOW, Madison; WBAY, Green Bay; WEAU, Eau Claire; and WSAU, Wausau. These programs will feature various uses of Wisconsin apples and the Wisconsin apple recipe book will be offered to all viewers.

A five minute tape on apple uses has been supplied to 45 radio stations, 31 radio stations are using radio spots highlighting Wisconsin apples. Home economics teachers, home economics leaders and Wisconsin food editors have been supplied with special food releases and photos emphasizing Wisconsin apple recipes and menu plans. News releases and feature stories on apples have been provided Wisconsin news-

papers and retail food publications. Over a thousand kits of point-of-sale material have been provided Wisconsin food stores. Special apple displays are being featured in the State Office Building in Milwaukee, State Office Building in Madison and the Conservation window on Michigan Avenue in Chicago.

An Apple for the Teacher Promotion is being conducted in Madison. Wisconsin restaurants have been provided special recipes and posters highlighting Wisconsin apple pie. Wisconsin's Alice in Dairyland will participate in numerous apple activities throughout the months of September and October.

Teach on Committee

Ellery Teach of Sunrise Orchards, Gays Mills, has been appointed by Pres. George W. Premo of the Wis. Apple Institute as a member of the important Market News Committee.

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251 - 500 Doz.	3.50 Dozen
500 & Over Doz.	3.35 Dozen

1/2 Bushels: (Without Covers)

\$3.60 Dozen any quantity

Peck Baskets:

\$3.65 Dozen any quantity

1/2 Peck Baskets:

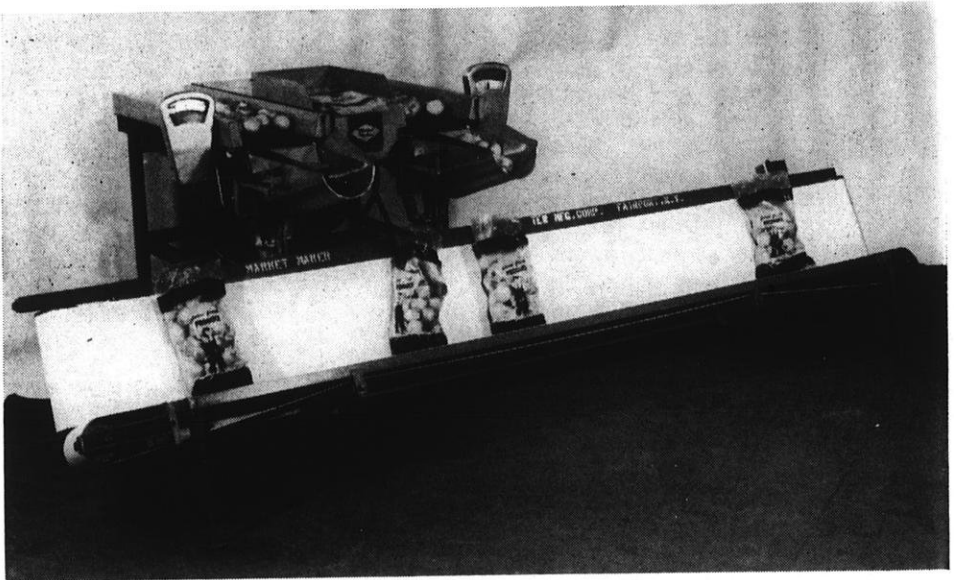
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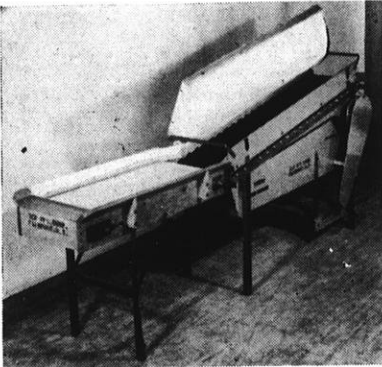
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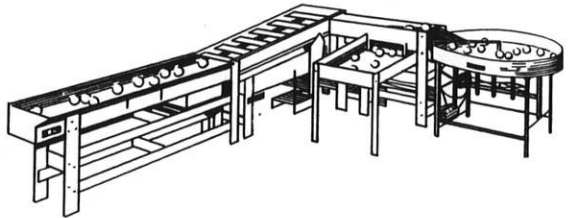
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"EVERYTHING FOR THE ORCHARDIST"

Lilac, Powdery Mildew, and Those "Dog Days" of August

Dr. Gayle L. Worf,
Ext. Plant Pathologist

All of us know the lilac for its faithful source of gorgeous and fragrant flowers each spring. Many of us also use the attractive and dense, dark green summer foliage of the lilac as a background for the flower garden or a hedge for background privacy. But those leaves often lose their luster and become plastered with a white powdery mold, usually during those "dog days" of August. Have you ever wondered what causes this faded appearance and whether something can be done to prevent it? Powdery mildew is the culprit, and something can be done about it.

Powdery mildew on lilac is somewhat akin to an "old age" disease. That is, we never see it early in the spring when the foliage is young and growth is rapid. The lilac leaves simply aren't susceptible then, and besides, the spring time weather is usually not so favorable for the disease. But as the leaves mature and the long, dry days are followed by cool nights with heavy dew, the fungus spores germinate and cover the leaves with a powdery, white mass. Fortunately, the disease doesn't really do too much damage to the lilac; the leaves still have a nice, green color under the mildew. But the fungus is taking nutrients from the leaves, it is marring their beauty, and it can do damage to recently transplanted shrubs or other lilacs in poor vigor. (Incidentally, powdery mildew is generally much more severe on other flowers such as zinnias or plox!)

Since the mildew probably lives over from season to season, it may help to rake up the leaves each fall and either compost them or burn them. But the spores are carried by breezes from your neighbor's lilacs so easily that you will have only limited control this way. Fungicides are needed if you are serious

about stopping mildew. As soon as you see the first few spots developing, spray the plants with either Actidione - PM, Karathane, Phaltan, or sulphur. Mix the materials well, according to directions on the label, and cover the foliage thoroughly. Our personal preference is Karathane, with a little spreader-sticker added to assure good coverage and adherence. You will have to repeat the application about every ten days, or when new fungus shows up. If the fungus gets somewhat ahead of you, try two applications three days apart. But if it gets too far ahead, the spray will kill the fungus, but the ugly mildew appearance will remain.

Most unprotected lilacs are too far gone now for effective control measures, but it is a wonderful time for planning for a mildew-free year ahead!

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ORTHOICIDE is gentle. It's not likely to cause russetting—even in muggy weather—even on green and yellow varieties. So you can spray regularly, from pre-pink right on through the season.

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H. Delmar Robinson New National President

H. D. "Butch" Robinson, Jr., NAI's new President is currently Chairman of the Virginia State Apple Commission. He has served as President of C. L. Robinson Corp., a family-owned business in Winchester, Va. since 1957 and has devoted his entire life to the production and marketing of apples. Mr. Robinson is a graduate of Duke University. He has agreed to appear on the Wisconsin program in early December.

Silver Anniversary

Connell's Sunridge Orchards, Inc., Menomonie, Wis., will be marking 25 years of successful operation under the management of the Connell family this year. Congratulations to Mr. and Mrs. Wm. F., Thomas W. and Marjorie Connell, from the Wis. Apple Institute and the Wis. Horticulture Society.

FROM THE STATE OF WASHINGTON

Interest in apple plantings is at a peak. The major emphasis is on high density plantings. Spur type varieties are being used and size control is done by pruning. Size control by rootstocks is less emphasized at the present time. (I saw acre after acre of new apple orchards. The number of trees per acre looked tremendously high.) Dr. Ackley remarked that they would like to have spur type trees for all varieties. The normal rainfall at Yakima is 9 inches. The growers irrigate, primarily by furrow methods, every three weeks and apply 4 inches of water per application. This is the equivalent of 40 inches of irrigation per year.

The Michigan State Apple Commission approved a budget of \$373,000 for the promotion of an expected record apple crop of 18½ million bushels.

FROM NEBRASKA:

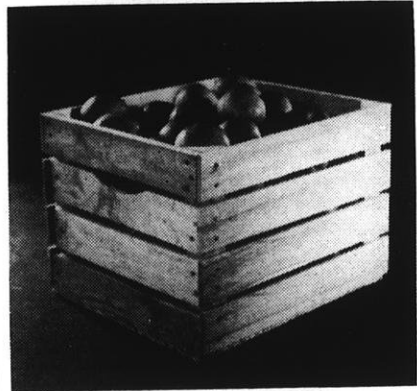
Of course, it is a great disappointment to see one's crop ruined by hail,

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but fruit damaged by hail will be accepted by the consumers whereas wormy apples will not. The public understands hazards of the weather, especially after their own experience in recent weeks.

Wages and Hours

Section 13 (a) (22) of the Federal Act specifically exempts from the Minimum wage requirements of Section (6) and from the overtime provisions any employee engaged in (A) the transportation of fruits from the farm to a place of first processing or marketing within the state or (B) in transportation, whether or not performed by the farmer (or horticulturist) between the farm and any point in the same state of persons employed in the harvesting of fruits.

The exemption applies only if crops from an owned orchard are handled, and do not apply to the operator of a concentration point or processing plant which buys or handles product of several growers. All school laws, however, apply.

For answers to specific questions, write to: U. S. Dept. of Labor, Wage & Hours Division, 114 Lincoln Bldg., 333 Price Place, Madison, Wis. 53705.

Under the Wis. Unemployment Compensation laws, labor performed in connection with raising or harvesting any agricultural or horticultural crop is exempt from the provision of the law.

Minimum wage information can be obtained from the Wis. Industrial Commission, 4802 Sheboygan Ave., Madison. Ask for a copy of Chapter Ind. 72. The information you are interested in will be found in Section 72.04, p. 17.

She was changing her baby with a gallery looking on, namely her 4-year-old son. When she neglected to sprinkle the infant with talcum powder, the young kibitzer was indignant.

"What?" he said, "Aren't you going to salt him this time?"

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Insect Control*
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Clinic Urges Aggressive Marketing

Thirty-five grower organization managers for promotion and marketing from nearly all major apple producing sections of the nation met at Grand Rapids, Michigan, August 19-21 for the 13th annual Apple Marketing Clinic and the pre-marketing season conference of the Apple Institute Marketing Division.

H. D. Robinson, Jr., President of N. A. I., opened the conference at its evening session on August 19, stressing the importance of frank and thorough evaluation of the crop and of marketing needs.

Fred P. Corey, N. A. I. Executive Vice President, reports that these summary points, among others were reached:

1. Of the probable 147 million bushel national production, about 96 million bushels were estimated to be marketed fresh; about 51 million bushels utilized in processed apple products.

2. The 1964 estimated production is just 17% greater than the 1963 crop which was marketed with relatively little difficulty.

3. Production is more uniformly distributed among all major supply areas than any crop in recent years.

4. Condition, size, color, quality generally, is excellent to date. Most all areas have had seasonal periods of dry weather, but critical drought areas, and consequent small sizes of fruit, are minimum. Hail damage and other adverse factors of condition and quality are minimum to date.

5. Processing will utilize a greater portion of production in an increasing volume of high demand slice, sauce, juice and specialty products. This also provides increasingly for utilizing the less highly colored, top finish fresh fruit and provides opportunity for increasingly efficient and profitable marketing of both processing and fresh fruit.

6. Handling and storage facilities are annually improving . . . additional ca-

capacity for two to four million more bushels in C. A. and regular refrigerated storage will further the stability of a good season long market.

7. Apple sales continue to improve in coordination, consolidation and cooperation.

8. Industry advertising and merchandising of the crop will be at an all time high . . . not nearly as great as needed, but annually going up, and with a concerted push to do all possible this season.

9. Economic conditions are good . . . there is a hungry potential market which is available to aggressive promotion and marketing.

Dr. Max E. Brunk, Marketing Specialist at Cornell University, in providing an excellent summary and challenge at the conclusion of the conference, cited the foregoing points and singled out grower and marketer philosophy and attitude as the major obstacle to capit-

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alizing on the opportunities afforded with the 1964 crop. With increasing quality of product, increasing efficiencies and facilities for profitable and stable season long marketing; with increasing potential demand through increased population, increased interest in apples, it remains primarily only for industry to think and act positively and aggressively. While the crop, statistically, compared to last year is up only 17%, too great a negative tendency is to assume it is relatively "big" Too little cognizance is taken of increased per capita demand, and the many other positive facts which make it only an adjusting supply to fill an increasing need. Properly marketed it can be profitably sold with insufficient supply to meet demand.

Attending from Wisconsin was Marlon Schwier, State Dept. of Agriculture.

Gays Mills Field Day

The so-called Wis.-Minn. Apple Field Day on August 10th was attended by some 150 interested participants from a radius of 150 miles. The program got under way at 10 a. m. at Frank Orchards located in the center of this picturesque, scenic ridge area, overlooking the Kickapoo River Valley.

A busy day was on the schedule. It included comments on apple crop estimates, state and national, the growing season to date in Wis. and Minn., a look at Frank's new packing line, baggers, bag closers and conveyors.

Lunch at Gays Mills and then back to Sunrise Orchards, operated by Ellery Teach and Son, where the group saw Starkrimson, Richared, Jonathan on Hibernial, topworking on Cortland, and the growing of Hibernial for topworking.

The tour then went on to Kickapoo Orchards, operated by Wm. Meyer, for



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- Top fits flush with sides.
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- Sturdy single leg for ease of setting.
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a close look at a new packing house, sales area and packing line.

Another busy worthwhile day of which all the host orchardists and all participants can be proud.

Horticulturists Meet At Madison

O. B. Combs

Forty-seven horticulturists from seven Great Plains states and two Canadian provinces met at the University of Wisconsin on July 27, 28 and 29. These scientists represent the Great Plains Region of the American Society for Horticultural Science. Representatives were present from Iowa, Manitoba, Minnesota, Nebraska, North Dakota, Saskatchewan, South Dakota, Wisconsin and Wyoming. Other states and provinces included in the Great Plains Region but not represented at the meeting include Alberta, Colorado, Kansas, Montana, and the Northwest and Yukon territories.

The meeting opened on Monday morning, July 27, at the Wisconsin Center with registration and research reports by staff members of the Wisconsin Department of Horticulture. Monday afternoon was spent viewing research plots, greenhouse, and laboratories at Madison and the annual banquet was held Monday evening at the Memorial Union. Dr. Roy E. Marshall, Secretary of the American Society for Horticultural Science, was the principal speaker at the banquet. Tuesday, July 28, was spent on tour with one group visiting Floriculture establishments and ornamental plantings in the Milwaukee area including those at Whitnall Park, and a second group visiting vegetable research plots and commercial vegetable plantings and handling facilities in the Montello and Hancock areas. Wednesday forenoon was spent at the Horticulture Research Farm near Arlington going over research plots and viewing re-

search facilities at this location. The meetings ended at noon on Wednesday with a chicken barbecue on the research farm grounds.

Dr. M. N. Dana is currently Secretary of the Great Plains Region group, and was elected to serve as chairman of this group in 1965. The 1965 meetings are to be held at Edmonton, Alberta, beginning on Friday, July 26.

Keep Promoting

Plan to promote apples locally this year . . . hard and aggressively.

Let us know your promotion material needs. We'll do our best to help you do the job. We have a good supply of recipe books, juicy posters (41 x 54) and day glow strips, "Enjoy Wis. Apples." Put them to work for you.

Let's sell apples! The job starts closer to home than we sometimes appreciate. Your own town and community is an important part of a big consumer market.

Our objective lies on the dinner table of the consumer.

Members of the Wis. Apple Institute have put up 30 of the large bill board posters this year.

Free Nitrogen

Lightning is responsible for enriching the soil with nitrogen. Chemicals in the air—four parts nitrogen and one part oxygen—are broken down by lightning, and the nitrogen is carried to earth with rainfall. It has been estimated that the earth's surface is enriched in this fashion each year by many tons of fixed nitrogen.

"How is your doctor son getting on in his practice?" asked the old timer.

"Excellently," said the friend, "he is doing well enough that occasionally he can tell someone there is nothing wrong with them."

A Visit to the New York World's Fair

On a trip to the New York World's Fair you can look into the past, present, and future. You can also learn a great deal about other countries and about outer space. All it will cost you is \$2.00 to enter the fair and the ambition to do some walking and standing in line.

The exhibits built by the big industrial companies like General Electric, General Motors, Ford, Chrysler and many more are a wonderful experience to visit. Many of them tell the story of man, his progress in better living and his future. Each tells this story as it pertains to their product. They are all really worth standing in line to see and they are free. The state exhibits and most of the foreign countries are free also.

To see the best parts of the fair, and not feel you have missed too much you should spend about four days there. We did this and came home feeling we had seen all that interested us. A guide book that is sold near the gate for \$1.00 was a big help.

Lodgings in New York are expensive. A moderate hotel room in Manhattan for two costs about \$15.00 a day. Transportation to the Fair from Manhattan is good via the Subway and costs only 15¢ per person.

Food is expensive in New York and especially at the Fair. The guide book

lists eating places at the Fair and whether they are expensive or not. At the inexpensive places a sandwich costs about \$1.50 and a meal \$2.00 or (\$2.50). This does not include the beverage or dessert. We can't say what the prices are at the expensive places. A hot dog at a stand will cost about 40¢. There is one restaurant called Tad's that sells a steak, baked potatoe, and salad for \$1.19 but there is always a long line here.

The Wisconsin exhibit is somewhat disappointing. The pavillion itself is pretty, but inside there are only a few pictures of scenes from Wisconsin. It is surrounded on three sides by a building, which on one side houses Tad's restaurant. In back there is an old time beer garden and on the other side a Dairy Bar. The Dairy Bar is nice and sells sandwiches, pizza, ice cream, and milk. The beer garden in back displays pictures of Bucky Badger, but we were not pleased with the food. To find the cheese you go through the beer garden or around the end buildings. Here in the back is the cheese, housed in a refrigerated truck. We wondered if many people other than those from Wisconsin go to see it.

The Illinois pavillion is one of the best. It tells the story of Abe Lincoln and to do so it has a wonderful, animated, life size figure of Mr. Lincoln which was made by Walt Disney.

If any farmers are wondering, there

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Power Pruner — Wish Basket

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Free Literature & Demonstrations

were no exhibits of farm machinery, live stock, or farm products, as we are accustomed to seeing at local fairs.

Night time at the Fair is beautiful. To make it even more so each night a show of fireworks and dancing waters can be seen free of charge.

We are sure to agree with the claims that the 1964-65 New York World's Fair is the best and biggest ever.

Mrs. Willard Nieman

What's in Laundry Detergents?

Detergents used in the family wash are of the "all-purpose" type, safe for anything that is washable. They are mixtures of various cleansing chemicals, the workhorse of which is the surface active agent (or surfactant). Its function is to loosen dirt particles, produce suds or foam, and help keep soil from washing back onto the softened fabrics. Other ingredients include: an anti-re-deposition agent; builders, i. e. complex phosphates which "tie-up" hardness minerals in the water; corrosion inhibitors to protect the metals in the washing machine; suds suppressants or foam stabilizers; and fabric brighteners. Still other ingredients which may be incorporated are: perfume, coloring, bleach, softener, or bacteriostat (germ-fighting chemical).

The surfactant most commonly used in household detergents is ALKYL BENZENE SULFONATE, commonly called ABS. Although it makes up less than one-third of the total detergent ingredients, it is not only the workhorse of the washing process but also the chief troublemaker. The present form of ABS residue that go down the drain are only slowly or partly biodegradable in sewage treatment plants or in streams and rivers. The fact that just one type of surfactant has more than 75,000 chemical variations may help to explain why it has taken from 1951 until now to find a new surfactant base which will not only be biodegradable but will also possess other neces-

sary qualities. Interestingly, the leading NEW base is an ABS variant.

HOW WILL YOU KNOW WHICH DETERGENT TO BUY?

We are told that the new products will meet or quite possibly exceed the cleansing abilities of present products. A number of companies are planning to market the new biodegradable (often called "soft") detergents under present brand names without any fanfare. Others may advertise the reason for the words "new" or "improved" on the box. So you will probably choose your laundry detergents just as you do today. Normal or high sudsing detergents should be used only in top-loading washers. Low sudsing detergents were developed for use in the tumble-action or front-loading washers, but they may also be used in top-loading machines. All-purpose detergents of the normal or high sudsing type are available in granule or liquid form. In test market areas, there are two new high sudsing detergents in pre-measured tablet form. All-purpose detergents of the low or controlled sudsing type are available nationally in granule and pre-measured tablet form. Brand new are two all-purpose low sudsing liquid detergents for cold water washing of the entire family wash. One of these is in national distribution, the other still in test markets.

Another new product is a powder detergent with a built-in fabric softener, the complete product to be added at the beginning of the wash cycle.

Regardless of the kind of detergent you choose, industry home economists urge that you follow instructions as to the amount to use. They say that homemakers tend not to use enough detergent particularly in loads of heavily soiled clothes (where more than the usually recommended amount is necessary for good wash-ability). The new extra-capacity machines will also require the use of larger amounts of all-purpose detergent.

One Aphid Is Danger Sign

Discovery of a single aphid on ornamentals is an indication that spraying should begin immediately, according to the extension entomologist at Colorado State University.

"Usually too many people wait too long. When aphids and plant lice are so numerous that leaves of plants begin to curl, irreparable damage has already been done."

Aphids, or plant lice, feed on most plants, including annuals, perennials, shrubs, and trees. Either malathion or lindane may be used as a controlling spray. Repeated spraying will probably be needed throughout the summer.

Solid Precipitation

Hail occurs only in warm weather in conjunction with thunderstorms. Each ball or globe is made up of alternate

layers of clear ice and opaque hardened snow, which it acquires as it moves down in the atmosphere, from hot to cold, before it finally falls to earth.

Snow pellets may fall in conjunction with snowflakes, but always in cold weather.

Sleet is made up of tiny globules of ice, actually frozen drops of water, which fall in cold weather.

The Social Security Act is being amended. Benefits to increase 5%, widows to have benefits at age 60, salary base increase from \$4,800.00 to \$5,400.00 effective January 1, 1965, revised tax rate schedule is 3.8% in 1965 with maximum of \$205.20. This will increase in the next 6 years to 4.8% and the maximum of \$259.20. Maximum family benefit would be increased to \$300.00, and the maximum individual benefit to \$143.40.

NEW ECONOMY APPLE BOXES



Beautifully Designed:
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499 or less	14 ³ / ₄ ¢ each
500 — 999	13 ³ / ₄ ¢ each
1,000 — 2,000	12 ³ / ₄ ¢ each
2,001 — 5,000	11 ³ / ₄ ¢ each
5,001 & Over	11 ¹ / ₄ ¢ each

Allow three weeks for delivery.

All prices F. O. B. Oconomowoc.

All boxes come already stitched one side, bottoms are sealed by glueing, taping or stapling.

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New Apple-Pastry Rolls For Coffee and Tea

These delicious easily made apple rolls taste good in the lunch box, too, and in the picnic hamper, or patio supper tray, or anywhere hungry people are gathered to enjoy a meal together. The combination of coconut and walnuts with the apple slices is especially appetizing.

Apple Pastry Rolls

- 1 can (about 1 lb.) apple slices
- 1 teaspoon lemon juice
- $\frac{1}{3}$ cup sugar
- $\frac{1}{4}$ teaspoon grated nutmeg
- $\frac{1}{2}$ teaspoon ground cinnamon
- $\frac{1}{8}$ teaspoon salt
- $\frac{1}{3}$ cup chopped walnuts
- $\frac{1}{3}$ cup flaked coconut

- 2 pkgs. pie crust mix
- 2 tablespoons butter or margarine
- 1 egg yolk, slightly beaten
- Cinnamon-sugar

Combine first 8 ingredients. Set aside. Roll pastry $\frac{1}{8}$ -inch thick on lightly floured surface. Cut into 5-inch squares. Put 2 measuring tablespoons apple mixture in center of each square; dot with butter or margarine. Fold one end of pastry square up and over filling. Fold sides up and over. Bring remaining end of pastry up and over. Place, seam side down, on baking sheet. Make 3 or 4 gashes on top of each roll. Brush with egg yolk; sprinkle with cinnamon-sugar. Bake at 425° for about 18 minutes or until deep golden brown. Makes 12 to 14 rolls.

Mrs. Walter Clemens

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Lake Mills, Wis.

Here and There

Gays Mills will have an Apple Festival on Sunday, September 27 with a parade starting at 1:30. Roundy Coughlin of Madison will be the parade marshal.

Welcome the New Dean

Dr. Glenn Pound, who has been chairman of the Department of Plant Pathology, is the new Dean of the College of Agriculture at the University of Wisconsin. He is nationally recognized in his field, and is considered a good administrator, and he is a fine speaker. There is a strong feeling of complete assurance that he will be sympathetic with our horticultural interests.

A National Food Marketing Commission

Has now been established by President Johnson signing the bill. Will be composed of 5 members of the House and of 5 members of the Senate and 5 outside appointees.

It will make a broad inquiry into such questions as the recent slump in some prices and the growing market power of the big supermarket chains. Will try to point to the trouble spots in our farm economy.

A Change in Daylight Savings Time is now being considered in a bill in Congress. It is an administration bill. Supposed to fix daylight savings time from the last Sunday in April to the last Sunday in October. Wisconsin's stops the last Sunday in September. This matter is quite a mess throughout the country. Uniformity would be desir-

able. The last Sunday in October is finding much support, particularly among resort people and in recreational and outing activities.

Instant Apple Sauce — Report from U. S. D. A. laboratories of a new flaky dried product made from fresh apples. Pour hot water on it, and you have apple sauce. The product is not on the market yet, but several firms have expressed interest in producing it.

Harvest Time Important—Pick sweet corn when the kernels are full but still soft and milky. When the ear is taken from the stalk the sugars start to turn to starch and some of the good flavor is lost. Some people start the cooking water before they go out to the garden to pick the corn. Another old rule, but a good one, is in the kettle one hour after picking.

CUT FLOWERS will last longer if properly cared for at time of cutting. Try immersing stems in water of 100 to 110° F. temperature immediately. Warm water is taken up into the stem faster than cold water.

Recently Mr. Khrushchev went into the Volga Valley and suggested that the farmers there ought to start selling their potatoes and vegetables directly to consumers instead of to the state. Now that's a switch in marketing procedures there.

An increasing number of women are taking up the study of law. The usual number continue to lay it down.

Wisconsin Horticulture

VOL. XLIX

OCTOBER, 1964

NUMBER 4

October in the Orchard

G. C. Klingbeil, Extension Specialist,
Fruit Production, University of Wis.

WHAT MAKES AN APPLE RED?

It has been determined that the pigment which gives apples the red color is idaein, 3-B galactosidylecyanidin, more commonly known as anthocyanin pigment or simply the red violet and blue color found in the skin of the apple. This red color is simple or terribly complicated, depending on how you look at it.

Simply, the amount of red color on many apple varieties determines the legal grade of the fruit—U. S. Extra Fancy, U. S. No. 1, etc. It may mean a mark of quality to the buyer. To the consumer red color is just more desirable. A recent study showed retail sales of Red Delicious apples were significantly greater of highly colored fruits over those just partly red.

To the apple grower comes the more complex aspects of red color. He knows that it is highly desirable on the red varieties. He knows that chemical composition and exposure to sunlight are the two important factors that seem to influence color of apples. Light exposure is essential to the development of color but by no means the only factor involved. Anthocyanin pigments arise from chromagen which is closely associated with the amount of sugar produced in the leaves. This then means that color in apples is directly related to the nutritional condition of the tree and is effected by cultural factors such as fertilization, cultivation, pruning, fruit thinning and spraying. Color is also influenced by physical factors such as temperature, sunlight, moisture and others and no doubt by the genetic

makeup of the variety.

The answer to the question, "What makes an apple red?" is simple but the hows and whys of red color are complex especially when one begins to consider the many factors, their actions and interactions on one another. The apple grower of today makes use of all the tools and know how available so that he can wisely consider the many factors associated with fruit color and then manipulate his practices to encourage the most favorable results.

NOTES OF INTEREST

Michigan reports that in 1963, 68% of the apples received by fresh fruit packers were received in bulk boxes. This compared with 38% in 1958. One problem is the lack of uniform size of all bulk boxes.

A recent study in Michigan shows that only growers producing 8,000 bushels or more of apples per year can save money by using bulk boxes.

* * * *

According to reports from Washington, the variety Tydemans Red looks good in that state. It ripens there in mid-August. Favorable comments were also made about Spartan. They say it ripens in the Delicious season which is unlike the ripening date in Wisconsin. What few trees we have in Wisconsin produce fruit of excellent color and quality ripening after Macs but before Delicious.

* * * *

The report, Projections of Apple Production in the United States, prepared for the use of the Committee on Commerce, U. S. Senate, contains some interesting and awakening facts. The state of Washington had in 1962, 3.9 million bearing apple trees; in 1963, 4.2



Green Bay Packaging Inc.

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Apple Boxes and Can Cases

**Wisconsin's Largest
Manufacturers of
CORRUGATED
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WISCONSIN HORTICULTURE

Published monthly excepting July and December by the Wisconsin State Horticultural Society and the Wisconsin Apple Institute.

Subscription and Society Membership \$2 per year.

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Sec'y - Treas. — Editor

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Events of Interest to Horticulturists

October — "Wis. Apple Time."
Oct. 15-24—National Apple Week.
Oct. 17—Pheasant, partridge, rabbit,
and raccoon hunting season start.
Oct. 31—Hallowe'en.
Oct. 31—Wisconsin vs. Michigan
State (Homecoming).
Nov. 3—Election Day.
Nov. 5-6—Teachers' Convention in
Milwaukee.

December —

Wis. Fruit Grower Meetings
DEC. 2—STRAWBERRY GROWERS'
ASS'N.
DEC. 3 & 4—WIS. HORTICULTURE
SOCIETY; WIS. APPLE INSTITUTE
ALL AT CONWAY HOTEL,
APPLETON.
Dec. 14-15—Western Wisconsin - Min-
nesota Fruit Growers' Meeting —
Hotel Kahler, Rochester, Minn.

million and in 1970 expects 6 million. They also expect to increase average yields per tree from 5.5 bushels (1962) to 8 bushels by 1970. Substantial production increases by 1970 can also be expected in other important apple states. The report further states that foreseeable fresh market outlets do not appear sufficient to absorb the probable increase in total U. S. apple production. For Washington the problem will be more acute than in Central and Eastern states. Prospects of exports of fresh fruit are not promising. More processing of apple sauce and new apple products will merit consideration.

What does this mean for Wisconsin growers? Per unit cost of production

must be reduced and new or different marketing procedures must be employed.

Convention Program

The annual convention this year will be held in Appleton, Dec. 2, 3 and 4. Headliners on the program will be H. Delmar Robinson, Jr., Winchester, Virginia, President of the National Apple Institute, Don McDowell, Director of the Wis. Dept. of Agric., and Dr. Glenn Pourd, new Dean of the Wis. College of Agric. There will be an apple show, a state championship apple pie contest, and the city of Appleton will be the site of an all out apple promotion. The ladies as always are planning an outstanding program.

Hotel Reservations

The convention will be held at the Conway Motor Hotel, P. O. Box 70, Appleton, Wis. 54910. It's not too early to take care of yours in October.

The complete program will be published in the November issue.

Important Resolution Up For Consideration

Resolution prepared by a joint committee of the Wisconsin Horticulture Society and the Wisconsin Apple Institute on August 5, 1964, concerning the possible consolidation of the two groups into a single organization.

The committee report has been approved by the Board of Directors of



The Outagamie County Bank Civic Room in Appleton was the setting for finalizing plans for the Horticulture Society and Apple Institute Annual Convention to be held December 2-4. Individuals attending the planning session were: Appleton Chamber of Commerce Directors along with President Walter Clemens of the Horticulture Society, third from right; Harvey Weavers, Ex. Secretary, second from right; Mrs. Walter Clemens, far right, representing the Ladies Auxiliary of the Horticulture Society, and Wisconsin State Department of Agriculture people.

both organizations and is now ready for presentation to the membership as per the following Resolution:

THE RESOLUTION

WHEREAS,

the Wisconsin Horticulture Society has ably served the horticultural interests of the state for the past century, and,

WHEREAS,

the primary interest and direction of the Wisconsin Horticulture Society has been for the most part by and for apple growers of the state, and,

WHEREAS,

the Wisconsin Apple Institute has developed a successful on-going marketing program for Wisconsin apple growers, and,

WHEREAS,

the two organizations, The Wisconsin Horticulture Society and the Wisconsin Apple Institute, have traditionally met at the same time and place for their annual meetings, and,

WHEREAS,

the activities of both organizations have been directed by apple growers, and,

WHEREAS,

many individuals have membership in both organizations and in many instances individuals have simultane-

ously served as officers in each organization, and,

WHEREAS,

both organizations have maintained separate sets of officers,

BE IT RESOLVED THAT:

- (1) the two organizations be consolidated into one, effective January 1, 1966, with a single set of objectives and purposes, and,
- (2) the two organizations, individually, at their annual meetings in Appleton on December 3 and 4, 1964, elect their officers for the coming year, 1965, with all terms terminating as of December 31, 1965, and,
- (3) that the executive committees of the two organizations jointly take care of all merger details during 1965 and prior to the annual meetings that year, and,
- (4) that the two organizations meet in joint session in the fall of 1965

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Bushels: (Without Covers)

99 Doz. or less	\$3.85 Dozen
100 - 250 Doz.	3.65 Dozen
251 - 500 Doz.	3.50 Dozen
500 & Over Doz.	3.35 Dozen

½ Bushels: (Without Covers)

\$3.60 Dozen any quantity

Peck Baskets:

\$3.65 Dozen any quantity

½ Peck Baskets:

\$3.50 Dozen any quantity

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to consider adoption of a new constitution and bylaws for the single organization, the name of the merged organization, and elect new officers for terms beginning on January 1, 1966, and

BE IT FURTHER RESOLVED:

That this resolution be published in the October, 1964 issue of Wisconsin Horticulture as the official notice to the membership of both organizations concerning the above proposed action.

Wisconsin Apples Score For University Bandmen

Wisconsin's football Badgers may not finish on top in the Big 10 season, but U. of W. bandmen will at least "keep the doctor away" with Wisconsin apples. Five Wisconsin apple growers are cooperating this year to supply the horn

tooters and drummers with home grown apples.

The fruit is carted to the musicians just after the half-time activities have ended. They are brought in boxes furnished by the producers with a large Wisconsin Apple sign as a reminder.

The program stemmed from an incident last year in which boxes of apples from another state were presented to the band. State growers, viewing the results of the 1963 season, decided that it was time the Badger bandmen were eating "winning" apples from Wisconsin.

Cooperating in Project Football are Oakwood Orchard, William and John Lewis, owners, Richland Center; Sacia Orchard, Robert and Ethan Sacia, Galesville; Frank Orchard, Gays Mills, through Sherman and Sol Frank of Madison; Kickapoo Orchard, William Meyer, Gays Mills, and Aeppler Orchards, William Aeppler, Oconomowoc.



Robert Sacia, second from the right, watches members of the University of Wisconsin band bite into tasty Wisconsin apples. The Sacia Orchard, Galesville, provided the apples for the Wisconsin band during the Notre Dame Game on September 26.

Don't let scab get started!



FIGHT BACK! WITH ORTHO!

ORTHO[®] stops scab cold—in any weather, on all varieties.



Spray regularly with ORTHOCIDE and scab won't stand a chance. ORTHOCIDE is fast acting, and also penetrates into the surface of fruit and foliage, to give better protection between sprays.

ORTHO[®] is gentle. It's not likely to cause russetting—even in muggy weather—even on green and yellow varieties. So you can spray regularly, from pre-pink right on through the season.

And (used regularly) ORTHOCIDE can have remarkable side-effects. Foliage often gets fuller, deeper in color. You get better apples, and more of them.

In short, you get a lot more from an ORTHOCIDE Spray Program.

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T.M. REG. U.S. PAT. OFF. ORTHO, ORTHOCIDE, HELPING THE WORLD GROW BETTER.

Fruit Show Annual Convention

CONWAY MOTOR INN,

Appleton, Wisconsin

December 3 & 4, 1964

Entries shall consist of a plate of five specimens of the following varieties:

- Class 1—McIntosh
- Class 2—Cortland
- Class 3—Red Delicious
- Class 4—Yellow Delicious
- Class 5—Jonathan
- Class 6—Northwestern Greening
- Class 7—Connell Red and Fireside
- Class 8—Haralson and Prairie Spy
- Class 9—Spartan and Kendall
- Class 10—Any other variety

Fruit will be judged as follows:

Freedom from blemish	-----	30%
Uniformity	-----	25%
Color	-----	20%
Size	-----	15%
Form or trueness to type	----	10%

Prizes:

First prizes — \$3.00 and ribbon

Second prize — \$2.00 and ribbon

Third prize — \$1.00 and ribbon

The Grand Champion of the show will receive an additional \$5.00 prize plus the grand champion trophy.

All entries must be in place by 11:00 A. M., December 3. Plates and entry blanks will be furnished.

The Golden Apple Award

When you see someone wearing a striking Golden Apple on his coat lapel, you should know that you are looking at a man who has received an award for being an outstanding horticulturist. Wm. F. Connell, Pres. of Sunridge Orchards, Inc., Menominee, is the proud possessor of one of these emblems from the Minnesota Apple Growers Ass'n.

Mr. Connell was president of the Wis. Horticulture Society in 1947 and 1948 and was honored by the Society

for his horticulture accomplishments in 1955. Of the other seven recipients of the Golden Apple award two are from Wis. John Houser, Bayfield, and Fred Sacia, Galesville, now deceased.

Apple Acres 60

Apple Acres, operated by the Rasmussens (Harold, Clarissa, Jack and Dick) of Oshkosh, is observing a 60th anniversary. The business was launched in 1904 by Nicholas and Anna Rasmussen, and has remained a family operation ever since.

Tree fruits, berries and vegetables have been produced and sold during those 60 years. In recent years there has been a gradual shift to more apples, sweet corn, berries, tomatoes and a few other vegetables.

Their own Roadside Market has served the Rasmussens well. Cold storage facilities can now accommodate

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Phone TW 8-4238

7,000 bushels of apples. Congratulations for this fine outstanding record.

Harold Rasmussen has been an active member of both the Wis. State Horticulture Society and the Wis. Apple Institute for many years.

Fair to Stay Put

Wisconsin State Fair will stay in West Allis. The Wisconsin Exposition Board shelved a proposed move at their September meeting.

Instead board members voted to improve the present site. No cost figures were given.

Investigation of sites in Waukesha county and one on the Racine-Milwaukee county line was halted.

Costs of a new fair site would run about \$14½ million. Board members figure a huge debt would be a threat to successful operation under the present management.

Milwaukee officials voiced opinions against a move. But a West Allis fire chief said fire prevention standards must be improved.

"I can close State Fair Park if practices aren't brought up to minimum standards," he charged.

Teachers Convention

The Wis. Apple Institute will again have an Apple Promotion booth at the State Teachers Convention to be held in the Milwaukee Arena Nov. 5th and 6th. Here is where thousands of very influential people will see your Apple Institute at work. The booth is in charge of the Exhibits Committee, Henry Mahr, Chairman, Leroy Meyer and Elroy Honadel.

A secretary, soon to be a mother, sent her resignation: "Dear Boss: I'm getting too big for this job."

NEW ECONOMY APPLE BOXES



Beautifully Designed:
Base Color — Coral White
Printed Red and Green!

All 200 lb. Test Corrugated

Prices on ½ Bushel Size

499 or less	14¾¢ each
500 — 999	13¾¢ each
1,000 — 2,000	12¾¢ each
2,001 — 5,000	11¾¢ each
5,001 & Over	11¼¢ each

Allow three weeks for delivery.

All prices F. O. B. Oconomowoc.

All boxes come already stitched one side, bottoms are sealed by glueing, taping or stapling.

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Mouse Control Regulations

Because of the continued high populations of meadow mice in some Wisconsin orchards this year, most of you will do some control. Only a few orchardists have shown a preference for using endrin rather than baits during the past few years. However, we call your attention to Chapter 29.60 (5) (c) Wisconsin Statutes, and Wisconsin Conservation Department Chapter 12.01 of the Wisconsin Administrative Code.

These rules state that no permit is necessary when rodents not classified as game or fur-bearing animals are destroyed by means of poisons, poisoned baits, explosives or poison gas when used in such a manner that game animals, fur-bearing animals or wild birds will not be destroyed thereby.

(The Conservation Department takes the stand that a permit must be secured to use endrin in orchard mouse control.)

ORCHARD MOUSE CONTROL

While recognizing mice as a menace to orchards and endrin as a possible control, we must also consider the potential hazard to wildlife, water and even humans from the endrin dosage required to control mice. Recent national publicity has focused attention to hazards of endrin. It is very likely that as satisfactory substitutes for endrin are

found, its use will not be permitted in the future. Zinc phosphide-coated grain is a much less hazardous control, but better yet is a possibility that a new material (Prolin) may control mice effectively and safely.

PROLIN MAY BE THE ANSWER

Two years ago sturdy paper tubes with an inner coating of warfarin bait, were tossed under apple trees in the Gays Mills area. The orchardist reported they controlled mice better than zinc phosphide-coated grain and required much less labor. This orchardist has consistently refused to use the more hazardous endrin.

Since then, baiting improvements have been made. A better warfarin mouse killer called Prolin has been developed. Superior feeding station tubes have also been developed. Mice like the tubes for protected feeding, and the weatherproof tubes protect the bait. Warfarin and Prolin have proven themselves ultra-safe under many conditions over the years .

In addition to experiments with Prolin tubes this year, experiments with Prolin-coated grains may be made. The Elston machine would be used to place grain bait in artificial burrows or runways which it makes in the grass near tree trunks.

The Department of Agriculture, University Agricultural Extension and Con-

FRIDAY TRACTOR EQUIPMENT



Straw Spreader — Power Hoe
Power Pruner — Wish Basket

Sold & Serviced by:

Waukesha Power Equipment

1316 So. West Ave.
Waukesha, Wisconsin

Ollie Heeren
Liberty 2-8144

Free Literature & Demonstrations

ervation Department are Wisconsin agencies cooperating in demonstration trials in addition to the experimental work.

The Wisconsin Alumni Research Foundation, in cooperation with the 3M Co., is contributing materials for experiments and demonstrations using the Prolin tube baits. A limited supply of Prolin tube baits will be made available free of charge to orchardists with a severe mouse problem, especially those who are interested in changing to a safer control method. Please advise very soon if you are interested. Write to: Wisconsin Conservation Department, Box 450, Madison, Wisconsin.

PERMITS

Endrin permits will be available in 1964. Dosage under the permit will be specified the same as in 1963. Specifications will accompany the permit. Permits will be effective from the end of harvest, but no earlier than October 15, to December 31, 1964. If a permit is desired, write to: Wisconsin Conservation Department, Box 450, Madison, Wisconsin.

Approve Posters

Wis. Apple Institute members who have used the (41" x 54" poster) "First Taste of Fall" have received many compliments on its make up and appeal. Now, however, along comes the new poster entitled, "Apples Please" and many of the members, who have seen it, claim it's the best yet. We agree it's a good one. Both are products of the work and efforts of the National Apple Institute.

Wisconsin ranks first in the planted acreage of sweet corn, second in snap beans, and third in cucumbers for pickles. The state's planted acreage of sweet corn is 7 per cent less than a year ago while increases of 13 per cent for snap beans and 4 per cent for cucumbers are reported.

Relax with an Apple

"Please give me a bite of your apple?" You can't blame a child for asking for his share of the big juicy fruit. It's not just their tantalizing eye appeal, the red, green or golden skin, the juicy, white meat or the spicy appetizing odor when you bite into them. Eye and taste appeal makes apples deservedly popular, but best of all apples are just as good for you as they look. Grandmother's old adage that "An Apple a Day Keeps the Doctor Away," wasn't just an old-wives' tale. There's a lot of truth in it.

Apple Hints

Two and a half to three pounds of apples will make a quart of prepared apples and one quart makes two pounds of apple sauce.

Cortland apples will not turn brown very readily so they are excellent for use in salads.

When making a pie with Golden Delicious, steam the apples in a little water before putting them in the pie. You then will not have a sag in the upper crust, due to shrinkage of the apples when baked.

Sliced Golden Delicious are also excellent served in a sauce dish for breakfast. Just steam them until done or have a glassy look before serving.

When canning apple sauce, always run a kitchen knife around in the fruit jar after it has been filled. This eliminates air bubbles which will cause molding if left in.

Mrs. Walter H. Clemens

Walter reports that "Mrs. Clemens is making a new apple pie that is just the best ever." As a recognized "connoisseur" of apple pie, we are most interested in having a go at a piece or two of it.

You're getting older when you have two temptations, and you choose the one which gets you home earlier.

Here and There

Such trees as hackberry, oak, ash, linden, locust and ironwood are suggested where replacement for an elm is sought. Mixed plantings of several species can provide insurance against the onslaught of a disease which affects only one species. Trees not native to Wisconsin which will grow well in mild-weather areas of the state include sycamore, ginko and redbud.

New England farms which include some of the very earliest orchards in America . . . are still a vital part of our apple industry today. Orchards are located mostly on mountain slopes at 200 to 1,000 feet elevations on good productive soil types.

New England orchards of colonial days contained many apples which exist in memory only today. Black Gilliflower (Sheepnose), Roxbury Russet, and Westfield Seek-no-further were probably the most commonly grown. Rhode Island Greening was one of the finest early named varieties, and it is still in demand today.

Other familiar names, no longer, or rarely, grown today, are: Pearmain, Chenango (Strawberry), Fameuse (Snow), Hightop Sweetings, Pig Nose, Foxwell, Bachelor's Button, Yellow Sweeting, Summer Pippin, London Pippin, Long Red, Russetin, Northern Spy, Esopus Spitzenberg, Lady, Maiden Blush, Porter, Pumpkin Sweet, and Swaar.

Albert TenEyck, Brodhead, operator of Pine Bluff Fruit Farm, received a nice write up in the Sunday, Sept. 13th edition of the Wis. State Journal, on his horticultural interests, and particularly as it relates to his work and study of the Dwarf Apple trees. This summer, Mr. TenEyck and his wife traveled with members of the Dwarf Fruit Tree Ass'n to Europe. Here they studied dwarf tree orchards in Italy, France,

Holland and England. "We returned with a wealth of ideas and information on dwarf trees," says Albert, and "We are convinced that these trees will become much more popular in the United States."

A good fall cleanup program is essential to the control of pests such as the iris borer and common stalk borer. They live through the winter in plant refuse.

The incidence of the iris borer, one of the most serious iris pests, is directly related to the quality of the garden cleanup program. The borer, about one inch long, works its way down through the leaves and enters the rootlike rhizomes, eating out the interior and destroying the plant.

An old proverb—"The workman who wishes to do his work well, must first sharpen his tools."

WANTED! CIDER APPLES

50¢ per bushel

Delivered at Dock
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Must be free from
Infestation and Decay
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Here and There

"People should be interested in and take care of trees as they are the only thing known which increases in value. Everything else depreciates. It is almost safe to say that all trees 10, 25 or 50 years from now will be of greater value than at present," says George Hafstad of the Wis. Dept. of Agriculture.

A final word on quality. From all reports and from personal observations of apples in the Gays Mills area, it appears we have one of the finest crops in many years. It makes no difference whether they are McIntosh, Cortland, Jonathan or Delicious, I am sure all packs are grading Fancy and probably Extra Fancy. Consumers certainly have an opportunity to get fine quality apples this year if they buy Wisconsin or Minnesota packed fruit.

Most growers indicate movement at their packing sheds has picked up. In addition to the good weekend trade, they are also getting good traffic during the week. This is a good trend and could help remove some of the pressures on the wholesale movement.

Strawberries are usually covered when the temperatures remain around 20 degrees. Good springy material, such as marsh hay makes the best mulching material.

A garden is an experience.

Like faith, soil is the substance hoped for.

Harvest home, harvest home,
We have ploughed, we have sowed,
We have reaped, we have mowed,
We have brought home every load,
Hip, hip, hip, harvest home!

—Old Song

Wherever one goes questions on the

right time to prune come up. Wasn't it Liberty Bailey who said—"Prune when your knife is sharp."

A simple rule relating to placing shrubs and trees in the home landscape is to go in the house as plants are being sited and look out. Many a nice plan (on paper) may make for blocked views and dark rooms.

Arbor Day in Wisconsin

By Arthur Kurtz

Why plant trees? Do not we have too many already? If we pause just a moment to reflect on what our homes, our villages, our cities, and what our rural landscape would be like without trees, I am sure that we would all agree that this would indeed be a drab world.

Trees are living things, subject to attack by insects, diseases, and in some instances mechanical damage. When this happens, replacement planting is necessary to fill the void.

Many newly developed residential areas also need to plant trees or run the risk of becoming dead and unsightly asphalt jungles. Likewise, vast rural areas, not suitable for ordinary agricultural purposes should be planted to trees.

Trees, then we see, provide for improvement and beautification of the landscape, are sources of economic importance in forest areas, and are regarded as one of our basic resources that man must conserve.

What trees to plant and where to get them? Answers to these questions are highly important. In the Department of Agriculture, we have advised contacts with county agents, vocational agriculture instructors, your local foresters, and nurserymen who can provide information on the most desirable tree species for planting on Arbor Day, and of course, the local nurseryman is the individual we recommend as a source of planting stock.

A renewed interest in Arbor Day tree

planting activities in 1965 is highly important in this era of rapid change in community development. Renewing and maintaining our tree resources is an indication of man's devotion to the future welfare of the community.

CHUCKLES

Heard in Cherry Orchard — Nic, I suppose you'll be getting one of these new pickers soon. No, I don't think so. Why not, looks like a good machine. Yes, but not near as cute as some of those ladies, I had picking in my cherry orchard yesterday morning.

And in the old days a bad man would go around with niches in his gun handle, instead of in his fenders.

Speeding motorists should remember that it's better to be a little late here than too early up there.

GET BACK ACHE

An earthquake hit the Indian reservation and the chief was asked why. He told them: "You dance Sun Dance. Get sunshine. Dance Rain Dance, get rain, Dance Corn Dance. Get Corn." He waved an impressive finger at them. "Now—what you expect when everybody dance Twist?"

An angry little man bounced into the postmaster's office.

"For some time," he shouted, "I've been bothered by threatening letters, and I want something done about it."

"I'm sure we can help," soothed the postmaster. "That's a federal offense. Have you any idea who is sending you these letters?"

"Certainly," snapped the little fellow. "It's them pesky income tax people!"

Plan Now to Attend the

Annual Convention

Dec. 2, 3 and 4

at Appleton, Wis.

Sec. 34.66 P. L. & R.
U. S. Postage
PAID
Permit No. 45
Lake Mills, Wis.

Rules for Avoiding Wildlife Accidents

Important ways to reduce auto-wildlife accidents are:

Slow down and enjoy your trip.

Always keep car under control, be able to stop when game darts out ahead of you. Wildlife is part of the scenery, enjoy it.

Keep whole scene in view.

Watch all objects for a half mile ahead in the country. This will help you spot a deer in time to adjust speed, warn passengers a sudden stop may be necessary.

Wear seat belts. Make it a habit to buckle seat belts before you start your car. Seat belts reduce accident injuries more than one-third.

Observe signs. Deer crossing warnings were erected at known deer trails for the protection of motorists.

Blow horn. Sounding of a car horn scares deer away, makes game and song birds veer off their flying course.

Watch out after rain. Wildlife leaves woodland cover to get some sunshine, be in clearing where air is moving to dry off.

Never over-drive lights. Slow down at night. Lights and distance can play tricks. A pair of eyes reflecting down the road could appear to be those of a small animal but close up it might be a deer. Since deer are blinded by headlights, frighten away by raising and lowering light beam.

Deer believe in togetherness. Don't presume there is only one

deer, chances are others will follow. Proceed cautiously, stop if necessary.

Drag deer off highway. When an unavoidable accident happens, cautiously move the deer off roadway to prevent more accidents. Immediately notify the nearest conservation warden, sheriff's office or police department.

State Gets Ice Age Reserve Areas

Passage of the bill creating an Ice Age National Scientific Reserve in Wisconsin is a great victory for Wisconsin conservationists, Senator Gaylord Nelson said.

Scattered Areas

Largest of the three main areas in the proposed new park is the northern unit of the Kettle Moraine state forest in Fond du Lac and Sheboygan counties. Here the state already has acquired about 22,000 acres with about 5,000 more to be acquired.

In Sauk county, about 2,500 acres have been acquired and about 1,000 more will be bought.

In the Bloomer area of Chippewa county, about 5,000 acres have been acquired and about 5,000 more are needed.

Other land will be acquired in scattered sections of the state.

Total cost for land acquisition will be about \$1,500,000.

Exact boundaries will not be known until the State Conservation department and the U. S. Interior department complete this plan. The state will administer the park.

Wisconsin Horticulture

VOL. XLIX

NOVEMBER, 1964

NUMBER 5



(Milwaukee Journal Photo)

With the crop harvested and stored or sold, Wisconsin Apple Growers and Horticulturists and their wives will take time off to meet in Appleton (APPLETOWN, USA) for their annual State Convention Dec. 2nd, 3rd, 4th.



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GREEN BAY, WISCONSIN

We Offer A Complete Line of
Apple Boxes and Can Cases

**Wisconsin's Largest
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WISCONSIN HORTICULTURE

Published monthly excepting July and December by the Wisconsin State Horticultural Society and the Wisconsin Apple Institute.

Subscription and Society Membership \$2 per year.

Harvey J. Weavers, 4215 Mohawk Drive, Madison, Wis. 53711. Phone Madison 233-3146
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Events of Interest to Horticulturists

December —

Wis. Fruit Grower Meetings

DEC. 2—STRAWBERRY GROWERS' ASS'N.

DEC. 3 & 4—WIS. HORTICULTURE SOCIETY; WIS. APPLE INSTITUTE ALL AT CONWAY HOTEL, APPLETON.

Dec. 14 - 15—Western Wisconsin - Minnesota Fruit Growers' Meeting — Hotel Kahler, Rochester, Minn.

November in the Orchard

G. C. Klingbeil, Extension Horticulturist
University of Wisconsin

This issue is full of news of the annual state convention for strawberry and apple growers. To me it looks like a good program and certainly warrants your attendance. All speakers have timely subjects to discuss and the feature and out-of-state speakers are persons of national prominence in their respective fields. This also will be the first opportunity for most apple and strawberry growers to meet the new Dean of the College of Agriculture, Glenn S. Pound. He will be the speaker at the banquet Thursday evening. Dean Pound was formerly Chairman of the Department of Plant Pathology and is highly respected nationally in that field.

An interesting feature of the annual convention is the apple show. Again this year ribbons and cash prizes will be awarded. The grand champion of the show will receive the golden apple trophy.

phy. There will be ten classes in the show and keen competition is expected. The judges this year are: Dr. Cliff Ehlers, Horticultural Agent of Door County and Professor Lee Smith, Horticultural Agent of Kenosha County.

Mouse Reminder

Don't underestimate the damage that can be caused by these seemingly unimportant pets! Damage ranges from complete loss of young trees to partial girdling of older trees. Partial girdling damage is hard to measure but the results are evident in decreased yields of damaged trees and shortened tree life. Do a thorough job of bait and poison distribution. If you intend to use endrin, don't forget that a permit from the Wisconsin Department of Conservation is necessary.

Fall Fertilization

More and more apple growers are applying some fertilizer in the fall of the year and with growers it is standard practice. Trees will continue to take up plant food as long as they continue to take up moisture and this is usually much later than that time when leaves normally drop.

Apple trees feed heavily on nitrogen and potash. A rough rule indicates that when 400 bushels of apples per acre are produced: it takes 20 pounds of nitrogen, 4 pounds actual phosphorus and 25 pounds actual potash from the soil. This is removed. In addition, about an equal amount is required to replace that lost in prunings and foliage plus that required for maintenance.

Mulching Strawberries

Experience has proven that protective mulches are necessary in winter for strawberries. The best materials are coarse, loose, and bulky; such as, sudan grass, marsh hay or seed-free straw. They should be applied late in the season after temperatures have been below freezing several times. It is advisable to have mulch on before temperatures remain below 20° F. for an extended period of time. Most strawberry growers tend to go too light with

the application. In most areas of Wisconsin three or four tons of mulch per acre is required.

Wisconsin Apples Receiving Good Promotion Over Madison Radio Station

Radio Station WISN of Madison is helping promote Wisconsin apples during Wisconsin apple time. The station is flooding the air throughout the day with the spot announcements, they are encouraging primary school children to send in a sentence about their favorite teacher. Each day WISN selects the best sentence and a teacher is awarded a box of apples and some attractive poster material for her class room.

The Frank Orchard of Gays Mills, through Sherman and Sol Frank, is providing the apples and the Wisconsin Apple Institute is providing the poster material.

WANTED! CIDER APPLES

50¢ per bushel

Delivered at Dock
Oconomowoc

Must be free from
Infestation and Decay
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PROGRAM

96th Annual Convention

Wisconsin State Horticultural Society
Wisconsin Apple Institute
Wisconsin Berry Growers' Association
Conway Motor Inn—Appleton, Wisconsin
December 2-3-4, 1964

WEDNESDAY, DECEMBER 2nd—

STRAWBERRY GROWERS' PROGRAM

Chairman—Stuart Peterson
President — W. B. G. A.
Lake Michigan Room

- 1 p. m.—“Handling Strawberry Plants from the Nurseryman to the Producer.” Professor G. C. Klingbeil—University of Wisconsin.
- 1:30—“Strawberry Production and Culture in Illinois.” Professor Chet Zitch—University of Illinois.
- 2:30—“New Strawberry Varieties.” Professor F. A. Gilbert—University of Wisconsin.
- 3:00—“Progress Report — Virus-Free Berries.” Abe Epstein—Wisconsin Department of Agriculture.
- 3:30—Business Meeting. Wisconsin Berry Growers' Association.

THURSDAY, DECEMBER 3rd—

WISCONSIN STATE HORTICULTURAL SOCIETY WISCONSIN APPLE INSTITUTE PROGRAM

Chairman — Walter H. Clemens,
Pres.—W. S. H. S.

- 8:30 a. m.—Registration.
- 10:00—Welcome and Announcements.
Walter H. Clemens — Pres.,
W. S. H. S. George W. Premo,
Pres., W. A. I. Reading of
Resolution.
- 10:15—Report on Mouse Control Trials.
Dr. John Libby, Ext. Entomologist—University of Wisconsin.
- 10:30—Keynote Speech. D. N. McDowell,
Director. Wisconsin State Department of Agriculture.

- 11:00—Pruning and Culture of Semi-dwarf and Spur-type Trees in Illinois. Professor Frank Owen, Extension Horticulturist, University of Illinois.

LUNCHEON AT PLACE OF YOUR CHOICE

- 1:15 p. m.—Chairman—Elroy Honadel. Welcome to Appleton — Mayor, Clarence Mitchell.
- 1:30—Grower Responsibility and Opportunity in Apple Marketing. Dr. Max Brunk, Marketing Specialist, Cornell University — Ithaca, New York.
- 2:30—Consumer Merchandising of Wisconsin Apples. Harry Marks—In charge of Produce Merchandising, Kroger Company — Milwaukee, Wisconsin.
- 3:30—Consumer Marketing Habits. Professor Charlotte Dunn — Food and Nutrition Specialist, Ext. Service — University of Wisconsin.
- 4:15—Social Hour with Apple Desserts. The Wisconsin State Horticultural Society Ladies' Auxiliary.
- 6:30—BANQUET—SEASONS ROOM. Toastmaster—Arthur Kurtz. Wisconsin Department of Agriculture—Madison, Wisconsin. Honorary Recognition Awards Grand Champion Trophy. Merchandising Awards State Winner Apple Pie Contest Speech—Dr. Glenn Pound, Dean Wisconsin College of Agriculture — University of Wisconsin. Topic: “World Problems of Man and Food.”

FRIDAY, DECEMBER 4th—

Chairman—Don Rawlins
Vice Pres. — W. A. I.

- 9 a. m.—Report on Apple Research. Dr. Joe Von Elbe — Dairy & Foods Department, College of Agriculture — University of Wisconsin.



MOUSE PROBLEMS??

For Control Use Niagara —

Zinc Phospide Mouse Bait 200

Formulated from cracked corn and oats with added attractant. Recommended at 10 pounds per acre broadcast.

Low cost — Easy to apply.

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- 9:20—Report on Market News. Marlon Schwier — Marketing Division— Wisconsin State Department of Agriculture.
- 9:40—1964 Apple Promotion Activities. William Reese — Marketing Division, Wisconsin State Department of Agriculture.
- 10:00—The Future As I See It. Professor George Klingbeil—Extension Specialist, Horticultural Department—University of Wisconsin.
- 10:30—Business Meeting and Election of Officers. Wisconsin Apple Institute. George W. Premo — President presiding.
- 12:00—Joint Luncheon. Chairman — George W. Premo, W. A. I. Speaker — Delmar Robinson, President — National Apple Institute, Winchester, Virginia. "Working Together."
- 1:30—Business Meeting and Election of Officers. Wisconsin Horticultural Society. Walter H. Clemens presiding.
- 3:00—Adjournment.

W. S. H. S.—Nominating Committee

Gerald Fleming, Gays Mills
 Carroll P. Krippner, Fort Atkinson
 Jack Wallhaven, Sturgeon Bay

Resolutions Committee

Frederick Meyer, Waldo
 James Frostman, Belgium
 Harold Rasmussen, Oshkosh

W. A. I.—Nominating Committee

Ralph Young, Galesville
 Walton Frisch, New Holstein
 Bigelow Lauri, Gays Mills
 Don Rawlins, Richmond, Ill.

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 To Succeed — Gerald Fleming

James Fleming, Gays Mills
 Tom Connell, Menominee
 To Succeed — Jack Wallhaven
 Harold Rasmussen, Oshkosh
 Steven Laird, Black Creek

THIS IS IMPORTANT!

It's important that you and I, and every orchard-operator in Wisconsin attend our convention at Appleton. Things of importance to us are up for consideration, for action.

Our officers and directors have worked hard, have given generously of their time, during a busy season, to make this convention an event to be remembered. We can show them that their effort is appreciated.

As a resident of the "community" surrounding Appleton, I have seen and heard the terrific enthusiasm and support that's generated in and around "APPLETON". This is a bonus for every one of us.

Decide right now—don't let anything interfere—come to Appleton—bring the family. Don't we always have a good time? Let's make this one the best ever!—Contributed by an enthusiastic member of both W. S. H. S., & W. A. I.

Convention Rooms

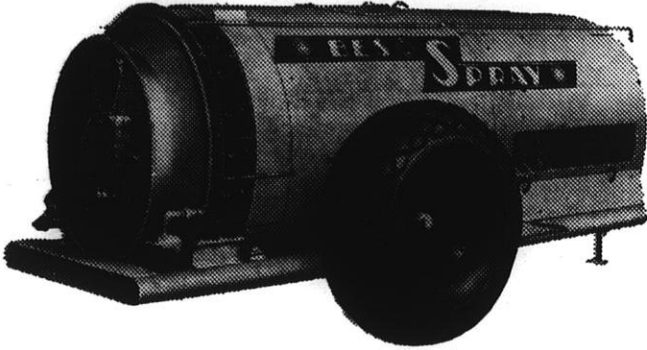
Write the Conway Motor Hotel for reservations, if you have not done so already. Rooms with single, double, twins and with cots are available at reasonable prices. Plan to stay for every session, and that includes the business meetings and election of officers. EVERY session is an important one.

"APPLE A DAY FIGHTS TOOTH DECAY"

A pilot study on British children confirms American findings that eating apples after meals helps reduce decay and improve health of the gums by taking away food debris, the medical publication Lancet reports. (Studies in the U. S. also have attributed a natural tranquilizing effect to apples as well.)

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FOR YOUR PARTICULAR CONDITIONS**



BES-SPRAY 580

A complete unit for growers who want the very best. Finest Bes-Spray ever built—result of sixteen years' development while spraying hundreds of thousands of acres.

HIGHEST "K" FACTOR of any comparable sprayer. High "K" factor (the kinetic energy of the sprayer) gives enormous working power. In Besler sprayers the spray is already moving at a high speed when picked up by the moving air. Eliminates much of the power waste of other sprayers in which the air alone must bring about much more acceleration of the spray droplets.



BES-SPRAY POWER TAKE-OFF SPRAYER

For smaller orchards or for growers who are willing to spend more time spraying than would be necessary with the model No. 580.

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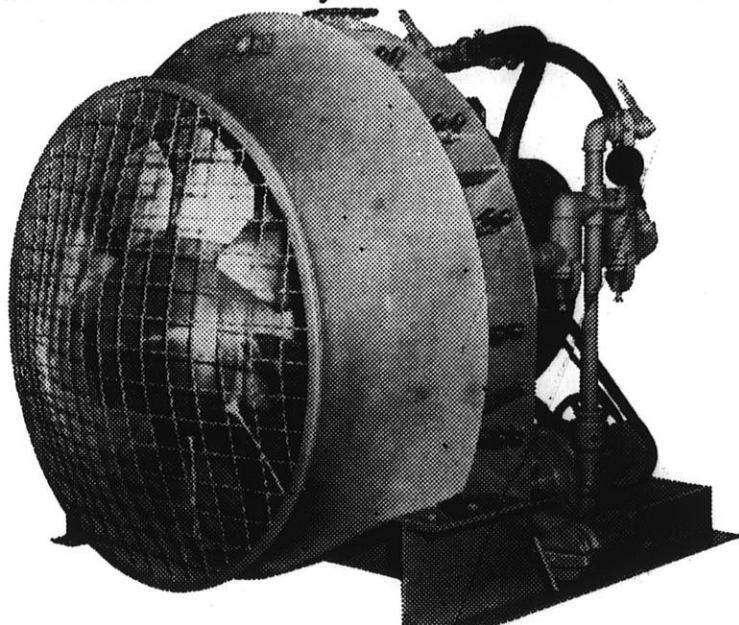
"Bill" Aepler

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BES-SPRAY POWER PACKAGE

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BES-SPRAY ZOOM

NEW DESIGN with blower in center. Compact model whose simpler design means less maintenance and less cost; sharply reduces suction of dirt and leaves into engine and fan; provides better balance.

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PROCLAMATION

WHEREAS, the APPLE was a necessity of life for the people that first settled our great land, and

WHEREAS, the APPLE today promotes good health and "the good life" more than is commonly realized, and

WHEREAS, the health and happiness of all Americans is of vital concern to our country's strength, prosperity, and progress, and

WHEREAS, the Wisconsin State Horticultural Society and the Wisconsin Apple Institute are holding their annual convention in our city,

Be it therefore

RESOLVED, that as Mayor of the City of Appleton, I do hereby proclaim that the week of November 30 to December 5 be declared as "APPLE TOWN WEEK," and

BE IT FURTHER RESOLVED, that the fine people of Appleton join with the members of the above-listed organizations in recognizing their convention and supporting the Wisconsin APPLE industry.

In support of these goals, I do hereby affix my seal this 5th day of November.

MAYOR OF APPLETON
Appleton, Wis.

U. W. Eating Facilities Feature Wisconsin Apples

Students eating in the various University of Wisconsin facilities certainly became aware that October 15-24 was National Apple Week. During this period, the University Food Service Division under the direction of Paul Cleary, Manager, featured numerous apple dishes and had a special on fresh Wisconsin apples.

Also during this period the University, in cooperation with the Wisconsin Apple Institute and the Frank Orchards of Gays Mills, provided all dormitory residents eating at Tripp-Commons Cafeteria with a tasty Jonathan apple at

their evening meal on October 22. Students expressed great delight on the opportunity to receive and enjoy a fine Wisconsin apple. The University uses only Wisconsin apples when they are available and buys a sizable quantity to be put in their own storages.

Wisconsin Apple Season Rapidly Drawing to a Close

Marlon Schwier

The Wisconsin apple season is rapidly drawing to a close. Harvesting was completed about a week ahead of normal and supplies have dwindled rapidly.

A sizable McIntosh drop in several areas, some frost damage as a result of the freeze in early October and a very low production in some areas, especially Door County, leaves a relatively limited supply of Wisconsin apples in storage.

A complete analysis of the crop year has not been made as yet, but there is no question that the price of apples will be down considerably this year.

This will be especially true for the commercial or wholesale apple seller. However, many of the smaller growers who dispose of the crop at their packing sheds or roadside stands are reporting they moved apples at prices comparable to other years. A more complete resume of the apple season will be made at the annual convention session.

Here and There

Espalier is the technique of pruning and bending the branches of trees so that they will grow in a formal symmetrical shape. It calls for the removal of all growth to the front and back so that the plant or tree will grow against a wall. If the practice is used on apples dwarf trees are most always used.

Our congratulations to Mr. and Mrs. Ben Ela of Rochester for the excellent

colored pictures and story of their orchard operations in the Sunday, Oct. 25th colored section of the Milwaukee Journal and to Mr. and Mrs. Walter H. Clemens of Mequon for the picture (which is appearing on the front of the magazine this month) and story on the front page of section two of the same paper on Sunday, Oct. 18th. Both of the stories we thought were very well done.

A society for the prevention of cruelty to plants is badly needed to control abuse by supermarkets of living plants other than vegetables. Before buying any plant, always rap it out of the pot to see if there are any live roots.

Wood chips made by line clearance crews make an excellent mulch as well as good covering for woodland paths. The crews are usually delighted to dump them in your drive rather than make a long haul to some dump.

From Gardener's Forum
American Horticulturist

J. D. Winters, secretary of the Minnesota Fruit Growers Association informs us that the annual meeting of the Minnesota and Western Wisconsin fruit growers will be held on December 14 and 15 in Rochester, Minnesota with headquarters at Hotel Kahler. This is a joint meeting with the American Pomological Society. An excellent program

with national speakers has been arranged. Our members are invited and encouraged to attend this meeting.

Earl R. McGilvra, Baraboo, R. 4, operator of Mac's Orchard since 1924 and a long time member of the Wis. Apple Institute and the Wis. State Horticulture Society, is planning on retiring after this year. Mac's operations were written up in the Sept. 1952 issue of Wis. Horticulture, under the title of "A Successful Orchard Venture." "From 35 trees the McGilvra's of Baraboo build." Today there are 500 trees in the orchard.

Mac says, "It has been a good business, it has been the kind of work, I have had real satisfaction in building up. My wife and I have had many nice trips attending apple meetings and meeting 'apple folks' from many other localities. Yes, we are selling, so come out and look us over; we will be most happy to have company."

Those Apple Tie Clasps — How about wearing yours at all the convention sessions? They really are attractive and distinctive.

EXHIBITS — Plan to visit the booths. You will find displays by John Bean, Niagara Chemical, Waukesha Power Equipment, Hopkins Agricultural Chemical, E-Z-Flo Chemical, Stauffer Chemical, the Wis. Dept. of Agriculture and the University of Wis. set up in the

FRIDAY TRACTOR EQUIPMENT



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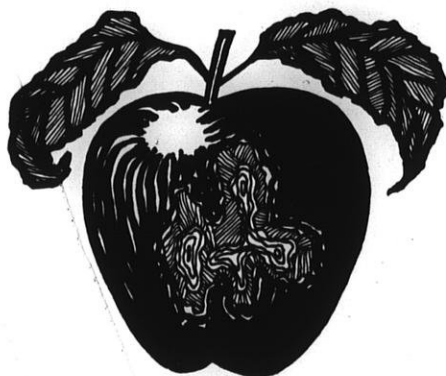
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ORTHOICIDE is gentle. It's not likely to cause russetting—even in muggy weather—even on green and yellow varieties. So you can spray regularly, from pre-pink right on through the season.

And (used regularly) ORTHOCIDE can have remarkable side-effects. Foliage often gets fuller, deeper in color. You get better apples, and more of them.

In short, you get a lot more from an ORTHOCIDE Spray Program.



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exhibit area. Here is the place to ask questions, renew acquaintances and to pick up literature of interest to you.

**ANNUAL CONVENTION
WOMEN'S AUXILIARY PROGRAM
December 3rd
Conway Hotel**

Chairman — Mrs. Walter H. Clemens
9:00 a. m.—Registration.
10 a. m.—Meeting Called to Order.
10:30 a. m.—People to People Trip to Russia. Slides—Commentary — Mrs. LeRoy Meyer.
12:00 — Luncheon — Conway Hotel.
Style Show—by H. C. Prange Co.
2:00 p. m.—Tour and Demonstrations at Wis.-Mich. Power Co., Appleton.
4:00 p. m.—Refreshments — Desserts brought by the ladies of the Auxiliary will be served.
6:30 p. m.—ANNUAL BANQUET.

December 4th
A Day to Visit and Shop.

Ladies, will you please bring your apple desserts to enter in our contest? If possible those desserts should be suitable to serve at the afternoon tea. Contest desserts should be accompanied by the recipe.

Auxiliary Committees:

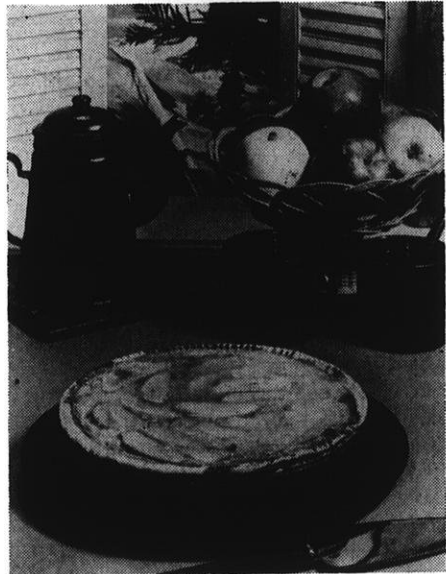
TEA — Mrs. Frederick Meyer, Waldo
Mrs. Henry Mahr, Oak Creek
Dessert Contest — Mrs. Willard Wagner, Cleveland; Mrs. Armin Barthel, Mequon.
Decorations — Mrs. Philip Dell, Waldo; Mrs. Harold Rasmussen, Oshkosh.

**Judges Named for Ladies
Auxiliary Apple Recipe
Contest**

Mary Beth Kuester, Home Economist for the Wisconsin-Michigan Power Company; Georgia Wilson, Food Editor for the Wisconsin Department of Agriculture; and Milton Arps, Alex's Restau-

rant of Appleton, will judge the Ladies Auxiliary Apple Recipe Contest.

**New Creamy Custard
Apple Pie**



Here's a flavor delight, a new apple pie which combines rich custard topping and a sugary crusty surface above the baked apple slices. A glamour dessert for those evenings when you say "come in for coffee and dessert." A perfect dessert, too, for the big gala dinners coming up soon during the winter holidays.

CASTLE APPLE PIE

Pastry for 1-crust 10-inch pie
2 tablespoons chopped pecans
2 tablespoons (packaged) cornflake crumbs.
4 cups thinly sliced peeled tart apples.
2 eggs
2 egg yolks
2 cups light cream
½ cup firmly-packed brown sugar.
2 tablespoons melted butter
½ cup granulated sugar
Line 10-inch pie tin with pastry;

trim edges; press with tines of fork. Sprinkle pastry with pecans and corn-flake crumbs. Fill pan with apple slices. Bake in moderate oven 350° for 5 minutes. Meanwhile combine eggs and egg yolks; beat slightly; add cream and brown sugar; stir until sugar dissolves. Remove pie from oven; pour half the cream mixture over apples. Bake 30 minutes, or until firm. Stir remaining cream mixture and pour in. Bake 30 minutes or until knife inserted near edge comes out clean. Remove pie from oven. Pour melted butter or margarine over top of pie; sprinkle with granulated sugar. Return to oven; bake 5 minutes longer. Let cool before cutting. Makes 6 servings.

PIE CONTEST ASSURED

To date, eight counties have indicated they will have a county pie program and will be entering the state contest. They are as follows: Richland, Winnebago, Sheboygan, Trempealeau, Ozaukee, Door, Milwaukee and Outagamie. Several others are reported to be planning to participate but have not finalized everything at this date.

Trempealeau county has completed a contest, sponsored by leading orchardists, the winner a young housewife eager to compete in the state contest.

Some excellent prizes await the winner as the Appleton merchants are supporting the program. In addition, the winner will have an exciting day in Appleton. It's not too late to get your county in the program.

Storing Spray Materials

Safety is just as important in storing pesticides as in using them. Any location that is out of reach of children and pets is suitable.

The single most important part of the pesticide container is the label. If it is not legible, discard both chemical and container. Do not take a chance and make a mistake.

The label must be legible because it

contains safety precautions as well as list of pests that can be controlled with the pesticide.

Never combine leftover pesticides into the container. Even though the partially filled cans or bottles all contain the same ingredients, they may be of different strengths thus making the label directions on any one incorrect.

It is important to always store spray materials in their original containers. Keep the cover firmly closed if the containers are empty. Discard them so that children will not be able to play with them or that they will not be used for some other purpose. Play safe at all times with these materials.

National Apple Institute

As most of you know, our Wis. Apple Institute is a strong supporter of N. A. I. This year, \$1,500 has been budgeted by the Wis. A. I. for the support of N. A. I.

Much of the work of N. A. I. goes on without due credit being given. For example, your "Apple Kitchen," which is part of N. A. I., is involved in many of the recipes and story materials you see in magazines and newspapers.

If you would care to see some direct results of the above, obtain the October issue of Good Housekeeping magazine and family Circle magazine. In Good Housekeeping, page 172—"How to Tell One Apple from Another," pages 96-104—some beautiful pictures and recipes for pork—and three of them—Apples with pork. Family Circle for October, also includes some recipes and photography assists from your "Apple Kitchen."

We have cited only a smattering of the publicity for apples which is a direct result of N. A. I.

N. A. I. deserves credit for this one also—A full-color ad on the outside back cover of the October "Grade Teacher" magazine. It is an ad by "Oral B Company (toothbrush manufacturers) of San Jose, California. Shows a young lad eating an apple—and the copy line

—“First Class Teeth Deserve a First Class Toothbrush!” Two points are interesting in this. (1) Apparently the apples and dental health story is getting through to the degree that toothbrush manufacturers want to talk about toothbrushes being as effective as apples to clean teeth. (2) It won't hurt our cause one bit.

Fred P. Corey, Executive Vice President of N. A. I, says:

Industry efforts in promotion this fall have been at an all time high. This effort is considerably behind the immediate needs and goals, but is moving up and forward each year.

Some of the smaller regional groups have more stepped up programs this year too . . . Ohio, Wisconsin, Minnesota, Idaho, Colorado, Illinois, Indiana. It's dangerous to single them out for fear of omission. Overall the effort has been stepped up . . . but has got to be stepped up more.

“National Apple Week,” this year, has been more thoroughly presented throughout the industry than ever before in its eleven years and more of recognized cooperative effort. It has been good and will be a big assist in our marketing efforts . . . and you, of course, are a major contributor to its success. More encouraging to me however, has been the stepped up industry promotion effort leading up to National Apple Week, and indicated to follow. I hope we can keep this balanced perspective . . . a season long promotional effort, with “National Apple Week” a part of it.

Well Stored Apples Last For 5 Months

Cool temperatures and high humidity are the keys to successful apple storage, according to George C. Klingbeil, University of Wisconsin fruit production specialist.

Ideal storage conditions require a constant temperature of about 32 degrees and a relative humidity of about 90%.

The high humidity will help prevent apples from drying out, and the cool temperatures will retard the ripening process which continues even after apples are picked.

Although these conditions are difficult to attain in most homes, try to find a storage area that will at least approach the idea. Apples should be stored in coolest place available in the home, and where there is no danger that they will freeze.

Apples will not freeze until temperatures dip to 28 degrees.

During the early fall months, windows to the storage area should be left open during the night if temperatures are not extremely cold, and closed during the day. This will allow the cool air to enter during the evening and prevent warm air from moving in during the day.

About the only way to maintain high humidity conditions in most home storages is to place the apples in plastic bags. Do not store apples with onions or other vegetables having strong odors unless the apples are kept in plastic bags, Klingbeil advises.

Also remember that apple varieties vary considerably in the length of storage life.

STORAGE TIMES GIVEN

Most fall ripening varieties such as McIntosh and Cortland have a maximum storage life of about 120 days under ideal conditions. Winter varieties such as Delicious, Northwest Greening and Secor will keep well for up to 150 days under ideal storage conditions. Early ripening varieties have a very short storage life, Klingbeil said.

Many people take advantage of the favorable apple prices at this time of the year to store them for later use.

Klingbeil recommends choosing only those apple varieties with long storage life, and fruit that is free from handling, disease, and insect damage. Unless the apple is in excellent condition when it is stored, even the best conditions will not keep it fresh for long.

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Prepare For Winter

If you haven't done so already, cut back iris tops about two inches above the ground. If all the tops are left, they'll turn brown and need to be cleaned up before the new shoots come up in very early spring.

With the heavy frost this fall peony foliage has already frozen and turned brown. Cut off the stems at the soil line and discard or burn the refuse.

For new plantings of spring bulbs it's quite important to cover with a mulch. You may want to protect all spring bulbs with about three inches of straw or marsh hay. This keeps the rain and snow from packing the soil and prevents alternate freezing and thawing which can damage root systems.

While the soil can still be worked, pile eight to ten inches of soil around the base of rose bushes. For hybrid teas, tie the canes together to keep them from blowing in winter winds and loosening the root system. When the soil freezes, be sure to give added protection with marsh hay over the soil mound.

Lay the canes of climbing roses down on the ground and hold in place with wire pins or notched stakes. Cover with several inches of soil.

Chrysanthemums need winter protection, too, says Louis M. Berninger, of the University of Wisconsin.

Roses are generally wrapped after the ground freezes. Mounding the base of the plants with soil can be done right now.

If your climbers are in a protected location, wrapping the canes in burlap

may be the only protection needed. To be safe, it is best to tie the canes together and lay them on the ground. Then cover the canes with several inches of soil. This protects the plants from sun and drying winds.

Spraying roses with an insecticide before winter protection is not necessary. The cool temperatures will keep down the development of pests, says the Professor.

Here and There

Census of Agriculture will be taken in November and December. It provides an inventory of our nation's agriculture. Give the census taker your full cooperation when you are interviewed. The law requires you answer the questions.

Don't forget to take care of garden tractors and lawn mowers. Drain carburetors and gas tanks completely. If you can't drain the carburetor, fill tank full. A full tank has less gumming than one only half full.

Put support stake in before planting. Stake might damage roots if it is pounded in after tree is planted. Set stake about 2 feet in the ground on the side of the prevailing wind.

EARLY FALL PRUNING

Early fall is not a good time to prune woody material. In fact, pruning could create a source of infection because the cutting would not heal in time. In addition, new growth still could be taking place. It is best to wait until early spring.

Wisconsin Horticulture

VOL. XLIX

JANUARY, 1965

NUMBER 6

January in the Orchard

G. C. Klingbeil, Extension Horticulturist
University of Wisconsin

January is generally a slow month in the orchard in Wisconsin, however, it does provide a time for reckoning and reviewing. To date the winter has been open, too much for strawberries, but it has provided good days for pruning. I hope growers take advantage of good days to catch up on this too often neglected job.

One high light in December was the Minnesota - Wisconsin Fruit Growers Meeting held jointly with the American Pomological Society at Rochester, Minnesota. It was a real opportunity to hear such notables as W. A. "Bill" Luce, president of APS, Dr. D. V. Fisher from Summerland, B. C., Dr. W. H. Upshall, Ontario, plus many more. There was lively discussion centered around the future of fruit growing, specifically, the apple orchard of the future. Most experts were generally agreed that such an orchard would consist of size-controlled trees, densely planted, pruned, sprayed and harvested with highly specialized mechanical equipment. Orchards are no longer planted in waste areas having the poorest soil on the farm but demand the best site and soil available.

Apple breeders, they agreed, are very interested in obtaining a high quality

early ripening variety, but at present Wellington appears to be a fair bet for and summer apple and Tydemans Early, which ripens about three weeks before McIntosh, appears to have a future in that season. The authorities were in agreement that Spartan was the most promising and being widely planted, coming right after the Mac season. Idared, a late dual purpose apple, would be a good one for that season.

Another item of interest was breeding for scab resistance and probably in the not too distant future a variety which has this characteristic may become available. A panel discussing fruit varieties was ended by Dr. L. F. Hough, the most eminent fruit breeding authority from New Jersey, with this statement, "Apple varieties, we know now, will not be listed in the nursery catalogs in the year 2000." It sounds like the apple industry will be in for some changes, very likely, accelerated changes demanded by today's economy and the needs of the future.

Horticultural Society Names New Directors

At the annual business session of their convention in Appleton, the members of the Wis. State Horticulture Society re-elected Walter H. Clemens of Mequon as their President and Sid Telfer, Jr. of Sturgeon Bay, Vice President. Three

new members were elected to the Board of Directors, namely Tom Connell, Menominee, Verne Kauffman, Fort Atkinson, and Harold Rasmussen, Oshkosh. There are seven hold over directors.

Apple Institute Elects

The Wis. Apple Institute elected Elery Teach of Gays Mills and Jack Rasmussen of Oshkosh to their Board of Directors to fill existing vacancies and then reelected George W. Premo, Richland Center, Don Rawlins, Richmond, Ill. and Ralph Young of Galesville, Wis. at its annual meeting on Dec. 4, 1964. The Board will get-together for an organizational meeting in Madison, on Thursday, Jan. 14th. Budgets and programs of work for 1965 will be considered and acted on.

Merger Resolution Passes

The resolution prepared by a joint committee of the Wis. Horticulture Society and the Wis. Apple Institute in August of 1964, concerning the possible consolidation of the two groups into a single organization was acted on favorably by the members of both groups at their separate annual business meetings in Appleton, on Dec. 4th, 1964. The vote in the Apple Institute meeting was 30 in favor and one opposed. The vote in the Wis. Horticulture meeting was 63 in favor and one opposed. The vote indicates a big majority in favor of the proposal. The executive committees of the two organizations must work out complete merger details during 1965. This includes a new Constitution and By-Laws and a new name for the



Mr. and Mrs. Emil Beyer, Malone, Route 1, Fond du Lac Co., with the Grand Champion trophy, the Golden Apple and Grand Champion ribbon with Prof. O. B. Combs (right) presenting the Grand Champion plate of Red Delicious to the Banquet Speaker, Glenn Pound, Dean of the Wis. College of Agriculture.

WISCONSIN HORTICULTURE

Published monthly excepting July and December by the Wisconsin State Horticultural Society and the Wisconsin Apple Institute.

Subscription and Society Membership \$2 per year.

Harvey J. Weavers, 4215 Mohawk Drive, Madison, Wis. 53711. Phone Madison 233-3146
Sec'y - Treas. — Editor

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Associate Editors

O. B. Combs, Madison
George C. Klingbell, Madison

Arthur R. Kurtz, Madison
Marlon L. Schwier, Madison

Meetings of Interest to Fruit Growers

Jan. 14—W. A. I. Board of Directors meeting, Madison.

Jan. 25-30—Wis. Agriculture Conference, College of Agriculture, Madison.

Jan. 28—Garden Center Operators Conference, Memorial Union, University of Wisconsin, Madison.

Feb. 3—Regional Fruit Growers, Court House, Waukesha.

Feb. 4—Regional Fruit Growers New Extension Office, Racine.

Feb. 7-13—National Children's Dental Health Week.

Feb. 11-12—N. A. I. Board Meets, Washington, D. C.

Feb. 17—Jefferson-Rock Fruit Growers, Fort Atkinson.

Feb. 18—Regional Fruit Growers Belgium Community Center, Belgium.

March 2—Regional Berry Growers. V. F. W. Hall, Waukesha.

March 3—Regional Berry Growers YMCA, Green Bay

March 5—Regional Berry Growers Alma Center

March 8-9—Dwarf Tree Meeting Lawrence, Michigan.

June 24-27—National Apple Institute Meeting, Sun Valley, Idaho.

July 6—Summer Joint Board Meeting W. S. H. S. and W. A. I., Ski-Hi Orchards, Baraboo.

merged organization.

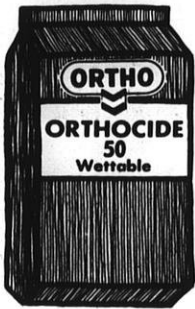
Under terms of the resolution, the terms of all directors and officers of both organizations will terminate on December 31, 1965. A new set of officers and directors will be elected at the 1965 annual meeting, which will be a joint session, for terms beginning on January 1, 1966.

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Apple Show Winners

The Emil Beyers of Malone, Route 1, were the big winners in the Convention Apple Display, with seven firsts, the Reserve Champion, and the Grand Championship on a beautiful plate of Red Delicious. The Beyers have been consistent exhibitors and winners over a period of years. Emil says all the credit should go to Mrs. Beyer for her ability to select and then prepare the various entries for the display.

WINNERS BY CLASSES

McIntosh

1st—Emil Beyer; 2nd—Herbert Hasslinger; 3rd—Walter Clemens.

Cortland

1st—Emil Beyer.

Red Delicious

1st—Emil Beyer; 2nd Herbert Hasslinger; 3rd Armin Barthel, and Grand Champion.

Yellow Delicious

1st—Emil Beyer; 2nd Walter Clemens; 3rd—Walter Clemens, and Reserve Champion.

Jonathan

1st—Emil Beyer; 2nd—Walter Clemens; 3rd—Armin Barthel.

N. W. Greening

1st—Emil Beyer; 2nd Walter Clemens; 3rd Van Elzen Orchards.

Connell Red

1st—Connell's Sunridge Orchards.

Haroldson and Prairie Spy

1st—Emil Beyer; 2nd Walter Clemens; 3rd—John McIlquham.


Spartan and Kendal

1st—Herb Hasslinger; 2nd Fred Meyer.

Any Other Variety

1st—Frank Orchards Inc.; 2nd—Emil Beyer; 3rd—Emil Beyer.

It's infuriating! Every morning for the last 18 years, my wife has gotten up with a Beatle haircut—and I never realized there was any money in it. Not that I blame the Beatles for wearing hair that covers their ears—I've heard them sing!



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1964 Convention and "Wisconsin Apple Town Week" a Big Success

The citizens of Appleton and those living nearby certainly know Wisconsin has an apple industry. Those were the sentiments expressed after climaxing one of the most successful annual conventions in years of the Wisconsin State Horticultural Society and Apple Institute organizations.

The city of Appleton went all out to help make it a success. All service clubs had programs on apples. There was a pie baking contest, an apple display contest, free apples at the banks and hotels, and apple dishes of all sorts in all eating establishments during the entire week of the convention.

Adding to the success of the event was the excellent array of fine speakers on the convention program. D. N. McDowell, director of the State Department of Agriculture, keynoted the convention. He challenged the group to develop initiative on programs of marketing, particularly merchandising and to take a closer look at the distribution problem. McDowell complimented the industry for their active program and stressed the importance of "where there is no faith in the future, there is no power in the present."

Dr. Max Brunk, Professor of Marketing at Cornell University proved to be a very powerful speaker and also stressed the importance of marketing. Dr. Brunk said, "Food without marketing is food without value." He dwelled at some length on the need for promotion and advertising; development of bargaining power; establishment of sound sales organizations; and apple research.

Harry Marks, Producer Merchandiser, Kroger Company, Milwaukee, Wis., also had some good advice for Wisconsin apple growers. He outlined some of their buying practices and encour-

aged greater vigilance in doing a better job of packing. He indicated volume and continuous supply are very important to the produce buyer.

Charlotte Dunn, Professor of Food & Nutrition, University of Wisconsin, stressed the need for growers to advertise their apples as a food, to point out the value of apples. She was also critical of the industry for not doing more to tell the consumer about grades and how to use different grades. She said price was not a factor to a woman if she gets what she wants "in quality."

Delmar Robinson, President of the National Apple Institute, was the final convention speaker with the theme "Working Together." He outlined briefly some of the problems NAI has been working on and stressed the need for continued support of the national association.

Convention Exhibitors

The following concerns supported the 1964 Wis. Horticulture Society convention with educational displays: American Cyanamid Co.; E. Z. -Flo. Chemical Co.; F. M. C. Corporation, John Bean Division; California Chemical Co.; Hopkins Chemical Co.; Niagara Chemical Co.; Geigy Chemical Co.; Stauffer Chemical Co.; Waukesha Power Equipment Co.; University of Wis. Dept. of Horticulture; Wis. State Dept. of Agriculture Markets Division. The W. S. H. S and W. A. I. express their appreciation to all of these for their fine cooperation.

Know Your Apples

Golden Delicious:

The Golden Delicious was discovered in a West Virginia orchard in 1912. It is believed to be a descendant of the Red Delicious and Grimes Golden. A large, bright yellow, sweet winter apple, with a five point base. It is excellent for both cooking and eating. Lovely to look at, luscious to eat, and perfect for

mouth watering pies. It is the youngest of the important commercial varieties.

Winnebago Co. Champion Wins State Apple Pie Contest

A Menasha homemaker who has developed a flair over the years for making apple pie—her family's favorite dessert—Wednesday baked her way to state fame and the title "Queen for a Day in Appleton U. S. A."

She is Mrs. Robert Mott, 318 Willow Lane, Menasha, whose two-crust pie with its apple "applique" top won over seven other entries in the state apple pie contest judged in the kitchens of the Wisconsin Michigan Power Co. Each of the contestants was a winner of a preliminary contest in her home county.

The contest was one of the featured events of the 96th annual convention in Appleton of the Wisconsin State Horticultural Society, and Wisconsin Apple Institute.

Pie Judges

Judges were Norbert F. Pfefferle, vice president and technical production adviser for Elm Tree Bakery, Miss Mary-Beth Kuester, home economist of the power firm, and Miss Doris Staidl, Green Bay consumer marketing agent. Miss Georgia Wilson, food editor for the state agricultural department, was in charge.

Contestants from the other seven participating counties were Mrs. Alvin M. Sasman, route 2, Black Creek, Outagamie winner; Mrs. Michael Barnowsky, route 1, Baileys Harbor, Door County; Mrs. Harold Schmidt, Sheboygan; Mrs. Carol Pinkalla, Milwaukee; Mrs. Harold Schoessow, Mequon, Ozaukee County; Mrs. James Davis, Blair, Trempeleau County, and Mrs. Loren Unbehaun, route 4, Richland Center, Richland County.

In a way, Mrs. Mott has been preparing for years for this apple pie cham-



L. to R. — Henry Mahr, director of Wis. and National Apple Institute; H. Delmar Robinson, Jr., Winchester, Virginia, Pres. National Apple Institute, and George W. Premo, President of the Wis. Apple Institute confer at Wis. Convention on Dec. 4th at Appleton.

pionship. Her family really enjoys apples and particularly apple pie. She says that she has made so many apple pies that she has devised a culinary shortcut system to make them.

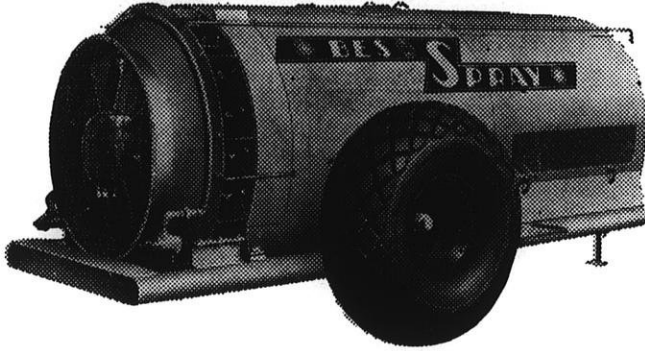
Actually it was family backing that prompted Mrs. Mott to enter the Winnebago contest. She was a reluctant competitor, she reports, but her husband kept pushing her into it. He is her severest critic, she says, and he finally talked her into it.

Mrs. Mott is always prepared to whip up an apple pie. She keeps two huge glass jars filled with her own mixes. One holds the pastry mix and the other a blend of dry ingredients for the filling. She usually prepares a triple batch at one time.

Her apple pie is not always made exactly the same, she reports, because she enjoys experimenting. Besides, her family likes pie plain, with generous wedges of Wisconsin cheddar

IT'S BESLER

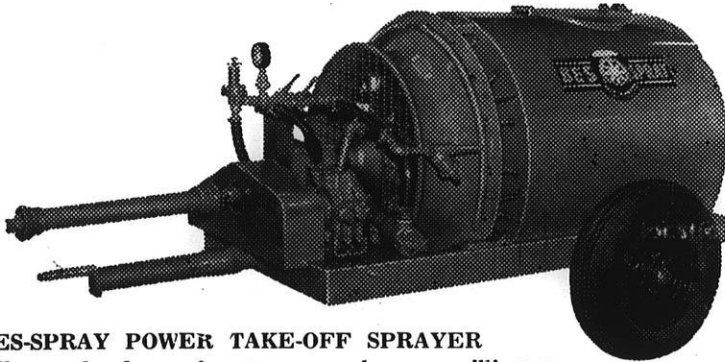
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For smaller orchards or for growers who are willing to spend more time spraying than would be necessary with the model No. 580.

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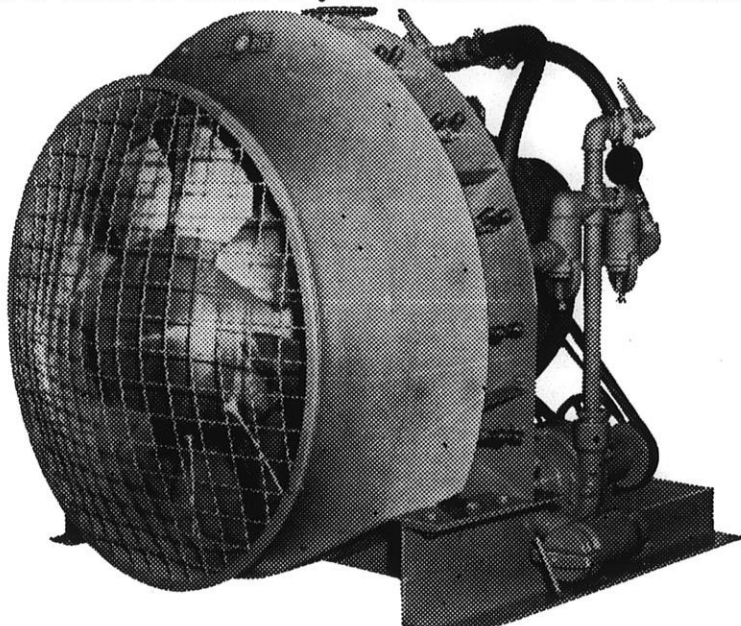
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Power must be fitted to your conditions or it is wasted!



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Complete air carrier sprayers at almost half price. Simply add your own tank and trailer (takes about eight man-hours). Includes valves, strainers, etc.



BES-SPRAY ZOOM

NEW DESIGN with blower in center. Compact model whose simpler design means less maintenance and less cost; sharply reduces suction of dirt and leaves into engine and fan; provides better balance.

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cheese or sometimes with a "dollop of ice cream."

There are a few other culinary tricks or techniques she uses in her pie making. For instance, she always sprinkles the bottom crusts of her pies lightly with granulated sugar before adding the filling.

Mrs. Mott chose McIntosh apples for the prizewinning pie, but says she has had equal success with Early Duchess and Greening varieties.

Horticulture Society Honors Two Members

The Wis. Horticulture Society presented Honorary Recognition Awards to two of its outstanding members at the Annual Convention Dinner on Dec. 3rd at Appleton. In his presentation of the awards Prof. O. B. Combs, chairman of the University of Wis. Horticulture Dept., Madison, gave a brief history of each one's horticultural activities.

GERALD FLEMING

His know how in the field of fruit growing comes from the school of experience. He first worked for Wisconsin Orchards and for the past 25 years has managed the orchards now known as Frank Orchards, Inc., Gays Mills, Wisconsin. Mr. Fleming through the years has collected vast numbers of fruit growing experiences which have provided him with a fund of knowledge which he has unselfishly shared with his fellow growers, research and extension workers.

He has been in his quiet manner a real behind the scenes guide leading to the success and expansion of the Gays Mills apple growing region.

Gerald is a long time member of both the Wis. Horticulture Society and the Wis. Apple Institute. He has just completed a three year term on the Board of Directors of the W. S. H. S.

HAROLD J. RASMUSSEN

Rasmussen's Apple Acres has 60 acres of trees, 40 of standard bearing tree varieties; and 20 acres in semi-dwarfs

just beginning to bear. In the older apple acreage, McIntosh makes up half the trees, then there are the Snows, Greenings, Delicious—a total of 20 varieties. The early variety is being emphasized with the hope of lengthening the "pick your own" harvesting season.

The "pick your own" program was originated seven years ago by Harold and his sons. The major apple picking is over a four or five week period in the harvest season, with greatest activity on week-ends. It is estimated that the average take per automobile is one and one-half bushels.

One-half the apple crop is sold through the "pick your own," the remainder is put in refrigerated storage. A cold storage unit is included in the new market center. The former center, a converted dairy barn, holds the bulk of the apples in controlled cold storage. This latter unit has a seven thousand bushel capacity. Cold storage operational expenses, the problem of getting apple pickers for the seasonal job of picking, plus the satisfaction of having people come to the farm and seeing the picking of apples has been the primary reason for the development of this project by Rasmussen's.

Harold Rasmussen is an active, enthusiastic horticulturist. He is an Honorary member of the Oshkosh Horticulture Society, a past president and an active member of the Winnebago County Fruit and Vegetable Growers Assn. A past director of the Wis. Apple Institute. This year elected to the Board of Directors of the Wis. State Horticulture Society Board of Directors.

News From National

The National Apple Institute office is concerned with the problems of tariffs on U. S. exports, particularly as they concern apples and apple products and the problems relating to the employment of foreign workers on a temporary basis and wages which must be paid. Fred P. Corey, Executive Vice

President of the National, says:

"Actually, I think none of us quarrel with the ideal of higher wages per se . . . they ought to be indicative of higher returns to the grower too. But will they? And can they? The cost of one of the major inputs (labor) to the production and marketing of apples is increased by x percent. How do you reflect this cost in the selling price of the commodity? This is the major issue and history has demonstrated, to date, that the farmer has, for the most part, been unable to do this.

"This is the heart of the major issue, I think. A second concern, of course, is the relative value of increasing the wage (directly and indirectly via "fringe" benefits). Will it provide any more workers? Or will it simply increase the procurement costs, lower the efficiency and increase the wage of those who are employed or willing to be employed?

"Meanwhile . . . back at the orchard . . . mechanization to strive for minimum labor; incentive programs (as long as government will permit them!) to gain all the efficiency and stability possible with your labor; and strong marketing to return as good a return as possible to cover costs, provide a decent labor return and a fight for some profits too."

The 1965 National meeting will be at Sun Valley, Idaho, June 24-27. Apple growers are encouraged to participate in National Children's Dental Week. Here is why. The slogan is, "Take care of your teeth — keep your smile." "Brush teeth daily, eat crisp apples often, visit your dentist regularly."

Speak For Yourself, Apple Grower

Allan R. Vosburg
Fort Atkinson, Wis.

One jewel from Miss Charlotte Dunn's speech during the convention at Appleton is the suggestion that we apple growers get before service clubs and

other community groups and tell about our products.

Miss Dunn is professor of food and nutrition with the extension service of the University of Wisconsin and probably hasn't a bushel of apples to her name but she can see the need for some self effort on our part. No matter how our apples go to market the ultimate purchaser, the consumer, should know about them.

We can not pay to have a befuddled bear romp across a TV screen, extoll the merits of small bubbles or rave about preparing our product for "the tap." We don't have that kind of money to spend. We can, however, divide the task among us and speak person to person or person to group—and be more effective in so doing.

For example: the Jefferson County Beekeepers, tired of buzzing to each other about the value of their product and the interesting nature of their work and workers, now offer a speakers service to interested groups in their area. They purchased new equipment for the speaker to display. Their members have appeared on TV, talked over radio, spoken to school, 4-H, church and service groups and left an increasing wake of better informed people.

The blessing of our state group for such a program could mean state level contacts with major audience groups offering speaker service. At county level there are many capable, informed and willing speakers waiting to become aware of the pleasure and need.

Each group may want to hear of a different phase of the apple growing industry. Speech outlines can vary accordingly. Almost every group wants to know how apple trees are grown and cared for, how fruit is handled and most important: the direction it takes to go to market. They must want to buy some.

One word of caution. To be of universal value this sort of program must be promotional not mere advertising though the latter is better than no program at

all. What we mean is that the product, the apple, and its production is a Wisconsin or some given county project. When we narrow our field to a brand name we may seem to gain immediately but we can also stifle the program in so doing.

Come on, get off that field crate, put on your best suit and tie and get out before your public and tell them all the good things about apples since Eve picked the first one.

1965 Apple Promotion

Wm. Reese, Wis. Dept. of Agric.

Here are a few challenges that I think you should consider for 1965. The Wisconsin State Department of Agriculture is always willing through its Marketing Division to assist you in promotion and merchandising activities. We do not have money, but we do have some ideas and we have some personnel who will be glad to work with you in developing and carrying out your program. The following are some things that I think you should seriously consider for 1965.

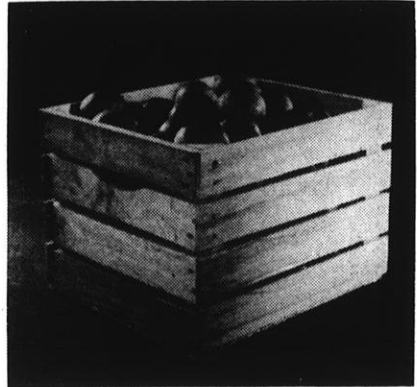
1. I think you should first of all, consider revising the "Apple Lovers Guide to Good Eating," we need a new edition—No. 4. Our Home Economist, Miss Wilson, is available to work with you people in developing this project. We are constantly receiving requests for Edition 1 & 2 as well as the very popular 3rd edition which has been moved by the thousands this year.
2. I believe we can use new and better point-of-purchase materials for the retail trade. We sent out over 21,000 pieces of merchandising materials this year. The Washington State Apple Growers, Michigan and New York State do tremendous work in this line. Retailers will use the material if it is of the quality that they want. Good displays and good merchandising ideas will sell apples. We are happy to assist in developing new materials and will work with the re-

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**STURDY CONSTRUCTION
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62½¢ NOW!

FEATURES:

- Standard Bushel Size
- Crescent Handhole Cut-out
- Bottoms all Screw Nailed
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tailers in getting good usage.

3. I think that we as individuals can do more work locally in promoting our apples. We need to contact our home makers clubs and local service clubs, provide materials and information to these people on Wisconsin apples. We can also do a great deal more in promotion by giving our apples out as samples. The local radio stations will certainly promote Wisconsin apples if they have a bushel to pass out among the men in the station. The same is true of the TV stations and local newspaper people. There is nothing better than samples to sell. Give the local service clubs apples to serve at a weekly meeting and offer your services to tell about growing and merchandising apples. Have you reviewed the possibilities of selling apples to your local schools? Wisconsin's hot lunch people in our high schools and grade schools serve thousands of students each day. Here is a tremendous market—a great potential for new apple customers.
4. Small groups of apple growers can get together and pool their resources and their abilities in their particular community. Perhaps an advertisement in your local paper or some radio spot announcements on your local radio station will help sell your apples. Take advantage of all these types of media that are available to you, they do help to move product.
5. Back your State Association, be an active member, support the program and become involved in its activities. Give it your moral support as well as your financial support. Some of you have been very active and have financially supported your organization since its establishment. I suppose that my comments are not necessary here because all of you are good supporters but this industry needs more financial help. In the State of Washington each grower supports his State Association with about 8¢ a bus-

hel of all apples grown, Michigan growers this year will contribute \$370,000 or 3¢ per bushel for promotional work, about 10% of gross sales of the cranberry crop is used to promote the product. Results of these successful programs mean greater demand by consumers for the crop you grow. Here in Wisconsin we produced approximately 1,650,000 bushels of apples in 1964 and we will consume about 2,000,000 bushels. Let's get the biggest percentage of this market that we can.

Small Fruit Research Fund Started

Through the generosity of Mr. Harvey Siegman, a commercial strawberry grower in Washington County, a special fund has been initiated to support small fruit research in the Department of Horticulture, University of Wisconsin. In his letter, Mr. Siegman states, "As a token of my appreciation for the counsel provided by Mr. Maurice Howland, County Agricultural Agent, and Professors G. C. Klingbeil and F. A. Gilbert to aid me in establishing a successful commercial strawberry enterprise, may I present this check to the College of Agriculture to be used in future strawberry research." A check for one hundred dollars was accepted by Dean G. S. Pound and the University Board of Regents to initiate the special fund. The fund will be used to support strawberry research expenditures that cannot be readily covered by the limited budget designated for such purposes.

With the establishment of this special fund it provides a means of accepting gifts and grants by individuals or organizations to be used to further programs of interest to certain agricultural industries. It is hoped that this fund will continue to grow with the generous support of an interested small fruit industry.

G. C. Klingbeil
Extension Horticulturist

LADIES' PAGE

The Convention has come and gone—but the memories linger on. The Ladies' Auxiliary never had a dull moment from the time the meeting began till the evening at the Banquet. The ladies who attended will vouch for a wonderful Travelogue given by one of our members, Mrs. Leroy Meyer, about her travels to Russia on the "People to People" program. Her comments and slides were most interesting. The tour of the Wisconsin Michigan Power Company proved most educational, the Style Show put on by the H. C. Prange Company during the Luncheon, and of course the wonderful stores in Appleton were a big drawing point for all of us. Comments overheard in the lobby of the Conway Hotel were cost encouraging to your committee and officers.

We would like to encourage more ladies to come to the Annual Convention and make it a bigger and better Auxiliary. Write in your suggestions for things to do—maybe you know someone who would give us a good talk or lecture on an interesting subject.

For the information of those who did not attend the Convention—excitement ran high with the Apple Pie Contest, first conducted by the different counties, and the Statewide. Mrs. Robert Mott, of Menasha, was our Queen of Appleton, U. S. A. Her pie was selected from 8 contestants, judged by the Home Economist and others at the Wisconsin Michigan Power Company. (Our own apple desserts were judged by them also.) The Appleton Chamber of Commerce treated our Queen to a day of relaxation and shopping as a climax to the whole week of "Appleton U. S. A." publicity.

The seven Service Clubs, Banks, and stores in the whole city cooperated wonderfully, by putting up banners and displays in the city. I do not believe we ever had such a tremendous amount of enthusiasm at our Convention as this

year, when practically the whole city celebrated our coming.

Our Challenge For 1965

Executives and committees of both organizations are meeting early to tackle the merger problems. This we feel is important to give proper consideration to the various programs and activities as we try to combine them.

There are goals we should plan in our industry at this time, so we have a goal to work for. Without a goal where do we go? Each one for himself? We know better than that in this day and age of highly organized industry.

There are new programs to be considered; there are present programs to be reconsidered in the light of great food industry changes in the future. The decline in fresh produce sales in the past years needs to be investigated. Many reasons may be given for this decline. We hear about poor grading and handling; inadequate or totally absent effective point-of-sale; we hear about poor merchandising tactics; lack of education of the housewife to the use of fresh apples. Whatever the cause—the consumer is leaning more toward processed products, and this outweighs all other causes in produce sales decline. It is a reality we must all face in 1965.

Our program needs to be more aggressive and informed. The national industry has not been blind to this need for in a program such as "Food is a Bargain Program" has given Produce stores real ammunition. With a strong and unified organization we can gain much in the way of ideas and suggestions from our members. For this the Board of Directors needs and appreciates your support to improve the Wisconsin Apple Industry.

Convention Comments

The Convention was a real kick-off for apple promotion, especially in the

Appleton area, and shows what can be done if proper planning and thought is given to the project. This, however, was not alone the case at Appleton, but created consumer interest in many parts of the State. This was brought out by comments made by customers in stores and Growers' sales rooms, who read, heard or saw the promotion in newspapers, radio or TV. Some of these comments were, "I never knew Wisconsin produced so many apples"; "We never knew there was so much to growing of good apples"; "Those recipes were great and we appreciated the information on what apples to buy and use."

The health angle was brought out over and over again by customers who switched from sweets to apple, who said they enjoyed them more and felt better. There even seemed to be an air of pride and satisfaction when the customers specified and bought one variety or another.

The effort spent in promotion during the year and at the Convention have done much to stimulate consumer interest. This should also stimulate our efforts to even greater local and state-wide promotion. The fine support we received from the men in the Department of Agriculture—Marketing division—the College of Agriculture—Extension service—our Secretary, the Commercial Exhibitors, the Mayor, the Chamber of Commerce, the Service Clubs, Banks, Produce Stores, Hotels, Restaurants of Appleton, made the Convention the success it was. Last, but not least, was the enthusiasm and support by our members; this was greatly appreciated by your Board of Directors. Needless to say, there is no value in all good convention planning without your attendance. Thanks to all of you for your support, and best wishes for a successful year.

Walter H. Clemens, Pres.
Wis. State Horticulture Society

The old-fashioned girl used to hide her money inside her bodice, but the modern girl prefers to put it where it won't be seen!

My neighbor was telling me about his bald-headed barber trying to sell him some expensive hair tonic.

"How can you expect to sell any," asked my neighbor, "when you have no hair yourself?"

"Why not?" said the barber. "I know a guy who's made a fortune selling brassieres!"

The way I see this war on poverty—it's me and President Johnson against my wife and her charge accounts.

Do you realize that, as a result of the report on smoking, our next president may be chosen in a candy-filled room?

Did you hear about the conceited plumber who took one look at Niagara Falls and said, "Give me time and I could fix it"?

An Eskimo cutie-pie's good-by to a fellow who dated her on a summery Arctic evening: "Must you go so soon? It's only half-past September."

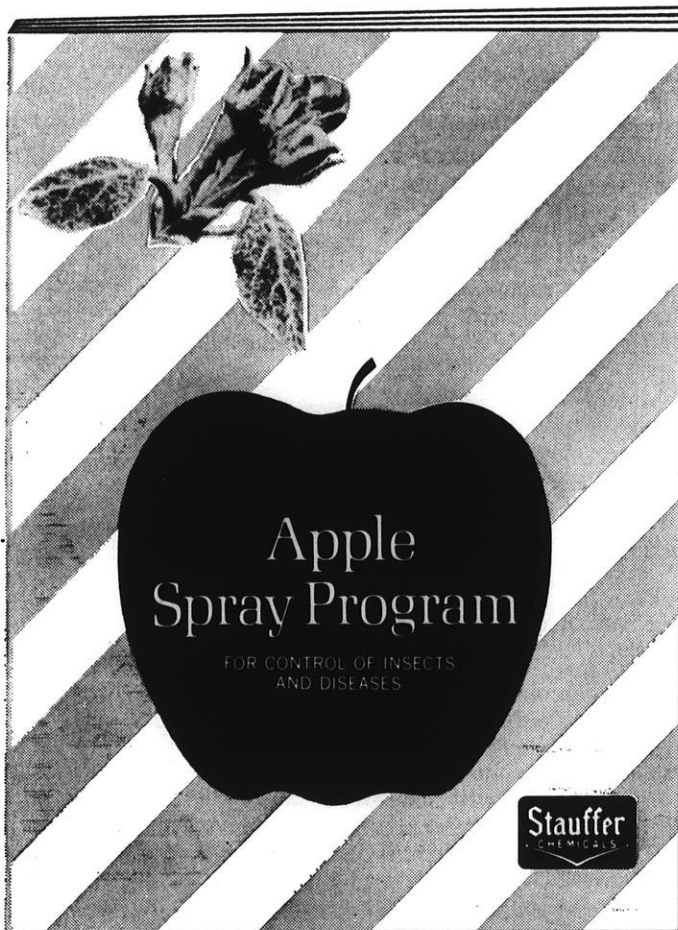
"Do you mean to say," said Mary's mother incredulously, "that you've been going steady with five different boys all at once?"

"Yes," replied Mary innocently. "But now that Christmas is over, I think I can narrow the number down a little."

Poverty may be described as happiness at its worst.

Wouldn't it be nice to have 1965 wages, 1935 prices, 1928 dividends and 1900 taxes all in effect right now.

An expert is one we call in at the last minute to share the blame.



Just off the press—Stauffer's new Apple Spray Program for 1965!

Thousands of growers rely on this annual publication as their trusted guide for effective insect and disease control. Why don't you? Also included are special pages for keeping valuable spray notes and records that are necessary for more efficient and profitable apple production.

Order your free copy today from Stauffer Chemical Company, Agricultural Chemical Div., 380 Madison Ave., N.Y. 10017.

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GROW WITH STAUFFER CHEMICALS**



Wisconsin Horticulture

VOL. XLIX

FEBRUARY, 1965

NUMBER 7

February in the Orchard

G. C. Klingbeil
Extension Horticulturist
University of Wisconsin

LET'S TAKE A PRUNING EXAM

Read each statement carefully, then mark it true or false.

1. Pruning of young trees is essentially a dwarfing process when the plant as a whole is considered.
2. Heavy top pruning of a young plant reduces total growth by causing shortage of products formed in leaves.
3. Heavy pruning or cutting of roots may cause a shortage of products from roots which will reduce both vegetative growth and fruitfulness.
4. Heavy pruning of young trees delays fruiting.
5. Pruning generally reduces the number of fruit spurs but may not reduce yields.
6. Pruning by exclusively thinning out usually results in a tall widespread tree.
7. Thinning out removes less stored food than heading back.
8. Thinning out usually encourages spur formation.
9. The effects of pruning is greatest in the immediate area of the cut.
10. Heading back usually results in a lower more compact plant.
11. There are generally more leaves on spurs; they form early so there is a tendency to increase the ratio of carbohydrates resulting in greater fruitfulness.
12. Thinning out usually causes less shoot growth.
13. Heading back tends to greater shoot growth; shoots have relatively fewer leaves, they form later which makes for greater demand on carbohydrates which may result in less fruitfulness.
14. Heading back equal in severity to thinning out limits fruit spur formation more than thinning out.
15. Heading back generally tends to reduce the number of spurs and to lower the percentages making fruit buds.
16. Unequal heading back of branches of equal length favors greater development of the one headed back least.
17. Best pruning is that which has a definite purpose, is founded on fundamental principles, considers the habits of the fruit and variety as well as any unusual conditions of the tree.

If you have answered true to all the questions, you should have no problem in making the decision as to what branch to cut and why.

Editor—We suggest that you review Prof. Klingbeil's article on Pruning Apple Trees in the Feb. 1964 issue of Wis. Horticulture.

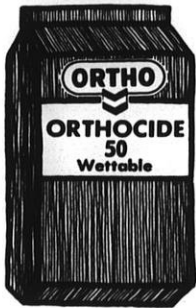
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FIGHT BACK! WITH ORTHO!

ORTHOCIDE® stops scab cold—in any weather, on all varieties.



Spray regularly with ORTHOCIDE and scab won't stand a chance. ORTHOCIDE is fast acting, and also penetrates into the surface of fruit and foliage, to give better protection between sprays.

ORTHOCIDE is gentle. It's not likely to cause russetting—even in muggy weather—even on green and yellow varieties. So you can spray regularly, from pre-pink right on through the season.

And (used regularly) ORTHOCIDE can have remarkable side-effects. Foliage often gets fuller, deeper in color. You get better apples, and more of them.

In short, you get a lot more from an ORTHOCIDE Spray Program.



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Published monthly excepting July and December by the Wisconsin State Horticultural Society and the Wisconsin Apple Institute.

Subscription and Society Membership \$2 per year.

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Meetings of Interest to Fruit Growers

Feb. 17—Jefferson - Rock - Fruit Growers; Fort Atkinson.

Feb. 18—Regional Fruit Growers
Belgium Community Center,
Belgium.

March 2—Regional Berry Growers.
V. F. W. Hall, Waukesha.

March 3—Regional Berry Growers
YMCA, Green Bay

March 5—Regional Berry Growers
Alma Center

March 8-9—Dwarf Tree Meeting
Lawrence, Michigan.

March 25—Fruit and Vegetable Marketing Conference, Wis. Dept. of Agric., Park Motor Inn, Madison.

April 1—Wis. Apple Institute, Board Meeting, Madison.

June 24-27—National Apple Institute Meeting, Sun Valley, Idaho.

July 6—Summer Joint Board Meeting
W. S. H. S. and W. A. I., Ski-Hi Orchards, Baraboo.

Know Your Apples

McIntosh

Originating as a chance seedling on an Ontario, Canada, farm, the McIntosh was introduced into the United States in about 1870. It is especially adapted to the north where the hardy trees survive the severe winters. Crisp, juicy and white fleshed, this fall variety is one of the best for eating and fair for cooking.

Observation on San Jose Scale

G. Mallory Boush
Assoc. Prof. Entomology
University of Wisconsin

An infestation of San Jose scale in the apple orchard will not only result in a decrease in general tree vigor as indicated by thin foliage, but can, if unchecked, result in the death of the tree. As an example, more than 1,000 acres of mature apple trees were killed in 1922 in southern Illinois by this pest. In addition to apple, infestations also occur on pear, peach, sweet cherry, currants, gooseberry as well as many other shrubs, shade and forest trees. However, in Wisconsin severe infestations are usually associated with apple plantings.

San Jose scale infestations appear as grayish specks on the bark. On new growth, and on fruit infestations, the scale is characteristically surrounded by a red inflamed area. When the

scales are examined closely, two forms, a round and an oval one, can be distinguished. The round forms cover the bodies of the females, and the oval scales house the males. Although winged males are produced, the larger wingless females remain under the scales throughout their lives, and after mating, give birth to living young. In Wisconsin, probably only two generations are produced during the summer season, whereas further south up to six generations may be produced.

The young are near microscopic in size and look like active six-legged yellow mites. Upon finding a suitable feeding site these little insects insert their slender sucking mouthparts in the tissue and feed. It is soon after this that they molt, losing their legs and feelers. With growth, a waxy scale is produced which eventually covers the insect, thus affording a protective enclosure. Hot, dry seasons favor their increase.

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Growers should always be on the lookout for this pest. Careful examination during late winter would be especially helpful as specific control is based on dormant oil sprays. Fortunately, San Jose scale is usually kept under control by the usual cover sprays containing DDT, parathion, malathion, Guthion, or Sevin.

Comments on Raspberries

G. C. Klingbeil, Extension Horticulturist
University of Wisconsin

Raspberries have been known in this country since the early eighteen hundreds and since that time many varieties of red, black, purple and yellow varieties have been developed and introduced. Red raspberries probably account for nearly 75 per cent of the acreage in the country and in Wisconsin are most commonly grown.

They originated from the native American red raspberry and from hybrids of this species and the European red raspberry. Yellow raspberries are the same except the fruit is amber in color. Black-fruited raspberries originated from the native American black raspberries. They have a different habit of growth, are not as winter hardy as reds

but can produce more fruit on the same land area. Purple raspberries are hybrids of red and black varieties. They are more vigorous than blacks, have a similar habit of growth and are slightly more winter hardy. Purple raspberries can out-produce either black or red types.

Commercial raspberry acreage in the midwestern states has declined sharply in the past 20 years from about 16,000 to less than 10,000 acres. The state of Michigan accounts for nearly 75 per cent of the Midwest's production of which the most are black raspberries. Cash value on the other hand has increased due to increased yields and a more favorable market price. This situation, it would seem, will favor red raspberries to be grown as a cash crop in Wisconsin on a scale proportionate to available labor and market. The market appears to be no great problem. Raspberries also are a worthy addition to any home garden.

The project initiated by the USDA Plant Industry Station, Beltsville, Maryland, to find and maintain virus free raspberry plants is noteworthy. It appears at this time that plants resulting from this program have much more vigor and productivity. Virus free plants

"LAKE GENEVA" red raspberry

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Phil Robers Nursery, Lake Geneva, Wisconsin

are being grown or increased in numbers in several states, including Wisconsin. Stock of several varieties will be available from several sources in the near future and additional varieties in limited quantities from some sources. Essentially, virus free stock of the following red varieties are being increased: Latham, Newburgh, Sunrise, Taylor, Canby, September, Viking and Durham; black varieties include Black Hawk, Cumberland and Morrison. For those interested in purple: Clyde, Marion and Sodus. (Only varieties of interest in Wisconsin have been listed.)

New Rule Authorizes Plant Movements

A. R. Kurtz

On the basis of a provision incorporated into the Wisconsin law by the 1963 Legislature, the Wisconsin Department of Agriculture is authorized to establish rules under which plants and other material can be moved from one premises to another. The new rule has been established and will become effective on March 1, 1965. It restricts the incidental movement of plants under conditions where a serious pest hazard threatens. In the absence of a serious pest hazard or a specific rule or order by the Department prohibiting such movement, no specific permit or inspection is required for non-commercial plant movements within the state.

The provisions of the new rule also include: (1) rigid restrictions on incidental movement of plants into Wisconsin, (2) clarification of inspection procedures for commercial nurserymen who collect native stock growing in the wild, (3) conditions under which plant pests and plant pathogens may be moved in the state, and (4) provisions for charging special inspection fees by the Department.

Slightly more than half of the states have laws or rules restricting the move-

ment of plants. In the commercial area, these requirements are administered under the provisions of the nursery licensing and inspection law. In the non-commercial area, involving the incidental movement or exchange of plants, almost all states point to the difficulties and the impracticalities of enforcement.

Wisconsin law has for many years restricted the movement of nursery stock by both the general public and commercial nurserymen if it was not inspected. In accordance with the authority given the Department by the 1963 Legislature, the new rule authorizing plant movements simply means that members of the general public can move or exchange plants, not otherwise controlled by a departmental order resulting from a serious pest threat, without being in violation of the law.

This concept has been widely discussed and will be reviewed by a newly established Plant Industry Advisory Committee at its first meeting on February 18, 1965. A representative of the Wisconsin Horticultural Society is one of the members of this Committee.

No one disputes the importance of eliminating as much as possible, the spread and dissemination of plant pests. Under the new rule, adequate authority is retained to achieve this common objective. The fundamental objective in its establishment has been to maintain protection from serious plant pests so vital to the state's plant industry, and at the same time, provide for a realistic requirement that can be understood and respected by everyone.

W. A. I. Board Re-elects Geo. Premo President

The Board of Directors of the Wisconsin Apple Institute reelected George W. Premo of Richland Center President for 1965, at their organizational meeting held in Madison, on January 14, 1965. Don Rawlins, Richmond, Ill. was elect-

ed Vice President. Henry Mahr, Willard Nieman, Walton Frisch, Ellery Teach, Don Rawlins and Geo. W. Premo of the W. A. I. were present. Special conferences included Walter Clemens, President of the Wis. State Horticulture Society, Professors O. B. Combs and George Klingbeil of the University of Wisconsin and Willard Reese and Arthur Kurtz of the Wis. Dept. of Agriculture. The following Wis. Apple Institute working committees for 1965 were named by President Premo:

Promotion: Wm. Meyer, Chairman, Ellery Teach, Ralph Young, John Louis.

Dues & Membership: Don Rawlins, Chairman, Gerald Hipp, Albert Ten Eyck, Ellery Teach.

Market Information: Howard Erickson, Chairman, James Robertson, Jack Rasmussen.

National Apple Institute: Henry Mahr, Don Rawlins.

State Fair & Exhibits: Henry E. Mahr, Chairman, Elroy Honadel, Leroy Meyer, William Nieman.

Grading & Marketing: Ralph Young, Chairman, Jay R. Spittler, Tom Connell, Sherman Frank.

Legislative: Gilbert Hipke, Chairman. Albert Ten Eyck, Jack Rasmussen, Walton Frisch.

Recipe Book: Mr. & Mrs. Walter H. Clemens, Chairman, Mr. & Mrs. Fredrick Meyer, Mr. & Mrs. Willard Nieman, Miss Georgia Wilson, Dept. of Agriculture Representative, University of Wisconsin.

Merger Committee: George W. Premo, Chairman, Harold Rasmussen, E. A. (Dee) Erickson.

Budget Committee: Art K. Bassett, Jr., Chairman, Don Rawlins, Sid Telfer, Jr.

Newsletter & Editorial: Willard Nieman, Chairman, Walton Frisch, William Aepler, James Frostman.

The general complaint about cars is that the motors won't start, and the payments won't stop.

Professor O. B. Combs Going to Nigeria

As some of you know, I expect to be in Western Nigeria for the next two years. I plan to leave around March 1, return for a short time in June, and leave again around the end of June. Certainly I shall miss my many friends in the states, and especially here in Wisconsin. I hope, however, that I shall have many gratifying experiences as I work with others from Wisconsin and elsewhere in a joint effort to help the Nigerian people move ahead with their educational programs, their total economy, and the well-being of their people.

I have no illusions about the difficulties and frustrations likely to be encountered, but I understand that the Nigerian people are competent, cooperative, and dead serious about the important business of accelerating their rate of progress. It is our task to aid them on their way.

I will be serving as Chief of party or leader of the Wisconsin group assigned to work with the U. S. A. I. D. Missions in Nigeria, the Nigerian Federal Government, the Western Nigeria Regional Government, the Ministry of Agriculture and Natural Resources of Western Nigeria, the University of Ife, the Faculty of Agriculture of the University of Ife, and individual members of that faculty in the development of a new University. Our efforts will include assistance in the development of the Faculty of Agriculture, the Agricultural Experiment Station, and the Agricultural Extension Service. We hope to work closely with all concerned in the interest of sound, meaningful progress.

I will be located at the University of Ife, Ibadan, Western Nigeria. I shall try to drop an occasional note to Mr. Weavers for possible inclusion in Wisconsin Horticulture. A note from individual friends or groups will certainly be most welcome. In the meantime, my

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that many growers found they could delay their first mite spray—saving material and application costs.

Get your crop off to a clean start with ethion-oil . . . also approved for control of scales on peaches, plums, pears, and cherries.

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best regards to each of you and best wishes for success and enjoyment in the months ahead.

National Apple Institute States Position

We urge that the provisions of Public Law 414 be implemented as quickly as possible to provide for U. S. agricultural employment of Mexican and other foreign workers, when and where the need and reasonable proper qualification is established.

We re-affirm, and urge study by the Congress if need be, that American agricultural employers are most vitally concerned with and do employ American workers to the fullest extent of available qualified and willing American workers; and further that such qualified and willing workers are not available in sufficient numbers to meet the demands of high labor demand commodities.

There appears to be a demonstrated philosophy and attitude on the part of the Department of Labor that, unlike other vocations in industry, there are no minimum skills or aptitudes necessary in agriculture. This is grossly incorrect and leads to unrealistic, expensive and wasteful referral practices by the Department of Labor, unfair to potential employer and employee alike.

We urge that the Department of Labor classify and register potential agricultural workers on the basis of adequate descriptions of the job for which they are being placed, and that workers without aptitudes for farm employment or with previous unsatisfactory experience in agricultural work not be considered as available for referral to farm employment.

We most respectfully request such help as this Committee may invoke and provide.

F. P. Corey,
Exec. Vice Pres.

Why Attend?

You might raise the question, "Just why come to a Fruit School?" You may look at some of the items on the program and say, "Well, I've heard all about that subject before, so I'm not interested in sittin' through it again." Thus, you can write off without further consideration one of the most useful events of the year to you. That's being negative.

Let us look at it positively. There is a kind of axiom where education is concerned. It is this: we never learn all there is to know. Many discoveries are small and at times insignificant; others are big ones. Sometimes we can put several small ones together to make a big discovery, advancement or change. There is no end to learning, so we must push on, sometimes small and sometimes big; not only for success and happiness, but for sheer survival at times.

Good Will

In the production of goods and services there is no substitute for intelligent direction, and there is no substitute for work. The man who takes pride in himself must take pride in his work. And no matter what the job, he creates an "invisible product" in addition to the one you can see.

The invisible but priceless product is good will. It may be the most valuable thing a person can turn out.

In whatever job you may have—in the office, or orchard, or on the packing line—you help form the customer's decision to "return to the place that has treated him well"—or not to return.

Intelligent direction tells us what to do. Work gets it done. Service and courtesy, which in themselves are indications of intelligent direction, are the best salesmen we have.

And, each of us is a salesman in his particular job. He is a salesman for himself, for his family, and for his orchard.

Service implies efficiency, dispatch

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A Special PLANT FOOD Developed for Fruit Trees

Highly praised by successful Fruit Growers!

5—10—25 (High Potash) Plus added trace elements such as Copper, Magnesium, Sulfur, Calcium, Iron, Manganese, Iodine, Chlorine, and trace Boron. (A complete Plant Food to maintain proper soil balance and aid toward making all of the soil nutrients available to the trees and plants.)

FEATURES:

- Contributes toward higher colored fruit.
- Finished fruit will store longer.
- Develops a firmer-crisper fruit.
- Adds greatly toward better flavor.
- Promotes annual bearing.
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- Will not burn.
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- Begins absorption as soon as possible.
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Membership Renewals

It's 1965, and time to renew your Horticulture Magazine subscription and membership in the Wis. State Horticulture Society. Many have already done so. Just two dollars will keep your Hort. magazine coming and keep your membership in good standing. You will find the secretary's address on the top of page 3.

Waldo Orchards Help Promote Cherries

The atmosphere was bright and cheery at WTMJ—and so were the tables—on January 29. Mrs. Frederic Meyer, Waldo, and Miss Georgia Wilson, Food Editor with the Wisconsin State Department of Agriculture, appeared on Jayne Whalen's "Today for Women," TV show to promote Wisconsin cherries.

While Mrs. Whalen and Miss Wilson visited about cherries, Mrs. Meyer quickly prepared two of her favorite cherry dishes—"Cherry Torte Pie," and "Cherry Buried-Treasure Cake." As she mixed she explained procedures and other possible ways of using cherries.

Mrs. Meyer, whose husband owns and operates "Waldo Orchards," also gave station personnel another treat. She included apples in her off-the-air promotion, and presented everyone with a bright, tasty Spartan apple.

This program was part of the January television shows the Wisconsin State Department of Agriculture conducted on the promotion of cherries. The Department includes industry personnel, whenever possible, to add an even more authentic note to their monthly promo-

tions.

The recipes Mrs. Meyer demonstrated are as follows:

Cherry Buried-Treasure Cake

- 1—3 oz. pkg. cream cheese
 - ½ cup butter
 - 1 cup flour
 - 3 tbsps. sugar
 - ½ cup finely chopped almonds
- Beat cream cheese with butter. Add flour, sugar, and almonds. Blend and spread evenly over the bottom of an ungreased 9x13 oblong pan.

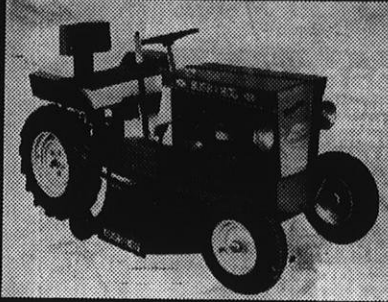
- 1 cup sugar
- ¼ cup cornstarch
- ½ tsp. salt
- 2 No. 303 cans water packed tart red cherries, drained
- 1½ cups juice, drained from cherries
- 2 tbsps. butter
- Few drops red food coloring.

Combine sugar, cornstarch and salt in saucepan, mix well. Add cherry juice and blend well. Cook over direct heat, stirring constantly, until clear and thickened. Stir in drained cherries, butter, and red food coloring. When cool, pour over bottom layer in pan.

- 1½ cups flour
- ½ cup sugar
- 2 tsp. baking powder
- 1½ tsp. salt
- ¼ cup butter, melted
- ½ cup warm water
- 1 tsp. vanilla
- 3 egg yolks, slightly beaten
- 3 egg whites
- ½ cup sugar
- Confectioners' sugar

Sift together flour, baking powder, sugar, and salt. Combine butter, water, vanilla and egg yolks and stir into dry ingredients. Beat egg whites until stiff enough to form soft peaks, gradually adding ½ cup sugar. Fold cake mixture into beaten egg whites; pour over cherry filling. Bake at 350 degrees F. for 50 to 60 minutes. When cool, sprinkle generously with confectioners' sugar.

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 2 reverse
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 Starter..... 12-V. Elec.
 or Rope
 Frame..... one-piece
 steel
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 Width O.A.. 32"
 Wheelbase.. 49-1/2"
 Tires..... frt.—400x8
 rear—600x12
 Weight..... Approx.
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ROTARY CUTTER

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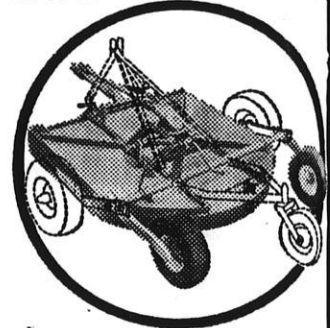
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Cherry Torte Pie

- ⅓ cup shortening
- ⅓ cup sugar
- 2 unbeaten egg yolks
- 1 tbsp. milk
- 1¼ cups sifted flour
- ½ tsp. baking powder
- ¼ tsp. salt
- ½ cup chopped pecans
(Save 2 T. for meringue)

Cream shortening and sugar. Blend in egg yolks and milk. Add sifted dry ingredients and stir until mixture forms a ball. Press into bottom of well greased 9 inch layer cake pan. Sprinkle pecans on dough and bake at 375 degrees F. for 12 minutes or until brown. Cool. Put cooled torte circle on baking sheet and drop meringue, made of two egg whites and 4 tablespoons sugar, by tablespoons in a ring around edge of torte. Sprinkle nuts on meringue and bake at 350 degrees F. for 12 minutes. Cool and fill center with cooled cherry filling.

FILLING:

- 1 cup syrup pack cherries
- 2 tbsp. cornstarch
- ½ cup sugar
- ¾ cup cherry juice
- 4 drops red coloring
- ¼ tsp. almond extract

Here and There

THE SIMPLE TRUTH

Gleaned from E. Bowden Curtiss' column in the Darlington Republican-Journal:

"Little boy to his mother — 'A funny thing happened to me on the way to the toilet. I didn't make it'."

AND START EARLY

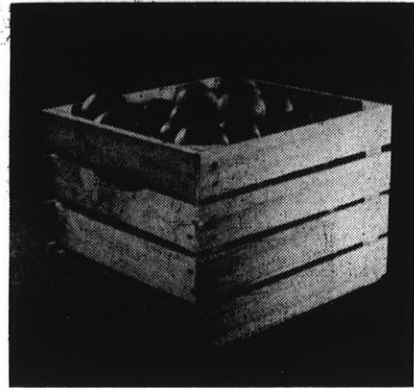
"To prevent juvenile delinquency," urges Romain C. Brandt in the Platteville Journal, "parents should start at the bottom."

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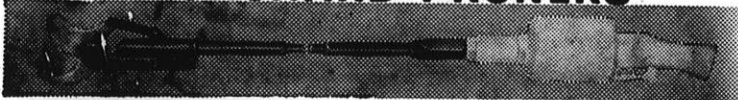
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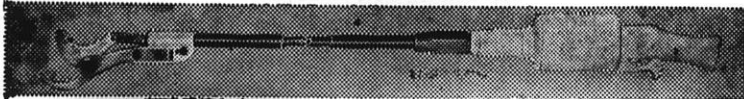
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Here and There

APPLEWOOD BEST

Not all firewood is the same. Amount of heat you get from your stove or fireplace depends on the wood you feed the fire.

Kind of wood, size and moisture content all play a part in providing heat for your room, says C. S. Walters, University of Illinois wood specialist..

Heating value of dry hardwood can be judged by its weight. Generally heavier hardwoods are better than light-

er ones. For fireplace use, Walters rates apple, beech, black locust, hickory, oak, pear and sugar maple in the "best" category.

Ash, black cherry, elm and silver (soft) maple are good. Basswood, catalpa and cottonwood are only fair, he says.

Mankind should take a lesson from the snowflake. No two of them are alike, yet observe how well they cooperate on major projects—such as tying up traffic.

INCOME TAX

The Internal Revenue Service of the U. S. Treasury Department says the loss of business assets, either by casualty or other means, usually results in a deduction on the Federal income tax return. The loss is measured by the adjusted basis of the property.

For those interested in more information, obtain from your IRS district office the document, "Casualties. How the Federal Income Tax Applies or Storms, Hurricanes, Other Disasters and Thefts." Document No. 5174.

CONSUMERS' FOOD HABITS TO BE TALLIED IN 1965

For the first time ever, a nation-wide sampling of individual eating habits in the United States is to be undertaken, it was announced by the U. S. Department of Agriculture. Diets of 13,000 individuals will be studied in the spring of 1965. A new survey of household food consumption among approximately 15,000 households will extend throughout 1966.

The information obtained will be tabulated to give data for four regions, separately for farm, rural nonfarm, and for urban families.

I see the Parade had a story on apples Sunday. They got the same belief I got about apples I wrote that in my story on food. I know what I am talking about. The Parade magazine told you what a great food the apple is and they had it right. But you have got to have a good apple. They are so full of vitamins it is a wonder the tree don't explode. — Roundy, Wis. State Journal, Madison—1-26-65.

You are not a kid if you can remember when the tea kettle froze on the kitchen stove on winter nights. — Marion Advertiser.

As age increases, we feel our corns more than oats.

JUST NOT TRUE

The Spar'a Herald's Man About Town Don P. Radde tells us that a man learns very early in his married life that two cannot live as cheaply as one. He learns it all over again when his teenage son demands that his allowance be doubled because now he has a girl friend."

Firewood has a language all its own. You can buy a standard cord, a face cord or a rick. Standard cord measures 4 feet high, 4 feet wide and 8 feet long. Face cord is 4 feet high and 8 feet long. Logs can be any length. Rick can be any size pile of wood.

CANNERS ALARMED

Members of the National Canners Association, at their annual convention, were keenly aware of agricultural labor problems brought about by the termination of Public Law 78, and voiced their opinions in condemning present U. S. Department of Labor policies.

Most were in agreement that if the Labor Department does not permit the use of Mexican nationals to save the date crops and harvest the lemon crop in southern California within the next two weeks, there will be no help coming.

The cut-off of adequate "stoop labor" to the grower is also on its way to determining canning production schedules, canner employment, supply orders to container manufacturers and ultimately the cost to the consumer.

MECHANIZATION

A gloomy forecast on mechanical harvest of fruits was given at the canners' convention in San Francisco by Max Reeder, H. J. Heinz general manager, agriculture:

"My survey shows that by 1980 . . . 25 per cent could be harvested by machine for processing and practically none for the fresh market. Up until 1975 very little progress will be made."



Start and stay with **Captan** all the way

From prebloom sprays right through harvest — Stauffer Captan fungicide protects your orchard from scab and all major summer diseases of apples. But it does much more!

Apple leaves sprayed with captan contain more chlorophyll — produce more energy for new wood, buds and fruit. Trees can set and hold more fruit and produce stronger fruit buds for next season. That's why orchards treated with captan — all season long, year after year — produce at a more profitable level.

Drought-stricken trees especially need the gentle action and beneficial effects of captan this year.

Order captan — why settle for less when captan does so much more?

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Chemical Division, 380 Madison Avenue,
New York, N. Y. 10017.

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Wisconsin Horticulture

VOL. XLIX

MARCH, 1965

NUMBER 8

MARCH IN THE ORCHARD

G. C. Klingbeil, Extension Horticulturist
University of Wisconsin

ICE DAMAGE

Ice of some depth has resulted from the accumulation of water in low areas of many orchards in central and southern Wisconsin. If past experience can forewarn what may result from this condition, a likely prediction could be a fair amount of damage will occur especially to young trees. The pressure and movement of ice could cause severe bark damage, even to the extent of tearing and loosening it. The amount of damage is generally greatest to trees under five or six years of age.

What can be done? It is now quite impossible to reduce the accumulation of water and ice to prevent the damage, so preparation must be made to correct the damage that could result. Unfortunately, in order to repair the damage, one must resort to bridge grafting. If damage is too extensive, or if the tree is only a year or two old, it would be more practical to replace it. Check trees in any young planting and if damage is visible, collect and store plenty of scions from the hardiest varieties and plan on doing some bridge grafting this spring. Wisconsin Circular 572, Grafting, will give details on how to make various grafts. This circular is available at all county extension offices.

NEW VARIETIES

This question has recently been asked many times, "What new varieties do you think are best and should they be grown on size-controlling rootstocks?" The answer will depend upon several factors. First, is the variety adapted to Wisconsin conditions? Will it ripen in our short-growing season and will it stand the winters? It is generally known that varieties in the Winesap family do poorly in our conditions, even Golden Delicious and certainly Jonathan have limited adaptability. There are several varieties that will be of interest to apple growers.

The *Spartan*, a cross of McIntosh and Newtown, originated in British Columbia and was introduced in 1936. It has been tried in several locations around the state. It appears to be quite hardy and produces a crop annually. The fruit on young trees may be variable in size and lacking full color; but as the trees grow older, fruit is more uniform and color improves. In central Wisconsin, fruit color is a sparkling full red. It ripens after McIntosh and before Red Delicious and stores better than McIntosh in regular refrigerated storage.

Idared, a cross of Jonathan and Wagener, originated in Idaho and introduced in 1942 is another variety of interest. Several commercial orchards have already included this one in recent plant-

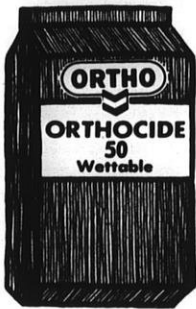
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WISCONSIN HORTICULTURE

Published monthly excepting July and December by the Wisconsin State Horticultural Society and the Wisconsin Apple Institute.

Subscription and Society Membership \$2 per year.

Harvey J. Weavers, 4215 Mohawk Drive, Madison, Wis. 53711. Phone Madison 233-3146
Sec'y - Treas. — Editor

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Meetings of Interest

March 15—Federal Mkt. Order Red
Tart Cherries—Sturgeon Bay.

March 16-17—Fruit Growers—
Bayfield.

March 20—Illinois Fruit Growers
Meet—Poplar Grove, Ill.

March 25—Fruit and Vegetable Mar-
keting Conference, Wis. Dept. of
Agric., Park Motor Inn, Madison.

April 1—Wis. Apple Institute, Board
Meeting, Madison.

April 4-10—Wis. Maple Syrup Week

April 21—Apple Research Results —
Babcock Hall, Madison.

May 30—Maple Syrup Festival —
Aniwa.

June 24-27—National Apple Institute
Meeting, Sun Valley, Idaho.

July 6—Summer Joint Board Meeting
W. S. H. S. and W. A. I., Ski-Hi
Orchards, Baraboo.

Beekeepers Meetings

April 4—Southwestern District, Mon-
roe County Court House, Sparta.
Chairman—Carl Preuss.

April 7—Northern District, Bong Me-
morial High School, Poplar. Chair-
man—Earl Silvernale.

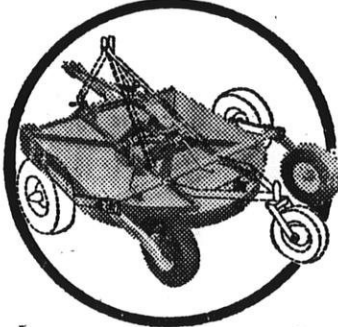
April 8—Northwestern District. Colo-
nel Restaurant, Menomonee. Chair-
man—Walter Smith.

April 9—Central District. Gas Com-
pany Building, Marshfield. Chair-
man—Ernest Schroeder.

April 10—Southeastern District. Hon-
ey Acres, Menomonee Falls. Chair-
man—Walter J. Diehnelt.

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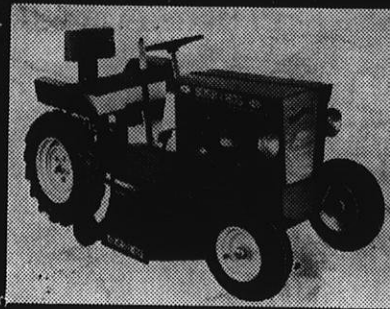
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ings. The tree appears to be hardy in commercial growing areas, but has a tendency toward biennial bearing. The fruit is fairly large on young trees, but not quite so large and more uniform on older trees. Fruit color is good, not a deep bright color but enough to be attractive. Fruit is slightly rougher and skin less smooth as one goes northward in the state. The quality of fruit is generally good. It ripens late and stores very well in regular refrigerated storage.

Wellington, a cross of Cortland and Crimson Beauty, originated in New York state and named in 1955. This is probably the earliest ripening variety that would be of interest to commercial growers. It does quite well in southern and central Wisconsin latitudes. Fruit is large for the season and can be harvested in late July in the southern part of the state. Color may be just a red blush on immature fruit, but improves rapidly toward maturity. In central Wisconsin latitudes, color may be a full red when ripe. Fruit quality is lacking in immature fruit, the flesh tends to be tough; however, quality improves toward maturity. The fruit shows less bruising than Melba or Milton and can be kept in refrigerated storage for a week or two. Wellington should probably be planted in wind-protected locations because the foliage is quite tender and easily subject to damage.

There are many other varieties that could be discussed, however, the above varieties appear to have the most merit for our conditions at this time. Some could be considered because of local conditions or specific markets. An example would be the variety; Ruby, a cross between Gallia Beauty and Starking, originated in Ohio. It was grown for several years in the experimental orchard at Madison and was considered to ripen too late for most Wisconsin conditions. However, as grown in an orchard near Richland Center, the fruit does mature with good quality; it is large and has a deep full red color.

This may be a variety well suited to that area of the state.

Now about the size-controlling rootstocks. Such stocks as MIX, MVII, MII and MM106 have been quite widely used in many areas of Wisconsin. At this time, there appear to be no serious problems directly relating to this type of understock. When drought occurs, they do suffer, under clean cultivation or total weed control, erosion can be a problem and some young plantings have been severely damaged by fire blight. In this day of the great need to increase production per acre and to reduce unit cost of production, it would seem that size-controlling rootstocks would be another means to aid in solving this problem. All growers should be thoroughly familiar with them.

“When Your Advertise ”

“Advertising doesn’t cost, it pays” is a philosophy used by many producers. However, knowing how to advertise and what procedures to use has many avenues of approach. The United Fresh Fruit and vegetable Association December newsletter encourages advertisers to stress the nutritional value of foods, especially fruits and vegetables. These are wholesome products in which the industry can take pride. The following statements on apples are in line with applicable research data and are acceptable to nutritionists:

APPLES

An apple for a child is as much appreciated as a sticky sweet and far better for the child.

Crisp apples cleanse the teeth and are recommended by the American Dental Association for both children and adults.

Apples were used successfully in Russia in experimental diets to relieve high blood pressure. For three days at a time, patients ate only sweet raw fruit, six times a day. Some improve-

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APHIDS,
SCALES,
MITES**

ethion

A one-shot application in oil that gives complete control of your most troublesome early-season apple insect pests: over-wintering mites, apple aphids, rosy aphids, and San Jose Scale. Introduced to wide commercial use last season, this outstanding pesticide combination provided such complete control of early red mite

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ment was noted in 85% of the patients. Patients who did not respond in the first three days usually responded to a second, third or fourth course of treatments.

Studies in Britain showed that children who ate apples had much less tooth decay and gum disorders than a control group that ate none. Of children 11 to 15 who ate apples, 76% were free of gum disorders but only 25% of the control group.

Scraped raw apple has long been used in Germany in some orphanages as a remedy for dysentery. Doctors of Heidelberg University developed the treatment.

Apples as a mid-morning snack quickly leave the stomach and so do not interfere with the appetite for the noon meal.

Michigan college students who liked apples and ate them frequently, were found to have better general health and fewer colds than students who did not eat apples. Probably the apple-eating students had generally better dietary habits than most other students. No claim is made, however, that apples are in any way a specific inhibitor of colds.

The average composition of freshly harvested and stored raw apples of commercial varieties, per 100 grams (3½ ounces) edible portion includes: water 84.4 grams; food energy 58 Calories; protein 0.2 g.; fat 0.6 g.; carbohydrate 14.5 g. including 1 g. fiber; ash 0.3 g.; calcium 7 milligrams; phosphorus 10 mg.; iron 0.3 mg.; sodium 1 mg.; potassium 110 mg.; magnesium 8 mg.; vitamin A 90 International units; thiamine 0.03 mg.; riboflavin 0.02 mg.; niacin 0.1 mg.; and vitamin C 4 mg. Apples also contain a variety of other minerals and vitamins.

Apples are low in sodium—1 milligram per 100 grams; and therefore suitable for use in a low sodium diet.

Apples provide an alkaline reaction in the body.

Apples are relatively low in Calories.

A medium apple (2½ inches in diameter, 150 grams) provides 66 calories.

Observations on the 1964 Apple Season

Marlon Schwier, In Charge
Fruit and Vegetable Section
Wisconsin Department of Agriculture
Production (Nationally):

Early estimates placed the 1964 crop as the second largest in history exceeded only by the year 1937 when 153 million bushels were produced. The July estimates by various agencies placed the crop from 141 to 147 million bushels or about 17½ percent greater than 1963. The main increase was expected to come from the Eastern and Midwestern apple areas which were reported to be up about 12 and 11 million bushels, respectively. The Far West was estimated to be down about 2 million bushels from their 1963 record production.

As the season progressed and harvest started, several factors changed the production prospects significantly. First, there was a lack of rainfall in much of the country, especially the Eastern and Midwestern areas. Apples failed to size properly, thus lowering production estimates.

Secondly, and prior to harvest, high winds, some of gale proportions in a number of areas, created sizable dropping and lowered the marketable crop.

A third factor, influencing the marketable crop, was a heavy McIntosh drop in several of the areas, including Wisconsin.

Finally, a fourth major factor was an early October freeze throughout the Eastern and Midwestern areas which did sizable damage.

Summaries and analyses now being made indicate the 1964 national crop will not be above 137 million bushel. Of more significance is the fact that stocks on hand report on November 1 indicate the 1964 stocks will not be above the November 1, 1963 stocks, however, this is still 12 per cent above

Attention Strawberry & Vegetable Growers:

3 OPERATIONS IN ONE

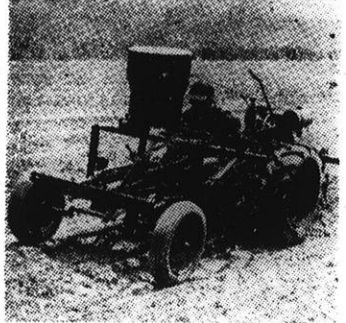
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Other Friday Equipment: STRAW MULCHER

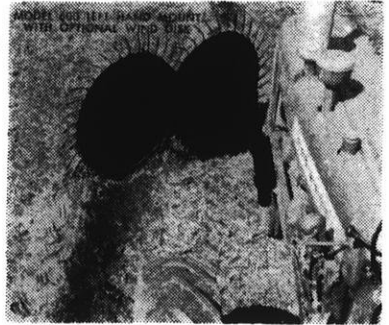
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SAVE TIME — SAVE LABOR

Remove your strawberry mulch while sitting on your tractor seat at the rate of 3 miles per hour.



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the five-year average.

In Wisconsin, a similar pattern was followed. Early estimates placed Wisconsin's crop at 1,600,000 to 1,900,000 bushels. However, several factors also changed these estimates. The primary factor was an exceptionally short crop in Door County, the major apple-producing area of the state. In addition, the Wealthy crop over the entire state was exceptionally short and drought in some areas which reduced apple size gave Wisconsin a somewhat shorter crop than predicted.

Marketing Aspects:

Pessimism, not optimism, on the year's outlook was the early forethought by many apple producers. It was the general feeling there would be burdensome surpluses existing, extreme competition for markets and corresponding low prices. So what happened?

In Wisconsin, we had one of the earliest opening harvesting dates in the past eight years. The Dudley variety in the Gays Mills area was moving to market by late July and was gone by mid-August. The limited Wealthy crop was moving in volume by mid-August and because of a short crop in Door County, the Wisconsin-Minnesota Apple Information Report reported no Wealthy prices after September 8. In addition, some Cortland, Beacon and Early McIntosh were moving to market as early as August 18.

McIntosh also came on early and by late August was moving in volume. Color on McIntosh was decidedly below normal and it was necessary to color pick in order to get quality. Actually, good color did not develop on McIntosh until quite late in the season.

On the Price Side:

Opening prices were good, especially on Dudleys, Wealthys and Beacons. They were very comparable to other years with the exception of the 1963 in which prices throughout the season were quite strong.

The opening McIntosh prices were also good. Early movement was slow as

the apples were not mature. Consumers complained of tartness and the lack of color. McIntosh suffered an early, quick drop. By September 15, 10/4 packages were down to \$2.15 f. o. b and two days later were down to \$2.05. This was the lowest reported price for McIntosh at this date in the 8-year period of the Apple Market Information reporting program. The McIntosh cell pack also was affected reaching an all-time low of \$2.55 f. o. b. One-third bushel packs were sold as low as 70¢ f. o. b.

Prices on other varieties followed a similar pattern to McIntosh being higher or lower depending on kind of apple. Generally, it appears the overall apple prices were around 50¢ to 60¢ a unit lower than average.

Other Observations:

Traffic and movement at packing sheds or roadside stands were exceptionally good during the 1964 season. Prices held firm and numerous growers operating this type of business are reporting a fairly successful season.

Several new "U-Pick" yourself operations started up this year and seem to be satisfied with this type of apple selling.

The Cortland variety again had trouble. Commercial growers of this variety who must sell to wholesale outlets experienced great difficulty in getting volume movement and satisfactory prices. This variety does not command good movement at the retail store level, yet it is one of the better movers at roadside stands or packing sheds. Delicious, McIntosh and Jonathons seem to push this variety right off the store shelves. This variety needs some good promotional efforts.

In Conclusion:

1964 will not be a record-breaking year, neither will it be a failure. The grower who had diversity, some early varieties along with a fair volume of McIntosh, Delicious, both Red and Golden, Jonathan and possibly some Northwestern Greening, and practiced some good marketing techniques should

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Fruit Trees

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FEATURES:

- Contributes toward higher colored fruit.
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- Develops a firmer-crisper fruit.
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PRICE:

March 1965	76.50 Ton
April 1965	78.50 Ton
May 1965	80.50 Ton

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meet expenses and have some profit. Generally, it might be said—the apple industry has successfully met the challenge of marketing on almost a record-breaking crop.

Horticulture Dept. of U. of W. Has New Chairman

Professor Warren H. Gabelman has been appointed Chairman of the Dept. of Horticulture at the University of Wisconsin to succeed Professor O. B. Combs who will become Chief of Party of the College of Agriculture program at the University of Ife in Western Nigeria. Professor Combs has served as chairman since 1949 and under his leadership, the Department has expanded to include a staff of twenty research, teaching, and extension personnel serving the horticultural industry and students.

Professor Gabelman is a native of Nebraska and received the B. S. degree from the University of Nebraska in 1942. He was awarded the Ph. D. degree from Yale University in 1949. Gabelman came to the University of Wisconsin from the Connecticut agricultural Experiment Station, New Haven, Connecticut, in 1949.

His research has included studies on the genetics of male sterility in vegetable crops and its utilization in the production of hybrid seed in onions, carrots and table beets; the biosynthesis of carotene in carrots and the development of carrot varieties high in provitamin A; and the environmental factors affecting fruit set in snap beans, a key study in the development of the snap bean industry of central Wisconsin. He also teaches plant breeding of horticultural crops.

Gabelman is a member of many scientific societies including the American Association for the Advancement of Science, American Institute of Biological Sciences, American Society for Horticultural Science, Genetics Society of America, Crop Science Society and the

International Society for Horticultural Sciences. In Wisconsin he has been associated with the release of several vegetable varieties including the tomato, Wisconsin Chief; onion hybrids, Golden Beauty, Bronze Perfection, Nugget, Hickory and Sunburst; onion inbreds, W101 and W4; a lettuce variety, Lakeland; table beet inbreds, W187 and W-205 and the first hybrid table beet, Pace-maker; five synthetic varieties of carrots, Wissyn 5, Wissyn 6, Wissyn 33, Wissyn 171 and Wissyn 173; and the carrot inbred, W93, and the first hybrid carrot, Hybrid Gold.

Cranberry Growers to Try to Get a Marketing Order

A petition containing the necessary number of cranberry grower signatures has been submitted to the Wis. Dept. of Agriculture. Under the state marketing law, the Dept. is now required to take steps to determine the industry's wishes on a marketing order program.

Officials have requested all cranberry growers in Wis. to re-register. In addition, growers have been asked to furnish the volume of cranberries harvested and sold in 1964.

Registration with the Department is essential, it is pointed out, in order to qualify the grower to receive all information concerning the marketing order procedure. It will also serve to establish a grower's eligibility for voting in a referendum if one is held.

Under provisions of the Marketing Order, per barrel assessments would be collected from all cranberry growers. The funds to be used for applied research programs and a frost warning service.

Bill Boards

The Apple Institute Promotion committee wishes to inform its interested members that bill board posters (better and more colorful) will be available this year. They advise to proceed to

CONNELL RED APPLE TREES

Available at Mail Order Nurseries in Wis. and Adjoining States

J. W. JUNG, Randolph, Wis.

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SWEDBERG NURSERY, Battle Lake, Minn.

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Standard Connell Red at Garden Centers

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Birchfield Nurseries,
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Erickson's Super Market,
River Falls, Wis.

Hall Nurseries,
Elmwood, Wis.

Kailhofer Nursery,
Seymour, Wis.

May's Greenhouse,
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Mueller Nursery,
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Pansy Nursery,
Neenah, Wis.

West Hill Floral,
Wausau, Wis.

Dwarf Connell Red at Garden Centers

Arrowhead Nursery,
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Hall Nurseries,
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Hobby Acres Nursery,
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May's Greenhouse,
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Suther's Moundview Nursery,
Platteville, Wis.

Webb & Sons,
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Whitehall Floral,
Whitehall, Wis.

For large quantity of trees or further information, please write:

Connell, Schneider & Connell

Menomonie, Wis. Box 89

reserve bill board space for that period of time which will serve a grower's needs best.

Here and There

The latest controlled atmosphere apple storage report from the Michigan State Apple Commission showed a strong movement of McIntosh and Jonathan apples during February, and the movement of all varieties from C A was up 33%.

There may be a destiny that shapes our ends, but our middles are of our own chewing.

Want to know who wears the pants in this country? Ten years ago, 10,000 pair of slacks were sold to American women. Last year they bought 40,000, 000 pairs. Any questions?

Quite often, when plants wilt sudden-

ly or the leaves, blossoms or stems turn brown, the trouble can be diagnosed as a blight.

In other instances, blossoms or stems might discolor and wilt. The disease causing this decision also may be called blight.

In some cases, the blight disease is caused by bacteria or a fungus organism.

The organism causing botrytis blight, a destructive disease of peonies, lilies and dahlias, is not the same one that causes potato blight or fire blight on apple and pear trees. For this reason, no one procedure or treatment can be given for the control of all blight diseases. It is necessary to determine the cause of the blight disease in each case and then apply proper control procedures.

A new Guide for Home Landscaping, Special Circular 98, has just been made

JOHN BEAN SPRAYERS

(puts the spray where you want it)

ORCHARD ROW CROP BRUSH

FMC: Apple Washers & Graders

Complete Line of Brand New:

**Spray Guns, Nozzles & Disc, Tee Jet Nozzles,
High Pressure Hose & Couplings.**

Also Good Used Orchard and Row Sprayers.

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- Grafting Wax

- Pruning Saws
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Free Literature

Ollie Heeren
Liberty 2-8144

available by the extension service College of Agriculture, University of Wis.

Starting begonias from tubers is a quick and easy way to get them growing well. All it takes is careful preparation and watchful care after the tubers start growing, says L. M. Berninger, University of Wis. flower specialist.

Get your tubers planted within the next few weeks, he says. Put the tubers round-end down in moist peat moss, sphagnum moss, or vermiculite in open trays. Hold the temperature constant at 70 degrees. Space the tubers 3 to 4 inches apart, with the top of the tubers about 1/2-inch below the surface of the moss.

Keep them out of direct sunlight during this early period. The tubers rot easily, so water them sparingly until new growth appears, Berninger advises.

The United States Agriculture department reports that its scientists have discovered what it is that corn ear worms like about corn. In other words, they have extracted the substance that makes corn appetizing to ear worms.

In gardening, as in most other pursuits, the buyer gets pretty much what he pays for. Bargain hunting in seeds is especially risky because not even an expert can detect a bad seed. And, as the Apostle Paul reminded the Gala-



The Wis. Horticulture Society Ladies Auxiliary's annual treat to those in attendance at the Convention consists of serving prize winning exhibit desserts. Here committee members Mrs. Phillip Bassett, Mrs. Walter Clemens and Mrs. Arthur Bassett Jr. are preparing the delicacies for serving.

CHANGE OF ADDRESS

If you have moved recently, we can send Horticulture Magazine to your new address more quickly if you will INCLUDE A LABEL from the last issue you have received when you notify us of your new address.

Memberships, both renewals and new, are coming in daily.

tians: Whatsoever a man soweth, that shall he also reap.

IDEAL DOUBLE DUTY IRRIGATION

SAVES Your Berry Crop From DROUGHT

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Know Your Apples

"The Connell Red"

A bright, crisp red apple was discovered in 1949 by Tom Connell of Sunridge Orchards, of Menominee, Wis. It was patented in 1955. It bears the name of the Connell family. It's a large apple, beautifully shaped and very red, originally occurring as a color sport of the Fireside variety. Trees are available at garden centers and nurseries from coast to coast.

National Institute News

For 250 boxes of next year's apple crop the National Apple Institute figures you can fly out to Sun Valley, Idaho, and enjoy a few days of fun and

education at the National Apple Institute annual convention scheduled for June 24-27. Or you can make it 500 boxes and bring your wife.

Meeting will be held from 8 a. m. to 3:30 p. m. each day with fast moving topics and top qualified speakers giving you the information you need and want to hear. After 3:30 p. m. you can take off and look around or join in on recreation fun which will be available.

After the meetings, one or more tours for those who want to go to the fruit growing sections of Idaho and Colorado, or over to Yakima and Wenatchee, Wash., are planned. If enough reservations are made a special plane will be made up at Chicago.

The New 1965 FRIEND

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See these FRIEND AIRMASTERS with Tree Patterned Discharge—the newest and most advanced air sprayer design on the market at —

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Apple leaves sprayed with captan contain more chlorophyll — produce more energy for new wood, buds and fruit. Trees can set and hold more fruit and produce stronger fruit buds for next season. That's why orchards treated with captan — all season long, year after year — produce at a more profitable level.

Drought-stricken trees especially need the gentle action and beneficial effects of captan this year.

Order captan — why settle for less when captan does so much more?

Stauffer Chemical Company, Agricultural
Chemical Division, 380 Madison Avenue,
New York, N. Y. 10017.

READ THE LABEL, HEED THE LABEL AND
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Wisconsin Horticulture

VOL. XLIX

APRIL, 1965

NUMBER 9

APRIL IN THE ORCHARD

G. C. Klingbeil, Extension Horticulturist
University of Wisconsin

At this writing, ten days after spring officially arrived in these parts, we still have a fair amount of the remains of winter evident. The fields are snow covered and frost is still fairly solid in the ground. So far as the fruit grower is concerned, it is safe to say that we are presently about ten days later than normal. This situation, however, is only relative. Apple trees and strawberries could be in full bloom at near normal dates dependent on temperatures during the next 30 days. As it appears now, most orchards will be wet for some time. This could mean favorable "scab weather," something we haven't had for several years.

Fruit Thinning

This is a subject soon to be on the minds of most fruit growers in the very near future.

In our area what thinning is done is accomplished by chemicals rather than by hand thinning. Three chemicals are commonly used; Naphtaleneacetic acid (NAA), naphthalenacetamide (NAD), or (NAAMide) and Carbaryl (Sevin). An excellent evaluation of chemical thinning is given in the recent publication, "Fruit Thinning with Chemicals," Agr. Inf. Bul. No. 289, USDA, dated February, 1965, available from the Superintendent of Documents, Washington, D. C., 20402. I hope to have a supply in my office by May 1. Here are a few comments from the publication—"Variability in results is principally due to wide ranges in growth status of the trees and weather before and after spraying. These variables affect the absorption of the spray solution and the quantity and nature of the fruit set. Sev-

in at the proper concentration comes nearest to meeting the essential requirements of a thinning agent for apples. Absorption of this chemical is less affected by weather. Timing of post-bloom thinning sprays is perhaps the least important factor. Results are generally about the same when the materials are applied 14 to 25 days after full bloom." A suggested program would be to use NAAMide as early as petal fall and follow with Sevin 14 to 13 days later.

Fruit affected by NAAMide will fall behind in growth. The portion not affected will continue to grow. The difference should be quite apparent in 10 to 12 days. Check the results at this time and follow with a treatment of Sevin if needed.

Be certain to leave a check tree of each variety to be thinned to be used as a comparison. Be very cautious in thinning young trees. It may be wiser not to attempt chemical thinning until they settle down in habit or until most fruiting branches reach a horizontal position.

* * *

Comments On Strawberry Growing

Wisconsin's strawberry industry has grown substantially during the past few years. At the present time, over two thousand acres are being harvested which is nearly double that of a few years ago. It means that the strawberry industry is contributing about two million dollars to the agricultural economy of the state in addition to the chemical, container, irrigation and machinery business generated because of this industry. It is a wholly decentralized industry with commercial plantings in nearly every county of the state. What's caused the increase in acreage? Prob-

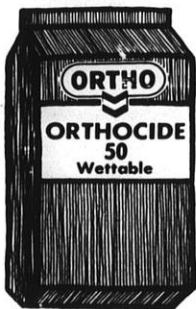
(Continued on page 4)

Don't let scab get started!



FIGHT BACK! WITH ORTHO!

ORTHO[®] stops scab cold—in any weather, on all varieties.



Spray regularly with ORTHOCIDE and scab won't stand a chance. ORTHOCIDE is fast acting, and also penetrates into the surface of fruit and foliage, to give better protection between sprays.

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Published monthly excepting July and December by the Wisconsin State Horticultural Society and the Wisconsin Apple Institute.

Subscription and Society Membership \$2 per year.

Harvey J. Weavers, 4215 Mohawk Drive, Madison, Wis. 53711. Phone Madison 233-3146
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Meetings of Interest

April 1 — Wis. Apple Institute, Board Meeting, Madison.

April 4-10 — Wis. Maple Syrup Week

April 21 — Apple Research Results — Babcock Hall, Madison.

April 22 — W.A.I. and W.S.H.S. merger committees meet — Hill Farms State Office Bldg.

May 30 — Maple Syrup Festival — Aniwa.

June 24-27 — National Apple Institute Meeting, Sun Valley, Idaho.

July 6 — Summer Joint Board Meeting W. S. H. S. and W. A. I., Ski-Hi Orchards, Baraboo.

Oct. 14-23 — National Apple Week

“Keep these renewals coming,” says the Secretary. This applies to both Apple Institute and Horticulture Society members. New members are always welcome.

Dormant spray time is just around the corner and it is none too early to consider which material you will use.

Many fruit growers are taking a long look at a combination of oil and insecticide this year. Though oils have been used by themselves as insect sprays in this country for more than 75 years, they have had rather limited acceptance since World War II. Now, increasing resistance of mites to many organic miticides and the marriage of small quantities of chemical insecticides with oils to provide a more effective weapon are helping oil sprays stage somewhat of a comeback.

ably the greatest factor is the change in market procedure. Five years ago less than 20% of the acreage was harvested by the consumer. Today, over 80% of the acreage is harvested in this manner, the so-called "U-Pick" method. Improved plants from nurserymen and improved cultural methods have also been a factor in increasing the size and value of the industry. In the future the industry will continue to expand in both acreage and yields per acre. Strawberry growing is an exacting kind of agriculture which requires attention to detail in all management practices. In my opinion, Wisconsin growers can and will provide the kind of management necessary.

Let's now look at a few factors that will have an affect on yields. It has been shown in many tests that early-rooted runner plants are the most highly productive or, in other words, the age of runner plants is highly significant with respect to yield. Plants rooting early are much more prolific (more flowers and fruit) than late-rooted plants. Early-rooted plants have more carbohydrates throughout the season than late-rooted plants. More plants are formed late in the season which are very competitive for plant food and moisture.

It would seem that the old adage used by beekeepers to give value to a swarm

(Continued on Page 7)

The New 1965 FRIEND

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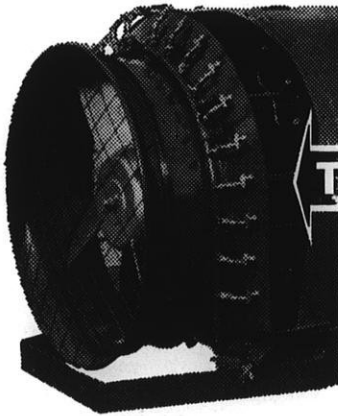


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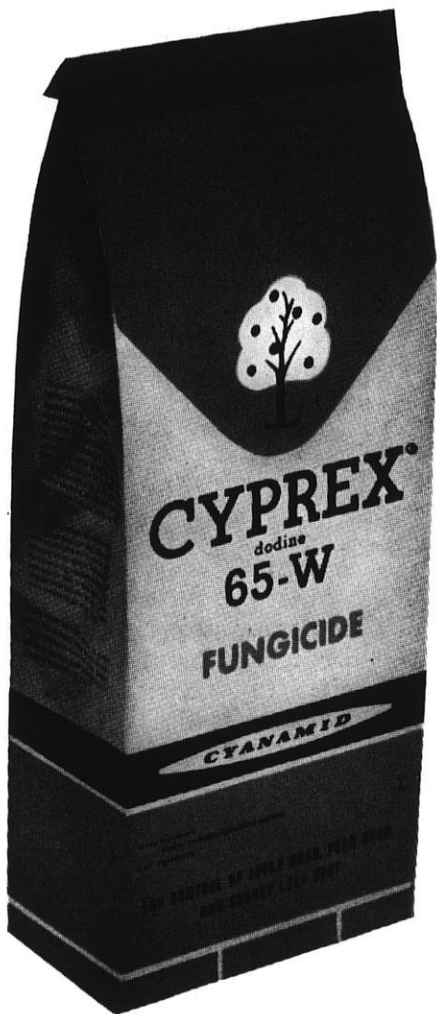
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Start the season with CYPREX®... stay with it all season, and you will have the best scab control you can buy. CYPREX works best when used in a continuous program from delayed dormant to last cover. It is compatible with commonly used fungicides, insecticides and acaricides. It can be applied as a dust or spray. No matter how you use it, you'll find it gives dependable scab control. This season use the number one scab control... CYPREX. CYPREX—and complete information on its application is available from your dealer. See him today.

*BEFORE USING ANY PESTICIDE,
STOP AND READ THE LABEL*

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**FOR
APHIDS,
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ethion

A one-shot application in oil that gives complete control of your most troublesome early-season apple insect pests: over-wintering mites, apple aphids, rosy aphids, and San Jose Scale. Introduced to wide commercial use last season, this outstanding pesticide combination provided such complete control of early red mite

that many growers found they could delay their first mite spray—saving material and application costs.

Get your crop off to a clean start with ethion-oil . . . also approved for control of scales on peaches, plums, pears, and cherries.

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Phone 849-4726

of bees might here be appropriate—

A swarm of bees in May
is worth a load of hay.

A swarm of bees in June
is worth a silver spoon.

A swarm of bees in July
isn't worth a fly.

Maybe it would be well worth the effort to first encourage early runner plant formation and secondly, get the plant rooted. This may mean hand assistance with a dibble. Kids given proper instruction are quite adept at such a task. Don't forget the other aspects in man-

agement; such as, fertility, organic matter, frost protection and irrigation.

When To Irrigate

The question, When shall I irrigate to replace moisture?, is often asked. Several mechanical methods are at your disposal, but a rule of thumb or "soil feel" measure might serve to answer the question. In the following table, soil is ready to irrigate at "fair" and should compare to "excellent" at the bottom of the root zone twenty-four hours after irrigation. Check your soil before and after with a spade.

SOIL FEEL CHART*

Degree of Moisture	Feel	Amount of Moisture
Dry	Powder dry.	None
Low	Crumbly, will not hold together.	25% or less
Fair	Somewhat crumbly, but will hold together.	25-50%
Good	Forms a ball, will stick slightly with pressure.	50-75%
Excellent	Forms a ball and is pliable; sticks readily; a clear water sheen comes to the surface when a ball of soil is squeezed in the hand.	75-100%
Too Wet	Can squeeze free water.	over field capacity

* "Handbook", Rainbird Sprinkler Mfg. Corp.

A good sandy loam has an available water-holding capacity of one acre-inch per acre-foot; a slit loam, 1½ inches. If such soils were at full field capacity,

it should provide adequate moisture for strawberries for about 7 and 10 days respectively. Sandy soils, of course, will be less.

IDEAL DOUBLE DUTY IRRIGATION

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For Control Use Niagara —

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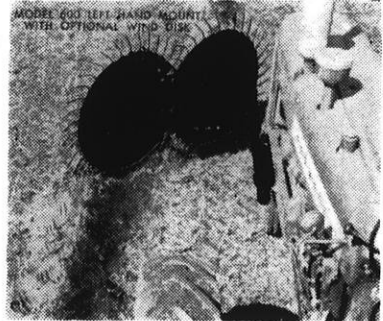


Other Friday Equipment: **STRAW MULCHER**
WISH BASKET
POWER PRUNER

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SAVE TIME — SAVE LABOR

Remove your strawberry mulch while sitting on your tractor seat at the rate of 3 miles per hour.



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Apple Research by University

On Wednesday, April 21, starting at 10:00 A.M. in the morning, Wisconsin apple growers can hear a report of studies done on apples by the University of Wisconsin.

Dr. Joe Von Elbe of the Dairy and Food Industries Department will present to the group some of the tests and results that he has done this past year on Wisconsin apples.

Various varieties from all sections of the state were secured last fall and Dr. Von Elbe and his assistants, since that time, have conducted various tests on these apples. Such items as color, eating, firmness, chemical content, freezing ability, uses and others have been checked.

The meeting is open to the public and will be held in Babcock Hall on the University of Wisconsin Agricultural Campus.

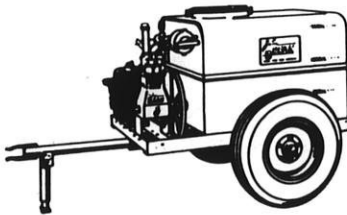
The University advises viitors to park

on Lot 60 which is located at the far western end of the campus and to take a bus to Babcock Hall.

Know Your Apples

THE RED DELICIOUS — The top seller among U.S. Apples was dicovered in Iowa about 1880. It is a large, sweet, striped or solid red winter apple with a five point base. Warm days, cool nights, make a crisp, firm flesh that's sweet and juicy and causes it to be pronounced **DELICIOUS** on the very first bite. Nationally this variety leads all others in production. The 1964 production is estimated at 36,000,000 bushels. In Wisconsin, it ranks third at the present time, with 13.4% of the crop, but with a major portion of the trees still of a non-bearing age, it is reasonable to assume that in Wisconsin likewise the Red Delicious will be a contender for the top variety production-wise.

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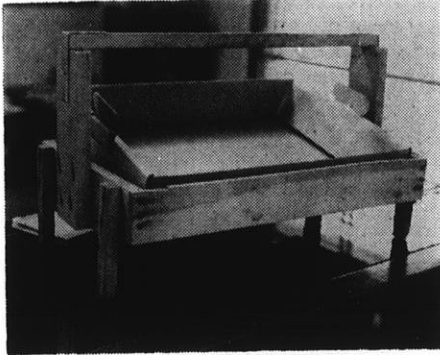
Sheboygan County

Phone 528-3122

SPRAYERS — SPRAY MATERIALS

Selling "U-Pick" Strawberries By Weight

ARMIN BARTHEL
Mequon, Wisconsin



We have been in the "U-Pick" strawberry business for the past seven years. In 1964, we went from a volume to a weight method of pricing. We, of course, were interested and concerned about consumer reaction to the change. After all, consumer is king in this kind of business. At the end of the 1964 strawberry harvest season, we reached the obvious conclusion that both we and the consumer were happy with the change.

Here's what we did. Early in 1964, we and a local box company representative designed a corrugated, knock-down liner for our picking carriers. One that could be easily assembled and sturdy enough to serve as a container once it is removed from the picking carrier. The liner comes to us flat and properly slotted and scored to make assembling simple and fast. The liner for our six-quart carriers turned out to be $17\frac{1}{2}$ x 30 flat and when assembled was $17\frac{1}{4}$ x $11\frac{1}{2}$ x $3\frac{3}{4}$ exterior dimensions. The liners we used were waxed on one side to reduce fruit bleeding. This added slightly to the cost. Very likely, the liner can be made up to fit 4 or 8 quart picking carriers. The cost is about seven cents each, in lots of 1,000. Such a box can handily hold 10 to 12 pounds of strawberries and as many as 15

pounds when heaped up. In 1964, we held to a price of 20 cents a pound which is around 27 to 28 cents a quart based on about 22 ounces for an average quart of berries.

Here are a few conclusions reached after our 1964 experience:

1. Weight selling is fair to the grower. (It eliminates heaped quarts.)
2. All customers are treated alike. All pay the same.
3. No dumping of fruit. The liner serves as the container.
4. Easier and faster check out.

We will have eight acres in 1965 and are looking forward to a wider use of weight selling by strawberry producers.

Arbor Day in Wisconsin — April 30, 1965

A man has made at least a start in discovering the meaning of human life when he plants shade trees under which he knows full well he will never sit.

That is what Arbor Day is all about —planting trees. We plant trees to beautify, to conserve soil and water resources, to provide a home for birds, and to establish a living testimonial of our confidence in the future and our unselfish concern for the generations that will follow us.

Arbor Day has been observed throughout the U.S. since it was first founded by J. Sterling Morton in 1872. In the past several decades, Arbor Day has not enjoyed the emphasis given it in earlier years. It is the hope of the State Arbor Day Committee that interest in its observance can be rekindled.

The Committee includes representatives from the State Department of Agriculture, Conservation, Public Instruction, Vocational Agriculture, Cooperative Extension, and the Wisconsin Nurserymen's Association.

Through the efforts of the Committee, a special Arbor Day brochure has been prepared. It has been widely distributed to schools, 4-H Clubs, Service Clubs, garden clubs, and scout organizations.

KING IN THE ORCHARD !

NEW 1965 MODELS

BUSH® HOG **ORCHARD SPECIAL**

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GIVES YOU UNMATCHED
PERFORMANCE

... Saves Time and Money



You can't beat the BUSH-HOG Orchard Special for fast orchard clean-up.

BUSH-HOG mulches prunings where they fall to save you the time and cost of bucking them into rows. BUSH-HOG is offset to work under low-hanging limbs, and it maintains orchard cover crops, chews up toughest brush with the greatest of ease.

DOES EVERY CUTTING JOB — BUSH-HOG Orchard Special easily converts to pull-type all-purpose cutter. It does everything. Mows hay. Clears land. Clips pastures. Cuts, shreds and mulches stalks.

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"EVERYTHING FOR THE ORCHARDIST"

Radio, T.V., and newspaper publicity is also being given Arbor Day.

Local communities, club groups, and schools are all encouraged to observe the occasion with special tree planting ceremonies. April 30 is a real opportunity for horticulturists everywhere to assist in rekindling the Arbor Day spirit. If you cannot plant a tree yourself, perhaps you can encourage someone else to do so.

— A. R. Kurtz

Apple Tree Survey

Your Apple Institute has requested an updating of statistics covering the Wisconsin apple industry. The Wisconsin Department of Agriculture through their State-Federal Crop Reporting Section has agreed to undertake the project. It has been five years since the last report. What has transpired in those five years? What varieties are being planted? How many and what kind of dwarf trees, and on what kind of root stocks are being planted? Marketing information, how and in what kind of packages?

All these questions will be answered if you will fill out your questionnaire when it arrives. Don't delay. Fill it out promptly with the correct information and then put it back in the mails. Let's keep up-to-date and find out what's happening in the Wisconsin apple industry.

SPEEDAIRE

IN EXCELLENT CONDITION

Only used in ten acre orchard for eight years. For full information, WRITE TO

Connell's Sunridge Orchards

Box 89

Menominee, Wis.

Training the Spur Type Apple Trees

"This article is a summary of a talk given at the 96th Annual Convention of the Wisconsin State Horticultural Society by Professor F. W. Owen, Extension Horticulturist, University of Illinois, Urbana, Illinois. It is not a recommendation but an explanation of the Illinois training system being studied by Professor Owen in Illinois.—The Editor."

The first three years are the most critical for the training of fruit trees. A tree, like a child, can be most easily molded when it is young. Therefore, careful personal attention by the grower during this time can return more profit per man hour spent than at any other in the life of a tree.

A training program should be planned so that a good, strong framework will result from the removal of the least amount of wood. It should be designed so that the wood is removed at a time when injury is least likely to occur to the tree and to its bearing potential. It needs to be flexible enough to allow for differences in varieties, management practices and tree age. It should be a definite, pre-planned program that can be followed to completion.

Training requires knowledge of the growth responses that will result from different types of pruning cuts, especially the different responses obtained due to varied kinds and ages of wood and pruning at different times of the season. For the purposes of this discussion I will divide the pruning cuts into two types, thinning out (the removal of wood at its point of origin) and heading back (the removal of only a portion of a branch).

The apple tree training program in Illinois is based primarily on four growth response principles:

- (1) Pruning to control and invigorate tree growth. Heading back a one-year unbranched whip during the dormant period allows shoots to grow from the lateral buds for about

14 inches from the cut. Shoots from the top three buds are very vigorous and develop narrow angles. Lower shoots are less vigorous but develop wider angles. Vigor of these latter shoots is improved by removing at least two of the vigorous top shoots in late June. Older wood which is headed back often produces an abundance of water sprouts as well as some moderately vigorous shoots. Water sprouts, resulting from heading back, are less vigorous and numerous when the cuts are made to lateral branches of approximately the same diameter. Thinning out cuts on the older wood do not stimulate a great amount of vigorous growth.

- (2) Pruning to dwarf temporary limbs and dominant branches. Even though new growth is stimulated by pruning, pruned trees will be smaller than unpruned trees. The new growth does not compensate for the

amount of wood, and the growth potential removed. Pruning that is done during the growing season (summer) will be more dwarfing than that done when the trees are dormant. One explanation of this is that new shoots do not manufacture sufficient food materials to meet the needs of their rapid expansion until their leaves are nearly full size. If new growth is removed before it can replenish the stored food reserves in the branch that it has utilized for growth, future growth will be reduced. Dwarfing of the branch results. Summer pruning also produces dwarfing due to the short growing time remaining even if it is done after full leaf expansion and build-up of food reserves. Thus two summer prunings will be very dwarfing.

- (3) Pruning to take advantage of a natural growth controlling substance: A growth regulator, of the auxin

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- 1 JOHN BEAN SPEEDAIRE — excellent condition.
- 1 USED JOHN BEAN ROYAL 20 SKID MODEL SPRAYER — 300 gallon tank, refiller and suction hose. Good condition.
- 1 USED JOHN BEAN ROYALETTE 7 SKID MODEL — 300 gallon tank, refiller and suction hose. Good condition.
- 1 USED SPEEDETTE — 400 gallon tank, skid model. Fair condition.
- 1 12" F.M.C. GRADER with 50 ft. return flow belt.
- 200 HARDWOOD PALLETS, 38"x48", 2000 lb. capacity, smooth on each side. Used one year. Never have been outside.

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type, is present in apple trees. It is produced in the terminal of the shoots, transported downward, and deposited at the crotch area of the newly developed shoots along the stem. It prevents these shoots from forming narrow angled crotches with the main stem. The first two or three vigorously growing, terminal shoots will usually produce enough of the regulator to prevent the shoots below them from forming narrow angles though not enough to affect their own angles. The auxin probably counteracts the injurious effects of the sun's rays on the exposed upper cells of these tender shoots. Instead of growing at a slower rate than the shaded cells on the underside of the shoots and the limb growing toward the sun, the upper cells grow at nearly equal rates and produce more horizontal shoot growth and wide angles.

(4) Pruning to prevent over dominance of limbs and buds.

Limb dominance is especially noticeable in the spur type apple trees. The oldest branch or branches nearest to the ground grow rapidly. If not checked they can equal or surpass the size of the natural leader. This results in a weak tree with only two or three main limbs, which arise from the trunk at the same height above the ground. In contrast, the terminal buds are most often dominant. A terminal bud, formed at the terminal of the shoot through the natural growth process, will exhibit dominance over all the other buds on the shoot. A bud terminal in position only because of pruning or injury, originally a lateral bud, seems to hold this control over those buds on the same side of the shoot. When a whip is headed back, the top three buds appearing to dominate the growth, each one exhibiting control over one-third of the circumference of the stem.

To help you understand how we use the above knowledge, I will show you how they relate to specific steps in our training program.

Knowing that pruning off the terminal portion of a one-year whip, removing the dominant terminal bud, allows the buds below the cut to grow, we head back all newly set trees to trigger these buds into growing. The height of heading back is determined by the height that we wish to have our first scaffold branch and the furthest distance from the cut that we can expect bud growth. We know we can get shoot growth down to approximately 14 inches from the point of cut and we want our first scaffold between 18 and 20 inches from the ground. So we head the tree back to 30 inches from the ground.

Since pruning is dwarfing, we head back the more vigorous scaffolds to prevent them from becoming dominant in the tree. We also utilize this method of dwarfing to handle the temporary limbs. This is the basis of the "stub method" of pruning. We severely head back the limbs which we know will not be needed or desired in the tree to stubs approximately 5 to 7 inches long. We prune these twice during the summer to further dwarf them keeping them temporarily for additional food manufacturing areas and shade. Even though we start with wide angled scaffolds, we can end up with a narrow, upright tree unless these limbs are prevented from turning upright as they grow. The shade caused by the stubbed growth above the scaffolds accomplishes this. Because of the severe dwarfing, the stubs do not seriously compete with the permanent branches while the frequent pruning stimulates the total vigor of the trees thereby preventing early spur formation.

Wide angles are stronger than narrow ones and a tree composed of wide angle scaffold branches is less likely to split. We know we can get wide angled growth below the top three shoots if we leave these top growths on the tree

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until they have produced enough auxin to prevent the shoots below them from developing narrow angles. By the time they are 8" to 10" long they will have accomplished this. These top growths will prevent strong limb growth below them if they are left in the tree all summer. Therefore, when they are 8" to 10" long we remove them. We always leave one of the top shoots to continue as the leader in the tree.

I hope this information will help you understand the reasoning behind the Illinois training system as outlined in Circular 871. Copies are available from Horticulture, U. of Ill., Urbana, Ill.

FRUIT PLANTS NEED SPRING FERTILIZER

Don't forget fruit plants growing in far corners of the garden when it comes time for spring fertilizer. Grapes, cher-

ries, currants, gooseberries, pears, plums and raspberries will generally benefit from an application of fertilizer, says George Klingbeil, University of Wisconsin fruit production specialist.

The best time to fertilize most fruit plantings is in the spring, he says.

Grapes need 1 to 2 pounds of 10-10-10 or a similar analysis fertilizer spread around each vine annually before growth starts. You can also use $\frac{1}{4}$ to $\frac{1}{2}$ a pound of 33-0-0 ammonium nitrate or a liberal application of well-rotted stable manure, the specialist says.

To fertilize cherry trees, apply 1 pound of 33-0-0 for each 8 years of tree age. However, 4 pounds is the maximum for any tree. If potash is a limiting factor, use 3 pounds of 0-0-60 per tree, Klingbeil advises.

Currants, Pears, Plums

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about ½ pound of 10-10-10 around each bush or a liberal application of well-rotted stable manure. Apply the fertilizer each spring before growth starts.

Pears need only a light application of a complete fertilizer every other year, Klingbeil says. Heavier applications increase vegetative growth and chance of fire blight.

Apply 2 to 3 pounds of a complete fertilizer such as 10-10-10 each year around bearing plum trees. Spread it evenly over the ground, covering the entire area under the branch spread.

If you didn't fertilize your raspberry canes last year, do it now before the canes begin growing again, Klingbeil advises. This will help insure maximum cane growth early in the season. Use 6 to 8 pounds of 10-10-10 per 100 feet of row or about ½ pound per plant if they are growing in hills. A liberal amount of well-rotted stable manure also works.

Wisconsin orchardists in attendance at the Dwarf Tree meeting in Lawrence, Mich., on March 8 and 9, were Mr. and Mrs. Albert Eyck, Brodhead; Gerald Hipp, Janesville; Mr. and Mrs. Charles Thompson, Kenosha; Wm. Meyer, Gays Mill; Dr. R. H. Roberts, Prof. George Klingbeil, Dr. Stanley Luetz and Finley Brothers of Madison.

Here and There

Libby, McNeill & Libby are running market tests on Individually Quick Frozen (I.Q.F.) Bowl of Cherries. This new product is available to consumers for the first time. Madison is one of the test markets. If consumers accept this new method of preserving cherries, look for a big expansion of the process.

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Wisconsin Horticulture

VOL. XLIX

MAY, 1965

NUMBER 10

MAY IN THE ORCHARD

G. C. Klingbeil, Extension Specialist
 Dept. of Horticulture, U. of W.

In Wisconsin no season seems to be normal, however, normals are found by establishing an average of many, so maybe it would be more appropriate to say spring this year is different than the spring of 1964. As it appears now, we have had more rainfall and more cold weather than normal and as a result, plant growth has been delayed.

This year I would encourage every commercial apple grower to keep an accurate, permanent record of the full bloom date of the major varieties grown in his orchard. Full bloom would be that time when 90% of all flowers are open. This date will be useful in predicting optimum maturity dates for those varieties and will certainly be helpful in planning harvest schedules and storage dates.

FERTILIZING FRUIT PLANTS

Frequently growers ask, "How much fertilizer should I apply this year?" Such a question can be answered only when certain additional information is available. Tissue and soil tests are the most commonly used tools used to make such recommendations. Following are some comments of a general nature concerning soil tests.

Soil Test Values for Fruit Crops

A soil sample can be used to determine pH and the quantity of some nutrients in the soil. For tree fruits the sample should be taken within the drip area of the tree and to a depth of about 10 inches; bush fruits and grapes alongside the row to a depth of about 8 inches; for strawberries the same as field crops to a depth of 6 inches.

In order to have an adequate reserve of nutrients in the soil, the following are suggested as minimum goals for correcting deficiencies indicated in soil sample reports:

Crop	Optimum pH	Pounds Available Per Acre	
		Phosphorus	Potassium
Apple	6.0 - 6.5	30 - 50 lbs.	250 lbs.
Cherry	6.2 - 6.8	25 - 40 lbs.	250 lbs.
Grape	6.0 - 6.5	25 - 40 lbs.	250 lbs.
Raspberry	5.5 - 6.5	30 - 50 lbs.	250 lbs.
Strawberry	6.0 - 6.5	50 - 75 lbs.	300 lbs.

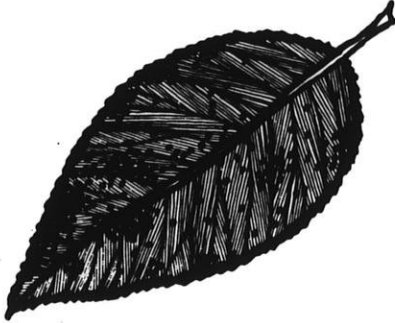
Fruit removes a fair amount of nitrogen, phosphorous and potassium from the soil. Usually a minimum of half the nutrients contained in the fruit are

lost in foliage and prunings and some additional are needed for new growth. It is wise to replace the quantity lost annually.

NUTRIENTS REMOVED BY FRUIT CROPS (Approximate)

Crop	Yield Per Acre	Nutrients		
		Nitrogen (N)	Phosphorus (P2 O 5)	Potassium (K2 O)
Apple	400 bu.	20 lbs.	5 lbs.	30 lbs.
Cherry	8,000 lbs.	16 lbs.	4 lbs.	20 lbs.
Grape	8,000 lbs.	16 lbs.	4 lbs.	20 lbs.
Raspberry	4,000 qts.	10 lbs.	5 lbs.	12 lbs.
Strawberry	6,000 qts.	14 lbs.	10 lbs.	27 lbs.

Cherry Diseases?



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Published monthly excepting July and December by the Wisconsin State Horticultural Society and the Wisconsin Apple Institute.

Subscription and Society Membership \$2 per year.

Harvey J. Weavers, 4215 Mohawk Drive, Madison, Wis. 53711. Phone Madison 233-3146
Sec'y - Treas. — Editor

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Meetings of Interest

May 30—Maple Syrup Festival —
Aniwa.

June 17-18-19 — Farm Progress Days—
Manitowoc.

June 24 - 27 — National Apple Institute
Meeting, Sun Valley, Idaho.

July 6 — Summer Joint Board Meeting
W. S. H. S. and W. A. I., Ski-Hi
Orchards, Baraboo.

Aug. 3 — Wisconsin-Minnesota Summer
Orchard meeting. Fruit Breeding
Farm, Excelsior, Minn.

Aug. 13-22—Wisconsin State Fair.

Oct. 14-23—National Apple Week

Dec. 2-3—Wisconsin State Horticulture-
Wisconsin Apple Institute annual Con-
vention, Appleton, Wis.

Dec. 13-14—Wisconsin-Minnesota Winter
meeting, Eau Claire, Wis.

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your aim is to produce quality fruit
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Notes:

1. An adequate quantity of organic matter is important in soils where fruit crops are grown.

2. Phosphorous is rarely lacking for fruit in Wisconsin soils.

3. Potassium deficiency in tree fruits may be associated with the levels of calcium.

4. Nitrogen needs can best be determined by tissue analysis. Size and color of foliage and fruit can be a general indicator of nitrogen levels.

5. Elements such as boron and magnesium may be deficient in some orchards.

- a. Boron deficiency may be expressed as internal corky spots in the fruit anytime after bloom. To correct, use a soil application of one pound borax (about 0.11 lb. actual

boron) to each mature tree and less on young trees. If preferred, boron may be applied as a spray using two to three pounds borax per 100 gallons water in early cover sprays, or five pounds per 100 after harvest.

- b. Soil magnesium may be low in acid soils and unavailable where soil potassium is too high. In acid soils correct with an application of dolomitic limestone and where potassium causes a deficiency use foliar applications (early cover sprays) of magnesium sulfate (epsom salts) at the rate of 10 to 20 pounds per gallon.

6. If manure is used as a fertilizer, the following can be used as a guide. Manure should be applied in late fall or very early spring.

One Ton Contains About:

Kind	Per Cent Moisture	N	P	K
Cow manure	75	10 lbs.	3 lbs.	10 lbs.
Poultry manure	60	20 lbs.	16 lbs.	8 lbs.
Sheep manure	60	20 lbs.	7 lbs.	20 lbs.

KNOW YOUR APPLES

Rome Beauty — Originated in Ohio. It was first introduced as a new variety in 1848. It is a medium to large apple with a complexion that may vary from dark to bright red, to mottled or striped. It has crisp, juicy flesh and makes a real good baking apple. It has a reputation as a good keeper. In Wisconsin it is one of the minor varieties in importance.

Kurtz, Marlow Schwier and Prof. George Klingbeil. The committee will report its recommendations to the full board of directors of both organizations at the combined board meeting July 6th.

OYSTERSHELL SCALE

Dr. John L. Libby, U. of W.

The oystershell scale is the most common scale insect found in Wisconsin apple orchards. It is primarily a pest of mature orchards and orchards that may not be receiving proper care with regard to pruning and insect control spraying. The piercing and sucking feeding of nymphs and adults can injure the bark and twigs to the point of "die-back" of branches. Heavily infested trees may have the bark almost entirely covered with the elongate scales. In severe infestations the fruit may also be attacked by the scales.

(continued on page 6)

PRODUCTIVE SESSION

The merger committees of the Wisconsin Apple Institute and the Wisconsin Horticulture Society held a most productive meeting in the Hill Farms State Office Building on April 22. Members of the committees are George Premo, Harold Rasmussen, E. A. Erickson, Bigelow Louri, Walter Clemens, Fredrick Meyer, Sid Telefer, Jr., Arthur

Oystershell scale control should be less of a problem today than it was a few years ago because a number of the commonly used cover spray materials as Diazinon, Guthion, and other phosphate insecticides as well as carbaryl (Sevin) will kill the scale "crawlers" when they are active and unprotected in June and early July. The best way to cope with a persistent scale problem is to apply a dormant spray of a superior miscible dormant oil or oil-phosphate combination. A number of our present day superior oils can be used up to bud break without injuring the trees.

MITE PROBLEMS WISCONSIN ORCHARDS

John L. Libby

Extension Entomologist, U. of W.

European Red Mite — The European red mite is the most persistent and destructive mite on apple over the state as a whole. Damage is caused by the feeding of thousands of immature and mature individuals on the older leaves. Most of the feeding is on the underside of the leaves, but at high populations, they feed on both sides of the leaves. Light infestations show only a specking of the foliage. Under high infestations, the foliage is almost entirely lacking in chlorophyll and takes on a "bronzed" appearance. As a result, the tree loses

vigor, fruit is undersized and of poor quality, and fruit buds are weakened or prevented from forming.

The European red-mite overwinters as bright red eggs on roughened areas of the bark of twigs, spurs, and smaller branches of the tree. The eggs start hatching between the delayed dormant and the closed cluster stage of development. The young red-colored mites which emerge from the eggs have six legs and are called larvae. They crawl to the unfolding leaves and suck the sap after piercing the leaves with their needle-like mouthparts. After molting, the mite has 8 legs, and is called a nymph. The adults also have 8 legs. The female is brownish-red in color, elliptical in outline, about 1/75 inch long, and has four rows of long curved setae down the back, each borne on a whitish tubercle. The male is smaller and pointed posteriorly. There is very little web spinning. After mating, the female lays an average of 30 to 35 eggs. Eggs from unmated females develop into males only, whereas males and females may emerge from fertilized eggs. All stages may be present on the leaf at the same time during the summer months. The population reaches a peak in July. Females usually start laying over-wintering eggs the first part of August and continue for the remainder of the season. A complete life cycle requires an

(continued on page 8)

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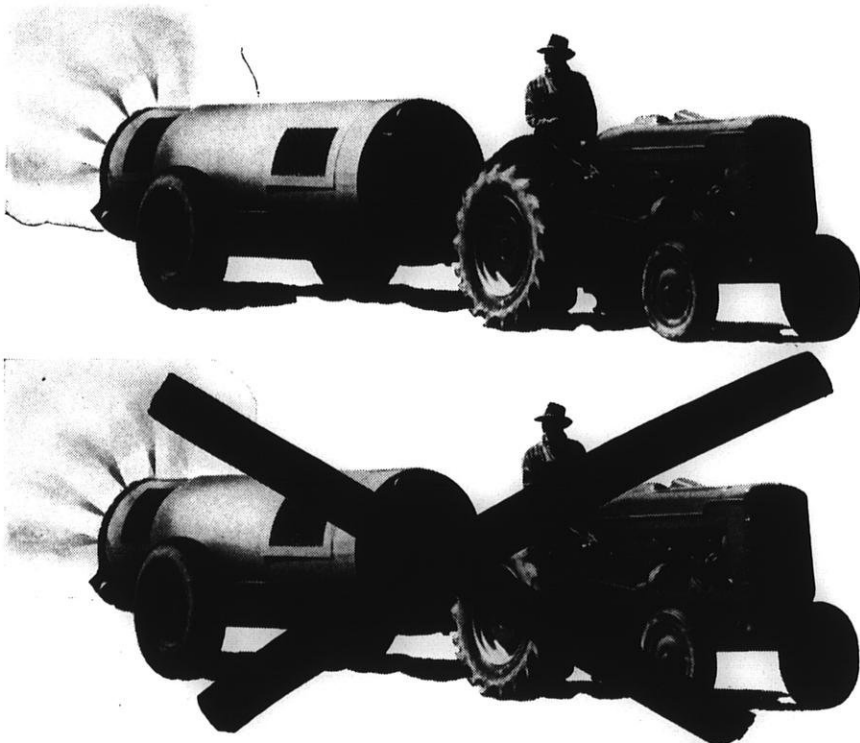
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average of about 31 days. There are 3 to 6 generations per year according to the prevailing temperature. Hot dry weather favors population increase and intensifies the injury to the foliage.

Two-Spotted Mite — The two-spotted mite is most important in warmer areas of the state. These mites differ markedly in their life history from the European red mites. The European red mite develops, lives, and lays its overwintering eggs on the apple tree while the two-spotted mite does not overwinter on the tree as eggs but spends the winter as hibernating adults in the weeds and cover plants of the orchard floor and areas adjacent to the orchard. In the spring the overwintering adults become active as the warm summer weather goes by and two-spotted mite populations build up on the weeds and other plants beneath the trees. The two-spotted mites then move into the trees from the ground cover. The two-spotted mites are generally a problem in August and September in the apple trees. In contrast, the European red mites are an early season problem generally reaching a peak in late June and another peak in late July, and then declining while the two-spotted mites start to increase on the trees.

Mites Can Develop Rapidly — The developmental period for mites varies widely with the temperature. The eggs hatch in 2 or 3 days at 75 degrees F or higher or after 21 days at 55 degrees F. The mites may reach the adult stage within 5 days at 75 degrees or in 40 days at 55 degrees. Under average temperature of 60 to 70 degrees, the incubation period is 5 to 10 days, and the development to adult stage from 10 to 15 days. One female lays a few eggs daily and a total of 100 to 194 eggs during an average life of 3 to 4 weeks.

One female can give rise in one month, through succeeding generations, to a progeny of 20 mites at 60 degrees, about 13,000 mites at 70 degrees, and well over 13,000,000 mites at 80 degrees

constant temperature. Of course, we do not have a constant temperature under field conditions, but I think these figures illustrate that we can get a rapid build-up of mite populations in hot weather.

Effective Miticides

Genite, tetradifon (Tedion), Morestan, Mitox and Ovex applied as pre-bloom sprays in the "pink" stage give effective European Red Mite Control. Ovex requires at least two applications. Ovex and Mitox may no longer be readily available from your pesticide dealer.

Special summer mite sprays of liquid tetraifon (Tedion), Kelthane, or chlorobenzilate can be applied if needed in July for European red mite control or in August or September for two-spotted mite control. Chlorobenzilate can be used up to 14 days of harvest, Kelthane 7 days and Tetradifon (Tedion) 1 day.

Don't Forget Scab Control In Your Orchard

Earl K. Wade

Extension Plant Pathologist, U. of W.

During much of the season last year weather conditions were not favorable for the development and spread of apple scab. Those growers who applied their early sprays at the proper time, using a recommended fungicide, and continued with a fairly good schedule of cover sprays ended up in the fall with scab-free fruit.

A few growers did have some scab in their orchard. This occurred when seemingly dry weather encouraged the dropping of two or three sprays from the schedule or increasing the time interval between sprays.

During dry periods it is possible to reduce the number of fungicide spray applications and still have a scab-free orchard. However, to be successful with a reduced spray schedule, a careful record must be kept of rainfall (wetting periods) and air temperature

(continued on page 9)

and a knowledge had of their relationship to the life cycle of the apple scab fungus. In addition, an effective scab fungicide must be used. A grower who stops spraying merely because he thinks he has no scab infection in his orchard and that it is too dry for any infection to take place is generally asking for trouble.

Briefly, here is what one should know about the life cycle of the scab fungus in order to attempt to operate on a reduced spray schedule during periods of dry weather and still have scab-free fruit at harvest time.

Primary Cycle:

Fungus overwinters in diseased leaves on orchard floor. In late winter, perithecia (fruiting structures) develop in these leaves. At about bud-break (depending somewhat on weather conditions), ascospores (primary spores)

begin to mature in asci (sacs) inside the perithecia.

With sufficient moisture to thoroughly wet the leaves on the ground, the mature ascospores are released, and wind and air currents carry the spores to susceptible tissue (new growth, such as buds breaking dormancy).

Ascospores continue to mature over a period of time in the perithecia in the leaves. They are released with each rain. In fact, these primary spores mature and are released over an extended period starting early in the spring and ending several weeks after petal fall.

Moisture must be present for several hours before a spore can produce a scab infection. The period of time for infection to take place varies with the air temperature. (See Table 1, as reported by G. W. Keitt, Univ. of Wis.).

Table 1. Minimum number hours of continued wet foliage required for primary scab infection at different temperature ranges.

Average air temperature during wet period	No. hours continued wet period required for primary scab infection
42° - 43° F.	14 - 18 hours
48° - 49° F.	11 - 13 hours
59° F.	8.5 hours
68° F.	4 - 6 hours
75° F.	4 - 6 hours
79° F.	8 - 10 hours

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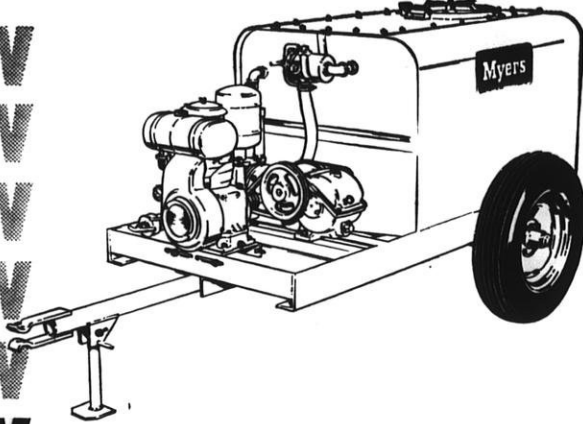
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It is seen from Table 1 that up to a certain point, the length of the wet period required for primary scab infection decreases as the temperature increases. Ascospores can be discharged at the temperature of melting ice, and infection can take place at between 32-35 degrees F., if there is a continued wet period of at least 48 hours. These spores can also stand brief periods of drying and exposure to direct sunlight during the early stages of infection.

Secondary Cycle:

On contacting the wet young leaves and fruit, the ascospores germinate, penetrate the tissue and send out a thread-like growth called mycelium. Structures or short upright stalks called conidiophores develop on the mycelium, upon which are borne the summer spores, called conidia. These conidia start the secondary, or summer cycle of scab infection. Under certain conditions it is possible to have the primary ascospores and the secondary conidia being released simultaneously.

The time required for conidia development also varies with the temperature. The infection period (when spores contact leaf surfaces to time when infection spot can be seen) varies from 7-14 days. For example, at between 30-40 degrees F. the infection time is at least 18 days, while at 65-70 degrees F. the time is reduced to 8 days.

Conidia are well attached to the stalks or conidiophores and require a certain amount of moisture for release. They are carried and spread by rains and dew, and account for most of the spread of infection on individual trees. At first, it takes a somewhat shorter time for these summer spores to produce an infection as compared to the primary ascospore infection. However, as the season advances the length of time for infection to take place can increase considerably. This is due mainly to the fact that both fruit and foliage become increasingly resistant to infection as they mature. An exception is the

undersides of the leaves which remain somewhat susceptible to infection throughout the season. However, development of the fungus both on the leaves and on the fruit late in the season often is so restricted that individual lesions are not easily seen or recognized. This is why your apples may appear to be "scab-free" at harvest time and yet develop "pin scab" in storage.

It is evident that there will be many secondary cycles or crops of spores produced during the summer unless the fungus is controlled by adequate spraying with a good fungicide.

Even a casual study of the life cycle above shows that a very important part of an effective apple scab control program is **thorough** and **timely** fungicide spraying during the primary cycle. Poor control of the primary infection results in the need for extra spraying after petal fall and late in the season to keep the fruit fairly free from scab. Applications can be based on a more or less set schedule of a 7-day interval up through petal fall followed by 10-day cover sprays, or by rainfall (wetting periods) and prevailing air temperatures. With continued dry weather, a grower would reduce his number of spray applications by following a rain period-temperature schedule.

The type of fungicide used is of prime importance when a reduced schedule is followed, even though based on adequate rainfall-temperature data.

There are at least 4 types of chemical fungicide sprays for scab control: 1) protectant, 2) eradicant, 3) combination $\frac{1}{2}$ strength eradicant plus $\frac{1}{2}$ strength protectant, and 4) protectant-eradicant.

Protectant sprays should be used before infection takes place and before rains. They provide a chemical barrier between the susceptible tissue and the germinating spores. They will not eradicate an established infection. Examples are wetttable sulfur, ferbam, Glyodin, Glyoxide, and captan. Captan has

(continued on page 12)

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"EVERYTHING FOR THE ORCHARDIST"

HERE and THERE

Whether it's topping for a shortcake or berries for ice cream, you will receive the best color and flavor from frozen fruit if you leave it in the sealed container to thaw, according to the extension nutritionist at South Dakota State.

Serve the fruit as soon as it is thawed if it is to be eaten raw, advises the specialist. A few ice crystals will improve the texture of most frozen fruit.

A brand new use for polypropylene plastic in the form of twine for baling hay has been developed and is about to be produced commercially.

The National Better Business Bureau indicates that home improvement swindles are the No. 1 gyp. Estimates show that losses from this type of activity top \$500 million a year, with no sign of let up.

The roving pitchman comes in a variety of guises. There is the gutter repairman, the roofing expert, the painter with a new-type paint that outlasts the wood, the landscape experts whose trees, shrubs and grass seed grow unbelievably fast, the bogus termite control expert and the promoter of lightning protection devices that are not only worthless, but may be harmful.

"Mechanization — Solution or Problem?" will be one of a number of challenging talks to be presented at the 30th annual National Apple Institute meeting in Sun Valley, Idaho, June 24-27.

The Wisconsin Dental Association, in their meeting in Milwaukee on May 8th, used 500 apples as table decorations. Wm. Aeppler, Oconomowoc, supplied the apples and apple juice and cups and napkins. Dentists and dental associations are the apple industry's best supporters.

Our advertisers have excellent products fruit growers need. Their ads are informative. They help bring this publication to you. Cooperation works both ways, they say.

A minister walked into a little Western town tavern in the course of his welfare work and ordered a glass of milk. By mistake he was served a spiked eggnog.

After drinking it to the last drop he raised his eyes upward and was heard to say: "Lord, what a cow!"

"Yes sir," bragged the proud father, "I've got three sons in college. One is at Georgia Tech, one is at MIT and one is at Vassar."

"But Vassar is a girls school," his friend protested.

"Is that a fact!" exclaimed the father. "No wonder that boy never comes home on vacation."

Weather conditions (heat, cold, humidity, dryness, etc.) are of year around concern to the conscientious fruit grower, because of their varying effects on the eventual quality of his crop.

We ought not to look back unless it is to derive useful lessons from past errors, and for the purpose of profiting by dearly bought experience.

— George Washington

The Fruit and Vegetable Marketing Conference, sponsored by the Wisconsin Dept. of Agriculture with the University of Wis. Horticulture Dept. cooperating, was very well attended by growers, buyers, distributors, brokers and sales managers. Apple growers were well represented. The conference was a good one in every respect, and a credit to those who planned it under the title, "Management Keys to Successful Marketing."

Try These :

1. What tree do you put away in summer?
2. What tree remains after a fire?
3. What trees is always sad?
4. If your girl friend asked you whom you loved, what would you say?
5. What's an old story tree?
6. What tree is a good church man?
7. What tree is straight to the line?
8. What tree is a hero's tree?
9. What tree is quivering?
10. What tree do you have in your hand?
11. What tree was the Garden of Eden tree?
12. What trees go hopping about?
13. What tree is well dressed?
14. What trees is part of a dress as well as a door?
15. What tree takes a deep breath and then is a printing machine?

Look for answers in the April issue of **Wisconsin Horticulture**.

Mock Meats

Mock meats made from soybeans show up on more dinner tables.

Sales of simulated beef, chicken, ham and other meatless "meats" show sharp gains. One major producer in Ohio says sales rose 22% from last year in the first half, and have doubled to nearly \$3 million in three years.

The low-fat, high protein products are spun from threadlike soybean fibers, colored and flavored to look, taste and chew like real meat. They gain favor among dieters wary of meat's cholesterol, vegetarians and persons whose religions limit meat eating. Most are priced slightly higher per pound than the real thing, but lack fat, bone and other waste.—Wall Street Journal.

Did you hear about the nervous fellow who quit smoking after the Surgeon General's report and began chewing toothpicks? Now he's got Dutch Elm disease.

Consumer's Buying Guide Available

A "Consumer's Guide to Careful Buying," prepared by the Wisconsin Department of Agriculture, is now available to organizations interested in consumer problems, C. L. Jackson, Chief of the Dairy, Food and Trade Division announced this week. The four-page brochure can be ordered in quantity without charge as long as limited supplies last, he said.

The Guide offers six buying hints to consumers and outlines present state laws that are designed to protect the consumer. The brochures can be ordered by writing the Dairy-Food and Trade Division, Hill Farms State Office Building, Madison, Wisconsin.

NATIONAL APPLE INSTITUTE

Fred Corey, executive vice-president of the National Apple Institute, was a surprise visitor at the Wis. Apple Institute Board of Directors meeting held on April first in Madison. Mr. Corey urged as many Wisconsin growers as can possibly make it, to attend the 30th annual meeting of the National at Sun Valley, Idaho—June 24-27. Fred says the program is the best ever, and the side trips to the commercial orchards of Idaho, Oregon and Washington will be very worthwhile. Here is your chance to mix business with pleasure.

The Wisconsin Apple Institute will be sponsoring brand new outdoor billboard posters and brand new apple recipe books for the use of W.A.I. members. This is the report of the promotion committee, Wm. Meyers, chr., Ellery Teach, Ralph Young, and John Louis. The recipe book committee, Mrs. Walter H. Clemens, chr., Mrs. Frederic Meyer, Mrs. Williard Niemann and Miss Georgia Wilson, foods editor, Wis. Dept. of Agriculture, completely rewrote the present recipe book, volume III. The new, volume IV, will be filled with mouth-watering, tested apple recipes.

More on Calories

A recent study by the U. S. Department of Agriculture that extended over a three-year period brought out the fact that the people of the United States are not greater consumers of calories than those of any other nation. Although people in this country seem to be getting more corpulent, United States consumers rank no better than eighth in calorie consumption.

Which country ranks first? Ireland is at the top of the list, consuming an average of 3,470 calories daily—and the people of Ireland, generally speaking, are lean, so that the answer must be that they exercise more than the people of most other nations.

Unless there be any snide remarks aimed at the Irish, the study did not include a count of calories consumed in alcoholic beverages.

The people of New Zealand came a close second to the Irish, averaging 3,460 calories daily. Denmark ranked third behind these two countries, with a calorie consumption of 3380, with the United Kingdom following with 3280, Argentina 3220, Australia and Switzerland 3210, and the United States 3190. Canada and Finland consumed 3110. Haitians had the lowest calorie intake with 1780 per day.

The world average, excluding the Communistic countries and Africa, was about 2700 daily, which is under the recommendation of the Food and Nutrition Board of the National Academy of Scientists - National Research Council, which suggests 2900 calories daily for the average male between 18 and 35 years.

On a hemispheric basis European consumers consume 2900 daily, the western hemisphere 2870, and those of Asia, including Australia and New Zealand 2322.

A husband is a man who wishes he had as much fun when he is out as his wife thinks he does.

African violets, cyclamen, ivy and other house plants may be attacked by microscopic pests called cyclamen mites.

Leaves of infested plants become twisted, curled and brittle. Buds may be deformed and often streaked with darker color. Blackening of injured leaves, buds and flowers is common.

Infested ivy will produce stems without leaves or with small deformed leaves. Infested African violets develop small, twisted, excessively hairy leaves that may die.

Under a magnifying glass, the adult cyclamen mite appears as an oval, amber or tan colored, semitransparent glistening mite.

The mites usually are found in protected places on young, tender leaves, young stem ends, buds and flowers.

For control, trim off badly injured plant parts when practical. Dip or spray the plants with a solution of one-fourth to one-half teaspoon Dimite, Karathane or similar miticide per gallon of water.

Wear rubber gloves when dipping plants in insecticide.

Fruit growing in Wisconsin has a rich and exciting past, largely because lots of folks cared about it, sometimes passionately. Times have changed though, and the homespun philosophies of a generation ago don't fit anymore. They are almost like wax models in a museum. The times change only because someone changes things, or the way we can use them. This is what's happened to fruit growing in Wisconsin, and around the world. People are changing things. We can't keep up with it all anymore. What's more, what can we do so that other folks can try to keep up with us?

Cool weather may not stop ants. If they are a problem this fall, get some chlordane. It's sold under several trade names. Follow directions closely.

WORK

If you want knowledge, you must toil for it; if food, you must toil for it; and if pleasure, you must toil for it. Toil is the law. Ease comes through toil, and not by self-indulgence. When one gets to love his work, his life is a happy one.

— John Ruskin

Why does an elephant paint his toenails red?

Answer: So he can hide in a strawberry patch.

Michigan reports that unharvested cherries cling to the branches more firmly now than ever before. Their presence will make the trees especially susceptible brown rot infection if at blossomtime weather conditions are warm and humid, they say.

It is recommended that orchards with unharvested cherries be handled with special care. Growers should spray these trees at bloom with either phylon or sulphur.

STATISTICS SHOW

According to a U.S. Department of Agriculture report, there were more bees in the United States last summer, including workers, drones, and queens, than ever before recorded — 282.2 billion. I wonder who counted them!

Orchard caretakers released 59,990,000 lady bugs and praying mantis on 1,250 acres of grapefruit and orange trees at McAllen, Texas, in early February to destroy harmful citrus pests.

Workmen who released the bugs to eat other bugs wondered how the cannibal insects could be called lady bugs and praying mantis, since they were neither ladylike nor prayerful.

People do not quickly adapt themselves to a shift in their diets. Changing food habits takes time.

It took 200 years for the potato to be accepted in Europe, 100 years for the tomato, and, in more recent times, 30 years for the grapefruit to be accepted in Britain.



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Wisconsin Horticulture

VOL. XLIX

JUNE, 1965

NUMBER 11

JUNE IN THE ORCHARD

G. C. KLINGBEIL

Dept. of Horticulture, U. of W.
Madison, Wis.

At various times events of interest occur that may not directly affect an apple grower, but indirectly or in the future, may be of greater interest. Following are two such items.

STATE CHERRY ORDER WINS BUT FEDERAL ORDER LOSES

Growers Favor Renewal of State Plan

The state marketing order for cherries has been renewed but the federal marketing order has been defeated.

Announcement of the defeat of the federal order came from the U.S. Department of Agriculture. Announcement of the renewal of the state marketing order from the Wisconsin Department of Agriculture.

The state marketing order is for the promotion and advertising of Wisconsin cherries and has been in effect the past six years. The federal order was proposed to control national production.

The official count on the state referendum by D. N. McDowell, state director, showed that 252 of 332 voting growers favored renewal of the order. Where the order needed 66 percent of the voting growers, it received 78.75 percent approval. Those approving the order harvested 19,923,000 pounds last year. This is 57.88 percent of the total volume of those voting. Fifty-one percent is required.

Of the 435 ballots mailed to registered growers, 332 were returned, meaning 76 percent of eligible growers cast ballots.

Elmer Berns of Sister Bay and James Erickson of Baileys Harbor were both re-elected to the Advisory Board for their third three-year term, while Joe

Peterson and James Robertson both of Sturgeon Bay were elected to their first terms on the board.

(from Door County Advocate, May 25)

* * *

(From the Wisconsin State Cranberry Growers' Association newsletter, dated May 25, 1965):

The Officers and Directors of the Wisconsin State Cranberry Growers' Association have met and discussed the serious problem facing ALL GROWERS in Wisconsin with regard to Public Service Commission permits for water usage by the cranberry industry.

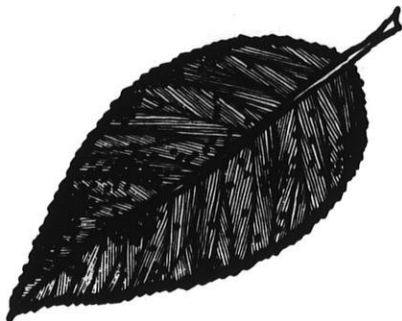
The Committee on Water Pollution of the State Board of Health of the State of Wisconsin, along with the Conservation Commission, is going to take a very close look at all herbicides, insecticides, and fungicides used by our state growers. There will be many tests made this summer of water after use by cranberry growers and other produce growers in the state. We are, therefore, asking all growers to be particularly cautious and follow label recommendations with the greatest care.

Although all chemicals being used at the present time by the cranberry industry have been approved, the one most likely to be found, and the one we would like to see restricted whenever possible, is DDT.

You can expect a full report at our summer meeting at the Copper River Development Company at Merrill, Wisconsin, on August 11, 1965, by an attorney hired by the State Cranberry Growers' Association, to check the opinion of the Attorney General, Bronson LaFollette, and the opinion of the Board of Health Committee on Water Pollution and the Public Service Commission.

(Continued on page 5)

Cherry Diseases?



FIGHT BACK! WITH ORTHO!

Use the one fungicide that stops all three big cherry diseases: **ORTHO PHALTAN®**



PHALTAN clears up all three—blossom blight, brown rot, leaf spot. Use it at the “popcorn” stage and you control blossom blight. Use it as a post-bloom spray and you get rid of brown rot and leaf spot. Use it right up through harvest—you don’t have to worry about residues.

PHALTAN won’t slow tree growth or stunt foliage. (In fact, early-season users say it often helps tree growth.) It doesn’t affect the yield, fruit set or sugar content of your red tarts. And it’s a “safener” for lead arsenate—helps prevent foliage burn.

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WISCONSIN HORTICULTURE

Published monthly excepting July and December by the Wisconsin State Horticultural Society and the Wisconsin Apple Institute.

Subscription and Society Membership \$2 per year.

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Sec'y - Treas. — Editor

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Coming Events

- June 15 — Illinois Summer Orchard Day, John Bell's Mossley Hill Orchard, Barrington, Illinois.
June 24 - 27 — National Apple Institute Meeting, Sun Valley, Idaho.
July 6 — Summer Joint Board Meeting W. S. H. S. and W. A. I., Ski-Hi Orchards, Baraboo.
July 14 — Ag Science Field Days, University of Wisconsin Experimental Farms, Arlington, Wisconsin.
July 24 — Wisconsin Strawberry Day, Gilbert Brooks' Farm and University of Wisconsin Hancock Experiment Station.
August 3 — Minnesota-Wisconsin Orchard Tour, University of Minnesota Fruit Breeding Farm, Excelsior, Minnesota. All Wisconsin fruit and berry growers are urged to attend.
August 11 — Entry day for Apple Growers, Wisconsin State Fair, West Allis, Wisconsin.
August 13-22 — Wisconsin State Fair.
October — Wisconsin Apple Month.
Oct. 14-23—National Apple Week
Dec. 2-3—Wisconsin State Horticulture-Wisconsin Apple Institute annual Convention, Appleton, Wis.
Dec. 13-14 — Wisconsin-Minnesota Fruit Growers Meeting, Hotel Eau Claire, Eau Claire, Wisconsin.

There is no publication of "Wisconsin Horticulture" in July. Before the August issue reaches you, you will be interested in attending or getting ready for all of the events listed above for June, July and August. Don't forget to exhibit at your County and State Fairs.

If you can possibly arrange it, plan to take in the Two-State Orchard Tour on August 3rd. If you are a strawberry grower, don't miss the Strawberry Day on July 24th.



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Raspberry Survival 1965

Raspberries are a part of many home fruit gardens and are gaining popularity in the "U-Pick" business. Grass control in planting is no longer a problem when simazine is used. In Wisconsin, variety selection is of major importance, hardiness being the key consideration. Observations are usually made each spring on a number of varieties to determine how well they came through the winter. Following is a table which summarizes observations from the southern and central parts of the state.

Variety	% Cane Dieback
September	50-70
Latham	10
Lake Geneva	60-75
Viking	20-25
Durham	20-25
June	none
Early Red	50
Clyde (purple)	20
Marion (purple)	15
Sodus (purple)	20

Again as in past years, the most winter hardy varieties are Latham and June. The June variety is not a new one but in rather limited supply because few nurseries propagate it. It ripens ahead of Latham, thus makes a good companion to the hardy Latham variety.

* * *

Winter Injury to Strawberries

Every spring finds a number of strawberry growers with an unexplainable amount of "so-called" winter injury. The amount of plant loss varies by variety, location and date of winter mulch application. It is certainly a factor causing an economic loss to Wisconsin's growing strawberry industry. The Sparkle and Catskill varieties have consistently survived better than many other varieties, and the percent of plant loss has decreased as you progress northward in the state. It is well established that outside of Bayfield County strawberries will generally not survive the winters without some type of winter protection. I would like to quote two

reports:

First, South Dakota, Bul. 420, **Mulching Strawberry Plants for Winter Protection.** "The time of mulching is of the greatest importance to insure maximum plant survival. No definite date can be given. Different varieties 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. The weather plays an important part in inducing the plants to store carbohydrates. Cool and sunny weather checks plant growth and is conclusive to the development of hardiness. On the other hand, a short period of warm weather may cause the 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."

Dr. M. N. Dana, Department of Horticulture, University of Wisconsin, stated in an address to strawberry growers two years ago: "Hardiness in strawberries develops from good leaf surface, cool temperatures, high photosynthesis, short days and optimum soil conditions. Cold sensitivity is associated with warm weather, cloudy conditions, poor foliage and excess nitrogen. Conditions leading to a buildup of carbohydrates in the fall and early winter will be beneficial to hardiness. Any mulch material that will reduce desiccation of soil and plants will be helpful. And lastly, any practice that will conserve soil heat near the crown and root level will be beneficial." "It is my belief," he stated, "that mulching should be delayed as long as temperatures remain above the death point. The death point continues to drop as the season progresses to a minimum at/or slightly above 0 degrees F."

Growers will recall that in Wisconsin we experienced temperatures in the seventies into November, and it appears after some investigations that the earlier strawberries were mulched in 1964;

(Continued on page 6)

the greater the winter damage appeared in 1965. Many growers that mulched around Thanksgiving and even well into December had no plant loss. Those areas to where water drained and froze showed severe damage.

STRAWBERRY GROWERS' SUMMER TOUR

According to Charles Thompson, president of the Wisconsin State Strawberry Association, the annual summer tour is set for Saturday, July 24. The tour will officially begin at 10 a.m. at the farm of Gilbert Brooks, Route 2, Plainfield, Wisconsin. His farm is located east of Plainfield, about three farms south of where County Trunk J intersects County Trunk P south of Almond. Mr. Brooks grows blue tag foundation strawberry plants and several hundred acres of vegetable crops all under irrigation. The second stop will be at the Hancock Experiment Station, one mile

south of Hancock on U.S. Highway 51. The general central sand area is probably the most rapidly expanding vegetable producing area in the Midwest and certainly has the greatest concentration of irrigation equipment in Central United States. There are several modern grading and storage plants for potatoes and other vegetable crops. This tour will be of interest to all strawberry growers and will be a real eye-opener for anyone who has not seen large scale vegetable crop production.

Noon lunch will be family picnic style. Bring your own. Eating places in that area are limited and very modest. Plan to attend.

KNOW YOUR APPLES

NORTHERN SPY — Originated in a seedling orchard in New York state about 1800. It is a large red or striped red winter apple, grown primarily in the northeastern states. The variety is a good all-purpose apple with a crisp, juicy, firm flesh. Colonial cooks liked this variety for pies. It is not commercially important in Wisconsin.

A husband of ten years was consulting a marriage counsellor.

"When I was first married, I was very happy. I'd come from a hard day at the shop; my little dog would race around barking and my wife would bring me my slippers. Now, after all these years, everything's changed. When I come home, my dog brings me my slippers, and my wife barks at me!"

"I don't know what you're complaining about," said the counsellor. "You're still getting the same service."

Our apologies to Dick Hawkins and Geo. Mathes of Niagara Chemical Division of F.M.C. Corporation for inserting the wrong ad copy in Niagara's May ad. Those mix-ups do happen but they are inexcusable. Rather embarrassing, too.

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Ants speak a chemical language, the National Geographic Society reports. An insect finding food exudes an odoriferous substance on its way back to the nest. Other ants follow the trail and if they find food, they also will return leaving a scent. As the odor becomes more powerful, other ants rush to the spot. When the food is gone, the ants no longer leave scent trails and the chemical "message" quickly evaporates so as not to confuse the workers.

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If you buy plants in pots made of peat, make sure the pots are thoroughly wet before putting them in the ground. It's virtually impossible to moisten peat pots once they're planted. A tan color indicates the pots are

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Then place the pot in the planting hole.

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Jonathon	Spice
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ANSWERS TO QUESTIONS ON PAGE 16, MAY ISSUE — 1. Fir; 2. Ash; 3. Weeping Willow; 4. Yew; 5. Chestnut; 6. Elder; 7. Plum; 8. Laurel; 9. Aspen; 10. Palm; 11. Apple; 12. Locust; 13. Spruce; 14. Hemlock; 15. Cypress.

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NEWS FROM NATIONAL APPLE INSTITUTE

Marking Containers for North Dakota.

The state of North Dakota has advised the Washington Department of Agriculture that marking of apple containers as "one volume bushel" or fraction thereof is not acceptable for sale in that State. North Dakota laws require that a bushel of apples must weigh 50 pounds subject to a 10% tolerance or a net of 45 pounds. Attention was directed to this requirement when containers marked as "1/3 bushel" were found weighing CONSIDERABLY less than 15 pounds net. If 1/3 bushel containers weighing less than 15 pounds net are to be shipped into North Dakota, the designation of "1/3 bushel" should be obliterated and minimum net weight marked on the containers.

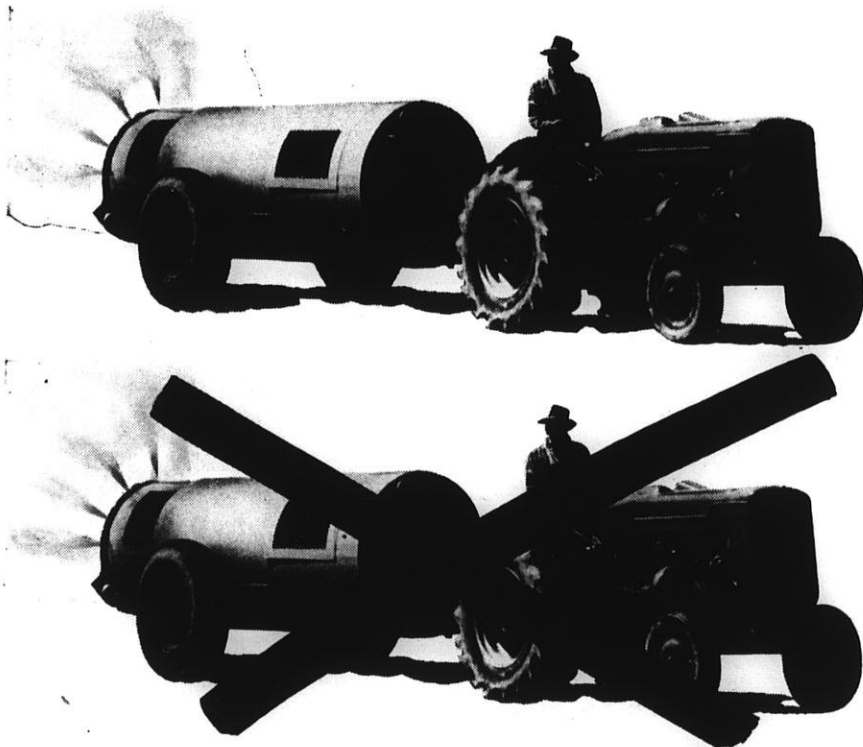
For the time being, at least, it appears our "bushel" containers will be acceptable in North Dakota if the number of apples (count) is shown in addition to the designation of volume.

* * *

"Trees, Apples and Population in 19-70" will be the subject tackled for the 30th annual meeting of the national apple grower federation on June 24-27 at Sun Valley by Dr. B. H. Pubols of USDA in Washington.

A matter of much research and considerable speculation by many in the industry, growers and other apple interests at Sun Valley will have an opportunity to hear a report by a man who has been studying and charting apple production, utilization and marketing since 1943 with the USDA and for some ten years prior to that as head of the Agricultural Economics Department at Washington State University.

Dr. Pubol's talk will be much more than one man's general appraisal of the field. It will encompass the work of a battery of specialists in his own Statistical Analysis Department of the Economics Research Service, as well as the other Divisions of USDA.



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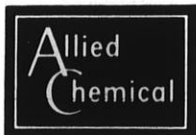
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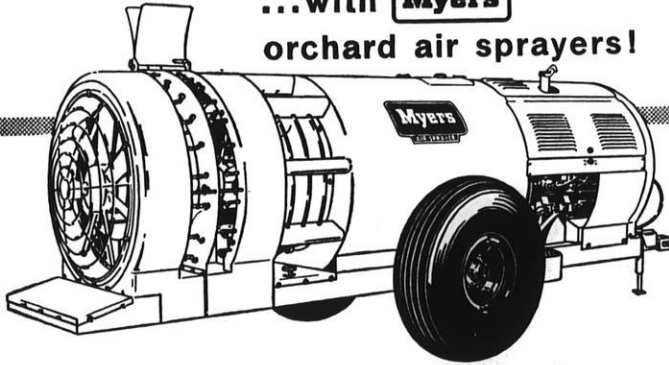
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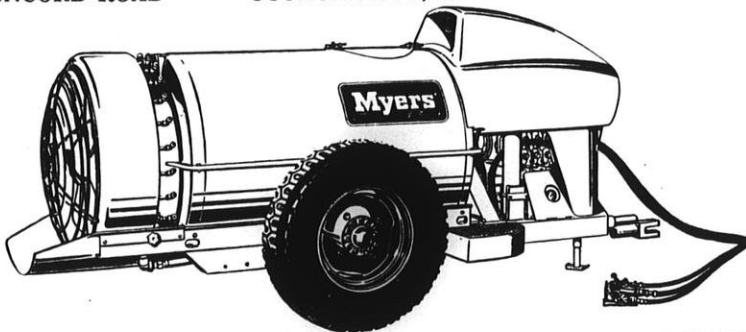
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Measures Recommended for Fire-Blight Prevention-Control

Earl K. Wade, Extension Pathologist
University of Wisconsin

1. There is some indication that applying a dormant spray of a copper fungicide each year aids in controlling fire blight. Several Illinois growers follow this practice, claiming worthwhile results. Tests conducted in cooperation with one Wisconsin grower last year using a dormant copper spray on the Jonathon variety were negative. The first blight to appear in the orchard was in one of the rows sprayed with copper.

If a dormant copper spray is used it is suggested that either Bordeaux mixture, 4-4-50, or a spray using 4 pounds of fixed insoluble copper per 100 gallons be tried.

2. Keep susceptible varieties under sod culture. These include Wealthy, Jonathon, Yellow Transparent, Lodi, Transcendent Crab and in some cases, N. W. Greening.

Of the pear varieties, Bartlett, Clapp's Favorite, and Flemish Beauty are very susceptible to fire blight. When trees are grown under cultivation, they generally make more vigorous growth and have a higher percentage of succulent wood. It is also more difficult to harden off the tree for the winter. The result is a situation that is very favorable for blight infection the following season.

3. Use only light applications of nitrogen on susceptible varieties. When a blight epidemic occurs one season, use nitrogen very sparingly or not at all the next season. This will reduce yield and quality somewhat, but the fact remains that keeping slightly on the lean side where nitrogen is concerned, is worthwhile from a fire blight control standpoint.

Experiments conducted several years ago on pear trees showed that less blight developed where half of the nitrogen was applied on the ground in the regular way, and the other half on

the foliage in the form of urea. One to several applications of urea are applied after bloom, the number depending upon the severity of blossom blight that year, the crop being produced, and the color of the foliage.

4. Maintain an adequate supply of potash in the soil; also, check the pH level and apply lime if needed.

5. Maintain an adequate spray program to control aphids and other sucking insects—both before and after bloom.

6. If the temperature is averaging 65 degrees F or higher and the relative humidity is 60% or higher or it rains during the period prior to bloom, it may be worthwhile to apply streptomycin sprays during bloom. Two or three sprays should be applied, depending upon the length of the bloom period. Streptomycin is available under such trade names as Agrimycin 17, Agri-Strep and Phytomycin.

Bordeaux, $\frac{1}{2}$ -2-100, or fixed copper at one pound per 100 gallons (of 50-53% material) plus a spreader-sticker can be used in place of the streptomycin. It is cheaper to use, but with copper there is some danger of russetting of the fruit.

7. Summer Pruning: In Wisconsin we have not been recommending the removal of active cankers and blighted twigs during the growing season. Tests conducted many years ago in the state did not favor the practice, and there is danger of actually spreading the infection unless great care is taken to cut back far enough into the healthy-appearing wood and to disinfect the pruning tools after each cut. The removal of active blight as soon as it appears is a standard practice in the pear growing regions in California and the Pacific Northwest.

Those orchardists who decide to try summer pruning should be careful to cut 8-12 inches back into the healthy-appearing wood and to disinfect the

(Continued on page 13)

cutting tools after each cut. Several disinfectants or bactericides have been recommended by various workers. They include: 1) Reimer's solution — prepare on a weight basis by dissolving 1 part mercuric chloride (also called bichloride of mercury and corrosive sublimate) and 1 part cyanide of mercury in 500 parts of water; 2) California solution — this is the same as Reimer's solution except that 10% of the water is replaced by glycerine; 3) Mercuric chloride 1 part, dissolved in 1,000 parts water (one 7.3 grain tablet dissolved in one pint water or one ounce per 7½ gallons of water); 4) Denatured alcohol, such as you can buy in paint stores, not the alcohol used as anti-freeze in auto radiators; 5) Streptomycin solution (such as "Agrimycin 17", or "Agri-Strep", or "Phytomycin" dissolved in water to make 200 ppm solution).

New shoots or sucker growth should be removed during the summer. One recommendation is to wear leather gloves and rub them off.

8. Chemical treatment of active fire blight cankers: With this method a special chemical solution is used to treat the blighted areas and cankers on the tree as soon as they appear. The chemical is supposed to penetrate the bark and kill the bacteria underneath. In the process the healthy wood at the margin of the canker or treated area is also killed.

Back in the 1930's in California, a zinc chloride treatment was developed and used on pear trees. Since then the practice has gradually declined, one reason being that it is fairly injurious to the bark, the cambium and the wood. It is also a fairly messy operation and the chemical is somewhat dangerous to use.

More recently, another solution called Cadmium paint, or Cadmium-sulfate solution was developed and used as a canker treatment. It is reported to be less injurious than zinc chloride and probably just as effective. It can be used also as a disinfectant when prun-

ing out blighted twigs, etc.

The formula for Cadmium-sulfate paint solution is as follows:

1. Cadmium-sulfate stock solution—5 parts by volume. (Make this stock solution by dissolving cadmium sulfate in distilled water or rain water at the rate of 1 part by weight of cadmium sulfate to 2 parts water.)

2. Hydrochloric acid (commercial grade) — 2 parts by volume.

3. Glycerine (commercial) — 2 parts by volume.

4. Denatured ethyl alcohol — 5 parts by volume.

Add the acid to the cadmium sulfate solution; then add the glycerine followed by the alcohol, stirring constantly; add a few drops of bluing or some other dye. Store in a well-stoppered non-corrosive container. Keeps indefinitely.

Paint this solution on fire blight cankers as soon as they appear. Use enough of the chemical to soak the bark and apply out beyond the margin of the canker. However, be careful not to splash, drip or allow it to run indiscriminately over healthy bark of the tree as it will kill back into the healthy wood.

Cadmium-sulfate paint solution is just as corrosive on metal as mercury and should be handled with the same care as mercury solutions. However, there might be an advantage in using this treatment on the larger, active blight cankers as they appear during the summer rather than trying to prune them out.

9. Cut out overwintering cankers as far as possible along with the regular pruning operation during the dormant period. Also, remove all suckers or water sprouts from scaffold branches, trunk, and roots. It is also well to remove healthy fruit spurs from the lower portions of the scaffold branches before growth starts in the spring.

Do not over prune, as this promotes the growth of blight-susceptible succulent new wood.

(Continued on page 14)

10. Check your neighborhood for sources of fire blight inoculum that could be brought in to your orchard. This might include other orchards, backyards, trees abandoned or growing wild. Some ornamentals can also be attacked by fire blight—including flowering crab, hawthorne, spirea, Pyracantha, flowering almond, and mountain ash.

Avoid the planting of blight-susceptible apple and pear varieties unless they are an essential part of your production and sales.

WHY READ LABELS?

The argument regarding the advisability of widespread use of chemical pesticides rages on. Through it all, however, one point is quite apparent. The use of chemicals is on the increase. It behooves us, then, no matter which side of the fence we are on, to push for greater care and safety in the use of these materials.

The federal government controls the labeling and marketing of chemical pesticides. Tests meeting the most stringent standards must be conducted to substantiate any claim made on a pesticide label. This testing costs manufacturers hundreds of thousands, if not millions, of dollars annually. So you can be sure that the information on a pesticide label is accurate and authoritative. Labels are, therefore, a valuable source of information.

What does a label have to say? For one thing it will tell you on which plants this particular pesticide may be used. It must have been tested for effectiveness on each of the plants listed. If the plant you wish to spray is not listed, don't spray it. The material may be injurious to that plant, it may leave a dangerous residue which is significant if this is an edible crop, or it may simply be an ineffective control.

If the material is being used on an edible crop, timing is critical. The la-

bel will say when the last spray may be safely applied prior to harvest.

Method of application varies among pesticides. Check to see which is suitable for the material being used. The label will indicate if special handling equipment is required.

The rate of application is another variable to check on the label. Since the same basic chemical may be purchased in a number of concentrations and formulations and generally in either a powder or liquid form, the amount to be used differs according to the product.

When these points are carefully considered and complied with, chemical pesticides become a safe and effective tool for the home gardener as well as the commercial grower.

DON'T BURN PESTICIDE MATERIALS

The smoke may be harmful. Don't throw pesticides in with the garbage. Wild life might get into it. Don't dump pesticides into sewer systems because the chemicals will end up in streams.

If you store pesticide materials, be sure they are labeled correctly. Throw away any pesticides which don't have labels. Never buy pesticides in unlabeled containers.

Proposals which would revise state laws governing use of pesticides have drawn opposition from agricultural corners.

Hearings on 3 bills were held by the Wisconsin Assembly's agriculture committee in April.

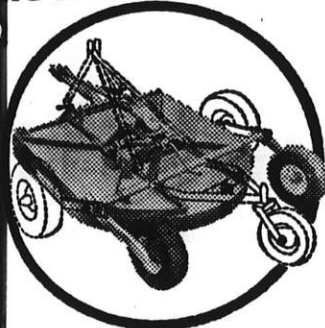
The bills represent 2 years of study by an informal committee involving state departments of health, conservation and agriculture.

Little support was given the proposals which would establish a state pesticide council and give rule making authority to the 3 departments.

At the hearing, representatives of farm groups emphasized safeness and wholesomeness of foods produced with chemicals.

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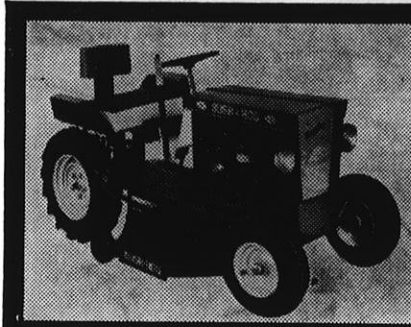
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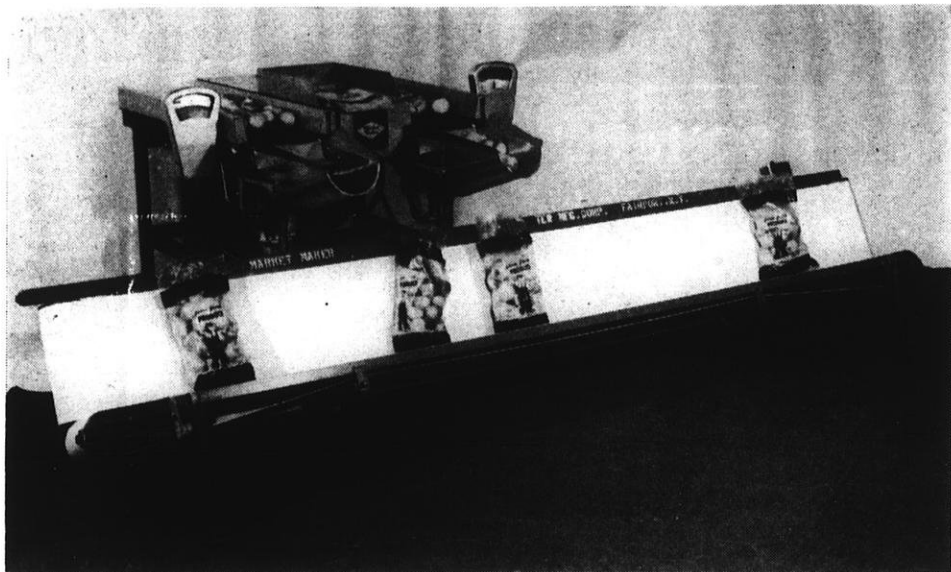
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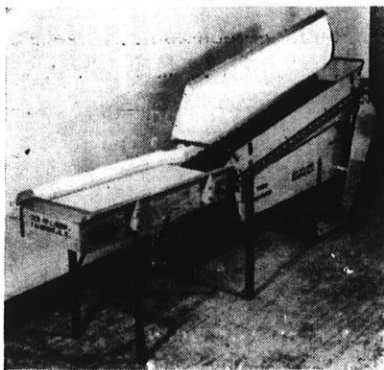
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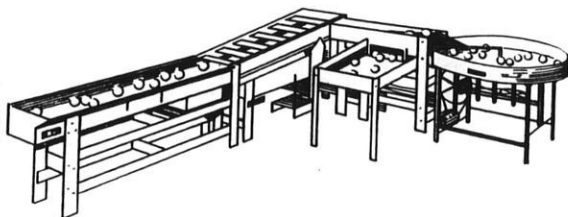
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A. R. Kurtz

Horticultural Society President Serves On Plant Industry Advisory Committee

Walter Clemens is one of fifteen representatives on a State Department of Agriculture Advisory Committee to advise the Department on plant industry programs. The Committee at its meeting on May 21 included in its considerations the Standards of Care for plant materials being sold in the state, the licensing and inspection requirements for producers and distributors of all types of plant materials, and the implementation of a statewide disease survey program.

* * *

Severe Winter Injury to Plant Material Noted

Many types of plant material failed to survive the past winter. The Department of Agriculture, in an earlier release, noted that there were many contributing factors to the "winter kill," including such things as prolonged drought conditions, failure to harden off in the fall, sudden and extreme changes in temperature, ice sheets, and alternate periods of freezing and thawing. Loss of materials ordinarily considered as winter hardy indicate that the past season was an abnormal one.

* * *

Beekeepers Convene in July

July 20 and 21 have been set for summer meetings of Wisconsin Beekeepers at Watertown and Eau Claire Lake Park (Eau Claire Co.), respectively.

* * *

Dutch Elm Disease

It is estimated that approximately 400,000 units of Bidrin, a systemic insecticide, were used in Dutch elm disease control in Wisconsin this spring. In terms of trees, this means that about 25,000 individual trees were treated.

The Department's Plant Industry laboratory is accepting elm twig specimens for diagnosis. Check with the Department or your local County Agent on the sampling procedure.

New Bulletin on Pests and Diseases of Trees and Shrubs

The Department's bulletin on Pests and Diseases of Trees and Shrubs is in the final stages of revision. There will be a nominal charge for this new publication and the announcement concerning its availability will be made soon.

* * *

Special Insect Surveys

In addition to the regular Insect Survey Program, the Department is cooperating again this year with the U.S.-D.A. on special surveys for insect pests not established here in Wisconsin. Two pests of major concern include the cereal leaf beetle and the Japanese beetle. Reports of unfamiliar insects should be directed to the Plant Industry Division of the Department.

Active County Associations

The following County Fruit Growers' Associations have forwarded their members 1965 W.S.H.S. membership and subscription renewals:

Jefferson Co. Fruit Growers — 30 members. Ronald C. Poyer, Fort Atkinson, Sec.-Treas.

Washington-Dodge Co. Fruit Growers' Association. Maurice Hovland, West Bend, Sec.-Treas. 29 members.

Racine Co. Fruit Growers — 11 members. Harold Proeber, Jr., Franksville, Sec.-Treas.

Ozaukee Co. Fruit Growers — 9 members. Armin Barthel, Mequon, Sec.-Treas.

The State Secretary reminds the County Associations that all 1965 renewals should be taken care of by July 1st.

HOW DO YOU NAME YOUR ORCHARD? After you've chosen the name you want, give this information to the Register of Deeds at your court house. Officials there will check names registered to see if the name chosen has already been taken. If not, your name will be recorded. Registration costs you \$1.

Wis. Maple Syrup Promoted Before 13 Million People

The Wisconsin maple syrup industry received national acclaim on May 20 when Adin Reynolds of Aniwa, Wisconsin appeared on the National CBS TV network. The occasion was the daytime show "To Tell the Truth."

Adin, who has over 100,000 taps out annually, is considered to be the world's largest syrup producer. This was the feature on this national televised event. Adin and the two impostors successfully stumped the panel. No one selected Mr. Reynolds.

The network estimates at least 13 million people watch the show daily.

Apple Tree Survey Returns Slow in Reporting

Wisconsin apple growers are reminded to return their apple tree count and marketing report forms. Department of Agriculture people indicate a fair return has been received, however, there are a sizeable number who have not mailed them in at this writing.

If a grower has not received a form or has lost or misplaced the report, the Department will be glad to send him another one if he will drop them a card.

Let's get these completed and mailed in so we can get an idea of where the Wisconsin apple industry is going.

Agriculture on Sandy Plains

Until about twenty years ago Wisconsin's central sandy plain was marginal agricultural land. Today it has a bustling vegetable industry.

Farmers in this area considering the vegetable crop business are advised, however, by University of Wisconsin agricultural economists and vegetable crop specialists to go into the business with their eyes open.

Half of this area grows mainly potatoes. Other major crops are snapbeans, cucumbers and sweet corn. Except for potatoes, vegetable crops are processed and canned.

Mr. and Mrs. Wm. Erlandson, Lake Mills, recently retired publishers of the Lake Mills Leader and "Wisconsin Horticulture" had an open house in their spacious back yard on Sunday afternoon, May 23rd. The Erlandson's have some fifty varieties of lilacs, a dozen apple trees, a 20 foot high black sweet cherry, and several peach trees. Add to these the rather rare Ginkgo, a Meta-Sequoia, a golden locust, an old time tamarack tree and a good-sized vegetable and flower garden, and we can assure you that the Erlandsons will be very busy retired folks. Mr. Erlandson has been a member of the Wisconsin Horticulture Society for many years.

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answer: Captan

Question:

Which fungicide actually increases apple yields when used all season long, year after year?

answer: Captan

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Wisconsin Horticulture

VOL. XLIX

AUGUST, 1965

NUMBER 12

AUGUST IN THE ORCHARD

G. C. Klingbeil, Extension Horticulturist
 University of Wisconsin

Apple Harvest and Storage

This seems early for the subject of harvesting and storing apples, but it's not too soon to plan the requirements needed to get the crop harvested and stored in optimum condition.

Let's look at four varieties grown in Wisconsin, as to date of full bloom and estimated harvest dates. For optimum storage condition most years McIntosh require 130-135 days from full bloom to harvest; Red Delicious—145-150; Golden Delicious—150-155; and Jonathan—140-145. For 1965 full bloom for McIntosh in the triangle, Galesville - Baraboo - Gays Mills, was May 13; for Red Delicious May 15-16. For south central Wisconsin, it was 2-3 days earlier; the Lakeshore area—2-3 days later. In the Bayfield area, it was June 6 for McIntosh and June 8 for Red Delicious.

To determine approximate harvest dates, calculate according to the information provided.

NOTE: These dates are provided as a guide; this year because of cooler growing conditions, optimum days may be extended slightly. It is suggested if fruit is to be sold shortly after harvest

at roadside markets or similar outlet, that fruit be allowed to hang several days longer to take advantage of better color and size. Fruit grown on size-controlled stock usually matures about five days earlier.

In order to obtain maximum life from stored fruit, it is essential that harvested fruit be cooled as rapidly as possible. After harvest apples are still alive; they respire (that is they take in oxygen and give off carbon dioxide with the ultimate destruction of the fruit). The faster apples respire, the faster they ripen; the higher the temperature, the faster they respire. The respiration rate is nearly trebled for every 20 degree rise in temperature. It is necessary in order to get optimum storage life from fruit, to move it into refrigerated rooms as rapidly as possible after harvest. Remember 5 days at 70° F. in the field after harvest will reduce the storage life of McIntosh by one-half.

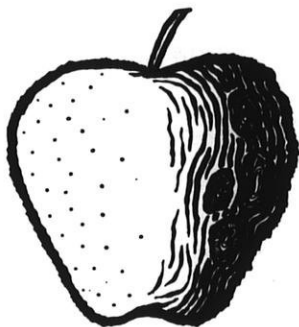
* Associate Professor, Department of Horticulture, University of Wisconsin, Madison, and Assistant Professor, Agriculture Extension, Waukesha, Wisconsin, respectively.

* Materials furnished by Chemly Products Co., 5741 North Western Avenue, Chicago, Illinois (83 percent DPA) and General Chemical Division, Allied Chemical, New York, New York (55 percent DPA).

AVERAGE OPTIMUM HARVEST DATE FOR STORAGE

Full Bloom	McIntosh	Red Delicious	Golden Delicious	Jonathan
5-10-65	9-16-65	10- 1-65	10-10-65	9-26-65
5-12-65	9-18-65	10- 3-65	10-12-65	9-28-65
5-14-65	9-20-65	10- 5-65	10-14-65	9-30-65
5-16-65	9-23-65	10- 7-65	10-16-65	10- 2-65
5-18-65	9-26-65	10- 9-65	10-18-65	10- 4-65
5-20-65	9-28-65	10-11-65	10-20-65	10- 6-65

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Published monthly excepting July and December by the Wisconsin State Horticultural Society and the Wisconsin Apple Institute.

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Coming Events

August and September — County Fair time.

Aug. 13 - 22 — Wis. State Fair. Visit Wis. Apple Institute Booth.

Sept. and Oct. — Wisconsin Apple Time.

Oct. 14 - 23 — National Apple Week.

Sept. 24 - 26 — Apple Festival at Gays Mills.

Oct. 2 — Christmas Tree Festival at Ogema.

Oct. 3 — Apple Festival, Bayfield.

Dec. 2 - 3 — Wis. State Horticulture Society and Wis. Apple Institute Convention, Conway Hotel, Appleton.

Dec. 13 - 14 — Wis.-Minn. Fruit Growers' Meeting, Eau Claire.

The other day we overheard a conversation on culling fruit trees. Now your editor is very familiar with the term when applied to chickens or dairy herds but had not heard it used in connection with apple orchards. Sounds like a good idea to blast out undesirable varieties that don't bring a good price or are otherwise undesirable in the market place.

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Apple Scald Control Using Pre-Harvest Sprays of Diphenylamine (DPA)

G. C. Klingbeil and W. D. Rogan *

The value of diphenylamine (DPA) used as a post-harvest dip for the prevention of storage scald of certain apple varieties is well known. Since 1955, DPA has been widely tested and published reports tell the effectiveness of scald prevention using post-harvest dips on many varieties. Pre-harvest sprays using the same chemical are reported to be less satisfactory.

In Wisconsin storage scald has caused the greatest losses in the Cortland variety and has been most severe in storages having limited space with overloading of capacity. Other varieties such as Secor, Twenty Ounce and Stayman, however, have scalded in some years. Most growers feel that they do not produce a sufficient quantity of Cortlands or other varieties subject to scald to warrant investment in equipment and time to provide a post-harvest "dip treatment." A more convenient and economically feasible method is desirable.

In 1964, a test was conducted in the

orchard of Mr. Bey Sprengel, Waukesha, Wisconsin, to evaluate DPA as a pre-harvest spray for the reduction of storage scald on the Cortland variety. Trees producing an average of 15 bushels per tree were sprayed with a solution of 2000 ppm diphenylamine, using a 55% or 83% DPA formulation *, at the rate of 12 gallons per tree.

Eight trees were treated with each formulation on October 3, 1964. All fruit was harvested from diphenylamine sprayed and untreated trees within 24 hours and immediately placed in 34° F. storage. Non-treated fruit was harvested and handled in the same manner. All fruit in the trial was removed from storage in mid-February after an average of 135 days in storage. One hundred apples were taken at random from each treatment and checked for scald when removed from storage and after 5 and 10 days at 75° F. Samples of 10 apples were taken at random from each treatment at the same time and tested for firmness using a Magness-Taylor pressure tester having a 7/16-inch head.

(* Refer to page 1)

SUMMARY

1. In this test a preharvest spray of diphenylamine (DPA) at 2000 ppm, 12 gallons per tree, controlled stor-

VISIBLE SCALD (IN PERCENT OF APPLES AFFECTED) †

	At Removal From Storage			After 5 Days At 75° F.		
	None	Some ²	Severe ³	None	Some	Severe
Untreated -----	90	7	3	50	29	21
2000 ppm 55% DPA -----	0	0	0	0	0	0
2000 ppm 83% DPA -----	0	0	0	0	0	0

† Values are means of triplicate treatments.

² Some — total area on each fruit affected less than two square inches.

³ Severe — total area on each fruit affected over two square inches.

FRUIT FIRMNESS †

	At Removal From Storage	After 5 Days At 75° F.	After 10 Days At 75° F.
Untreated -----	12.57	10.86	8.02
55% DPA -----	14.33	12.36	8.48
83% DPA -----	14.34	12.36	8.81

† Values are means of two readings on each of 10 apples from triplicate treatments.



Cortland showing slight scald after 135 days storage.



Cortland showing severe scald after 135 days storage.

age scald on the Cortland variety.

2. No visible damage to the fruit in any treatment was evident before or after storage.
3. There was no difference in scald prevention or fruit firmness between the formulation of diphenylamine used.
4. Scald was not extensively visible after storage, but became more pronounced each day at room temperature. After five days, the affected areas were well defined and after ten days were not enlarged but more intense.
5. The fruit from treated trees was decidedly more firm after storage than untreated. This is consistent with re-

sults obtained in 1963, using DPA as a post-harvest dip on three varieties.

6. A reasonable estimate of cost of materials for pre-harvest tree spraying would be 6-7 cents per bushel in comparison to about 2 cents per bushel for the post-harvest dip treatment.

New Specialist

Miss Charlotte Martin has joined the Marketing Division staff of the Wisconsin Department of Agriculture as home economist in consumer service. She succeeds Miss Georgia Wilson who was married recently.

In her new position, Miss Martin will work with the Department's Marketing Division on the promotion of Wisconsin farm products. Our apple and fruit interests will be able to use Miss Martin's services to good advantage.

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All No. 1 Extra Fancy Quality
Bushels: (Without Covers)

99 Doz. or less	\$3.85 Dozen
100 - 250 Doz.	3.65 Dozen
251 - 500 Doz.	3.50 Dozen
500 & Over Doz.	3.35 Dozen

$\frac{1}{2}$ Bushels: (Without Covers)
\$3.60 Dozen any quantity

Peck Baskets:

$\frac{1}{2}$ Peck Baskets:
\$3.65 Dozen any quantity
\$3.50 Dozen any quantity

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Apples at Fair

Our apple industry will be back at the 1965 State Fair in a big way says Henry Mahr, chairman of the Fair and Exhibits Committee. Other members of the Committee are Elroy Honadel, LeRoy Meyer and William Meyer. The booth in the Farm Crops Building features apple cider, apple delights, apples, recipe books and apple slicers. Be sure to stop in to see Henry and "his gang" when at the Fair.

KNOW YOUR APPLES

Richared, a solid red bud sport of the common Delicious, was found in about 1915 by J. L. Richardson of Monitor, Washington. The next Delicious Sport was observed in 1921, this was Starking (syn. Double Red Delicious). It was a limb sport and was the first red strain used in commercial production.

Agriculture on Sandy Plains

Until about twenty years ago Wisconsin's central sandy plain was marginal agricultural land. Today it has a bustling vegetable industry.

Farmers in this area considering the vegetable crop business are advised, however, by University of Wisconsin agricultural economists and vegetable crop specialists to go into the business with their eyes open.

Half of this area grows mainly potatoes. Other major crops are snapbeans, cucumbers, and sweet corn. Except for potatoes, vegetable crops are processed and canned.

HERE AND THERE

The "Kaffee Klatsch" in the Wisconsin Agriculturist July 24th issue gave the Charles Thompson Kenosha County Strawberry and Cherry 'Pick-Your-Own' operation a nice writeup. Charlie says

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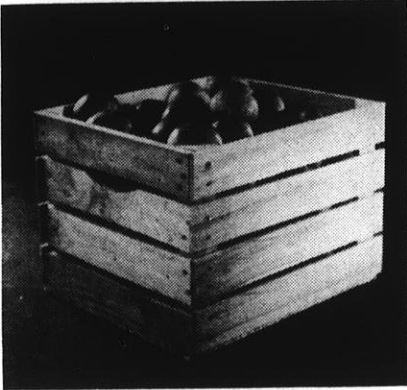
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he has parked 600 cars in his parking lot during strawberry season and then had to turn 200 away. Now that's something. Really more activity than there is at the Braves' baseball park.

* * * *

Wisconsin orchardists were well represented at Excelsior, Minn., on August 3rd. The Minnesota-Wisconsin Summer Orchard Tour at the University of Minnesota Fruit Breeding Farm.

The Fruit Breeding Farm was established in 1907 for the purpose of developing new fruits better adapted for use in Minnesota. Introductions have been made within 12 different tree and small fruit types totalling 72 new varieties. Many of these either are, or have been, significant in the fruit variety picture of Minnesota and neighboring states. In addition to fruit breeding much cultural research is underway.

Cultural studies now in progress include:

- a. chemical weed and vegetation control.
- b. fertilizer studies with apples.
- c. chemical rootstock size control of apple trees.
- d. effect of sod and other soil treatments on soil moisture.
- e. chemical thinning of apple fruits.

The breeding program at present places emphasis on the following:

- a. the development of scab and fire-blight resistant varieties.
- b. the development, through breeding or inducing mutations, spur-type or naturally dwarf apple varieties with high quality fruit.

* * * *

Why such a wide variation in the crop this year? There may be several contributing factors. One, of course, is the very heavy crop in most orchards last year. A lighter crop usually follows a heavy one. The dry fall could have resulted in weak flower bud development and a general low vigor in the trees. Weather conditions this spring were generally favorable for good develop-

ment of new growth, although May was extremely dry in many areas. Bloom period in early May was very short, often only 8 or 9 days from first bloom until petal-fall. There may not have been sufficient time for adequate cross-pollination in some situations. This fact seems to stand out this year; those orchards that had good crops but not over-loaded last year, and were well managed throughout the growing season, and did not suffer greatly from the fall drought, have come back with the best crops this year. This seems to indicate that the vigor, the physiological condition of the trees is very important in this matter of consistently good crops year in and year out.

* * * *

Dr. J. L. Libby, University of Wisconsin Extension Specialist in entomology, will leave for Nigeria to assume teaching and research duties in entomology there. His duties in Wisconsin will be assumed by Charles "Chuck" Koval, during the two years of Dr. Libby's absence.

Cranberry production in Wisconsin has been increasing during the past 10 years, primarily because of added acreage. The state is second in the nation with approximately 400,000 barrels annually. This represents about 33 percent of the country's supply.

Cranberries are also an important factor in the agricultural economy of the state, representing about 4 to 5 million dollars income for growers of the crop.

* * * *

The Ozaukee County Fruit Growers is an active, growing organization. They boast of seven new members in their local and State Assn. Armin H. Barthel, Mequon, is the secretary.

* * * *

"Farmers should be careful about their use of herbicides and they must know exactly what they are using; 2-4-D and 2-4-5T and atrazine are quite safe, in fact there are no recorded cases in Wisconsin of these materials causing

cattle poisoning. They are, unfortunately, sometimes blamed for death losses when lead or other poisoning diseases are often responsible."

Dinitrophenol and arsenic herbicides are quite toxic to cattle and should not be used where they are accessible to livestock. These also constitute a human health hazard and should be used only with the proper precautions.

* * * *

President Lyndon Johnson is expected to dedicate a scarlet oak (official District of Columbia tree) adjacent to the White House grounds at noon, Aug. 16, highlighting activities of the 41st annual International Shade Tree Conference convention in the nation's capitol, Aug. 15-19.

* * * *

Planting of a half-acre of strawberries this spring at the Michigan State University Horticultural Experiment farm in Sodus marked the start of a three-year study to find the "perfect" strawberry fertilization program.

* * * *

Beautifying America really begins at home—inside and outside our homes. Organizations should be cooperating with President Johnson, not only at the level of state and local government, but, also, as individuals. We can do much to make our members aware of the need for beauty in their surroundings and in their everyday living. As horticulturists, we must be appraised that beautifying America begins in the home and that flowers and plants are symbolic of and synonymous with beauty and that, therefore, they should be made a part of a citizen's daily living.

* * * *

Summertime activities expose people to all sorts of unaccustomed situations. There is so much to cram into the time available. And, while this cramming is going on you've suddenly changed the way you know it, you've driven too long, played family's year-long habits. Before you

too hard, eaten too much and slept too little.

Don't overdo trying to climb higher, hike further, play longer—especially if you're not in shape (or are old enough to have danced to the tunes of Glenn Miller and Tommy Dorsey).

* * * *

My neighbor and I were talking about the "good old days" when all of a sudden it dawned on me—would I actually want to go back to them. When I remember plowing with horses, milking the cows by hand, and feeding the calves by kerosene lantern light—the answer is a loud NO!

* * * *

Thanks to baking mixes, pies and cakes like mother used to make will be no trouble to the next generation.

CIDER APPLES

When God had made the oak trees,
And the beeches and the pines,
And the flowers and the grasses,

And the tendrils of the vines;
He saw that there was wanting
A something in His plan,
And He made the little apples
The little cider apples,
The sharp, sour cider apples,
To prove His love for man.

—Author unknown

Traps Empty, Good News

Scattered on airfields, truck terminals, railroad yards, county and state parks and highway waysides in the southeastern part of Wisconsin are 900 devices designed to attract a foreign pest. The fact that the traps have only on one occasion proved effective in Wisconsin may be construed as a poor investment, but to state and federal entomologists the absence of victims in the traps is news of the best variety.

The traps have been designed to attract and hold the Japanese Beetle, a particularly obnoxious pest that attacks



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trees, shrubs and fruit trees as well as some field crops. Only once has the beetle put in an appearance in Wisconsin and this was back in 1956-1957 when several traps in Milwaukee county yielded a specimen. The soil in the area was treated with a pesticide and the invasion halted. No beetles have been found since then.

QUESTIONS and ANSWERS CONCERNING PESTICIDES

You're responsible for the pesticide in your home—from the moment you get it until you discard the empty container in the garbage can. How you handle it is important to you and your family.

To help you use pesticides safely, here are answers to some of the more commonly asked questions. The answers come from the U.S. Department of Agriculture.

Q. Which pesticides should I keep out of the children's reach?

A. ALL of them. If they weren't toxic, they wouldn't kill the pests. Be especially careful with poison baits for rats, ants and cockroaches. These baits account for a high percentage of the accidental swallowing of pesticides by children under 12.

Q. Do I have any way of knowing when a pesticide is particularly toxic?

A. In most cases, yes. Under Federal pesticide regulations, the most highly toxic pesticides are marked "Poison" and have the skull-and-crossbones symbol on their labels. The labels also contain a statement naming an antidote to take in case of emergency. All pesticides marketed interstate must conform with these regulations.

Q. What should I do if I accidentally splash a pesticide concentrate in my eyes?

A. Flush your eyes with plenty of water for 15 minutes and get medical attention. To be on the safe side, when

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opening a pesticide container, turn your face away from it.

Q. Can I do anything to avoid harming honey bees when I spray my garden?

Yes. Honey bees and other pollinating insects generally visit flowering plants during the warmer, sunny part of the day. So, to protect these beneficial insects, spray or dust during early morning or, better still, late afternoon.

Two Groups of Labor Bills Have Bearing on Agriculture

Hearings were in progress since late May before the House Labor Subcommittee on a number of bills relating to labor, some of which affect agriculture.

One group of measures includes numerous amendments to minimum wage and maximum hour provisions of present law. Among them are proposals to place agricultural workers under minimum wage provisions, and to eliminate present overtime exemptions in the first processing of agricultural products.

A second group of bills — among other things — would repeal authority for right-to-work laws, and place agricultural workers under the collective bargaining provisions of the Taft-Hartley Act.

Honey Bees

The marvelous instinct of the honey bee is often cited, and with cause. Some

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writers refer to the intellectual power of the bee in constructing hexagonal wax cells to fill the honey comb to greatest advantage. But some practical bee-men insist that the hexagonal cell is simply the result of bees working on opposite sides of a film of wax. If only one bee worked on the wax, the resulting cell would be round. But when one pushes against the other on opposite sides of the wax film, the walls are pushed flat and the hexagonal shape naturally results. The example of soap bubbles pushed together in a confined area is offered. Each bubble in the group assumes the shape of a hexagon because of pressure on all sides.

Irrigate, Don't Sprinkle Your Garden Plants

Don't use a sprinkler on your garden plants if other means of irrigation are feasible, advise horticulturists at the U.S. Department of Agriculture.

The sprinkler will bounce soil up on the plants. And with this soil may come disease organisms that can spot the leaves and fruit.

Sprinkling is especially bad in the late afternoon or early evening — the very times most people do it. The leaves and fruit then stay wet all night, giving the organisms a chance to get into the leaves and fruit.

Instead of sprinkling, make furrows between the rows and irrigate that way. Or, in a small plot, simply lay the hose on the ground and let the water trickle around the plants. For soils too sandy for effective use of furrows, a porous hose is good.

Government Finance

The accounts of the United States ought to be, and may be made, as simple as those of a common farmer, and capable of being understood by common farmers.

— Thomas Jefferson, Letter to James Madison (1796)

CEDAR APPLE RUST

Cedar apple rust is a fungus disease that needs two different host plants to complete its life cycle.

One stage of its life cycle is found on red cedar and other junipers. The second stage is found on apples and related plants.

The disease on the red cedar is characterized by galls that form on the twigs. These galls vary in size from one-fourth inch to one inch in diameter.

In mid to late May, following warm rains, numerous orange, gelatinous growths develop from these galls. The growths or spore horns are the most conspicuous characteristic of the disease. They may grow to a length of one to one and a half inches.

When the spore horns dry, spores are liberated. These spores are unable to infect red cedar but are carried by the wind to alternate hosts, such as apples, crab, pear, mountain ash, and hawthorn. On these trees, the rust is most commonly found on the leaves, but may also be found on young twigs and fruit.

The rust on these trees first becomes evident in early summer, about 10 days after the spores have been shed from the red cedar galls.

Small yellow or orange spots appear on the upper side of the leaves. On the bottom, a swelling occurs around which a ring of tiny, tubular growth develops. These tiny growths liberate spores in July and they reinfect red cedars.

Cedar rust usually will not injure red cedar permanently.

Control can be obtained by picking the galls and gelatinous masses from the red cedar and other junipers as soon as they are noticed in spring.

The disease can be controlled on apple trees by spraying with a fungicide such as ferbam or zineb, mixed at the rate of 10 tablespoons per 5 gallons of water. Spraying should begin when flower petals first appear and again right after the petals fall.

Two additional sprays are recommended at 7 to 10 day intervals.

"There," said the newlywed husband, pointing to Niagara Falls, "I told you that if you married me I'd show you the world's biggest cataract."

"Cataract!" screamed the former chorus girl, "I thought you said, Cadillac!"

NATIONAL APPLE INSTITUTE NEWS

Maurice Sanders of Emmett, Idaho, fruit grower and shipper, was elected to the 1965-66 presidency of the National Apple Institute, national apple grower federation, at its 30th annual meeting in Sun Valley, Idaho, June 26. Sanders owns and operates some 250 acres of apples, cherries and other fruits, plus cold storage and packing facilities at Emmett, Idaho.

He has been Vice-President of the national growers group during its 30th year and is active in other grower and shipper programs in the west as well as in civic and other business affairs.

* * * *

The 14th annual Apple Marketing Clinic is scheduled for O'Hare Inn near O'Hare Airport at Chicago, Illinois, August 12 and 13 . . . the meeting of the Marketing Division will follow on August 14.

* * * *

Guesstimate puts Wisconsin apple harvest at 1,540,000 bushels. This anticipated production figure for 1965 compares to last year's actual apple crop in Wisconsin of 1,650,000 bushels and 1,400,000 bushels in 1963 and 1962. Nationally it looks like 131,594,000 bushels, which compares with 140,345,000 in 1964 and 125,000,000 in 1963 and 1962.

* * * *

American exports of apples which once accounted for 10 million bushels yearly before World War II and made the United States the leading apple exporter, has faded to 3.5 million bushels.

The subsequent drop of America from

first to sixth place in apple exports, the U.S. Department of Agriculture said, is due to booming production in Western Europe.

Apple Dessert Contest

Apple dessert contests will be encouraged by the Wis. Apple Institute on a County basis. The Directors at their summer meeting, on July 6th, voted to replace the State Contest with a state-wide "Apple Use" teaching unit for all high school F.H.A. and home economics departments. This unit to be made available to all such departments during "Wisconsin Apple Time." A committee of five, Mrs. Howard Erickson, chairman, Charlotte Martin, Wm. Reese, Don Rawlins, and H. J. Weaver, was appointed by President George W. Pre-mo, to implement this project.

Apples for Band

To make certain that the University of Wisconsin Marching Band relaxes with "Wisconsin Apples" between halves of all home football games this fall, your Apple Institute is again supplying the apples. The various members will be called on to supply a pack of the variety in season. We hope this may help the football team win?

A Child, A Destiny

The world will not be the same for our children, or even for ourselves in a short span of years. Ours is a time of change—baring the secrets of nature—multiplying the nations—shaking old values and uprooting old ways . . . In a land of wealth, families must not live in hopeless poverty . . . In a land rich in harvest, children must not grow hungry . . . In a land of learning, young people must be taught to read and write . . . We have discovered that every child who learns, every man who finds work—like a candle to an altar—brightens the hope of all . . . For this is what America is all about. It is the uncrossed

desert and the unclimbed ridge. It is the star not reached and the harvest sleeping in the unplowed ground.

— From the Inaugural Address of President Lyndon B. Johnson

METHODS WE USE TO ATTRACT CUSTOMERS

Mrs. Earl Strite, Harrisburg, Pa.

I feel to be successful we do not need any other products to sell other than our own fruits and vegetables. We have 195 acres planted in fruits and vegetables and are located close to Harrisburg, Pennsylvania in the midst of a highly populated urban area.

Techniques and methods we use to attract customers to our farm market are as follows:

1. Have neat orchards and places of business.
2. Keep the buildings in repair.
3. Flowers planted in areas where customers are able to admire them.
4. Advertise the product and the hours open for business.
5. Give a customer a good honest pack.
6. Give a good product—the type of product that was advertised.
7. Gain the confidence and respect of your customers.
8. Pick fruit and vegetables daily whenever possible.
9. Bring fruit and vegetables to your place of selling direct from the field so customers are able to observe.
10. Keep everything in the open where people are able to observe.
11. Spot-pick fruit and vegetables whenever possible.
12. Display produce attractively — use attractive containers.
13. Use white paper bags.
14. Give away items.
15. Have a variety.
16. Be COURTEOUS.

Neat orchards and places of business are important in attracting the attention of prospective customers. We are proud and happy to be fruit growers

and are fortunate to be able to sell directly to the consumers. We go to extra efforts to keep our orchards and buildings tidy and attractive. We try to keep our equipment, when not in use, in its proper place and leave no trash laying around. Every morning we clean our place of business. This helps business and draws compliments. I am sure it also brings customers.

We think it is important to pick our fruits and vegetables fresh each day. Picking only enough for that day's sales unless rain is predicted the next day, then we pick a little more. We grade, pack, and have our refrigerated cold storage in the same building that we do our retail selling from. The customers like to observe us at work.

Protect Your Market By Correct Labeling

"Off sale"! And another shipment of Wisconsin apples is placed under a Holding Order at an out-of-state supermarket by regulatory inspectors. Unfortunately this scene is enacted far too often each year. Packaged apples which are incorrectly labeled or short weight have little value to the seller unless they are repacked or re-labeled.

You can prevent some of these marketing problems by following Wisconsin law in labeling and weighing. You will find pertinent sections conveniently outlined below.

Correct labeling:

NAME OF FOOD

The name of the fruit or vegetable is required on the label unless the product is clearly visible through a mesh or transparent container.

NAME AND ADDRESS of packer or distributor must be clearly shown. A distributor must use the words "Distributed by" if he is not the producer.

NET WEIGHT of contents must be shown. Example: Net weight 10 lbs.

ALL STATEMENTS MUST BE FACTUAL and conspicuous. Re-used bags

must be reversed if the imprinted labeling is not correct.

Accurate Weighing:

PROPERLY MAINTAIN YOUR SCALE.

Your scale should be tested periodically by a reliable scale agency.

GOOD PACKAGING PRACTICES —

Random check-weigh your packages for accuracy.

ANTICIPATE SHRINK — Be certain packages are correct weight when moving through normal merchandising channels. Also prevent future shortages by using correct tare weights for your packaging material.

AIM FOR UNIFORMITY IN PACKAGE

CONTENTS — Even though checks for short weight by regulatory officials are usually done by weighing ten packages to determine if the average equals the declared weight, abnormal overages or shortages are not permitted in any individual package.

Do not use the words "when packed", "giant", "jumbo", or "full" or words of similar import that tend to mislead the purchaser with quantity declaration. The use of these words is prohibited by Wis. law and by laws in many other states. For further information on this important subject contact the Dairy, Food & Trade Division, Dept. of Agric., Madison, Wis.

AUTOMATIC SCARECROWS

Our home at Waldo Orchards is named "Robinswood," merely as a reminder that if we didn't eat our cherries, the Robins would! After several frustrating seasons, of losing battles with birds helping with the harvest of our cherries, we invested in an automatic scarecrow. This was back in 1961. Our yield immediately jumped from 11 tons in 1960 to 18 tons. This on our four acre planting of cherries. Of course some of the increase can be attributed to growth in bearing of the trees, but we were firmly convinced that the scarecrows really did the job. The next season we

put three or four units in operation, and sold several to other orchards in the area with equally enthusiastic reports.

We still have our friends the Robins, and some other species that do not easily scare away, but the crows, blackbirds and starlings now give our place a wide berth.

The Scarecrows are simple to maintain and operate at very low cost on carbide. They are completely automatic and usually will operate all day without recharging. The frequency of operation is controlled by the amount of water allowed to enter the gas generator. We start them as soon as the fruit shows color and keep them going until harvest is nearly completed. Daybreak is a good time to set them in operation, but to keep goodwill in the neighborhood we generally start them around 6 a.m. The blasts are very loud, and can be heard up to four miles away. Our orchard lies along State Hy 28 and numerous cars and trucks come to screeching stops to check their tires.

We also have one unit mounted on a small trailer that we use in area parades. It carries the sign "Firing Dept." and really is an attention getter when blasting down the main street parade routes.

A new model is now on the market that uses LP gas. This unit is a little more expensive, but eliminates the ne-

cessity of recharging the generators every day.

The Scarecrows are also effective in keeping deer out of the orchards. We have sold several units to truck farmers and trout pond operators for deer and bird control.

Those Zon Automatic Scarecrows are manufactured in Holland. They come to us via San Francisco. They have really found a "home" with us and our customers.

—Fred J. Meyer

There is a growing concern in the nation about consumer protection and business practices, however Wisconsin has been engaged in this area for more than 45 years, D. N. McDowell, Director of the Wisconsin Department of Agriculture, observed this week. The responsibilities in these fields date back to 1921 when the State Legislature assigned to three agencies—the Departments of Marketing, Dairy and Foods, and Agriculture—the responsibility of enforcing trade practice laws and regulations similar in nature to those of the Federal Trade Commission. The three agencies were subsequently combined into what is now the State Department of Agriculture, he states.

"The department is convinced that consumers, producers and businessmen gain as the result of a program that is fairly administered."

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PORT WASHINGTON, WIS.

Fire Destroys Tools At Sunridge

Tom Connell of Sunridge Orchard's informs us that on the night of July 5th, "We had our shop hit by lightning and it burned down. We lost a John Bean 275 Sprayer which was mounted on a four-wheel drive truck, and a 1964 International truck with van. We lost all of our shop tools, power pruning equipment, picking buckets, and about half of our John Bean parts.

However, we still have a good crop of hail free apples considering the crop in this area. The Chippewa Falls area has about a half or less of a normal crop."

Directors Decide on Consolidation Procedures

The Boards of Directors of the Wis. State Horticulture Society and Wis. Apple Institute in a joint session at Ski-Hi Orchards on July 6th, by a vote of 12 to 2, accepted the following consolidation proposal for presentation to the membership at the Annual Convention in December.

This proposal is based upon the premise that the objective is to have a single organization consisting primarily of apple growers and others with a related interest in horticulture; and upon the resolution adopted by the membership of the Horticulture Society and the Apple Institute at their respective meetings in December, 1964.

Action taken by the membership of both the Horticulture Society and the Apple Institute to consolidate the two groups has been based upon the advice and counsel of many individuals and intensive study of the alternatives by committees representing both groups.

The legal procedures for concluding the consolidation should take the course as outlined below. This suggestion has been prepared in consultation with the State Department of Agriculture's legal counsel.

Restate the Articles of Incorporation of the Apple Institute.

Steps necessary to conclude the consolidation.

1. Restate the Articles of Incorporation of the Apple Institute now filed with the Secretary of State in accordance with the proposal presented by the Joint Merger Committee.

2. Maintain the Wisconsin State Horticulture Society with its officers and directors so that it may:

(a) receive the annual State appropriation as provided by Wisconsin Statutes

(b) enter into contract with the new organization as outlined in one (1) above as it relates to transfer and expenditure of funds and the purposes and objectives of the Society as provided for in Sec. 94.01 of the Statutes.

3. The program of work would be carried out fully by the membership and the officers of the new organization in accordance with its constitution and by-laws and the terms of the contract with the Wisconsin State Horticulture Society.

4. Prior to the 1967 session of the Legislature prepare legislation as outlined to repeal or amend sections of the Statutes.

SUMMER MEETING OF DIRECTORS

The Bassetts of Ski-Hi Orchards, Baraboo, Route No. 4, hosted the Directors of both the Wis. State Horticulture Society and the Wis. Apple Institute. Sixteen directors answered to the roll call. Add the wives, an assorted group of youngsters, a few guests and you have a crowd of 75. What a job Olga, Art and the entire Bassett gang did on arrangements, the lunch and everything that goes with an outing of this kind. Nothing was left undone. In the culinary line they received excellent help from Marlon Schwier and Arthur Kurtz, who took over the chef chores and barbecued the chicken. One and three quarters inches of rain fell during the day, but this in

no way interfered with the Board's deliberations. Mrs. Bassett writes:

"I had no time to show the ladies some of the interesting things which they would have enjoyed while here. I only hope that they can come back again and we can really entertain you all. It would be nice to tour the orchard and the other buildings. We have the house which is over 100 years old and built one year after the farm was taken as a claim from the government in 1864. We also have a 4-H Bluebird Trail (Ski-Hi Trail) here and it would have been fun to have toured it. We have raised quite a few young birds, this being our second year for the trail, but have had the birds in the yard other years, too. We also have a very interesting pond with much interest in it with a pair of wood ducks and their family feeding there. A 4-H and biology student made and erected the wood duck house and placed it in a tree adjacent to the pond. That painting which the boys pinned on the wall must be fifty years old and was used at one of the Fairs when we exhibited apples at the Sauk County Fair and the State Fair in Milwaukee. It is still in excellent condition. We felt that the meeting was a huge success."



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PROMOTIONAL MATERIAL READY

It's time to put all available promotional material to work. Your Wisconsin Apple Institute is making the following items available to its members.

BILLBOARD POSTERS — 25' x 15' for standard size, outdoor billboards. Posters are new, more attractive and real attention-getters. (with or without imprinting).

\$10.00 each without imprinting.
\$12.50 each with imprinting.

APPLE RECIPE BOOKS — "Apple Lovers Guide to Good Eating." Volume IV, 4 x 9" — new, excellent tested recipes, excellent handout material for your customers. \$7.50 per 100, postpaid.

BUMPER STRIPS — Day-Glo strips (red and white on black) 4" x 15" stating "ENJOY WISCONSIN APPLES." For your car and truck or salesroom. 10 for \$1.00 postpaid.

POSTERS — 41" x 54" color, paper poster, young boy w/apple caption—"Apples Please." Attractive background for sales room wall. Members 50c each plus 50c postage and handling. Non-members \$1.00 each, plus 50c postage.

LUDWIG APPLE SLICER — Stainless steel cutting blade — \$6.00 per dozen postpaid. For resale.

OVER-WIRE HANGERS — 3 red apples in a 4-color lithograph print, 20" x 16" approximately. Very attractive. 10 for \$1.00 postpaid.

COLORING BOOKS — An excellent sales room item for resale or giveaway. 10c each postpaid.

MISCELLANEOUS CARDS AND BANNERS — "Apple A Day" — "Fresh and So Good" — "Natures Toothbrush" — "Die-Cut Apples" — "Apple Cider Price Cards" — "Relax with an Apple". At 10c each, plus postage.



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