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Wisconsin Horticulture

VOL. XLX

SEPTEMBER, 1965

NUMBER 1

September in the Orchard

G. C. Klingbeil, Extension Horticulturist University of Wisconsin

APPLE DROP

Fruit growers know that an apple tree will drop or shed some of its fruit twice early in the season and some varieties may drop a sizable part of the crop before fully mature in fall. It is the late or preharvest drop that is of concern to commercial apple growers.

The first drop occurs soon after petal fall. Very likely the flowers that drop then do so from a lack of pollination. Delicious is a prime example of a variety usually having a heavy post-petal fall drop. A tree having a good bloom only requires about one blossom in 25 to set fruit for a full crop. The next pronounced drop is generally referred to as the "June drop." The apples usually are about a half-inch in diameter and drop is generally heavy on such varieties as Wealthy and Yellow Transparent. The reason for the June drop is not quite as clear cut as the first drop, but appears to be associated with competition for food, water and other nuamong the immature fruit. trients Fruits that contain the fewest or weakest seeds are the first to drop. At the moment there seems to be no practical way of controlling or regulating June drop. Good tree vigor and healthy foliage may reduce the severity.

Preharvest drop is of greatest interest and certainly not fully understood. Loosening of apples on the tree is natural in the maturing process. It is known that as fruit nears maturity that callous layer (abscission or separation) forms where the fruit stem joins the spur. This layer is weak and the weight of

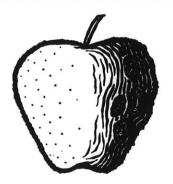
the fruit, wind, or shaking may cause the fruit to drop. All varieties are subject to drop, however, the McIntosh is the most notorious in this preharvest phenomena. Trees that are deficient in boron or magnesium, lacking in moisture, or over fertilized with nitrogen may have more preharvest drop.

Today preharvest drop control has been mainly by the use of hormone type chemicals. These chemicals delay or reduce the formation of the abscission layer thus delaying drop.

Most commonly used chemicals are NAA (naphthaleneacetic acid) and 2,4, 5-TP (2, 4, 5-trichlorophenoxypropionic acid). The plant growth regulator NAA is generally used on McIntosh at 20 ppm (parts per million) sprayed on the tree twice at ten day intervals. The first application applied when first drop is noticed. The material becomes effective in about two days. The phenoxy material, 2, 4, 5-TP, can also be used, but is slower in becoming effective. It takes from five to seven days. It will, however, remain effective for a longer period, resulting in the necessity of just one application. Rates of 10 to 20 ppm are used. Like most plant growth regulators, optimum conditions bring best Healthy trees, temperature results. about 70° F., adequate moisture and proper timing are best but even so, on occasions, poor results are obtained indicating that these chemicals and plants are not completely understood.

They say women are smarter than men, but did you ever see a man buy a shirt that buttons in the back?

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Give your crop a glossy wax finish—with ORTHOCIDE®



ORTHOCIDE stimulates wax formation on all varieties of apples. Wax gets heavier, glossier. Skin stays smooth and tight. So your apples resist rot and bruising—and keep better, too.

ORTHOCIDE is a broad-spectrum fungicide that works overtime. It gives lasting scab control. And (used regularly) it sparks tree vitality. You get fuller, greener foliage. Firmer, healther apples—and more of them.

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WISCONSIN HORTICULTURE

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

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Coming Events

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.

Oct. 4-9 — Wis. Farm Products Week, Madison.

Nov. 10 — Apple Festival, Ozaukee County, Cedarburg.

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.

Are You?

Patronizing our advertisers? When you write them, or their salesman calls on you, mention that you were glad to see their advertisement in WISCONSIN These people not HORTICULTURE. only have fine products but deserve your support.

Back to Appleton

On Dec. 2nd and 3rd for the Annual Convention, says Walter H. Clemens, president of the Horticulture Society. It's the Conway Motor Hotel, and it's not too early to plan at attend. An excellent program has been arranged. It will appear in the October issue of the magazine.

Fruit Show Annual Convention CONWAY MOTOR INN

Appleton, Wisconsin

December 2 & 3, 1965

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

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 1-McIntosh

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 prize — \$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 \$10:00 A. M., December 2. Plates and entry blanks will be furnished.

Many orchards have good exhibition fruit this year. Plan now to make an entry in a number of the above classes.

Prof. George Klingbeil is in charge of the convention show.

We are suggesting that this year, every entrant in the plate contest, also prepare a box exhibit. This cooperation will assist in promoting apples at the convention.

Box Exhibit

This year there will be a bulk bushel box apple exhibit at the convention, December 2nd and 3rd. Plans are to send one hundred growers a special exhibit box container at an early date.

Walter Clemens already has them.

Merit packs will be awarded appropriate ribbons. The exhibit will be limited to Macs, Cortlands and Red Delicious.

It's not too early to start making your selections now. So put away a bushel of your very best of the variety you will be packing. This should be a good show. More information on it in the next issue.

State Fair Winners Apple Dept.

Nieman Orchard, Cedarburg—9 firsts, 11 seconds, 2 thirds, 1 fourth, 2 fifths, 1 seventh.

Walter Clemens, Mequon—7 firsts, 2 thirds, 2 fourths.

Lake View Orchard, Lake Mills — 6 firsts, 3 seconds, 1 third, 2 fourths, 2 fifths, 1 sixth, 3 eighths.

Meyer Orchard, Oak Creek — 4 firsts, 5 seconds, 6 thirds, 4 fourths, 4 fifths, 2 sixths, 2 sevenths.

Frank Meyer, Greenfield — 4 firsts, 3 sixths, 2 sevenths, 1 eighth.

or over fertilized with nitrogen may fifths, 4 sixths, 2 eighths.

Vernon Zickert Deerfield — 2 firsts, 3 seconds, 1 third, 5 fourths, 3 sixths, 2 sevenths, 1 eighth.

Darrel Sherman, Edgerton — 2 firsts, 5 seconds, 7 thirds, 2 fifths, 2 sixths, 2 sevenths.

2 sixths, 4 sevenths.

Hi View Orchard, Cedarburg — 2 Lenore Zinn, Hartford — 1 first, 2 seconds, 4 thirds, 6 fourths, 1 fifth, firsts, 4 seconds, 1 third, 1 fourth.

Pauline Hollar, Sherry — 1 fourth. Jennie Hollar, Sherry — 1 fifth.

Jerry Vandenburg, Madison — One seventh.

APPLE PIE WINNERS

1st—Eleanor Birkholz, West Allis.
2nd—Mrs. L.Sielwert, Menomonee
Falls.

Nominating Committee

The following have been named to the Nominating Committee: Northeast district, Harold Rasmussen, Chr.; Northwest, Ralph Young; Southwest, Bigelow Louri; and Southeast, Armin Barthel.

Dip and Flip

There's a trick to spooning honey out of a jar that not everybody knows.

Dip the spoon into the container, hold it just a moment. Then, as the thread thins out, give the spoon a flip—over and up! This will break off the string of honey. And if you're quick about it, you can have the spoon over your plate—or your pancakes—before it drips again.

Now is a good time to try this trick. Honey is in especially good supply. A sharp reduction in exports has put lots of honey on the domestic market.

CIDER APPLES WANTED!

Must Be Free From Decay and Infestation

AEPPLER ORCHARDS

704 Concord Rd., Oconomowoc, Wis. Telephone 567-6635

It Looks Bad for the Bugs

Agriculture department scientists report they're working on experiments which could lead to commercial use of a new non-chemical tool for controlling insects.

The tool is an insect virus. Research workers have developed practical means of producing a virus which controls the corn earworm.

Experiments with the virus have indicated it produces effective insect control. The next step will be a series of experiments to make sure the virus is not dangerous to humans.

No danger to humans is expected, because the virus involved occurs naturally on insects in field crops, and no infections have ever been reported among humans or animals, or among any other insects except the one pest which the virus attacks.

TELL 'EM

Consumers do ask questions about apples and they both "want" and "need" to know the apple facts to make wise buying decisions. Remember, too, that satisfied customers are return customers. Studies have shown that the "informative type" apple advertising themes have been the most effective by far. So as a part of your 1965 "Appletivities," plan to "TELL 'EM AS YOU SELL 'EM"!

The best little tool for you to use is the new Wis. Apple Recipe Book. You'll find it helpful.

Mouse Control

Mice continue to be an important orchard pest. An effective control program will keep mouse populations under control. Failure to follow any control program will result in the loss of trees. Usually your better ones. In putting out bait follow the directions of your extension service and the regulations of the State Department of Agriculture. Get your baits out early enough.



MOUSE PROBLEMS??

For Control Use Niagara -

Zinc Phosphide 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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Weather

Weather can and often is a hazard to the fruit grower. Look what that late frost did to our strawberry growers in the southern three quarters of the state. Then along comes hail to ruin the George Premo, Richland Center, and Jay Spittler, Galesville, apple crops, and then, a few weeks ago, a severe windstorm knocked down most of Albert Ten Eyck's Brodhead, apple crop. On the other side of the picture the strawberry and apple growers in the Bayfield area had and have one of the finest crops in years. They are also enjoying good prices.

APPLE PIE SAME AS 300 YEARS AGO

Apple pie remains essentially the same in its making today as it was 300 years ago. American literature is filled with tributes to its glory, perhaps the most eloquent that of Henry Ward

Beecher who wrote: "Nothing is so fatal to the rare and higher graces of apple pie as inconsiderate, vulgar spicing. It is not meant to be a mere vehicle for the exhibition of these spices in their own natures. It is a glorious unity in which sugar gives up its nature as sugar, and butter ceases to be butter, and each flavorsome spice gladly vanishes from its full nature, that all of them, by a common death, may rise into the new life of an apple pie. Not that an apple pie is no longer apple. It, too, is transformed. And the final pie, though born of apple, sugar, butter, nutmeg, cinnamon, lemon, is like none of these, but the compound ideal of them all, refined, purified, and by fire, fixed in a blissful perfection."

By the time a feller gets to greener pastures, he can't climb the fence.

For Sale

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Presidents George Premo of The Wisconsin Apple Institute and Walter Clemens of The State Horticultural Society and Harvey Weavers, secretary, look on as Governor Knowles hands over the official Wis. Apple Time Proclamation and accepts a bowl of Wisconsin's Finest Apples in his office.

WISCONSIN APPLE TIME A BUSY TIME

It is not possible to mention all of the apple promotion activities that will take place during the month of September. Many agencies are cooperating to make apple time a success. We are listing a few: the growers, through their Apple Institute and through their own individual efforts, the marketing division of the State Dept. of Agriculture, the Agriculture and Home Agents, newspapers, radio and TV stations, food retailers

and wholesalers, Future Homemakers in the high schools and the various local service clubs.

That is a formidable array of talent, is it not? Here is what they will be doing: special promotion displays; every newspaper will receive a mat of the Governor's Proclamation, Apple for the Teacher program, special radio and TV programs, Apple Time Festivals, Ap(Continued on page 10)

United States of America

State of Wisconsin

EXECUTIVE DEPARTMENT

A Proclamation

WHEREAS, September is known throughout Wisconsin as Apple Time; and

WHEREAS, a large percentage of the crop is harvested at this time; and

WHEREAS, apples are a nutritious and healthful food for all age groups; and

WHEREAS, the Wisconsin crop will be marketed at roadside stands, retail markets and specialty fruit outlets during this period;

BE IT RESOLVED that the month of September be known as Wisconsin Apple Time and that all citizens of our great State be encouraged to support the efforts of the Wisconsin apple industry in marketing their crop;

NOW, THEREFORE, I, WARREN P. KNOWLES, Governor of the State of Wisconsin, hereby proclaim the month of September, 1965, to be

WISCONSIN APPLE TIME.

MAY I URGE all citizens of the State of Wisconsin to join in the observance of WISCONSIN APPLE TIME by buying, serving to their families, and enjoying the goodness of this nutritious fruit.



IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Wisconsin to be affixed. Done at the Capitol in the City of Madison this tenth day of August, in the year of our Lord one thousand nine hundred and sixty-five.

By the Governor:

WARREN P. KNOWLES, Governor.

ROBERT C. ZIMMERMAN Secretary of State

Wisconsin Apple Time

(Continued from page 8)

ples for the Badger Band, recipes by food editors and home agents, special units of instruction by F. H. A. and Home Economic departments in the high schools, special programs featuring apples by many service clubs.

No doubt there are many more. We have just listed a few. This is great cooperation, isn't it?

Then October 14 to 23 comes National Apple Week—that's when the National Retailers go all out to put apples in the publicity spotlight, to help sell more apples at better prices.

A man is getting old when he pays more attention to the food than he does the waitress.

BASKETS

All No. 1 Extra Fancy Quality Bushels: (Without Covers)

99 Doz. or less 100 - 250 Doz. 251 - 500 Doz. 500 & Over Doz. \$3.95 Dozen \$3.75 Dozen \$3.60 Dozen \$3.60 Dozen \$3.45 Dozen

1/2 **Bushels:** (Without Covers) \$3.75 Dozen any quantity

Peck Baskets:

\$3.85 Dozen any quantity

½ Peck Baskets:

\$3.65 Dozen any quantity

Sold and Distributed by

Wisconsin Orchard Supply Co.

704 Concord Rd., Oconomowoc, Wis. Telephone 567-6635

America's Favorite

Apple pie was the top choice of finalists who vied for the Mrs. Wisconsin title.

Mrs. Richard Hands, Neenah, who is the new Mrs. Wisconsin, chose a traditional recipe.

APPLE PIE

2 cups sifted flour

½ teaspoon baking powder

1 teaspoon salt

2/3 cup lard

1/4 cup cold water

To make the crust, mix dry ingredients, cut in lard, and sprinkle water onto the mixture. Divide into two parts and roll each out; cut the top crust dough into strips for lattice top.

Filling:

6 cups sliced apples

1 cup white sugar

2 tablespoons flour

1 teaspoon cinnamon

1/4 teaspoon nutmeg

2 teaspoons butter

Mix dry ingredients and sprinkle over apple slices in the pie dish. Dot with butter. Bake at 400 degrees 50 minutes or until done.

People in the United States use about 350 billion gallons of water daily.

This comes from a daily average of 4,400 billion gallons of rain or snow on continental U.S.

But experts caution that water could get to be a critical item as consumption soars.

Here are some farm uses:

It takes 4,000 gallons of water for 1 pound of beefsteak, 1,300 gallons of water for 1 pound of cotton, 500 gallons for 1 pound of rice, 80 gallons for 1 pound of potatoes, and 60 gallons for 1 pound of wheat.

Can you imagine anyone as unhappy as a woman with a live secret and a dead telephone?

APPLES AT 1965 STATE FAIR



The Misses Betty Lou and Karen Mahr with Wis. Alice in Dairyland in Apple institute. Note customer interest.

This year all attendance records were broken at the Wisconsin State Fair. So were sales in the Apple Institute booth. As in the past, The Wisconsin Apple Institute had a booth in the Farm Crops Building, and even though this building is way off at the far end of the fair-grounds, many people managed to come and see Wisconsin's Biggest Apple and purchase the fine apple products that were sold. This year sales mounted to over 750 gallons of cider, 7000 apple delights, and 50 bushels of apples. Apple corers and brand new recipe books were in big demand.

The main object of the booth is to promote Wisconsin apples and to make the consumer aware of the many different varieties and uses of apples. As in past years, Henry Mahr and his helpers were in active charge of the booth. His committee was composed of Elroy Honadel, Willard Nieman, and Leroy Meyer is already looking forward to a bigger and better display in 1966.

Kits for 1965 Promotion

Special Apple Promotion kits are being forwarded to all 1965 Wis. Apple Institute members by the Secretary. Material in these kits can be used to good advantage in roadside stands, packing sheds and sales rooms. They add lots of color and atmosphere, and they definitely help sell. That apple pie poster, properly displayed will increase sales tremendously.

Apple Varieties from Wisconsin

G. C. Klingbeil, U. of W.

The man who planted the first apple tree in Wisconsin and the virgin site he selected will forever remain hidden facts of history.

We might well imagine that it was one of the Frenchmen who followed Jean Nicolet through the gateway of Green Bay over 300 years ago. For 150 years the fur trading and missionaryminded Frenchmen explored Wisconsin's waterways and forests before they established a permanent residence at Green Bay in 1775. Because their records reveal they loved flowers and growing plants, we may surmise that the French carried that first apple tree to this remote land. We know that Welsh settlers planted apple trees in southwestern Wisconsin as early as 1800. Early in the nineteenth century the Germans, Norwegians Swedes. others began establishing farms over southern Wisconsin and by the end of the century many of these farmers had moved into the wastes of the lumbered north. The apple tree was an early harbinger of this farming culture. In the spring, its fragrant blossoms told of the arrival of another growing season. The early self-sufficient farmer carried along his apple stocks as his source of fruit. There also were many "appleseed Johnnys" who always planted the core of such fruit eaten in the fields or meadows.

Between 1830 and 1850, apple growing took on economic commercial signi-

ficance—extra cash in the pockets of farmers. Nurserymen propagated the best varieties and were always on the lookout for something new and better. At an apple exposition held in Milwaukee in 1854, over 100 varieties of apples were displayed. Of all those varieties today, all but one or two are just memories.

It may be of interest to list those varieties that originated in Wisconsin.

This is all I have records on, maybe you readers can add more varieties and information about them.

Here and There

A new handbook on "Farm Roadside Marketing" has just been released by the Food Business Institute, University of Delaware, Newark, Del., 19711.

This book is a manual of studies covering nearly 1000 markets. Ads and pictures of three Wisconsin roadside markets, Waldo Orchards, Thompson's of Kenosha and Harold Rassmussen's Apple Acres were in the book. The volume can be purchased for \$2.00.

This is the time of year when weeds in strawberry and raspberry plantings are neglected. It will pay you to go through the planting and hand pull the large lambsquarter, redroot, purslane and other weeds that will soon be ripening thousands of seeds that will aid to make life more miserable for you next summer.

Variety	Place of Origin	Date Named	Originator
McMahon	Richland County	1860	Unknown
Pewaukee	Pewaukee, Wis.	1870	Unknown
Northwestern Greening Wolf River	Waupaca, Wis. Winnebago County	1872 1881	E. W. Daniels W. A. Springer
Windsor Chief	Dane County	1888	Unknown
Milwaukee	Milwaukee County	1898	Geo. Geffry
Gem City	Sauk County	Unknown	Unknown
Connell Red	Dunn County	1955	Wm. F. Connell

HOW YOU STAND IN THE KNIFE AND FORK LEAGUE

As an average American, here's what you are eating today as compared with 15 years ago:

From 150 to 300 per cent more frozen fruits and vegetables; 65 per cent more chicken, 44 per cent more beef, 33 per cent more cheese, and 23 per cent more canned fruits. You are eating 49 per cent less veal, 40 per cent less fresh fruits, 18 per cent less eggs, 15 per cent less potatoes and wheat products, and 5 per cent less pork.

Here's the way the Wisconsin crop looks now. Corn, up 9 percent from last year. Oats, up 20 percent with a record yield. Barley, down 8 percent. Soybeans, up 31 percent. Hay, 7 percent less. Potatoes, up 11 percent, largest crop in 30 years. Tobacco, up 8 percent. Apples, down 15 percent. Red tart cherries, down 58 percent. Eggs, down 2 to 3 percent.

You won't notice much difference in state taxes. Wisconsin income taxes go up this year 0.2 percent in each income bracket beginning with \$1,000. Next year you'll get another 0.2 percent increase in each bracket. But top stays at 10 percent. Maximum increase this year, \$30. Next year, \$58. Smokers will get hit with another 2 cents per pack cigarette tax.

FOR SALE

CLEAN MARSH HAY

Excellent for Strawberries

Order Now - We Deliver

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Straw Spreader — Power Hoe
Power Pruner — Wish Basket
Simon Air Kut Strawberry Pruner
- ORDER YOURS NOW —

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One Bean Cub Grader — 18''
One Two Station Bagger

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Telephone 567-6635

Pears should be harvested when full grown but still green. If you wait until they are yellow, you will find the coresoft and often spoiled. A good time to pick them is when they change in color from grass green to a pale or yellowish green. Cool them as rapidly as possible to near 30° F., then hold at 30° in color storage until near the time they are to be marketed. To best ripen pears, keep them in the coolest location available and ripen them in a room or area having a temperature of 60° to 70° F. This procedure will result in the best quality.

Two University of Minnesota horticulturists have been named Fellows of the American Society for Horticultural Science for their outstanding service to horticulture.

They are W. H. Alderman, professor emeritus and formerly head of the University's Department of Horticultural Science, and Troy M. Currence, professor of horticultural science.

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	143/46	each
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1,000	– 2,000	123/4¢	each
2,001	- 5,000	113/4¢	each
5.001	and Over	111/4¢	each

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Captan pays all the way!

Besides giving your trees excellent protection from scab and all the major summer diseases of apples—Stauffer Captan 50-W helps increase yields and improve fruit quality—makes more profit for you!

If your apples go on the fresh fruit market, captan helps you produce the fine finish and color that appeal to housewives. In storage, captan helps preserve quality—cuts down profit-robbing storage rots. If they're sold to a processor—both apple quantity and quality are necessary. This is essential—whatever your market!

It's smart to build your profits around a captan program. Stauffer Chemical Company, Agricultural Chemical Division, 380 Madison Avenue, New York, N. Y. 10017.

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Wisconsin Horticulture

VOL. XLX

OCTOBER, 1965

NUMBER 2

OCTOBER IN THE ORCHARD

G. C. KLINGBEIL

Ext. Specialist Fruit Production Dept. of Hort., Univ. of Wis.



HAIL THE RAIN

Wisconsin farmers, including fruit growers, are concerned about getting in the harvest due to the abnormal amount of rain and severe labor shortage. Let's look at the plus side for fruit growers. In many areas of the state, the subsoil has been dry for several years; in some areas almost powder dry. Now, the subsoil is nearly saturated. This means fruit trees will have adequate moisture for the remainder of this year and very likely well into next year's growing season. If an average winter is ahead, the growth of trees next spring should be greater than average; foliage should be larger and heavier. In most areas of the

state, inspection of bearing trees shows good bud set. All these factors add up to the likely possibility of an above average crop for 1966. It may be wise to keep all factors in mind in planning your pruning and fertilizer programs for the coming season.

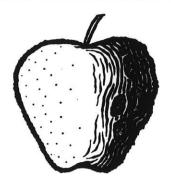
It has been my observation over the past few years that there have been an increasing number of hungry, tired, sicklooking trees in many orchards. More this year than ever before. Pruning, fertilizing and other management practices have not changed to account for the problem. The major factor is lack of moisture. Certainly in an annual crop the lack of moisture shows up almost immediately, but does it in a mature fruit tree? The result of the lack of moisture accumulates to some extent in trees until of a sufficient magnitude to cause visual expression. These tired, hungry-looking trees are a symptom-a symptom of the lack of moisture over a period of time. Let's hope the problem has been solved.

DO YOU KNOW YOUR BUYER?

An ever increasing amount of Wisconsin's apple crop is being sold at retail—roadside markets, fruit markets, U-pick, at the orchard, etc. The only reason people stop at these locations it to buy. Your job as a salesman is to know your buyer. Gear your sales approach to best fit her or him. They like something different! In case you don't know what the average woman shopper is like, Professor H. V. Courtenay, Consumer Economics, Purdue University, has drawn this profile from 12,000 interviews:

"She is 35 years young, has two children and brings them with her to shop about half the time. Her husband makes (Continued on Page 4)

Don't let poor keeping beat down your profit!



FIGHT BACK WITH ORTHOL

Give your crop a glossy wax finish—with ORTHOCIDE®



ORTHOCIDE stimulates wax formation on all varieties of apples. Wax gets heavier, glossier. Skin stays smooth and tight. So your apples resist rot and bruising—and keep better, too.

ORTHOCIDE is a broad-spectrum fungicide that works overtime. It gives lasting scab control. And (used regularly) it sparks tree vitality. You get fuller, greener foliage. Firmer, healthier apples—and more of them.

Use ORTHOCIDE as a spray or dust. Don't worry about russeting, even if you grow green or yellow varieties. Use it any time, from pre-pink to harvest. Use it all season and you'll see why we call it the miracle fungicide.

"Helping the World Grow Better"



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ON ALL CHEMICALS, READ DIRECTIONS AND CAUTIONS BEFORE USE.

T.M. REG. U.S. PAT. OFF.: ORTHO, ORTHOCIDE, HELPING THE WORLD GROW BE"ER

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

Sept. and Oct. — Wisconsin Apple Time. Oct. 14 - 23 — National Apple Week.

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.

PLEASE SEND US YOUR CHANGE OF ADDRESSS

Also Please—Tell us if you are receiving more than one copy of the magazine. The easiest way to do this is to tear off the mailing label at the top of page sixteen and return it to us with a notation.

The Ladies Plan For The Convention

Resolutions Committee — Mrs. Willard Nieman, Mrs. Roland Nieman.

Decorations — Mrs. Leroy Meyer, Mrs. Armin Barthel, Mrs. Elroy Honadel. Tea Committee — Mrs. George Young. Mrs. George Premo.

Dessert Contest Committee — Mrs. Willard Wagner, Mrs. Fritz Meyer.

Luncheon Committee — Mrs. Walter Clemens, Mrs. Henry Mahr, Mrs. Armin Barthel.

A good program is being planned, a nice tour—and a good luncheon—in a nearby restaurant. Expect to have some attendance prizes, also attractive name cards will be furished to the ladies. Everybody plan to come—we will have a good time. The fellowship with fellow growers wives is always refreshing. It is not too early to make your reservations at the Conway Motor Hotel, Appleton, Dec. 2 & 3. Ask for a room in the New Section.

OCTOBER IN THE ORCHARD —

(Continued from Page 1)

a little under \$6,000 a year. She spends about \$1,200 of this on food. She drives two miles to the food store, passing another supermarket on the way, because people there don't seem helpful or polite enough.

"She does not carry a shopping list but uses the market itself as a reminder of what to buy. She changes brands often for no reason, and is a pushover for new items, whether foods or household gadgets. She lives to buy items that have recipes on the package. She changes stores from time to time to be a good shopper and for the excitement of trying something new.

"She loves trading stamps, coupons, and games of chance to satisfy her desires and needs for achievement, hoarding or gambling. She is an eye-level to waist-level shopper. Merely by moving

BASKETS

All No. 1 Extra Fancy Quality Bushels: (Without Covers)

99 Doz. or less 100 - 250 Doz. 251 - 500 Doz. 500 & Over Doz. \$3.95 Dozen \$3.85 Dozen \$3.65 Dozen \$3.50 Dozen

1/2 Bushels: (Without Covers) \$3.75 Dozen any quantity

Peck Full Color Baskets: \$4.95 Dozen any quantity

½ Peck Full Color Baskets: \$4.80 Dozen any quantity

Sold and Distributed by

Wisconsin Orchard Supply Co.

704 Concord Rd., Oconomowoc, Wis. Telephone 567-6635 a product 18 inches higher on the display rack, the merchandiser can increase is sales—and sometimes its price.

"Also, she likes to buy from filled rather than partially filled shelves. Except for items she uses constantly, she cannot remember prices from day to day and her arithmetic is terrible. She invariably goes for 10¢ items sold three for 29¢. But she will also buy more of a 33¢ item if it is offered three for 99¢.

This is a quick profile of the consumer. Roadside merchandisers, part of your job is to lie awake nights dreaming up new ways to woo and beguile the consumer. Set some tender traps for her and put an element of romance, glamor and excitement into the prosaic roadmarketing business. If your wife thinks you're being overzealous with these consumer women, tell her you only love them for their money.

National Apple Week

Is scheduled for Oct. 14-23rd. How about doing something a little extra, to help promote your production. There is plenty of promotion material still available. Check the August issue for all the information.

The purpose of this National effort is to get:

- --Nationwide publicity calling attention to apples;
- —Full color point of purchase material:
- -Retail display contests;
- —Choice of well known Wisconsin apple varieties to feature.

Choose your own theme for your National Apple Week display but don't forget—the apple harvest is in, and your customers want those colorful, tasteful apples.

Times change. When grandma used to tell how many pints or quarts she put away, you knew she meant jellies.

PROGRAM 97th Annual Convention

Wisconsin State Horticultural Society
Wisconsin Apple Institute

Conway Motor Inn, Appleton, Wisconson

DECEMBER 2 and 3, 1965

"THE CHALLENGE OF CHANGE"

Thursday, December 2

9-10 A. M.—Registration.

10:00 — Announcements — Walter H. Clemens, Pres., Wis. State Horticultural Society.

10:15 — Welcome — Honorable Clarence Mitchell, Mayor, Appleton.

10:20 — Response. George W. Premo, Pres., Wisconsin Apple Institute.

- 10:30 Keynote "The Other Guy Might be Ready" — Harold Calbert, Chairman, Dairy & Food Industry, Univ. of Wis.
- 11:15 Merger Committee Report.

12:00 — Lunch—at place of your choice. Chairman—Walton Frisch, New Holstein

- 1:30 P. M.—Teaching and Research in Horticulture. Dr. Warren Gabelman, Chr., Dept. of Horticulture, Univ. of Wis
- 2:00 "Trends in Apple Consumption" —Marlon Schwier, Marketing Division, Wis. State Dept. of Agriculture.

2:30 — "Apple Research Results" — Dr. Joe Von Elbe, Dairy and Foods Dept., University of Wis.

3:00 — "Apple Variety Recommendations (Fresh-Processing)" — Dr. Frank Gilbert, Sturgeon Bay Experiment Station, Univ. of Wis.

3:30 — Wisconsin in a Modern Apple Industry — Prof. George Klingbeil, Dept. of Horticulture, Univ. of Wis.

4:15 — Social Hour with Apple Desserts arranged by the Ladies Auxiliary of Wisconsin State Horticultural Society.

6:30 P. M.—Banquet—Seasons Room. Master of Ceremonies—E. A. Erickson, Casco, Wis.

—Alice in Dairyland, Introduction—Honorary Recognition Awards

-Apple Display Awards

—"Creating a Favorable Public Image"—K. W. Haagensen, Coordinator of Special Projects, Marketing Services & Public Relations—Allis-Chalmers Manufacturing Co., West Allis, Wis.

Friday, December 3

7.00 A. M.— Joint Board of Directors — Breakfast Meeting.

MORNING SESSION

Program Chairman Prof. George Klingbeil PANEL DISCUSSION

9-11 — Moderator — A. R. Kurtz, Chief, Plant Industry Division, Dept. of Agriculture.

Leaf Tissue Analysis—A Tool for Better Production

—(a) Research Report — Dr. Emil Anderson, Dept. of Hort., Inst. of Agri., St. Paul, Minnesota.

—(b) Grower Viewpoint — Gordon Yates, LaCrescent, Minnesota.

The Pesticide Picture as We See It

—Marvin Verhulst, Wisconsin Canners Association.

Mouse Control with Prolin — Joe Abrams, Wisconsin Alumni Research Foundation, Madison, Wis. Planned Thinning — Walter Clem-

ens, Mequon, Wis.

Future of Dwarf Trees as the Grower Sees It — Albert Ten Eyck, Brodhead, Wis.

DISCUSSION

Summary and Conclusions — Prof. George Klingbeil.

11:00 — Business Meeting.

12:00 — Luncheon.

Presiding--New President.

"You and Your Diet" — Dr. Henry T. Scott, Director Biological Laboratories, Wisconsin Alumni Research Foundation, Madison, Wis. ADJOURN

Wouldn't it be nice if we could use the daylight we've been saving all summer now?



MOUSE PROBLEMS??

For Control Use Niagara -

Zinc Phosphide 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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Nominating Committee Reports

The Nominating Committee composed of Harold Rasmussen, Chr., Armin Barthel, Bigelow Lourie and Ralph Young, reports the following slate for directors:

North East District
E. A. Erickson, Casco
Donald Grun, Sturgeon Bay
Don Van Elzon, Kimberly
South East District:
Walter Clemens, Mequon
Walter Frisch, New Holstoi

Walter Frisch, New Holstein LeRoy Meyer, Ooak Creek `Don Rawlins, New Richmond, Ill. South West District:

Arthur Bassett, Baraboo Wm. Meyer, Gays Mills George Premo, Richland Center Albert Ten Eyck, Brodhead North West District:

Tom Connell, Menomonie

Dawson Hauser, Bayfield Robert Saccia, Galesville

Badger Band Likes Apples

The University of Wisconsin Marching Band "Refreshes with Wisconsin Apples," after their intermission activities, at all home games. The apples come directly from one of our state orchards and packing sheds. Bigelow Lourie, Gays Mills and Wm. Louis and Son, Richland Center, supplied the first two lots. What beautiful apples they were, too! One just like the other.

Heard over WIBA Radio Station, when Wisconsin battled Iowa to a 16-13 win. "What does that sign say across the field? Why, it says, 'Band refreshes with Wisconsin apples." Look, there is a band member pushing a cart with three boxes of apples on it. I hope they give some to that girlee (kiltee) band,

For Sale

2 USED ROTO-MULCHERS

1 USED CULTI-CUTTER

CONDITION EXCELLENT

Tops For MOUSE CONTROL

Wisconsin Orchard Supply Company

704 Concord Road — Oconomowoc, Wis. Telephone 567-6635 too. Nope, yes they are stopping and are unloading some for them. That's just fine." That's all good apple publicity, don't you think? The above interest and concern of the announcers, in the midst of that football game interested us.

Instructions

FOR PICKING YOUR OWN APPLES AT APPLE ACRES

- 1. No smoking in the orchard.
- Use standard wooden bushel baskets only. No half-bushel, or any other containers may be used.
- Full bushels only are sold in the orchard.
- Ladders are available. Do not climb the trees.
- Pick your baskets full, but please don't overdo it. A cover can be placed on a full bushel.
- 6. Litterbugs are not welcome.
- 7. Throwing apples is forbidden.
- Have your trunk-lid raised when you are ready to check out.

We hope that your whole family will enjoy coming here to pick apples, and that you will come again. Any suggestions will be appreciated.

Harold Rasmussen's Apple Acres

FALL IS GOOD TIME TO PLANT NURSERY STOCK, IS TIP

Even though a crab apple tree on the grounds of the Hill Farm State office building in Madison appears to be a maverick; fall, that most colorful of all seasons, arrived in Wisconsin on Sept. 21.

The tree in question is blooming amidst these crisp mornings and cool nights, but according to Samuel B. Ferguson, Horticulturist of the Wisconsin Department of Agriculture, not very many trees are expected to follow its example.

On the subject of the arrival of fall, now is a good time to plant nursery stock on your home lot. The combination of sufficient moisture, cool days and a fine quality of nursery stock in every quarter of the state, offers ideal conditions, he added.

With the Department's nursery inspection activity drawing to a seasonal close, inspectors have reported good quantities of quality nursery stock still available.

"Homeowners are urged to take advantage of these factors to plant nursery stock now," Ferguson concluded.

It's a good idea to have your water supply checked every few years. Then you'll be sure your water is safe. The Wisconsin Board of Health has district offices throughout the state which will run tests on water samples to determine quality.

CIDER APPLES WANTED!

Must Be Free From Decay and Infestation

AEPPLER ORCHARDS

704 Concord Rd., Oconomowoc, Wis. Telephone 567-6635

Apple Exhibit

All of the cartoons, to be used for the exhibit of a bushel of apples, have been sent out. We suggest that while you are grading the different varieties set aside a box or two of your best, put them in the cooler for later regrading and then packing in the box, sent to you. Then bring them along to the convention, on Dec. 2nd. If you follow this procedure you will be ready with no extra effort. The main thing, however, is not to forget. Marlon Schwiers is in charge of this project. It's a good one. More on this next month.

Strawberry Yield Trials

Hancock Experiment Station Hancock, Wisconsin

G. C. Klingbeil and M. D. Groskopp *

The central sand area of Wisconsin is an economically significant crop production region of recent development. It seemed necessary to further evaluate the strawberries in this area primarily (1) to evaluate the production potential of several named varieties and promising seedlings and (2) to determine the frozen fruit quality of these varieties and seedlings.

In 1964, five named strawberry varieties and five numbered seedlngs from the strawberry breeding program of Dr. F. A. Gilbert, Horticulturist, Peninsula Experiment Station, Sturgeon Bay, Wisconsin, were planted at the Hancock Experiment Station, Hancock, Wisconsin. Cultural procedures were followed as suggested in Wisconsin Bulletin 546, "Strawberry Production in the Central Sand Area," by Dana, Groskopp and Rom, June, 1960. In addition to the above practices, sixty pounds of actual nitrogen per acre were broadcasted on June 12, or when first fruits were about one-third grown. Standard insect and disease control procedures were followed. Data were taken as to date of harvest, vield and fruit size of each variety and seedling. No data were taken for the Early Dawn variety because of a poor plant stand.

Summary Notes

- 1. As in previous tests, Sparkle appears to be one of the most reliable producers of the named varieties at the Hancock Experiment Station.
- 2. Vesper appears to have promise for the fresh market but showed significant damage from a hull rot organism as did Wisconsin 5828 and 5814.
- 3. Winter survival of the named varieties was satisfactory. Sparkle was considered superior, followed by Catskill, Vesper and Jerseybelle in that order.
- 4. All Wisconsin seedlings, except Wisconsin 5935, had winter survival about equal to Sparkle.
- 5. All seedlings can be considered late-ripening varieties and all, but Wisconsin 5935, merit further evaluation.
- 6. Caluculated yields per acre, fruit size for each harvest, harvest dates and quarts per harvest are shown in tables 1, 2 and 3 respectively.
 - 7. Frozen berry quality will be pre-

PLASTIC CIDER BOTTLES!

Gallons and Half Gallons In Stock

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Wisconsin Orchard Supply Co.

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- Promotes apple eating and apple sales. Works with pears, too!
- Slices, cores apples in a single, swift operation. Provides 8 ready-to-eat slices. Wonderful for preparing salads.
- Stock it at your check-out counter for extra profit impulse sales.
- They sell on sight. High quality American made.

A Real Money-Maker!

Order through

WISCONSIN APPLE INSTITUTE

4215 Mohawk Drive Madison, Wisconsin 53711

sented in another re	eport.	Wis. 5831 13,417
(Table	No. 1)	Wis. 5814 12,807
YIELD F	PER ACRE	Wis. 5827 10,368
Variety or	Calculated	Wis. 5935 7,057
Selection	Yields * (Qts./A)	Yields were calculated from 25 feet
Catskill	5,489	of row, based on a spacing of 5 feet
Vesper	11,413	between rows.
Jerseybelle	4,966	* Extension Specialist, Fruit Produc-
Sparkle	12,197	tion, Univ. of Wis. and Associate Pro-
Early Dawn		fessor, Univ. of Wis., Experimental
Wis. 5828	17,774	Farms, Hancock Sta., respectively.

(Table No. 2)

HARVEST DATES AND FRUIT SIZE

VARIETY OR SELECTION Weight in Gms. of 100 Fruits *

HARVE	CST			Jersey-						
DATE		Catskill	Vesper	belle	Sparkle	5828	5831	5814	5827	5935
6 26 65		1,060	808	1,392	1,184	1,524			1,184	
6 28 65		896	848	1,224	920	1,288	1,460	1,216	1,200	1,224
6 30 65		754	1,112	1,320	760	1,272	1,264	1,032	1,016	1,016
7 2 65		520	1,084	1,176	760	1,168	1,384	1,088	968	968
7 5 65		500	904	880	616	1,040	1,096	1,052	848	816
7 7 65		440	920	768	544	760	1,224	776	808	760
7 9 65		384	760	720	520	872	1,040	832	608	648
7 12 65		312	592	752	400	520	744	600	560	504
7 14 65			400	480	336	560	584	560	424	504
7 16 65		-	448	488	242	308	552	424	312	488
7 19 65			310	280	264	448	416	360	248	344
7 21 65						256	376	208		

^{*} There are about 454 grams in one pound, thus about 633 grams of strawberries would fill a 22-ounce quart.

(Table No. 3)
HARVEST DATES AND QUARTS PER HARVEST
From 25 Feet of Row

	Quarts By Variety									
Jersey-										
DATE		Catskill	Vesper		Sparkle	5828	5831	5814	5827	5935
6 26 65		4.5			3.0	1.0			0.5	
6 28 65		2.0	0.5	0.5	3.0	3.5	2.0	1.0	2.0	1.0
6 30 65		2.0	2.0	1.0	3.5	4.5	2.75	2.0	1.0	1.75
7 2 65		1.5	2.25	1.25	3.75	6.0	3.0	2.0	6.75	1.25
7 5 65		2.25	5.0	3.0	7.25	10.0	7.0	7.0	3.0	5.0
7 7 65		_ 1.0	3.0	1.0	2.5	4.0	2.75	4.0	5.25	2.0
7 9 65		1.0	4.0	2.0	4.0	6.75	6.25	5.75	5.75	2.5
7 12 65		1.0	6.0	2.0	3.5	6.0	5.5	6.25	2.0	3.0
7 14 65			3.25	1.25	2.25	4.0	4.0	4.0	1.75	2.0
7 16 65			3.0	1.0	1.5	2.5	3.0	2.0	1.25	1.0
7 19 65			2.5	1.0	.75	2.0	1.5	2.0	0.5	.75
7 21 65		-	1.25	0.25		.75	.75	.75		
TOTAL	S	15.75	32.75	14.25	35.0	51.0	38.5	36.75	29.75	20.25

Here and There

REFERENCE ON APPLES

Looking for a comprehensive reference on apples? United Fresh Fruit and Vegetable Association's third and expanded edition of "Apples," in its series on "Fruit and Vegetable Facts and Pointers," by R. A. Seelig is one worthwhile having. Copies can be obtained through United Fresh Fruit and Vegetable Association, 777 14th Street, N. W., Washington, D. C. 20005.

Evergreens need plenty of water during dry months. This is especially true with new plantings around your home. Give the trees a good soaking once a week. Hosing down an evergreen regularly also helps to knock insects off.

University of Wisconsin researchers are working to develop a chemical bandage that, wrapped around a tree in spring, would kill all insects feeding on it during the growing season.

This concept is derived from a relatively new method of insect control that requires placing the insecticide inside the plant rather than on its surface. Insects are killed as they feed on the plant, before they can do any damage.

A memorial to an insect has been unveiled in the town of Dalby in Australia. The insect is the cactoblastic moth which was responsible for ridding 65 million acres of Australian land from prickly bear.

This victory of the moth over the pear has been described as the most outstanding example ever recorded of the control of pests by biological means.

"We are changing and so is society. If we do nothing to direct the flow of change, negative and destructive forces will determine its course."

Maybe this statement contains more wisdom than we think it does.

Rats will be moving into your farm

huildings as the weather gets cold Clear away all old lumber, trash pile: and other debris which would make good rat housing. Cut weeds and tall grass.

What can we do to make our convention better? If you are like most of use you have expressed some good suggestions to your neighbor across the fence What are they? Taking the time to send them in will come back to you with good interest.

My neighbor down the road is not a genius—yet he has a much better income than some mighty bright people I know because he uses all he's got and works hard.

Shade Tree Conference

The 2nd annual Conference on Shade Trees will be held at the Holiday Inn in Madison November 9 and 10.

Aborists, municipal officers interested the care and management of trees and other are invited to attend. A gathering of about 300 is expected. The registration fee of \$3 may be paid at the time of the sessions. No advance registration is necessary.

The conference has adopted the theme "Beautification Through Trees" and the two-day program will concern itself with shade tree problems and Dutch Elm disease. The latter subject has been scheduled for Nov. 10 and will cover new developments in the search to stem the disease as well as evaluation of old methods.

The keynote speaker will be Joseph A. Diedrich, Greenwich, Connecticut, president of the International Shade Tree Conference.

In traffic tie-ups you meet every cross section of the public.

Ever check your driving habits' Seems the "other guy" is always wron; and a poor driver.

HORT SHOW TIME

Many the years we have come to these meetings!

Many the folks we have met at this show!

To many fine talks we have listened together,

Learning new facts every grower should know.

Year after year of continuous service Sifting the truth from mistaken alarms, Solving one problem to tackle another, Practical know-how for orchards and

farms.

Ours is the forum where theory and practice

Team up together for the good of mankind.

When professor and grower discuss new ideas.

Science and husbandry soon are combined.

That machinery exhibit and those farm supply agents,

That's part of the show we can't do

Each booth and new gadget has its own brand of salesman

To tickle our ribs and dispel every doubt!

Great is our past and greater our future!
We replant our orchards with faith
ever new.

Long live our Society! May its history inspire us

To give of our best in whatever we do!

Albert L. Mason

AT THE END OF THE HARVEST

The apples are picked and the mice have been baited.

Right now is the season when rhymes are created.

The spray rig is drained and the tractor is resting.

I sneak in a snooze while my dinner's digesting.

Each ladder's inspected and stored in the barn.

Each picking bag's mended with patch or by darn.

The Kieffers are picked or have dropped on the ground.

Sweet sider and doughnuts! Please pass 'em around.

There's frost on the roof tops. Wild geese are heard calling.

Occasional snowflakes are slantingly falling.

The north wind is raw and the grass has stopped growing.

Somewhere near the cornfield a pheasant is crowing.

There's ice on the pond where we used to go swimming.

The leaves all have fallen. We soon will be trimming.

We're catching our breath from the rush and the hurry.

The wind and the rain and the harvesttime worry.

The woodshed is filled and the fruit cellar's bulging.

The cookie jar's full and I'm often indulging!

I'm taking my wife for a spree in the city.

As soon as I've finished this fruit grower's ditty.

Albert L. Mason

EXPORT OUTLOOK FOR 1965-66

Export prospects appear as good or better than a year ago. This reasoning is based on the following:

- * Italy's crop was not only down this year, but has been hit hard by two severe storms. Up to 80% loss in many orchards.
- * West Germany is down in production and France will be shipping more into West Germany. This will allow U. S. more play into England. England's crop is down in dessert varieties and up in processing varieties.

Interesting

From the Buck Herzog column, Milwaukee Sentinel, Sept. 25, 1965—"Mrs. Frederick J. Meyer, Waldo Orchards, Waldo, recently appeared on "Today for Women" on WTMJ—TV, The Journal Co. station, promoting Wisconsin apples and a new Wis. Apple Institute recipe book. The station forwarded to her more than 2,000 requests for the book, including one from Salem (Garden of Eden), Wis. and sent by — Eve Adams. Can you beat that?"

TRACTOR AIR CLEANER PERFORMS BIG TASK

A tractor engine takes in about 8,000 gallons of air for every gallon of fuel it uses. A large tractor uses about 250,000 gallons af air in a work day.

Efficient air cleaners are very important.

FOREIGN MARKET SITUATION

Gilbert Sindelar, FAS, U.S.D.A.

* During the marketing season of 1964-65, U. S. exported 4,800,000 bushels of apples. This was 400,000 over the previous year and was done in the face of two adverse conditions: 1--Longshoreman strike and 2--Abundant production by both Italy and France.

* Largest export increase last year was to Canada.

THE GENERAL Economic Environment presents an encouraging amosphere to sell apples. It was reported that this year 50% of the households will have an income of ten thousand dollars. Family size is increasing. The median age of the population will soon be 25 years. Young people make up the bulk of our apple customers.

FALL SOIL SAMPLE SAVES TIME IN SPRING

Many farmers order fertilizer in the fall for spring use, to get exactly what they want and take advantage of any seasonal savings.

Now's the time to take soil samples to have results in time to order fertilizer wisely this winter.

The U. S. Department of Agriculture has found a way to take calories out of peanuts. They do it by removing 80 percent of the oil. With the oil goes 75 percent of the calories.

The guy who insisted that life begins at 40, must have had beginner's luck!

Description and Evaluation Of Apple Varieties

By ROGER D. WAY

Agr. Experiment Station Geneva, New York

(This article was delivered as an address before the New York State Horticultural Society.)

Fifty years ago every farm orchard had 25 or 30 apple varieties in it. Today, there are only 9 important varieties in the whole State of New York.

A hundred varieties could be listed that every grower could grow well. Yet, the trend is not toward more varieties but fewer varieties. Some of the reasons for this reduced number of varieties are very clear. Apple buyers prefer to handle only a few varities. Also, in the or-

FOR SALE CLEAN MARSH HAY

Excellent for Strawberries

Order Now - We Deliver

Donald Koff

400 MADISON ST., BEAVER DAM PHONE 887-2333 chard, fewer varieties make for more efficient operations. Certain varieties are inefficient producers and have been dropped without being replaced, resulting in fewer varieties. Under these circumstances, it is difficult for any new variety to become important. If a new variety is to become widely planted, it must have few faults and many outstanding attributes.

When a new orchard is planted, the variety is one of the most important decisions to make. The variety is the very basis of our industry, both from the point of view of merchandising and growing. Each variety has its own special characteristics, its own favorable features.

Half of New York State apples are processed. Although the market price for fresh apples is greater than that for processed fruit, because of the more efficient production methods, processing varieties can be grown at considerable profit. Certain varieties such as Rhode Island Greening or Mutsu may be planted for processing only. Other varieties such as Idared and Golden Delicious can be dual-purpose and can be sold either fresh or for processing. With dual-purpose varieties, it is usually necessary to decide at the beginning of the season which market is to receive the crop. If they are to be processed, perhaps more fertilizer or less thinning will be used. However, for most varieties, it is necessary to decide on the market at the time of planting, fresh or processing.

The apple variety situation does not change rapidly. Thus, the situation which now exists will be very little different 5 years from now. Even though some growers are anxious to try new and apparently superior varieties, it is a long time before any great difference in the total variety picture becomes evident.

(To Be Continued)

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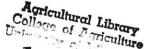
Besides giving your trees excellent protection from scab and all the major summer diseases of apples—Stauffer Captan 50-W helps increase yields and improve fruit quality—makes more profit for you!

If your apples go on the fresh fruit market, captan helps you produce the fine finish and color that appeal to housewives. In storage, captan helps preserve quality—cuts down profit-robbing storage rots. If they're sold to a processor—both apple quantity and quality are necessary. This is essential—whatever your market!

It's smart to build your profits around a captan program. Stauffer Chemical Company, Agricultural Chemical Division, 380 Madison Avenue, New York, N. Y. 10017.

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Wisconsin Horticulture

VOL. XLX

NOVEMBER, 1965

NUMBER 3

It's MEETING TIME Again!

FOR WISCONSIN HORTICULTURISTS AND APPLE GROWERS, it's Appleton, Dec. 2nd and 3rd, at the Conway Hotel. With the crop safely harvested, our growers are looking forward to comparing notes with other growers, from other sections of the state, listen to speakers, discuss marketing, promotion and cultural topics of interest. The complete program ran in the October issue of this magazine. This is your invitation to attend. We will be looking forward to seeing you there. By the way, don't forget to bring those apples along.

November in the Orchard

G. C. Klingbeil, Extension Horticulturist
University of Wisconsin

ORCHARD MICE

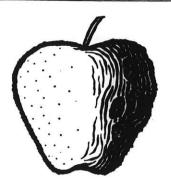
The ordinary meadow mouse (Microtus pennsylvanicus) causes considerable damage to apple trees in some orchards every year. Unfortunately, damage is only usually noted where complete girdling is accomplished as a result of feeding on tree bark. Such damage results in death of the tree by the fall of the following season. What is not known is the extent of yield and growth reduction and the disruption of other necessary growth processes as the result of partial girdling. This kind of damage is far more prevalent than complete girdling. Wisconsin orchardists are aware of the fact that mice are usually prevalent and that some years populations are higher than others. Of major importance is that the degree of prevalence must be recognized and then the best methods to employ for control. If populations are high, such as they are in many orchards this fall, a broadcast application of zinc phosphide-treated grain bait, at the rate of 8-10 pounds per acre, is suggested. The following is quoted from USDI, Division of Wildlife Services' newsletter, Orchard Mouse Recommendations—Fall 1965. "Handbroadcasting is a fast method but requires more bait and has little or no effect on pine mice.

To hand-broadcast, go down a tree row and come back on another line as in hand baiting. Before baiting, examine the matted grass to determine if trails are numerous. Note if there are small openings in the grass cover and if they indicate the presence of runways. This will help determine where placements should be made. In baiting, throw a small handful of bait forcibly into heavy grass. It will sift through where mice will find it. Try to confine the spread of bait to a spot about 18 inches wide. In heavy grass, where runways are numerous and well traveled, make placements about 6 to 8 feet apart. Then walk ahead to the next tree and make placements according to the density of cover and so on. Do not waste bait by throwing it on bare ground or where grass cover is thin. Remember that mice depend upon cover over their backs for protection and they avoid open places."

APPLE SEEDLINGS

It is interesting to note that every (Continued on page 4)

Don't let poor keeping beat down your profit!



FIGHT BACK I WITH ORTHO!

Give your crop a glossy wax finish—with ORTHOCIDE®



ORTHOCIDE stimulates wax formation on all varieties of apples. Wax gets heavier, glossier. Skin stays smooth and tight. So your apples resist rot and bruising—and keep better, too.

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WISCONSIN HORTICULTURE

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

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Arthur R. Kurtz, Madison Marlon L. Schwier, Madison **Coming Events**

Dec. 2 - 3 - Wis. State Horticulture Society and Wis. Apple Institute Convention, Conway Hotel, Appleton.

Dec. 12 — Christmas Pageant — Rotunda — State Capitol.

Dec. 13 - 14 - Wis.-Minn. Fruit Growers' Meeting, Eau Claire.

Dec. 19 — Municipal Christmas Tree Lighting Ceremony, Milwaukee Arena. Jan. 5 - 6 — Wis. Pesticide Conference Park Motor Inn, Madison, Wis.

Box Apple Contest Plans

The following score card will be used in the Bushel Box Contest scheduled for the apple convention in Appleton in December.

Three varieties can be entered in the competition, namely, McIntosh, Cortland and Delicious. A uniform box has been distributed, thus all containers will be the same.

A scorecard has been divided into two sections, namely, General Appearance and Fruit Quality. Under "General Appearence" it is expected each one will use his own ingenuity in how best to create a good "apple image" through attractiveness, packaging technique and freshness.

The second section is "Fruit Quality" and is, of course, self-explanatory.

A group of three judges will individually score each entry and the entry receiving the highest score will be the champion. Blue ribbons will be given for other top-scoring entries.

The champion winners will be given to the various Appleton Service Clubs where they will be auctioned off to the highest bidder. Proceeds will go to a particular project in each Service Club.

All entries should be at the Conway Hotel in Appleton by 10:00 on the morning of December 2.

The industry is hoping for good participation from our Wisconsin apple growers.

Exhibitors in any of the plate contests will also compete in the Box Contest.

SCORE CARD — BUSHEL BOX CONTEST

Entry No.

Variety: A. General Appearance	 50 Poi	ints
		Points
Attractiveness	0-20	
Packaging Technique	0-20	
Freshness	0—10	
R Fruit Quality 100 D		

Total Score
Marlon Schwier—In Charge

November in the Orchard

(Continued from Page 1)

fall I receive a considerable number of samples containing seedling apples that the sender feels have great merit. Such interest and enthusiasm for finding something better is not to be discouraged. We can't discount the fact that some seedlings have been found in Wisconsin that have been acceptable and are still in the trade. A number of these seedlings were listed in an earlier issue. The fact remains, however, that a basis of judgment or comparison must be established. Certainly, if a seedling or sport is no better than present varieties, it deserves no consideration. Such judgments must consider color, size, flavor, storage life, time of ripening, bearing habit, the ability to produce and many others. The factor that is often overlooked is the tree's ability to produce. As time goes on, the need for greater

production per acre will become more and more important. It is evident today in the use of size-controlled trees, closer spacing, different training methods and more intense management.

Apple Grade Markings Under Study

The U. S. Department of Agriculture is requesting the apple industry for opinions and suggestions as it pertains to grade markings on particular packages.

Presently, the U. S. Department of Agriculture interprets that minimum diameter, when marked on container of apples, to mean that more than 5% of the apples must be smaller than the next larger size. For example: In containers marked 2¼ inch minimum, at least 6% of the apples must be less than 2½ inches in diameter to comply with marking requirements. Also, the undersize tolerance provided in the standards

BASKETS

All No. 1 Extra Fancy Quality Bushels: (Without Covers)

99	Doz. or less	\$3.95	Dozen
100	- 250 Doz.		Dozen
	- 500 Doz.		Dozen
500	& Over Doz.		Dozen

½ Bushels: (Without Covers) \$3.75 Dozen any quantity

Peck Full Color Baskets: \$4.95 Dozen any quantity

1/2 Peck Full Color Baskets: \$4.80 Dozen any quantity

Sold and Distributed by

Wisconsin Orchard Supply Co.

704 Concord Rd., Oconomowoc, Wis. Telephone 567-6635 must not be exceeded. If these conditions are not met, the package could be in violation of being mislabeled.

Most of the problems arise on the consumer size pack, principally the 3 and 4 pound packages. If the packages are labeled at printing time, it is practically impossible to change later if one intends to package larger fruit. in a package that was labeled 2¼ inch minimum.

The U. S. Department of Agriculture feels that labeling in this manner is misleading and not in accordance with the facts on the pack.

They are asking the apple industry to give them views and comments which will guide them in making amendments to this marking problem. These should be sent not later than December 1, 1965 to:

Chief, Fresh Products Standardization and Inspection Fruit & Vegetable Division Consumer & Marketing Service U. S. Department of Agriculture Washington, D. C. 20250

Bayfield Area's New Look

Strawberry growers received the best price for strawberries in their history. The price ranged from \$4.25 to \$6.25 for 12 quarts as a general rule. It was very hard for growers to understand they could get this kind of price so they were sold lower and they did move up slower than they might have. This is the first year they could make more by picking the fruit rather than having pick-yourowns. In general the price of pick-yourowns was 25¢ to 35¢ a quart.

This higher price along with good productions gave the growers in the Bayfield area a good return for their strawberries. Production on year old fields ranged from 4,500 quarts to about 9,000 quarts an acre. Many years the production has been below 5,000 quarts per acre.

Bayfield is now entering the time where demand will exceed the supply

in both pick-your-owns and picked and packed fruit. We had several growers that never took down their signs saying "No picking today" and yet they sold all the strawberries they had by pick-your-owns.

Mrs. John Ahnen reported she picked 54—12 quart crates off of 3,300 square feet of area. This amounts to about 8,500 quarts to the acre. This is excellent production, this year when most areas of the state have very poor production.

The new look is that the demand is good and will continue because pick-your-own has increased the demand and will continue to increase. The big question is will the area be able to supply the demand? You may wonder where all this demand comes from when we rove so much water to the north and woodland to the south, within 125 miles there is a population of over 200,000 people, about 150,000 in Duluth and Superior. They will drive to get good fruit.

Dawson Hauser, Walter Barningham, Jim Erickson and John Ahnen have reportedl that the apple festival was a success. They report the sale of apples was good, but also the advertising received will affect the area for a long time to come. There were guestimates of 3 to 5 thousand people in Bayfield on Sunday afternoon, October 3. The country side was painted as only the Master can do and cars could be found all over the back roads as well as the main roads. The return to the visitor was as good as it was to the apple growers.

Next year the fruit growers hope to make the apple festival bigger and better if all possible.

> -Eugene Anderson, Horticulture Agent

Winter is sneaking up on us. Don't delay winterizing your car, tractors and other equipment too long.



MOUSE PROBLEMS??

For Control Use Niagara -

Zinc Phosphide 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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We will look for you at Appleton on December 2nd & 3rd





News from the National

Michigan State Apple Commission To Host N. A. I.'s 31st Annual Meeting, June 16-18, 1966

Ever been to Michigan? To Northern Michigan? To Traverse City, Michigan? Ever visited the intensive fruit production areas of Michigan-All the way up the west side of the state from south of Harbor to Grand Traverse Benton County and Traverse City? Next June will be an excellent time to do it. N. A. I.'s 31st annual meeting will be held at the Park Plaza Motor Inn in Traverse City, Michigan, June 16-18. Michigan growers will be your hosts . . . and though fully aware of the outstanding Idaho hospitality and the excellent program last June in Sun Valley . . . they tell us, to use an old cliche, "You ain't seen nothin' yet!" We agree. There is much to see in Michigan. Its fruit industry is a dynamic and growing one.

Traverse City and the area around it is beautiful. And the program? Well, we've had many favorable comments on the valuable talks and meetings at Sun Valley. We can only say that next year's meetings will equal or better the program at Sun Valley.

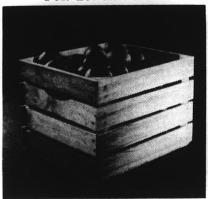
Better plan now to visit Michigan next June.

QUALITY SELLS!

The USDA recently surveyed 2,500 consumers throughout the U.S. One question of the survey was "What could stores do to get customers to buy more fruit?" Almost 50% said "display higher quality." The fruit growing industry has been working extremely hard to do this . . . i. e., new and improved packing equipment and procedures, improved packaging and containers, better handling procedures, but still the quality hasn't improved significantly at the consumer level. Why? Closer to home, our research study in one market area pointed out that 21% of the customers would not buy apples in a retail grocery store. Reason-poor quality!

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Price after December 15, 1965, 71 cts.

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Look Us Up at Appleton

Wis. Pesticide Conference

The 20th Annual Pesticide Conference with Industry will be held January 5 and 6, 1966. The conference will be held at the Park Motor Inn, Madison, Wis.

The conference has been well attended in the past and is rapidly becoming known as the best Pesticide Conference in the Midwest.

The conference promises to be of great interest to everyone concerned with pesticides. The program will cover such topics as: chemical residues, impact of pending and future pesticide legislation, problems of soil insect control and aquatic weed control.

CHEMICAL RESIDUES LEAVE SOIL BY VARIOUS ROUTES

A farmer concerned about chemical residues in his soil—as an aftermath of spraying for weed or insect control—has a number of natural forces working in his favor.

One of these forces, and a primary one, is microbial decomposition. Tiny soil microorganisms attack virtually all chemical molecules in one way or another.

There are other ways in which pesticides are lost or inactivated. Some are lost through vaporization (volatilization). Some residues leach down into the soil where they cause no further problem.

Since soil microorganisms are so important, they have long been in the scientific limelight where the residue problem is concerned. According to soil chemists at the University of Minnesota, there seem to be no pesticide molecules that will not be attacked eventually by some soil microorganisms.

Law Would Raise Food Costs

Blanketing farm labor under the minimum wage law, as proposed in a bill approved by the House Committee on Education and Labor "will certainly mean a rise in food cost of substantial proportions," recently predicted Con-

gressman Harold D. Cooley, chairman of the House Committee on Agriculture.

"Moreover," the Congressman declared, "this legislation could have devastating consequences for the workers themselves. It certainly will hasten the substitution of machines for manpower on our farms, and eliminate thousands upon thousands of farm jobs. This would mean a new migration of unemployed farm workers to our cities, to create poverty faster than it can be cured."

Representative Cooley pointed out that where profits do exist in agriculture, they frequently are inadequate for commercial farm operators to absorb the added cost of wage levels contemplated by the new legislation, under the present prices paid to farmers. "These costs must be passed on to consumers in higher prices for food and fiber, or the farmers themselves would be forced into bankruptcy," he explained.

CIDER APPLES WANTED!

Must Be Free From Decay and Infestation

AEPPLER ORCHARDS

704 Concord Rd., Oconomowoc, Wis. Telephone 567-6635

Age No Barrier to Apple Trees

After an elapse of time when most orchards are history, a 20-acre block of apple trees in Northern Michigan literally is making history at an age of 116 years.

The apple trees, which were planted in the mid-1850's, are part of an orchard presently owned and operated by Mrs. George Smith of Omena.

Mrs. Smith said although the trees are not producing as well as they did up until a few years ago, they do provide enough profit through sales for processing to take proper care of them.

The varieties of the trees are Northern Spy and Rhode Island Greening. Another 10 acres of Smith apples of no historical significance, however, are MacIntosh.

Mr. and Mrs. Smith purchased the orchard in 1921. It also includes 50 acres of cherries.

Everyone Loses From Bruises

"It is our studied belief that fruit growers, especially apple growers, lose more money from preventable bruise of fruit than any other single factor. Some apples, like some people, bruise more easily than others—but all bruise. Other than decay, scald and skin breaks, nothing so detracts from apple sales at the retail level like a bruise.

Minor bruises not scoreable as grade defects can well become, with the passing of time, fruit blemishes which promote the sales of grapes or bananas! The consumer demands near perfection in her fresh fruits and won't settle for less.

It is our opinion that, in addition to all normal precautions, every apple grower should himself become a bruise hunter at least every 72 hours. He should start with picker—follow the fruit from the tree to the packing house—thence on the packing line right down to the container—and on through truck loading. All varieties should be handled as though

they were Golden Delicious and Goldens should be handled as though they were eggs.

It's surprising how often an accepted practice, accepted piece of equipment or accepted package can prove to be a "bruiser". It isn't merely people who bruise apples—inanimate objects can be equally guilty. The grower who personally "wastes his time" hunting bruise with a view toward near complete bruise eradication on his entire harvesting, hauling and packing operation can usually save enough for that family trip to Florida each eason. Each bruiser is a loser—for the grower!"

(The preceding article taken from "The Goodfruit Grower," September 15 issue—Reprinted from Auggust "Wing-Tips")

It might well be that after reading the above article you will say "What's the point? There's nothing I can do once the apples leave my packing house-It's the people on the other end that toss the apples around and cause all the bruises." Or you might be a grower who is only active in production and has nothing to do with the apples once they leave the orchard so you are in a position where you can blame not only the people on the retail end, but also the packing house and storage operators for the mishandling of your fruit. No doubt about it, plenty of bruises are caused at retail level and probably some at packing house level.

But what about you as a grower? Are you doing everything possible so that your apples are the highest quality possible on delivery to the storage or packing house? Do all growers deliver the same quality to their respective handlers to be stored and marketed? — Absolutely not!

You can't save maples severely infected with verticillium wilt. They should be cut down and burned. Mild cases will respond to a good dose of high nitrogen fertilizer early in the growing season. Deep watering during dry periods helps.

Pit Storage of Strawberry Plants

G. C. Klingbeil and M. N. Groskopp *

* Extension Specialist, Department of Horticulture, University of Wisconsin, and Associate Professor, Expermental Farms, University of Wisconsin, respectively.

The merits of strawberry plants dug in the fall and properly held through the winter in refrigerated storage are established. The availability of such locally grown plants are limited in Wisconsin due to lack of growers having such storage facilities. This study was conducted to determine the feasibility of a shallow pit as an inexpensive method to satisfy the winter storage requirements of strawberry plants.

Procedure

Five varieties of strawberries, Sparkle, Jerseybelle, Vesper, Catskill and Early Dawn, were grown at the Hancock Experiment Farm in 1964. Plants of each variety were dug, bundled in lots of 25 and placed in pits November 3. Foliage was removed from half the bundles of each variety.

Three pits were used: No. 1, 30 inches deep; No. 2, 18 inches deep; and No. 3, at the soil surface. The soil is a well-drained Plainfield loamy sand. Each pit had 4-6 inches of straw at the bottom on which were placed the plant bundles. Each pit contained 30 bundles of plants. Another 4-6 inches of straw covered the plants. All pits were then filled or covered with soil. Pit 3 had four inches of soil over the straw. Half of each pit contained plants with the leaves removed. The other half contained plants having the majority of leaves still attached.

All plants were removed from the pits April 28, 1965, and placed in 32° F. storage. Plants from pit 1 appeared to be fully dormant, whereas plants from pits 2 and 3 showed slight root growth from old roots and the crown. Plants with foliage showed evidence of mold

growth on the leaves and some roots, whereas those without leaves showed negligible mold.

Random samples of plants from all pits were taken to determine crown damage. Longitudinal sections of crows showed negligible browning in all crowns. Internal crown browning was used as an index of storage damage.

Twenty-five plants of each variety were taken at random from those with foliage removed and planted at one foot intervals on May 6, 1965. The same procedure was followed with plants having foliage attached during storage. Data was collected as to plant survival and growth on May 26, June 15 and August 10. Results are tabulated in Figure 1.

Findings

- 1. The use of shallow pits for winter storage of strawberry plants appears feasible. Further refinements in techniques should be investigated.
- 2. Plants held in pit storage, planted and grown under the same conditions as spring dug plants and those dug in fall and held in refrigerated storage had slightly poorer survival, but date of runner formation and runner plant rooting were equal.
- 3. The difference in pit depth of 30 and 18 inches is not significant in determining plant survival. Storage of plants in the pit at the soil surface resulted in plants having poorer survival.
- 4. Plants with tops removed had better survival and less mold damage.
- 5. Plants should be removed from a pit shortly after frost leaves the soil.

Figure 1. Plant survival following six months of outdoor pit storage.

Pit Variety Remarks May June Aug.

No			26	15	10
1	Sparkle	Tops On	18	18	18
1	Sparkle	Tops Off	18	18	18
1	Jerseybelle		23	22	22
1	Jerseybelle		24	24	24_
1	Vesper	Tops On	25	24	24
1	Vesper	Tops Off	25	25	25
1	Catskill	Tops On	19	18	18
1	Catskill	Tops Off	25	25	25
1	Early Dawn		23	22	22



Through summer droughts and winter snows... Scab spores live on and on

— only to cause trouble in your orchard when the weather is warm and damp. Other materials, only a little less costly but definitely less effective than captan, have done well at scab control these past few droughty summers. But when the others fail — Stauffer Captan 50-W goes on fighting! It gives you outstanding control of scab and, when used all season long over several years, it reduces scab to the role of a minimum problem.

But that's not all Captan 50-W does for you. Captan controls all the major summer diseases of apples — diseases of most other tree fruit, too. It helps promote tree vigor for greater yields, and captan-treated fruit looks better — increased fruit quality! If you keep apples in storage — captan-sprayed apples keep better.

Don't you think it would be smart to use a captan spray program all season long next year? Captan 50-W helps you where it counts the most — in your pocketbook.

Stauffer

Stauffer Chemical Company, Agricultural Chemical Division, 380 Madison Avenue, New York, N.Y. 10017.

READ THE LABEL, HEED THE LABEL AND GROW WITH STAUFFER CHEMICALS

1	Early Dawn	Tops	Off	21	21	21
2	Sparkle	Tops		24	24	24
2	Sparkle	Tops	Off	25	25	25
2	Jerseybelle	Tops	On	25	25	25
2	Jerseybelle	Tops	Off	23	23	23
2		Tops		21	20	20
2	Vesper	Tops	Off	24	24	24
2	Catskill	Tops		21	21	21
2	Catskill	Tops	Off	25	24	24
2	Early Dawn	Tops	On	23	23	23
2	Early Dawn	Tops	Off	21	20	20
3	Sparkle	Tops	On	21	21	21
3	Sparkle	Tops	Off	22	21	21
3	Jerseybelle	Tops	On	20	17	16
3	Jerseybelle	Tops	Off	12	12	12
3	Vesper	Tops	On	24	24	24
3	Vesper	Tops	Off	21	20	20
3	Catskill	Tops	On	17	17	16
3	Catskill	Tops	Off	19	17	16
3	Early Dawn	Tops	On	21	20	20
3	Early Dawn			20	20	20

State's Honey Crop Is Down Sharply

Wisconsin's 1965 honey crop was less than three-fourths of last year's production and the smallest output for any year since 1956, according to the Wisconsin Statistical Reporting Service.

There were 184,000 colonies of bees in Wisconsin this year with an average production of 65 pounds of honey per colony. The nearly 12 million pounds of honey produced this year was only 73 per cent of the 1964 production of nearly 16½ million pounds last year. The state's record production was nearly 20 million pounds in 1963.

Wisconsin ranked fifth in the nation in honey production this year while it was fourth in 1964.

Substantial increases over last year in honey production are reported for many states, but these gains were more than offset by decreases in other states. The nation's honey output this year of nearly 283 million pounds was 1 percent below last year's output.

Wisconsin beekeepers had only about 4½ million pounds of honey for sale at mid-September compared with nearly 8½ million pounds a year earlier. These stocks of honey in hands of producers were 39 percent of the 1965 crop com-

pared with the 1964 holdings of 51 percent. Stocks of honey held by producers in the nation on September 15 were 36 percent of production compared with 37 percent last year.

Here and There

PLANS ARE WELL UNDER WAY for the 59th annual meeting of the Michigan State Horticulture Society scheduled December 7-9 at the Pantlind Hotel and Civic Auditorium in Grand Rapids.

MICHIGAN'S FRUIT INDUSTRY is expected to remain an integral part of the state's agricultural economy at least through 1980.

Michigan State University scientists say the fruit industry is in a more favorable position than many competing states to maintain or increase its overall position in U. S. Fruit production. They cite favorable climate, closeness to large centers of population, prosperous and growing supporting industries, and capable management and labor resources as being the major reasons for the continued growth which is expected.

A NEW BULLETIN entitled "Budding and Grafting Fruit Trees" is now available. This is an up-to-date publication with pictures illustrating the latest techniques, including budding, grafting, top working, bridge grafting and others. The publication can be obtained from Bulletin Office, Agricultural Hall, Michigan State University, East Lansing, Michigan. It is Extension Bulletin No. 508, "Budding and Grafting Fruit Trees."

DIANE HARTLEY, of Soldiers Grove a sixteen year old, charming young lady served as the Apple Queen of the Gays Mills Apple Festival. She is an excellent little apple promoter. Her father works part time for Sunrise Orchards, Gays Mills.

THE STAGE OF MATURITY of ar

apple at the time it is placed in storage is a major factor in determining the length of time it will keep and still be marketable, or edible.

According to Eldon Banta, Ohio State University Extension horticulturist, fruit growers should know the relative maturity of different lots of apples in their storage facilities at all times. Apples picked at optimum harvest maturity for the variety will keep the longest. Those picked later, when more ripe, have the shortest storage life. This also applies to other fruits.

"CONSUMERS ALL" is the title of the 1965 Yearbook of Agriculture. It contains thousands of how-to-do-it facts on every day living. Some of the subjects covered are buying and using food, household furnishings, managing money, caring for yards, using leisure time and staying healthy. You can get a free copy of this agricultural yearbook by writing your representative or senator in Washington.

Land Uses

A lake can be many things. To the fisherman it's a place for hours of quiet relaxation. But to the boating enthusiast, a lake is a place for anything but quiet, undisturbed fun.

A forest, too, can be either a source of timber, a place for recreation or a wildlife habitat. And while an industrial representative may see a river as a perfect place for waste disposal, a municipal leader downstream may see it as his city's only source of water.

The point is, according to Donald Duncan, assistant director of the University of Minnesota School of Forestry, that numerous conflicts of interest can and do occur over the use of our natural resources.

"These conflicts of interest over the use of our natural resources will continue," he said, "unless natural resource use and preservation becomes a major consideration in future programs of land use planning."

"The only interest we have in our natural resources is in terms of what they have to offer people," Duncan added, "and more adequate planning of the use and preservation of these resources is badly needed if we are to provide for the needs of future generations."

COMMON HOUSEHOLD PRODUCTS SOURCE OF CHEMICAL POISONING

Chemical poisoning is not just a problem for farm people, even though most farm people handle chemicals for weed and pest control regularly, according to Bill Peterson, chairman of the South Dakota Farm Safety Council.

Peterson reported that twice as many deaths occur from overdoses of aspirin. In fact, common household products account for 60 per cent of all poisoning cases.

There are about 15,000 chemical poisons in everyday use around homes. Many of them do not carry a warning label. Most of the deaths involve children under the age of five and the majority are caused by careless adults who leave various kinds of poison materials in cups, glasses, or pop bottles. Children find these containers and mistake the contents for something to drink.

Pesticides—including fumigants, insecticides, herbicides, and rodenticides—kill about one person per million population in the U. S. each year. Half of these deaths involve children and are associated with pesticides older than DDT.

Fifteen per cent of pesticide poisoning involve the organic phosphate chemicals such as those used in corn rootworm control.

Peterson says there is practically no hazard where chemicals are used AC-CORDING TO DIRECTIONS PROVID-ED BY THE MANUFACTURER.

SOME BIRDS—LIKE SOME HUMANS—JUST BORN LAZY

After the work of building a home and feeding a nestful of hungry young birds, most parent birds spend the remainder of the summer resting and traveling about with other birds, says Robert Ellarson, University of Wisconsin wildlife specialist.

Wisconsin blue-jays, cardinals and sparrows, and other year-round residents, just stay in the nesting area and loaf. The blue-jay and cardinal find a comfortable sheltered area; the sparrow a small nook in the barn roof.

Robins leave their nesting territories and concentrate around feeding areas, says Ellarson. At night they find a comfortable perch out of reach of bird-snatching cats.

Members of the blackbird family — which includes grackles and redwings—leave their nesting areas after the young are fledged. Mornings and evenings they gather in feeding areas—usually corn fields — before retiring to a common roosting area.

Swallows and martins also group into flocks. Usually you'll see them around a watering area. In late summer and early fall you can see enormous flocks on the southern and eastern shores of Lake Winnebago.

Ellarson notes that not all Wisconsin songbirds nest in spring and early summer. The goldfinch and cedar waxwing may nest into the second week in September. This doesn't leave much time for the young to mature before cold weather sets in.

Among the ducks the responsibility of rearing and instructing the young falls upon the females. The drakes leave their mates in the spring as soon as the eggs are laid. Large flocks of male ducks fly to lakes of their choice and molt, while the female raises the young.

Summer flocks of male teal are especially noticeable.

Teal migrate south in September and early October—earlier than other ducks. They flock in water and food areas, gaining strength before cold weather comes.

In contrast to the ducks, Canada geese form closely knit families. When the young are able to fly entire family groups join to make large flocks. The families stay together throughout the migration.

GROWERS HONORED

Roy Dingle, William J. Louis and George W. Premo, prominent orchardists of the Richland Center area were honored by the Richland Center High School Vocational Agriculture Dept. for materially contributing to the agriculture of the area.

The autumn issue of "Wis. Tales and Trails" devotes six full pages to apples under the title, "The Season for Apples Is Autumn." Eleven apple varieties are shown in color The Jacob Kuhl cider operation at Newsing, Ozaukee Co., gets a nice write up. If you haven't seen this be sure to get a copy. It is published at 1722 Baker Ave., Madison, Wis.

Uncle Josh up before the judge for moonshining.

"What's your full name?" the judge inquired.

"Joshua Hiram, Your Honor," replied the old man.

"So," remarked the judge, "are you the Joshua who made the sun stand still?"

"No, no, your Honor," the old fellow explained. "I'm the Joshua who made the moonshine still."

MEETINGS SEEDS

Early New Englanders had a name for the three herbs: Fennel, dill, and caraway. They called them meeting seeds because they carried bunches to church on Sunday to nibble on through the long service. The herbs are said to keep people awake, and to ward off hiccups.

19th Annual Wisconsin - Minnesota Fruit Growers Meeting

HOTEL EAU CLAIRE, EAU CLAIRE, WISCONSIN

December 13 & 14, 1965

REGISTRATION — TO 10:00 A. M.

CHAIRMAN—Professor Neil Miles, Department of Horticulture, University of Minnesota.

10:00 A. M.—ANNOUNCEMENTS.

10:15 A. M.—"TISSUE ANALYSIS — A TOOL FOR BETTER PRODUCTION" From research — Professor Emil Anderson, Department of Horticulture, University of Minnesota.

From production—Mr. Gordon Yates, Fruit Acres Orchard, La Crescent, Minnesota.

11:00 A. M.— "RESEARCH RESULTS IN PROCESSING."

Professor Joachim VonElbe, Dairy and Food Industries, University of Wisconsin.

QUESTIONS.

12:00, NOON — LUNCH.

CHAIRMAN — Mr. Willard Hamm, County Agent, Eau Claire, Wisconsin.

1:30 P. M.—"MODERN MOUSE CONTROL"

Professor C. F. Koval, Department of Entomology, University of Wisconsin.

2:00 P. M.—"THE APPLE MARKET — TODAY AND THE FUTURE"

Mr. M. L. Schwier, Division of Marketing, Wisconsin Department of Agriculture.

2:30 P. M.—"PRODUCTION AND MAR-KETING HORTICULTURAL CROPS IN BAYFIELD COUNTY"

Professor Eugene Anderson, Horticultural Agent, Bayfield County.

3:30 P. M.—"PLANT INDUSTRY DIV-ISION SERVICES TO THE FRUIT INDUSTRY"

Mr. A. R. Kurtz, Chief, Wisconsin Plant Industry Division. QUESTIONS.

6:30 P. M.—BANQUET.

TUESDAY, DECEMBER 14

CHAIRMAN—Mr. Vic Liedel, La Crescent, Minnesota.

9:00 A. M.—PROBLEMS—FINDINGS— RECOMMENDATIONS.

Professor C. F. Koval, Extension Entomologist, University of Wisconsin—"Insect Control Changes"

Professor E. K. Wade, Extension Plant Pathologist, University of Wisconsin—

"Do You Know Fire Blight?"

Professor G. C. Klingbeil, Extension Horticulturist, University of Wisconsin—

"Tree Fruit Winter Damage"
"Production Trends"

Professor Neil Miles, Extension Horticulturist, University of Minnesota— "Comments on B-995"

QUESTIONS.

10:30 A. M.—"LONG-TERM STORAGE FACILITIES"

Mr. Lee Case, Tectrol Division, Whirlpool Corporation, St. Joseph, Mich.

A House Labor Subcommittee voted recently to give federal minimum wage coverage to an estimated 700,000 farm workers. Coverage would begin in mid-1966.

Affected would be migrant workers plus others whose employers hire the equivalent of 5 or more full time employees.

Farmers who do not use migrant labor or who hire less than 5 full time employees would not be covered by the bill.

The subcommittee's decision to include farm workers in the minimum wage act program may be reversed later as the bill—which includes many other features—moves through the congressional process.

Ray Polzin, Douglas county agent, writes about a pothole blasting demonstration he saw recently. The Conservation Department has held several of these demonstrations throughout the state. Polzin says ammonium nitrate

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fertilizer and fuel oil are used as the blasting agent. He says they saw wildlife potholes 25 feet across and 6 feet deep blasted with \$8 worth of material.

Revolution On in Farm Woman's World

"A revolution is taking place in the farm woman's world. Much more is expected of the farm wife now, by her own standards as well as those standards expected of her by the general public."

These points were made by Mrs. Lawrence Everett, a farm wife of New Sharon, Iowa, who was one of the principal speakers at the third annual meeting of

FS Services, Inc.

Mrs. Everett pointed out some of the decisions that the modern farm wife

helps to make:

— The farm wife plays a vital role in influencing her own son's decision whether or not to consider agriculture as a vocation. She is concerned because too few of the most talented and intelligent farm boys are choosing to return to the farm. She feels that farm families are lax in conveying to their children the values inherent in farming.

— The farm wife helps to determine the policy of the volunteer farm organization to which the family belongs. More and more, the farm wife is serving on various boards of directors closely link-

ed with agriculture.

— The homemaker usually sets the health and nutrition standards for the family.

— She is largely responsible for balancing the amount and type of literature that comes into the farm home.

— She more often than not has a set of idealistic goals for herself and family.

— The farm wife many times determines the role the family plays in community activities.

 She helps to decide what ratio of capital will be used for farm produc-

tion and for family living.

- Most important of all, the farm wife has much to do with the crucial decision of whether the family will remain in farming or seek other employment.
- The farm wife usually has the final say in whether or not she will hold an off-the-farm-job. The trend is strongly in the direction of urban employment of farm women.

(Reprint from "Cooperative Digest" December, 1964)

Five persons die daily in tractor accidents.

And, strangely enough, most tractor accidents where tractors tip over occur on level land. Working on hillsides and in ditches requires a great deal of caution but operators apparently get more careless on level land.

Over 1,500 Americans are killed each year in tractor accidents. Two-thirds of the mishaps happened when a tractor tipped over. Over half the victims are under 20 years of age and many are under four years old.

We Will SEE YOU at Appleton on Dec. 2nd & 3rd –

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JANUARY, 1966

NUMBER 4

HORTICULTURAL SOCIETY, APPLE INSTITUTE MERGE

A venerable organization in Wisconsin agricultural fields and a comparative newcomer by age standards have merged. They are the 100-year-old Wisconsin Horticultural Society and the 22-year-old Wisconsin Apple Institute. They new agency will be known as the Wisconsin Apple and Horticulture Council, Inc.

The merger was approved by members of both groups at a joint meeting held earlier this month in Appleton. Assistance in working out details of the wedding of the two organizations was provided by Arthur Kurtz, chief of the Plant Industry Division of the Wisconsin Department of Agriculture, and Marlon Schwier, marketing specialist with the department.

The merger of the two associations was inevitable, in the opinion of members of both organizations. For many years much of the activity of the Society and Institute has been directed by apple growers. In many instances, individuals served both as officers. The two groups have also met jointly for a number of years

The "Hort Society" as it was affectionately known throughout the state, was organized in Janesville in 1865. It was the outgrowth of the Wisconsin Fruit Growers association which flourished from 1853-1859. The painful years of the Civil War had called a halt to just about all meetings of agriculturists and the Fruit Growers group was no exception. When meetings were resumed in 1859, a committee was named to devise measures of reorganization and the Horticultural Society was launched upon a successful career.

First President



Thomas W. Connell, Vice President and Production Manager at Connell's Sunridge Orchards, Menomonie, Wis., is the First President of the new Wisconsin Apple and Horticultural Council.

A price ceiling hearing in Washington, D. C., in 1943 played an important part in the organization of the Apple Institute. Arno Meyer, of Waldo, then president of the Wisconsin Horticultural Society, was invited to attend as a representative of the state's apple growers. The role played at the hearing by the National Apple Institute brought Meyer back home with the inspiration to develop a similar organization in Wis-(Continued on page 2)

PRESIDENT'S MESSAGE

Once again the holiday season has ended, the Christmas tree has been laid to rest and a weary Santa has returned to the North Pole! Our New Year has started and now is the time to plan and prepare for our forthcoming crops. We cannot change the events of 1965, but we most certainly can do something about 1966!

No matter how painstakingly we care for our crops, no matter how kind "Mother Nature" is to us, our final and most important problem is SELLING. Isn't it strange that the promotion of our products always seems to come last, when actually this is the basis upon which we will have to determine whether or not 1966 will be a financial success?

If promotion of our products is left on an individual basis, in most cases it would result in a situation where nothing is accomplished; this is why we have such an organization as The Wisconsin Apple and Horticultural Council (the recent merger of the Wisconsin Apple Institute and the Wisconsin Horticultural Society). This is YOUR state organization—you can make it effective with your support or you can defeat its purpose by ignoring it! By helping each other, we help ourselves.

Even on the local level there is much that YOU can do. Radio and television stations and various city organizations are more than eager to have you speak, local banks appreciate displays, and your local Chamber of Commerce, in your town can be contacted regarding a weekend sale of your products for a worthy cause. How many of us promote the use of various films on our behalf to be shown in our local schools, or schedule tours at our orchards for grade school, high school and college groups?

As you may remember, the State of Wisconsin was contributing substantially to our organization, but in the last number of years their policy has changed and we are receiving less each year. Today we are basically a "do-it-your-

Hort. Sociey, Apple Institute Me 'ge (Continued from page 1)

consin. Three months later, in November of 1943, nine men met at Green Bay to officially launch the Wisconsin Apple Institute. Today the Institute plays an important role in the state in the constant improvement and promotion of apples—from orchard to consumer.

Eight directors of the new association were elected. They are Don Van Elzon, Kimberly, and E. A. Erickson, Casco, representing the northeast district; Le-Roy Meyer, Oak Creek, and Walter Clemens, Mequon, southeast; Arthur Bassett, Baraboo, and William Meyer, Gays Mills, southwest; and Tom Connell, Menomonie, and Robert Saccia, Galesville, northwest.

The directors then named Connell as president, LeRoy Meyer, as vice-president, and Clemens as a member of the Executive committee. The latter group will consider the naming of an executive secretary when it meets December 17 in Madison.

Homemakers Speak

Homemakers were asked for positive and negative statements about apples. The following table gives these results.

Statements from users of fresh apples are —

Positive

LOSITIVE	
Good for health	93%
Good for snacks	
Can be used many ways	86%
Reasonably priced when in season Can buy ready to use/	69%
need no further ripening	67%
Good laxative	43%
Low in calories	38%
Negative	
Often bruised or blemished	18%
Number of Respondents	2,415

self" organization. I sincerely hope had each and every one of you will support your Council in all its programs not only this year but every year. Remember in unity there is strength. — Tom Conael

WISCONSIN HORTICULTURE

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Subscription — \$2.00 per year.

OFFICERS AND DIRECTORS

Wis. Apple and Horticultural Council

President

Thomas W. Connell, Menominee

Vice President

LeRoy Meyer, Oak Creek

Directors

E. A. Erickson, Casco Don Van Elzon, Kimberly Walter Clemens, Mequon Arthur Bassett, Baraboo Wm. Meyer, Gays Mills Robert Saccia, Galesville Arthur W. Kurtz, Madison Warren Gabelman, Madison

Box Exhibit a Success

For a beginning that exhibit of apples in bushel boxes at the Annual Convention in Appleton was a huge success, says Marlon Schwier, who had charge of this new undertaking. Thirty seven entries about equally divided between the three contest varieties, Red Delicious, McIntosh and Cortland, kept the judging panel of Messrs. Ullsperger, Luckow and Ehlers busy for several hours. When the final scores were added, Blue Ribbon Merit Awards were placed as follows:

Red Delicious:

- Oakwood Fruit Farms, Richland Center. Wm. & John Louis.
- 2. Oakwood Fruit Farms, Richland
- 3 Emil Beyer, Malone.
- 1. Herbert Hasslinger, Nashotah.
- 2 Leroy Meyer, Oak Creek.

Coming Events

Jan. 5-6 — Pesticide Conference, Park Motor Inn, Madison.

Jan. 14 — W. A. & H. Council Board Meeting.

Jan. 24-29—Midwinter Farm Program, College of Agriculture, Madison.

APPLE MEETINGS

Feb. 2 — Racine, Ext. Center (Ag)

Feb. 3 — Waukesha, Courthouse

Feb. 15 — Sheboygan Falls, Municipal Building.

Feb. 16 — Gays Mills (P. M. only)

STRAWBERRY MEETINGS

March 8 — Waukesha, VFW Hall March 9 — Green Bay, YMCA March 10 — Alma Center, Church Above Meetings begin at 10:00 a. m.

3. Nieman Orchard, Cedarburg. Cortland

Walter Clemens, Mequon

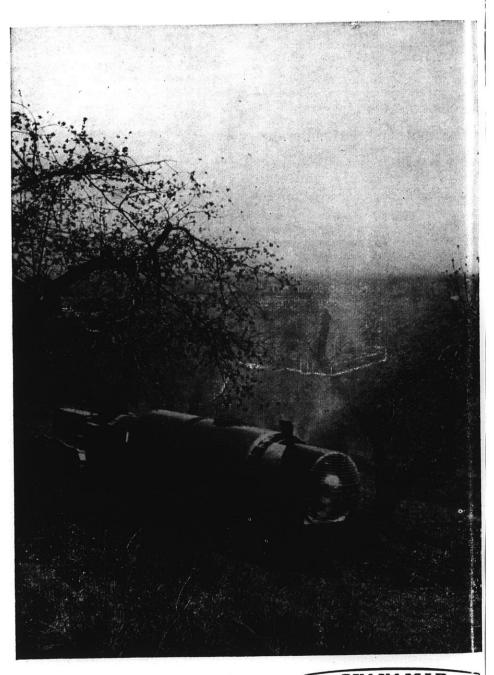
After the judging the apples in this exhibit were given away as a special treat through the Hotel and the Appleton banks. Needless to say both the distributors and recipients liked this gesture a great deal. A remark heard a number of times: "We didn't know that apples as beautiful as these are grown in Wisconsin."

Here and There

Some of you have asked for the address of O. B. Combs. Here it is:

University of Ife, Ibadan, Nigeria, Africa.

Prof. G. C. Klingbeil, our Extension Horticulturist for apples and small fruits, is in South America. He will be there till April.



CYANAMID

AMERICAN CYANAMID COMPANY PRINCETON, NEW JERSEY

COMBINATION SPRAY PROVIDES OUTSTANDING EARLY-SEASON MITE, INSECT AND SCAB CONTROL

This season, take advantage of the latest research findings and get the most effective early season pest control known!

Four years of tests were conducted under both experimental and grower conditions to establish the effectiveness of Cyprex® in oil sprays. On the basis of all the results, Cyprex is the best fungicide to use either in combination with oil or following the oil application. This conclusion is based on effectiveness of scab and insect control, safety to foliage and superior fruit finish. Other fungicide—oil—insecticide combinations cause poor fruit finish or foliage injury, or do not provide adequate scab control.

Based on these and other trials, Cyprex is recommended for use with 60 or 70-second superior oil (and an insecticide if needed) during the delayed dormant—pre-pink period. To tank—mix a combination of Cyprex, insecticide and oil:

1. Start and maintain continuous paddle agitation until the mixture is sprayed out.

2. Add Cyprex when the tank is ¼ to ½ full of water. Mix thoroughly.

3. If insecticide is used, add as tank is filling.

4. Add oil when tank is nearly 3/4 full.

After starting the season with a Cyprex-oil spray, stay with Cyprex all the way. Remember, Cyprex is the most outstanding apple scab fungicide you can buy! Use it to eradicate established infection, and to prevent the spread of scab spores from visible lesions.

Now is the time to place your order. See your dealer today! Before using any pesticide...stop and read the label.



Looking Ahead in 1966

Not change itself but rather the accelerated rate at which change is taking place presents the real challenge to each of us in our daily lives. Wherever we are, or in whatever we do, be it in our family relationships, our community association, or in our respective jobs, the challenge is constantly before us.

I have no magic potion or new theory or concept to propose on how we should come to grips with the future. My purpose is simply to share with you a few guiding principles, time worn though they may be, which when applied to our respective activities can help us all, as together we shape our programs for another year.

To meet the challenge of the New Year:

- Our organization must have built-in provisions for self criticism. We must maintain an atmosphere in which uncomfortable questions can be asked.
- Our organization should encourage the spark of individuality. As we come face to face with changing needs and changing goals, we must maintain an environment hospitable to such individual action while recognizing at the same time the need for working together as a unit.
- Our organization's internal structure must be fluid so that we don't find ourselves maintaining a structure which was designed to solve problems which no longer exist.
- We must adequately provide for both internal and external communication if we are to perform effectively in our respective positions.
- We cannot allow ourselves to become prisoners of our own procedures.
- We must develop a philosophy of innovation so that our interest is not in what has been, but rather where we are going and what we are to become.
- When vested interests grow and flourish we must find the means of controlling and combatting them.
- 8. We must learn to know ourselves, our

- own capabilities, our own potentials, our own limitations.
- The fuel to generate our activity must be a proper balance of tolerance, conviction and dedication, knowledge and understanding.
- 10. To meet the challenges of the coming year, living and applying the "Golden Rule" must be the foundation for all of our decisions and our actions.

For the accomplishments and achievements of the past year we are deeply appreciative. We look forward to meeting the challenge of 1966 with the same spirit and cooperation we have enjoyed during the past.

— A. R. Kurtz

Apple Show Winners

The big winner in this year's Apple Plate Contest were the Walter Clemens of Mequon. They walked off with three firsts, three seconds, one third, the grand championship ribbon and the Golden Apple Award on a beautiful plate of Golden Delicious. Right behind them were the Emil Beyers of Malone with three first and three seconds.

Winners by Classes

McIntosh — 1st, F. M. Gygox; 2nd Emil Beyer; 3rd, Meyer Orchards.

Cortland — 1st, Walter H. Clemens; 2nd, Nieman Orchards; 3rd, Barthel Fruit Farm.

Red Delicious—1st, Emil Beyer; 2nd, W. H. Clemens; 3rd, Nieman Orchards. Golden Delicious — 1st, Walter H. Clemens; 2nd, Emil Beyer; 3rd, Barthel Fruit Farm.

Jonathan — 1st, Emil Beyer; 2nd, W. H. Clemens; 3rd, Barthel Fruit Farm.

N. W. Greening — 1st, W. H. Clemens 2nd, Emil Beyer; 3rd, Meyer Orchards

Haralson & Prairie Spy — 1st, Emil Beyer; 2nd, W. H. Clemens; 3rd, Barthel Fruit Farm.

Spartan & Kendal — 1st, Barthel Fruit Farm; 2nd, Walter Kugler; 3rd, S. C. Schwartz.

Any Other Variety—1st, F. M. Gygox and, Emil Beyer; 3rd, Walter Clemens.

Value of Leaf Analysis

Gordon Yates, La Crescent, Minn.

To the grower, leaf analysis has proved much more accurate than soil analysis because it tells us just exactly what the tree is getting from its root zone rather than what is available in the top few inches of soil. We started leaf analysis in 1961 and decided to run the tests on the same trees for a number of years to see if we could establish a set of values for our own area. As a result we are now in a position to start evaluating the results.

We had taken soil samples in 1953 and again in 1956, before starting the leaf analysis and to supplement these we again took soil analysis in 1962.

When we started the leaf analysis program in 1961 we found that the trees had almost an excess of phosphate, adequate nitrogen, and certainly adequate potash in alternate years. Obviously the trees were picking up minerals in far different amounts than what were apparently available from the soil analysis. We were also starting to show a pattern of how these nutrients were being utilized.

The reading of the high crop of 1962 and the very high crop reading of 1964 showed actually a drop in the percentage of leaf potash. If you total up the amount of potash applied in the preceding 3 years you will see that 276 pounds of actual potash per acre gave up a smaller reading because of the larger crop. The other 3 elements responded in the same manner showing that the size of the crop has a greater influence on the leaf readings of these 4 elements than the amount of fertilizer applied. Over the 4 years of testing this proved true in 38 samples out of 40, sampling the same 10 lots of trees 4 times. It will be seen from the above that it is absolutely essential that the leaf analysis must be interpreted with the size of the crop. These readings with potash swung as much as 1%, and 1.53% is the normal chart index figure 100.

With this in mind you can deduce that a reading of 1% in a high crop year would be just as normal at 2% in a low crop year. Phosphate swung over 0.2% and 0.23% is normal; Nitrogen swung over 0.5% and 2.33% is normal. The crop size must be noted at the time of sampling to correctly interpret the results, and I would suggest that interpreters establish 2 sets of Chart Index to cover for a heavy crop and a light crop. We intend to continue with our fertilizing program until we can see some significant change in our readings resulting from fertilizer applications rather than from the size of the crop. When this happens we shall be in a better position to know just how much fertilizer it is going to take to correct a deficiency. At present it would seem that our present application rate of over 100 pounds of actual potash per acre is doing no more than holding its own.

I don't believe that we should look to leaf analysis to save us money. I doubt if any grower here is spending more than \$12.00 per acre or 5¢ per bushel on fertilizer. What we should look for is to see that none of this 5¢ is wasted on something that we do not require. We propose to cut out phosphate and start working on some of the trace elements to see if we can bring these up to a more normal reading. We are a little low on iron and manganese, and although foliage applications of zinc enabled us to correct a zinc deficiency quite easily, similar application of iron and manganese showed no results. feel that we should try and establish regular fertilizer applications which will maintain our orchards at optimum levels constantly, rather than waiting and trying to cure a deficiency after it appears.

Leaf analysis is not a cure-all for our problems, nor should it be thought of in this way, but rather as just another tool to help us in becoming efficient growers of premium apples.

(Excerpts from Mr. Yate's talk at Wis. Convention, Appleton, Dec. 3rd, 1965.)

Trends in Apple Consumption

(Excerpts from Presentation at Annual Convention Program — 1965)

Made by M. L. Schwier Wisconsin Department of Agriculture Fresh Consumption Trends:

The volume of fresh apples consumed per individual continues to dwindle downward. Only the fact that population has increased has kept fresh apple sales from reaching low levels. Fresh apple consumption only accounts for about 20 percent of the fresh fruit eaten today per individual whereas back in 1909 it accounted for about 50 per cent. Modern transportation, refrigeration and better methods of selling competing fruits have changed the fruit-eating habits considerably.

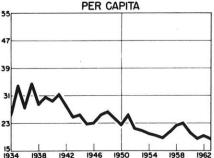
The following table shows what has happened to fresh apple consumption and to other competing fruits — citrus and peaches.

Citrus Peaches

			(Fresh)	Civius	1 cache
			(Per P	erson)	
1909		138.2	62.2 lbs.	16.2	14.9
1914		159.7	74.6	18.5	20.3
1934		119.1	25.3	39.8	11.3
1963	-	79.9	18.4	21.8	7.6

Annles

TRENDS IN FRESH APPLE CONSUMPTION



Fresh apple sales have been accounting for between 61-62% of the entire apple crop.

Processed Apple Trends:

With fresh consumption dwindling there is an encouraging light, however, in the fact that use of processed apple products has been going up. Today, approximately 38% of the apple crop goes into various apple products. Basically, into canned apple sauce or apple slices, frozen apple slices or sauce, juice, cider and vinegar and some into dried form.

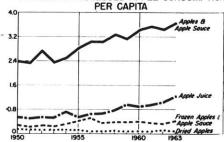
The following table shows the major processed apple products:

	otal rop	Of Pro- cessed
Canned apple sauce		
and apple slices 1	18%	51%
Frozen (slices		
and apple slices)	2.9%	7%
Dried	3.4%	7%
Others (mostly juice,	12.8%	35%

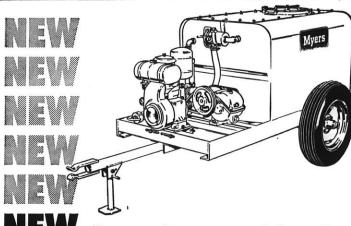
Trends in Processed Apple Consumption Per Capita:

The most significant gain in the use of apple processed products on a per capita basis has been in the canned and apple sauce products. This has moved from a level of 2.4 pounds per capita consumption in 1950 to a 3.67 pound level in 1963. A significant gain has also been made in the apple juice field where in 1950 the consumption level was at .56 pounds per capita to 1.23 pounds in 1963. More and more sales efforts are being exerted along these lines and the results are showing progress. The following Chart (B) shows the progress being made:

TRENDS IN PROCESSED APPLE CONSUMPTION



The overall consumption of fresh fruits and vegetables has been gradually incli-(Continued on page 12)

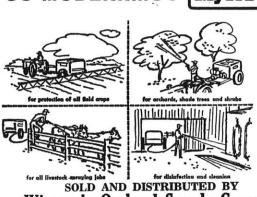


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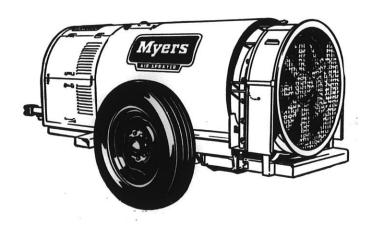
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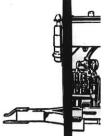
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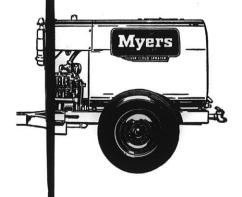
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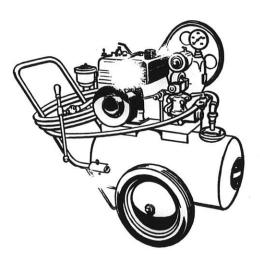
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Honored at Convention

The Wis. State Horticultural Society presented Honorary Recognition Awards to two of its members at the Annual Convention Dinner on Dec. 2nd at Appleton. In his presentation of the awards, Harold Rasmussen of Oshkosh gave a brief history of the horticulture accomplishments of each.

ROLAND NIEMAN

Roland Nieman was one of the originators of the Nieman Orchards of Cedarburg. He, along with his brother Arnold, began expanding the small orchard in 1922. Now it includes 120 acres and is operated by Nieman and his son, Willard.

Nieman has served as vice president of the Ozaukee County Fruit Growers Association and has been active in 4-H leadership.

WM. F. MEYER

Meyer purchased the Kickapoo Orchard Company at Gays Mills in 1964. In 1965, he bought an additional 120 acres and planted 2,000 semi-dwarf fruit trees. Since then, he has constructed a new storage-grading building and has modernized his sales area. Meyer uses the latest equipment in his growing, packing and grading operations.

Meyer is a lifetime member of the Wisconsin State Horticultural Society. He is also a member of the Compact Tree Association, the American Pomological Society and the Minnesota Fruit Growers' Association. Meyer has served on the board of directors of the Wiscon-

sin Apple Institute.

Pioneer Horticulturist Passes Away

John Hauser, one of the state's oldest and most prominent horticulturists, passed away November 12. Mr. Hauser was 96 years old and until about a week before his death, when he fell and broke a hip, was an active worker in the field he loved—flowers and fruit.

Mr. Hauser was born July 30, 1869 in

La Crosse, Wisconsin. In March of 1902 he married Lydia Dawson and in 1908 moved to Bayfield, Wisconsin where he pioneered the growing of strawberries and was responsible for developing the area as a strawberry center.

His interest was also in flowers and today the Hauser name in known worldwide. The Superior View Nursery, as the farm is known today, is recognized as one of the largest perennial flower farms in the nation. The farm, located a short distance west of Bayfield, is a showplace and attracts thousands of visitors annually.

Mr. Hauser was the recipient of numerous honorary awards. The University of Wisconsin recognized his achievements by giving him their Recognition Award. The Wisconsin Horticultural Society bestowed their Distinguished Service Award on him and just recently the Minnesota Fruit Growers Association presented him their Golden Apple Award.

Mr. Hauser's wife passed away in 1935 and since then he had made his home with his son, Dawson, and his wife. In addition to his son, he is survived by 5 grandchildren, 24 great grandchildren, 2 brothers and 3 sisters.

TRENDS IN APPLE CONSUMPTION

(Continued from page 8)

ing upwards. Today it stands at 183.7 pounds per person as compared to 179.0 pounds in 1963. It appears apples have not captured its share of this upward trend. The competition to entice Mrs. Consumer to buy your product plays a very vital part in today's marketing programs. The apple industry across the nation as well as in our own state cannot afford to stand still in its merchand ising efforts. The apple is a wholesome nutritious product and something every producer should feel proud to promote Add to this the ever essential of packing good quality in a proper or modern package and fresh apples should more than hold their own in going home in Mrs Consumer's market basket.

KING IN THE ORCHARD! NEW 1965 MODELS



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.

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"EVERYTHING FOR THE ORCHARDIST"

7 Per Cent Investment Credit

(N. Y. Hort. Newsletter)

The Internal Revenue Service has ruled that orchards are depreciable property and so are subject to the 7 per cent investment credit. This is on orchards and vines bought since January 1, 1964 and on orchards grown by the owner when he places them in service.

6549 Rev. Rul. 65-104, I. R. B. 1965-16, 7. 1954 code secs. 38 and 48.

The report says:

"Advice has been requested whether citrus trees purchased under the circumstances described below will qualify for the investment credit allowed by section 38 under the internal revenue code for 1954.

"In 1964 Mr. Smith, a citrus grower, purchased two groves of citrus trees. At the time of purchase the trees in one citrus grove were income producing trees, which had a remaining income producing life of 10 years, and the trees in the other grove were saplings, which could not be expected to reach income producing stage until 1967, at which time they would have an expected income producing life in excess of 20 years."

This means Mr. Smith can claim the 7 per cent investment credit on the bearing orchard in 1964 and on the non-bearing grove in 1967, when it comes into bearing. The trees that are producing are "used" property, and the non-bearing grove is "New" property.

The Revenue Services ruling dealt specificially with citrus trees, but the same reasoning should apply to apple, cherry, pear, peach, plum and prune

trees and grape vines.

The ruling does not discuss this situation. However, it does discuss the answer: You have a qualified investment in "New" property and should qualify for the credit in the year the orchard comes into bearing. The basis for the credit would be the same as the basis for depreciation—the cost of planting the trees plus all your capitalized expenses in caring for them until they come into bearing.

If you bought a bearing orchard in 1964, you can file a refund for the amount of the investment on the value of the trees. If you bought a non-bearing orchard, place a value on the trees, and add the annual costs until the orchard comes into bearing. This probably will require some estimates by you on costs; deduct the cost of the non-bearing block from your operating expenses, and add them to the value of the orchard.

If you have capitalized the value of the new orchards you are growing, you can claim the investment credit when they come into bearing.

Some growers have never claimed depreciation on orchards, and have put all costs of growing new orchards in operating expenses. This has been fair with Uncle Sam, but it is not the way the Revenue Service wants it done. Also, since this new tax ruling on investment credit on orchards, the above method is more costly to you. You should capitalize the value of new orchards and take depreciation on bearing orchards.

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

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Plant Industry Services to The Fruit Industry

By A. R. Kurtz

The Plant Industry Division of the Wisconsin Department of Agriculture has a great variety of services involving inspection, certification, enforcement of state laws, plant pest detection, laboratory determination, and informal responsibilities. A large number of these services have a close relationship to the fruit industry of the state.

Inspections

- Nursery stock—More than 1500 establishments including grower and dealer locations are inspected regularly by Plant Industry staff. A great deal of the fruit planting stock in the state originates outside of Wisconsin. In these instances, the inspection of the other states is accepted on a reciprocal basis.
- Foreign imports—Some planting stock imported by growers from foreign countries is subject to a two-year postentry inspection requirement. The Plant Industry Division is authorized to make these inspections.
- 3. Foreign exports—Oftentimes Wisconsin growers have plant material to send to foreign lands. Each country has separate requirements usually involving a phytosanitary or health certificate. Issuance of such certificates is another of the Department's services.
- 4. Intrastate movement—Just one example to illustrate this service. A fruit grower wants to ship apples to a state like California which has very rigid controls. The fruit may be accepted in California if it comes out of cold or controlled atmosphere storage meeting California requirements. Certification by the Plant Industry Division is a requirement for acceptance in the receiving state.

Pest Detection & Reporting

 Economic Insect Survey—During the growing season, survey entomologists of the Department, utilizing the information from cooperating reporters,

- make a regular assessment of insect damage and population potential. This information, published in a weekly bulletin, is utilized by growers and pesticide suppliers as a guide for effective pest control.
- 2. New pests—Not all harmful pests in the U. S. have become established in Wisconsin. The Japanese beetle is one example. Special surveys in cooperation with the USDA provide a detection service to the state's total agricultural industry. Through early detection, control or eradication programs can be initiated before populations build up to economic proportions.
- 3. Port inspection—Opening of the St. Lawrence Seaway provided yet another channel for serious foreign pests to find their way directly to the middlewest. Over 600 foreign vessels came into Wisconsin lake ports in 1965. These vessels and their cargo are checked systematically by the Department's Port Entomologist cooperating with inspection staff of the Plant Quarantine Division of the USDA.

Pesticides

High yields of excellent quality fruit depend on a number of factors, not the least being control of insects and disease. Wisconsin fruit growers have an outstanding record for the safe and successful use of pesticides. Under the Wisconsin Economic Poison Law, over 5700 different brands of pesticides were registered by the Department in 1965.

The Department, through its laboratory facilities, checks foods offered for sale in Wisconsin for the presence of pesticide residues beyond acceptable tolerances which have been established.

Bee Disease Control

The beekeeping industry and the fruit industry have much in common. Another of the Plant Industry services in volves bee disease control. More than 30,000 colonies of bees were checked in 1965, specifically for American Foulbrood, one of the most destructive be

diseases. Wisconsin's annual honey crop approximates \$3 million and it is estimated that the pollenating value of the honey bee is 50 times the value of the honey.

Laboratory Services

One of the functions of the Plant Industry Laboratory is to provide diagnostic service. Effective pest control measures depend upon knowledge and proper identification of the problem. This laboratory service is one which is extended to fruit growers and other segments of the plant industry.

In Conclusion:

The Marketing Division of the Department also provides services to the fruit industry. These activities involve market development and promotion. The Marketing and Plant Industry Divisions have teamed together to work with the fruit industry in the establishment of the Wisconsin Apple and Horticultural Council.

Harvester for Apples

A field trial of the mechanical apple harvester, developed by Cornell University, Ithaca, N. Y., was a smacking success this fall, report Cornell agricultural engineers.

Many growers, apple processors, and representatives of several farm machine shops showed up almost daily at the scene of the field test, expressing their interest in the performance of the machine, mainly because of the critical labor problem. They are concerned about the inadequate labor supply as well as the performance of the labor in harvesting, said Markwardt.

"We have never seen such enthusiasm before on the part of the growers and processors in particular," he said.

The latest model, which was virtually redesigned and built anew, went into action three weeks until recently at Cornell's Cohn Farm at Sodus, N. Y.

One of the most encouraging features of the machine during the test run was that the catching frame, 15 feet wide

and 27 feet long, showed a high degree of maneuverability, Markwardt said. "We drove it like a hot rod in the orchard from one tree to another."

The machine, now in its fourth year of development, consists of a tree shaking device and catching units which can be fitted around the tree. One of the main features of the new catching frame is that it has a low profile so that it can slip under the tree easily, thus minimizing pruning or changing the shape of the tree.

The evaluation of the quality of apples picked by the machine is now under way. Apple sauce and slices processed from machine-picked apples in previous tests has met high standards.

"During the test run, we found a few 'bugs' to take out and some holes to patch up, but we see no major problems ahead." he reported.

Although designed primarily to meet the picking needs of apples for processing, the machine will be used next year to harvest cling peaches, which are now coming into production in New York State for commercial processing, Markwardt said.

-Eastern Fruit Grower-11-65

PESTICIDE TOLERANCES

A study of pesticide tolerences is now underway by the U. S. Department of Agriculture, Interior and Health, Education and Welfare.

The new approach on tolerances would be based on the total food intake of humans. It would determine the level of pesticide residues in people, fish and wildlife, food and feed, and soil and water.

It would be concerned with the total amount of pesticide residues contained in foods making up the average "market basket" rather than the present method of setting tolarences on each product.

This approach makes good sense. Out of it should come much more accurate and realistic stafety standards in the use of pesticide chemicals.

Description and Evaluation Of Apple Varieties

By ROGER D. WAY Agr. Experiment Station Geneva, New York

(Continued from Last Month)

In New York most of our crop is harvested in the season, McIntosh and later. At the Experiment Station a great many inquiries are received about early ripening varieties but the total acreage of early varieties is small. Some growers have special markets for early varieties and are able to make more money on them than later varieties. In spite of the sometimes price advantage of early varieties, they nearly always have certain distadvantages. Early varieties ripen unevenly, require several pickings, and their storage life is often only one day or less. In a recent article in a fruit magazine, a writer states that the apple industry might benefit from much expanded plantings of early varieties. In this way, real volume marketing of apples could begin at the beginning of September instead of October and the quantity of apples sold could be greatly expanded.

In the present situation, however, the major portion of our crop is harvested between mid-September and early November, allowing about 2 months for harvest. Varieties should be planted in quantities no greater that that which can be harvested in a 10-day or 2-week period. This is especially true of varieties ripening during the warm weather of McIntosh harvest season. Delayed harvest in this warm period is often more damaging to fruit condition than extended harvest period in late October when heat units accumulate more slowly. The extensiveness of plantings of late ripening varieties can be more flexible.

Varieties which have been recom-

mended for planting for New York, lised in order or ripening, are Niagar, McIntosh, Cortland, Wayne, Sparta, Twenty Ounce, Delicious, Monroe, R. Greening, Golden Delicious, Idared, and Rome Beauty. Other varieties sometimes suggested are Lodi, Wellington, Early McIntosh, Milton, Jonathan, Mccoun, and Northern Spy. Every one of these varieties has its faults, but these have the fewest faults and the greatest production potential.

In the spring of 1963 a group of Hudson Valley growers met with several pomologists, to determine, in part what varieties to plant for harvesting in 1970. The decisions of this conference have already been published in the New York State Hort. Soc. News Letter, May 1963. They decided that varieties should be planted in these proportions: Early varieties 5%; McIntosh 30%; Cortland or Spartan 5%; Delicious 25%; Golden Delicious 10%; Idared 10%: Red Rome 10%; and 5% for one of the following: Jonathan, Stayman, Macoun, Spy, or Spigold. This illustrates the narrowness of our selection of varieties. A group of growers from Western New York would compose a slightly different list, probably including R. I. Greening or Twenty Ounce, but it would also be a short list of varieties.

Certain factors are important in choosing the variety of apple to grow. Market demand is important: McIntosh or Delicious are in much greater demand than Cox Orange. High yields affect the decision, e. g., Cortland yields are greater than Esopus Spitzenburg. Adequate pollination must be considered, e.g., the pollen of R. I. Greening and Spigold is not viable. Susceptiblity to pests may affect variety selection, e.g., McIntosh is very susceptible to scab and Monroe to mildew. Storage qualities and a dozen other factors will affect decision on varieties. More important than any may be a grower's own reasons and personal preferences for varieties.

(To Be Continued)



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Two New Fruits

Two new fruits have been developed by University of Minnesota horticulturists and will be available for planting next spring.

They are a hybrid cherry plum called Deep Purple and a red raspberry named Itasca.

Deep Purple received its name from the dark purple color of both the flesh and the medium thick, tender skin which at times appears almost black. The fruits are large for cherry plums, averaging 1¼ to 1½ inches in cross section. They ripen about mid-August and may remain mature on the tree in good condition for up to two weeks.

The fruit is best used for jams, jellies, or syrups. It does not have much appeal as fresh fruit.

Deep purple has been very precocious, the horticulturists report, often fruiting the year after planting. It requires cross-pollination for satisfactory fruiting. The plant performs best when grown as a wide-spreading bush but can be trained to produce a small tree.

Itasca red raspberry is being introduced for use mainly in the central and northern lakes area of Minnesota where conditions are cool and rather humid. It has been widely tested under the selection number 399.

Fruits are medium to large and a glossy orange-red. Picking is facilitated by the fact that canes are almost spinefree and the fruits develop close together, with many ripening at the same time.

Because the berry is rather soft, its main value probably will be as a home or pick-your-own commercial variety.

Here and There

WE'RE ALL WET. Water use in the United States is growing at the rate of 25,000 gallons every minute, and is to jump from a daily rate of 359 billion gallons in 1965 to 453 billion gallons daily in 1975. About 10 per cent of this goes into homes, nearly half goes for irrigation, and the other 40 per cent for industry.

The report of the Ohio fruit tree survey, completed last spring, is now at the printers and will soon be available for distribution. The survey reveals an increase in acreage of apple orchards in Ohio of 304 acres since 1959 and an increase of 85,890 in the number of trees. The number of commercial orchards have declined during the past five years but the size of the remaining orchards have increased as operations have been combined or expanded.

"Suddenly the age of agricultural surplus is gone." So goes the story in a large Chicago newspaper. Other newspapers have had similar stories. They give the impression that danger of surplus crop production has melted away. It hasn't.

Surplus pile-up in government warehouses has slowed down. Government programs now emphasize taking land out of production rather than putting surpluses in government bins. That, plus a speedup in overseas shipments has whittled down surpluses. But it doesn't mean that excess farm capacity still exists. And will plummet prices if it were turned loose.

Wisconsin Horticulture

VOL. L

FEBRUARY-MARCH

NUMBER 4-5

Plea for Membership

The Wisconsin Apple & Horticultural Council is planning to send their new Executive Secretary to the National Apple Meeting at Traverse City, Michigan in July. This would better inform her to be able to understand the needs of the apple growers and give her a broader understanding of the National Apple Institute in its purpose and program.

The National Apple Institute and the Wisconsin Apple & Horticultural Council are organizations designed to help the individual grower on levels of promotion which he cannot accomplish himself; such as state fair exhibits, statewide radio spots, National Apple Week, state-wide Home Economics press releases, apples for the University's band, promotional films on apples on a school level and a state horticultural magazine. All of these projects cost money to administer and without all of the apple growers pulling their fair share of the cost, our programs will have to suffer!

Many growers throughout the state have been selected to help in our membership drive, and we would appreciate your prompt remittance of your dues in the enclosed membership brochure. YOUR ORGANIZATION cannot continue to exist efficiently without YOUR SUPPORT!!!

For your convenience and future reference, a membership brochure is enclosed in the center of this issue of WISCONSIN HORTICULTURE. We would appreciate a prompt return of the membership application and fee.

Do Not Delay —

Join WAHC Today!!

Introducing the New Executive Secretary of W. A. H. C.



Mrs. Nancy Knight

Tom Connell, President of the Wisconsin Apple & Horticultural Council, is pleased to announce that the Board of Directors has contracted Mrs. Nancy Knight of Madison, Wisconsin, for the position of Executive Secretary of our organization.

She comes to us not only with "personality and enthusiasm", but also with her Bachelor of Arts degree from the University of Wisconsin. She also has completed graduate courses in horticulture, botany and journalism, and has done editorial and promotional work for the American Society of Agronomy, besides writing free lance articles. Her crobiology at the University of Wisconhusband, Stanley, is a professor of Misin and they have three children.

(Continued on page 2)

Message from the Executive Secretary

I feel honored to have been selected as the Executive Secretary of the newly formed Wisconsin Apple and Horticultural Council, Inc.

I consider all the aspects of the position to be a challenge. The WISCONSIN HORTICUTURE can provide timely and advantageous information; increased membership can provide added cooperation; and perceptive and persistent promotion can provide added sales. With this threefold attack, the fruit industry in Wisconsin will continue to grow and prosper.

So that I can better serve in my coordinating capacity, I would appreciate hearing the suggestions and ideas of each and every one of you. Let me know what you want to read about in WISCONSIN HORTICULTURE and I will gladly attempt to track down the information. I am especially interested in hearing about any new products that you need or know of. I feel we all gain by honest and helpful advertisements.

I am looking forward to meeting you all and chatting with you personally as I travel around the state this summer. In the meantime I will be awaiting your membership applications and suggestations.

May 1966 be a flourishing year for our new Wisconsin Apple and Horticultural Council, Inc. and all of us.

INTRODUCING NEW EXEC. SEC. (Continued from page 1)

She will be the new editor of the Wisconsin Horticulture magazine and will coordinate all of our activities. As President of our organization, I feel confident that Mrs. Knight will make every endeavor to fulfill the many needs that her position will require, and in so doing will make our organization even stronger!

1966 Budget

The 1966 Wisconsin Apple and Horicultural Council, Inc. Budget as accepted by the Board of Directors.

Expenses:

Secretary's salary	\$2400
Travel expense	600
National dues	
In state promotion	2700
Office expense	500
Board of Directors expense	250
Convention expense	
Miscellaneous	700

\$8900

Revenue:

State appropriation	\$1000
State Fair	1000
Sale of promotion material	1400
Sustaining members (\$25)	500
Associate members (\$2)	500
Active members (\$5)	500
Assessments (\$1 per acre)	4000

\$8900

Burning Spray Materials Can Be Dangerous

Spray materials burning in a barn fire can be very dangerous. Two such fires in New York State have hospitalized a number of firemen because of gaseous phosphate fumes and smoke.

This has stimulated an active safety program in that state to get fruit growers to consolidate orchard spray material storage in a small out-building, if possible, to mark all buildings containing spray materials with an appropriate sign, to stay out of smoke and notify others when spray materials burn, and to have available for immediate use poison treatment information.

The experience and action taken in New York should serve as a real warning and stimulate immediate action for safety programs in other areas before a fireman or grower is killed from the fumes and smoke of burning spray materials.

WISCONSIN HORTICULTURE

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Subscription — \$2 per year

(Mrs.) Nancy Knight - Executive Secretary and Editor 5514 Dorsett Drive, Madison, Wis. 53711 Phone 233-9359

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Gilbert J. Hipke, Honorary Recognition Recipient

Mr. Gilbert J. Hipke, a leading vegetable and fruit grower from New Holstein, Calumet County, was one of the five rural Wisconsin leaders that were honored at the University of Wisconsin College of Agriculture's annual Honorary Recognition Banquet in Madison on January 26.

The University has conferred Honorary Recognition on selected rural leaders for their meritorious services to a riculture and rural living since 1909.

Hipke, 67, is a leading Wisconsin vegetable and fruit grower. He combines a 900 tree apple orchard with the production of peas, corn and lima beans. H: has provided leadership in the Wis-

- Coming Events -

March 5-13—Midwest Flower and Gar den Show, State Fair Park, West Allis, Wis.

March 14-15—Annual Dwarf Fruit Tree Assoc. Conference, Benton Harbor, Mich.

APPLE MEETINGS

March 17—Jefferson County. Mr. Jerry Riedy, Coordinator.

March 18—Board of Directors Meeting, 10:00 a.m. New State Office Bldg., Madison.

March 26—Northern III., Methodist Church, Poplar Grove, III. Mr. John Bell, Jr., Coordinator. SMALL FRUITS AND APPLES.

March 23-24 — Washburn County, Bayfield. Mr. Eugene Anderson, Coordinator.

consin Canners Assn., the Wisconsin Horticultural Society (he has received the Society's Honorary Recognition Award), The Wisconsin Apple Institute, and the National Canners Association. He has served in the Wisconsin Assembly for five years, as a county board member for 34 years, as chairman of the county park commission for 20 years and on the county fair board for 31 years. His concern for soil and water conservation prompted him to turn over a 160 acre farm to local extension agents in 1948 for use as a demonstration farm.

She (coyly): Can you drive with one hand?

He (expectantly): You bet I can. She: Then have an apple.



The most economical way to conquer the number 1 disease threatening apple growers is to rely on Cyprex throughout the year.

It's a proven fact! As little as ³/₆ of a pound of this time-tested fruit fungicide provides unsurpassed control of scab when it is used consistently on a 5 to 7-day schedule. This includes both new *and* established infection!

One reason for this top record of performance over many years is the fact that Cyprex is retained on the leaf surface, even during heavy rains. At the same time, it spreads out to protect new growth between applications!

Remember, Cyprex is the *only* fungicide that offers you all of these important advantages:

- (1) Most effective control, inside and out, against both new and established infection.
 - (2) Most durable control, clinging to the surface during rain, yet spreading out to protect new growth between applications.
 - (3) Most economical control, with as little as 3/6 of a pound on a 5 to 7-day schedule to do the job.
- (4) Compatibility with other pesticides and oil.

No wonder Cyprex continues to be the material of choice, year after year, when it comes to controlling apple scab. Whether you prefer to dust or spray, stay with Cyprex all the way! You'll harvest a crop of high-profit, fine-finish apples in return.

Now's the time to place your order for Cyprex. See your dealer today! Before using any pesticide, stop and read the label.

CYANAMID

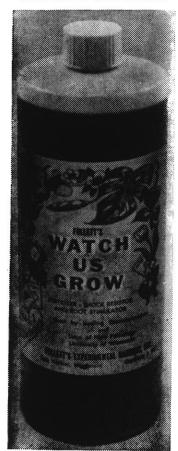
SERVES THE MAN WHO MAKES
A BUSINESS OF AGRICULTURE

AMERICAN CYANAMID COMPANY PRINCETON, NEW JERSEY

STAGE	1965 PEST CONTROL RECORD VARIETY-RED DELICIOUS LOCATION-SOUTH 40				
JAGE	DATE	FUNGICIDE	The Delicious Lo	CATION-SOUTH 40	
Delayed dormant	April 15	- SAGICIDE	INSECTICIDE	NOTES	
Pre-bloom	April 20	STATE OF	Malathion and oil	No sie-	
Pre-bloom	April 27	- 4	_	THO SIGN OF SCAD	
Pre-bloom	May 1		_	No sign of scab	
Bloom	May 12	CYPREX 65-W FAULT FUNGICISM	Cygon™	No sign of scab	
Petal fall		FRUIT FUNGICISE	_	No sign of scab	
First cover	May 22		Lead arsenate	No sign of scab	
	June 5		0.000	No sign of scab	
second cover	June 19		Lead arsenate	No sign of scab	

NEW! FOLIAR FEEDING

A Fertilizer, Shock Resitor and Root Stimulator



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APPLE FLAKES

For Sauce, Cake Mixes, Dry Cereal Apple flakes that can be mixed instantly in water to make sauce.... used in dry form in cake mixes.... or mixed with cold dry cereals....

These new uses for apples have been made possible through a drying process developed by scientists at the Western utilization research laboratory, Albany, California.

The apple flakes, drum-dried from sauce, have a natural apple flavor and color and have proved successful in several commercial applications and trials, including dessert and cake mixes. They may find outlets also in apple butter, confections, and other baked goods.

The developers of the drying process, engineers M. E. Lazar and A. I. Morgan, Jr., say that the product can also be compressed into small disks for use in dry cereals.

Although detailed cost studies have not been undertaken, the engineers cite

BERRY BOXES!

American Wood Rim

(Packed 500 per case)

500	\$14.95
1,000	27.95 per M
2,000	26.50 per M
5,000	25.50 per M
10,000	24.95 per M
15,000	24.25 per M
20,000	23.50 per M
25,000	22.90 per M
PINTS -	

than quarts listed above.

F. O. B. Oconomowoc, Wis.

Sold & Distributed by

WISCONSIN ORCHARD SUPPLY CO.

704 Concord Road OCONOMOWOC, WISCONSIN 53060 Telephone 567-6635 the fact that drum-drying has proved hw cost with various other products. Harge savings are possible in packaging, storage, and shipping of the apple dakes, since the flakes occupy only 30 per cent of the space and weigh only 20 per cent of the canned equivalent.

The engineers explain that applesauce to be processed into flakes feeds between two chromium plated steel drums—0.008 inch apart, and rotating slowly toward each other at the top. The drums are heated with steam under pressure, at about 300 F.

As the drums rotate, the sauce coats them and dries as a thin film in little more than a half turn of the drums. During drying, air is drawn over the drum surface to remove water vapor. Once the film is dry, chilled air plays on it to firm the film and facilitate its removal from each drum by a stationary blade.

The pliable film then passes over perforated metal reels that have surface speeds slower than those of the drums. This increases the thickness and density of the film before it enters a dehumidified air chamber where it is collected. Finally, the film is crushed through a screen to reduce it to a flaky powder.

The natural color of apples is protected by the addition of as much as 600 parts per million of sulfur dioxide to the initial wet sauce. Almost all of the SO² is lost in the drying, and the remainder is not detectable in the well-preserved apple flavor.

Since, even for short periods, very dry foods absorb moisture when exposed to ordinary room air, the scientists held apple flakes of varying moisture content in air having different relative humidities and temperatures. In these tests,

Lazar and Morgan made flakes from six varieties of apples—Gravenstein, Rome Beauty, Red Delicious, Golden Delicious, Winesap, and Yellow Newtown —and found them about equally satisfactory as far as drying is concerned.



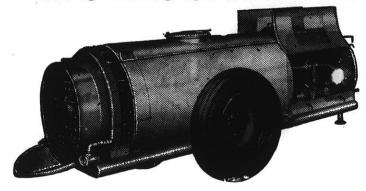


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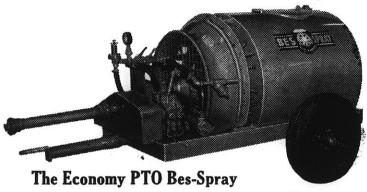
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IT'S BES-SPRAY FOR '66

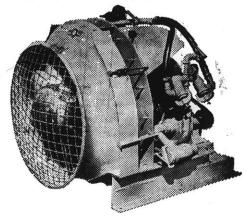


The NEW Medium Size Model 4510 or 3210



The Famous
ALL-NEW
Bes-Spray
Power Package

(Available in large and medium size)

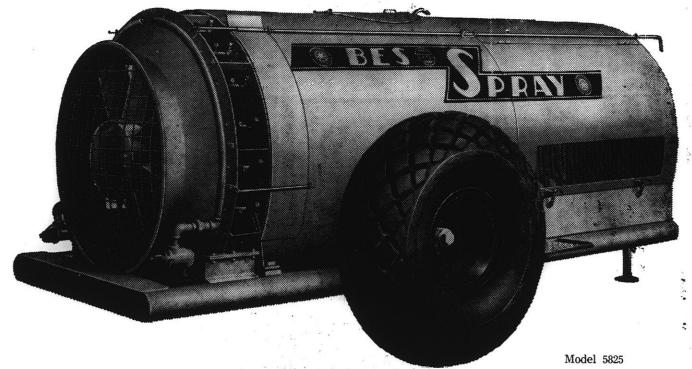


ASK FOR A DEMONSTRATION Sold and Distributed by

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704 CONCORD ROAD Telephone 567-6635 OCONOMOWOC, WIS. 53066 Write for 1966 brochure describing America's broadest line of Air-Carrier Sprayers.

1966 BESSLER BES-SPRAY -- King of the Orchard



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Advertising Assessments For Apple Promotion

Recent fruit tree surveys made in a number of the leading apple producing states indicate a substantial increase in apple production may be a reality in the years immediately ahead. New methods and technology now employed is resulting in increased production per acre, doubling and even tripling in many cases the production attained in the older orchards.

While apple production increases, the percentage of the better grades of fruit production of many competing fruits is also increasing, creating strong competition for the consumers fruit dollar.

With this increased production and competition from other fruits and fruit products it is none too soon to prepare to meet the next problem. A national study committee, headed by Larry Seaman of Michigan, has been exploring the advantages and disadvantages of a national apple promotion to promote apples as apples regardless of state of origin. In this day of rapid communication and transportation it is essential that we consider ways and means of promoting apples, not locally but nationally, if the increased production anticipated is to be marketed at a profit to the grower.

In support of a really effective advertising and promotion program growers in all producing areas should share equally in financing the program. The promotion program would likely start with a modest budget for nationwide publicity, developing into more effective nationwide television, radio and magazine advertising as funds became available.

A number of states with compulsory per bushel advertising and promotion assessments are as follows: Washington --6¢; Virginia 4¢; New York 3¢; Michigan 3¢; New Jersey 3¢; Maryland 2¢; Delaware 1¢; Georgia 2¢; Missouri 1¢.

(Continued on page 12)



BESLER POWER PACKAGE

Complete Air Blast Sprayer — less tank and trailer — Attaches in less than a day to an old tank and trailer, or to any one you buy or make.

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Wisconsin Orchard Supply Co.

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Available at mail order Nurseries in Wisconsin and other States.

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GURNEY SEED AND NURSERY, Yankton, S. Dakota



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MAY'S GREENHOUSE 5520 W. Layton Ave., Milwaukee

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KAILHOFER'S NURSERY Seymour

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MAY'S GREENHOUSE Eau Claire

WHITEHALL FLORAL Whitehall



For large quantity of trees or further information, please write:

CONNELL, SCHNEIDER AND CONNELL

Menomonie, Wis., Box 189

ADVERTISING ASSESSMENTS

(Continued from page 10)

Several states have passed enabling legislation to establish marketing orders which can be implemented as soon as a majority of the growers in the state approve by a referendum vote. States with marketing order legislation are Pennsylvania, Colorado, North Carolina. Other states are working on legislation to legalize uniform assessment for promotion funds.

A few states still operate on a voluntary program like Ohio, New England States, Wisconsin, West Virginia, Illinois, Indiana, and a few others. With the exception of New England the voluntary system fails to provide the necessary funds to carry on satisfactory promotion activities.

-Ohio Apple Institute Feb. Bulletin

INCREASE IN STRAWBERRY ACREAGE EXPECTED IN WISCONSIN

A gradual increase in strawberry acreages is anticipated by Dr. F. A. Gilbert of Sturgeon Bay, Wis., Superintendent of the University of Wisconsin's Peninsula Fruit Experiment Station.

There is a total of 3,000 acres of strawberries presently in Wisconsin, Dr. Gilbert said, and added that 75 percent of these are grown on a pick-your-own basis.

For the most part, he continued, these PYO strawberries are near metropolitan areas although some persons are known to travel up to 100 miles to pick them. These pickers have been found to do a better job than expected, he said.

The remaining Wisconsin strawberries are in the northern part of the state where, he added, they ripen at a good market time. Major Wisconsin strawberry varieties are Robinson, Catskill, Jerseybelle and an expanding number of the Midway.

Do Not Delay — Join WAHC Today!!

FOR SALE:

Strawberry Equipment

Holland One Row Transplanter NEW PRICE \$250.00

> Howard 528 Rotavature NEW PRICE \$430.00

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All in good operating condition. Will sell for half price.

ALSO SEVERAL THOUSAND QUART BOXES AND CRATES, CHEAP.

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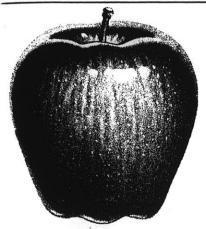
American Quart Baskets American Pint Baskets Bushel Field Crates

Ordering Now for Pre-Season Delivery

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CAMERON, WISCONSIN 54822



ORTHOCIDE® 50 WETTABLE: GIVES YOUR APPLES A GLOSSY, WAX FINISH

ORTHOCIDE stimulates wax formation on all varieties of apples. Wax gets heavier, glossier. Skin stays smooth and tight. Your apples have more buyer appeal. They resist rot and bruising-and keep better, too.

ORTHOCIDE is a broad-spectrum fungicide that works overtime. It gives lasting scab control. And used regularly, it actually sparks tree vitality. You get fuller, greener foliage. Firmer, healthier apples-and more of them.

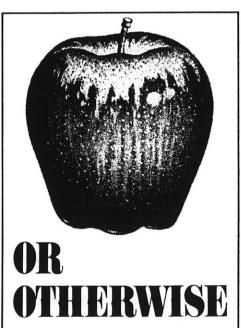
Use ORTHOCIDE as a spray or dust. Don't worry about russeting, even if you grow green or yellow varieties. Use it any time, from pre-pink to harvest. ORTHOCIDE-Helping the World Grow Better.



CHEVRON CHEMICAL COMPANY, ORTHO DIVISION

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GEORGE MATHES

238 N. State St. Chilton, Wis.

LONN KING

2301 Strange St. Stevens Point, Wis.

TOM BRANDT

Sturgeon Bay Wisconsin

The oil used in formulating Ethion-Oil meets the specifications recommended in the 1966 Apple Disease and Insect Control Circular from the University of Wisconsin.





Of Apple Varieties By ROGER D. WAY

Agr. Experiment Station
Geneva, New York
(Continued from Last Month)

For several of our important varieties, well-colored red sports are available. In most cases, red sports are superior to the parent variety and for most varieties, a grower would be foolish to plant the standard parent type. For McIntosh, some of the red color sports are Rogers, Summerland, Cornell, Boller, Blackmark, and a dozen others. In the case of McIntosh, these red sports are very similar to each other and it would be difficult to distinguish between them if the fruits were mixed in a basket.

This is not the case with Delicious. There is considerable range in the amount of red pigment among the Delicious color sports from very dark red to light red. Some color sports of Delicious are Gardner, Royal Red, Starking, Imperial, and Vance. At least 80 sports of Delicious have been reported in the literature. In addition to mutation for better color, mutation for spur growth habit has occurred in Delicious. Spur mutations have also occurred with Golden Delicious; however, the non-mutated Golden Delicious tree itself forms a well developed spur system.

One of the problems of red sports has been some tendency to revert back to the original type. In both McIntosh and Delicious, sometimes when trees of a solid blush type are planted, they will bear some striped fruits. A study is being made to determine which sports are most stable and will remain a blushed color pattern.

When Rome is planted, one of the red Rome varieties should be selected in preference to the parent Rome Beauty which has less color. There are two possible exceptions to variety improvement by new color mutations. Northern Sty is generally preferred to the several red Spys. And secondly, in many

locations, Jonathan color is higher, brighter and more attractive than the color of the Jonathan color sports.

The grower asks the question: Which varieties and in what proportions should I plant to make the most money ten or twenty years from now? For obvious reasons, it is not possible to make such recommendations. The most that can be achieved is to distribute as much information that is possible on the performance of varieties. When this information is made available, the grower must decide for himself what varieties to plant.

Most of our present important varieties were introduced before 1900 and most were found as seedlings growing along fence rows. There are two exceptions: Cortland was introduced in 1915 and Golden Delicious, 1916. But the origin of new apple varieties from chance seedlings probably has come nearly to its end. In the future, most new varieties probably will arise from breeding programs. Considerable procedence has been established in the importance of varieties from fruit breeding programs. For example, in California about 90% of the strawberry acreage is of varieties introduced by their experiment station. Also, the commercial importance of peach varieties from breeding programs in Michigan and New Jersey is well known. Thus, it could be expected that important varieties will also evolve from apple breeding programs. The longer life cycle of the apple plant makes this a longer program.

Most new varieties receive an initial burst of enthusiasm, then they quickly become unpopular. Part of the reason for this is that growers and buyers are reluctant to accept new varieties. They may be interested in new ideas and new products in other phases of the fruit growing business but a tree's life is 40 or more years and there is less opportunity to try new varieties. Encouraging a grower to plant a new variety that eventually shows serious faults may be of greater disservice than service-

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



from start...to finest finish



Captan gives you full-time scab protection

But that's not all — Captan 50-W helps young apple leaves produce more energy for wood, buds and fruit. Result: increased vigor — trees set and hold more fruit this year, produce more, strong buds for next year. Apples have better finish and color, too.

See your dealer – use Captan this year. Stauffer Chemical Company, Agricultural Chemical Division, 380 Madison Avenue, New York, N. Y. 10017.

READ THE LABEL HEED THE LABEL AND GROW WITH STAUFFER CHEMICALS

Stauffer



Committees Named

President Tom Connell with the approval of the Board of Directors has selected the followinge 1966 Wisconsin Apple and Horticultural Council Committees:

PROMOTION — John Louis, Chairman; Bigelow Lourie, George Premo, Ellery Teach.

MARKET INFORMATION — William Meyer, Chairman; Jay Spittler, Ralph Young.

STATE FAIR & EXHIBITS — Henry Mahr, Chairman; Elroy Honadel, Willard Nieman, LeRoy Meyer.

CONVENTION — Mr. & Mrs. Walter Clemens, Mr. & Mrs. Ten Eyck, Mr. & Mrs. Bill Meyer, George Klingbeil, Art Kurtz.

LEGISLATIVE — Gilbert Hipke, Chairman; Harold Rasmussen, Walton Frisch, Don Van Elzen.

BUDGET COMMITTEE — Art K. Bassett, Jr., Chairman; Walter Clemens, Ralph Young.

NATIONAL APPLE INSTITUTE — Henry Mahr.

RESOLUTIONS COMMITTEE — Bigelow Lourie.

Do Not Delay —
Join WAHC Today!!

A Trip to Southern Brazil

G. C. KLINGBEIL

Fruit Extension Specialist University of Wisconsin

It's surprising how fast modern day travel really is—from Madison, Wisconsin, to Porto Alegre, Brazil, in twelve hours flying time—a distance of 7,000 miles.

My mission in Brazil was to conduct a temperate climate fruit feasibility study in the two southern most states of that country. To be more specific, (1) to determine if apples can be grown on a commercial scale, (2) to find ways to improve commercial peach, pear and plum production, and (3) how to improve the grape industry. The two southmost states are Rio Grande do Sul and Santa Catarina. The two have a combined area of nearly three times the size of Wisconsin; a population of nearly twice that of Wisconsin; and are at a latitude similar to Georgia or Alabama. The state of Santa Catarina has sizable areas of elevations of 3,500 to 4,500 feet above sea level and surprising as it may seem, peaches, apples, bananas, pineapples and coffee can be grown at nearly the same latitude. The lower elevations are nearly tropical and the higher elevations have a temperate climate.

Rio Grande do Sul is bounded on the east by the Atlantic, on the south by Uruguay, and the west by Argentina. They (Continued on page 8)

WISCONSIN HORTICULTURE

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(Mrs.) Nancy Knight - Executive Secretary and Editor 5514 Dorsett Drive, Madison, Wis. 53711 Phone 233-9359

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Membership Drive

The membership drive is under the able supervision of the Board of Directors and their assistants in their districts. These men are devoting a great deal of time and effort towards making our new organization a going success.

Walter Clemens with Armin Barthel

and Fritz Meyer.

LeRoy Meyer with Henry Mahr, Vern Kauffmann and Frederick Gygax.

Arthur Bassett with William Stieve and Albert Ten Eyck.

William Meyer with John Lewis and Bigelow Lourie.

Tom Connell with Dawson Hauser and Walter Barningham.

So, if you have not already sent in your membership dues, please give these men your support by sending them in today.

Active Members

The following are the first active members of the Wisconsin Apple and Horticultural Council, Inc. Why don' you join this fine list and send in you dues today?

Walter Baehmann Arthur Bassett Philip A. Bassett Wm. A. Burdick Walter H. Clemens Connell's Sunridge Orchard Roy E. Dungle Thomas E. Flynn Br. Gerrard Gardener Frederick M. Gygax Oscar W. Hafs L. R. Larson Henry Mahr Meyer Orchards Kickapoo Orchards Inc. Don Otting Pennebacker Fruit Farm Dave Scheel Philip Schroeter Sunnyview Orchard Stanley J. Szymanski Mr. & Mrs. A. A. Ten Eyck Albert & James Theys Jerome L. Thiessen K. P. Van Epps Vernon E. Zickert Emil Beyer Nieman Orchards Geo. W. Premo Jack Buchel Weeden Orchard Philip Dell Rasmussen's Apple Acres, Inc. Glen M. Harold Wis. Orchard Supply Co. Carl Kolb

From The Editor's Desk

My first two months as the new Executive Secretary have been extremely busy but rewarding and challenging ones. I have been very much encouraged by the first few weeks of response to the pleas for membership dues. I just hope it will continue on a sustained level for some weeks so we have the satisfaction of a record number of members and an income in excess of the amount stated in the budget. Please remember that the more dues we receive at an early date the more effective our promotional program will be later on when you all will need it. And, since this is an all out Wisconsin effort, and everyone gains with the state-wide cooperative promotion carried on, wouldn't it be fair all the way around if every-one were a card carrying member of Wisconsin Apple and Horticultural Council. Inc.?

It was decided at the last Board of Directors Meeting that I will be going to the National Apple Institute Meetings in Traverse City, Michigan June 16-19. The program promises to be informative and inspiring and I hope many of you are planning on joining us so the Wisconsin delegation can be a nice big one. Furthermore, I would appreciate your moral support. Incidently, if you have any facts that you wish me to pass on or any questions you wish answered at the meetings, I would appreciate hearing from you.

I would like to close with a tidbit that I came across in another small publication, but certainly can apply to our

organization.

Bones

The anatomy of an Association includes four kinds of bones—

- 1. Wish bones—members who want someone else to do the work
- 2. Jaw bones—members who talk a lot but do little else
- 3. Knuckle bones members who knock everything others try to do, and
- 4. Back bones—members who get behind the wheel and do the work!
 - —National Institute of Locker and Freezer Provisioners

WISCONSIN HORTICULTURE ADVERTISING RATE CARD

CIRCULATION — 1000 fruit growers, including all 71 County Extension offices. ISSUED MONTHLY, except July and December. 16 to 20 pages, 6x9 inch page size, body type 8½ pt. Aurora.

ADVERTISING RATSS — Back cover \$30; other whole page \$20; half page \$11; one-fourth page \$7; 1 col. 2 inches \$3; two col. one inch \$3.

For photographs or drawings add engraving charge of \$1.50 for one col. 3" or \$3 for 2 col. 3", larger cuts in proportion. We can use your cuts or mats if right size, without extra cost.

10% off for same ad (with NO CHANGE IN WORDING) in every one of 10 issues (year).

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Nancy W. Knight Wisconsin Apple & Horticultural Council, Inc.

5514 Dorsett Drive

Madison, Wisconsin 53711

Phone 233 - 9359

Wisconsin Celebrates Arbor Day April 29, 1966

SAMUEL B. FERGUSON, JR.

Horticulturist, Plant Industry Div., Wis. Dept. of Ag.

Spring, that unpredictable season full of surprises, can be counted on to herald the vernal joys of yet another season to come. With tremendous forces of nature at work creating daily changes in our dormant landscape during this season, man has a wonderful opportunity to appreciate and add to the quality of his environment through the observance of Arbor Day. The planting of trees symbolizes one's faith in nature and enhances one's heritage.

By official proclamation of Governor Warren P. Knowles, Arbor Day will be celebrated on Friday, April 29, 1966. Because of increased interest in the maintenance and beautification of our out-of-doors, Arbor Day could well serve to make the month of May an annual period for initiating outdoor beautification projects. Today, with an emphasis on "Trees in Urban Areas," Arbor Day may be observed as follows:

- Community sponsored city-wide tree planting programs.
- Dedicate a tree to a prominent person.
- 3. Assist local youth groups in tree planting projects.
- Evaluate your home landscaping and plant more nursery stock as needed.
- Local service clubs can sponsor tree planting projects in underdeveloped areas.
- Garden clubs may assume responsibilities in tree plantings at historic sites.
- Nurserymen can coordinate supply and delivery of necessary planting materials for Arbor Day.
- 8. Encourage local forester or arborist to assist in above efforts.

As the people of many lands came to settle and live in Wisconsin bringing (Continued on page 6)

COROMERC

Mercury Apple Spray

Yes, we have it!
COROMERC IS THE SUPERIOR
ERADICANT FOR APPLE SCAB

- Eradicates apple scab after prolonged rainy periods.
- 2. Fortifies the "dry weather fungicides."
- 3. Safer if used during bloom period.
- Packed conveniently in liquid for your convenience and preference.

1 Gallon — \$16.30 Gal. 4/1 Gal. — \$63.20 Case

Sold & Distributed by

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704 Concord Road, Oconomowoc, Wis. PHONE 567-6635

SAVE MONEY—Buy it by the case!

BERRY BOXES!

American Wood Rim

(Packed 500 per case)

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1,000	27.95 per M
2,000	26.50 per M
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10,000	24.95 per M
15,000	24.25 per M
20,000	23.50 per M
25,000	22.90 per M
DINTTE	\$1.00 mm XI loss

PINTS — \$1.00 per M less than quarts listed above. F. O. B. Oconomowoc, Wis.

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704 Concord Road OCONOMOWOC, WISCONSIN 53066 Telephone 567-6635



Captan is for growers who want higher profits

Everyone knows that Stauffer Captan 50-W controls scab and summer diseases of apples.

But not everyone knows that apple trees become more vigorous, set and hold more fruit, and produce more fruit buds for the follow-

ing season through proper use of captan.

Captan 50-W makes your orchard produce at a more profitable level. Use it this year for better scab protection and *all* the captan benefits, including better fruit finish and color. Stauffer Chemical Company, Agricultural Chemical Division, 380 Madison Avenue, New York, N. Y. 10017.

READ THE LABEL, HEED THE LABEL AND Stauffer CHEMICALS

WIS. ARBOR DAY -

(Continued from page 4)

with them varied ethnic and cultural backgrounds, they found a heritage of trees awaiting them. Although this heritage was not highly respected during our early days of statehood, it soon became evident that a priceless wealth of trees would always remain. As our cities and village grow and flourish, so must new plantings of trees and other plant materials be established by concerned citizens so they may also grow and flourish with our enlarging population.

Apple Insecticide Progress Report

CHUCK KOVAL

Ext. Ent., Univ. of Wis.

Results of a 4 year apple insecticide study, from 1959 through 1962, were reported last year in the Journal of Economic Entomology (Vol. 58, No. 4, August, 1965. And, by continuing the study through 1964, the results were strengthened, according to a report by Earl R. Oatman ¹ and John L. Libby. ²

The study was designed to develop new insect spray programs to replace or supplement the standard program (lead arsenate + DDT) then used in many Wisconsin apple orchards. As a result of previous studies, the authors used Guthion, diazinon, and carbaryl as basic materials to compare with the standard. The objective was better seasonal insect control and equal or better quality and flavor of harvesting apples.

By combining proper tree coverage and timing the applications with the insect infestations, the effectiveness of the program was increased, the authors stated. Also, it was possible to minimize costs by reducing dosage rates between generations.

The report continued by saying that, during the four years, all programs produced apples high in quality and flavor, and that, usually, they ranged from 90 to 98 per cent free of inset injury at harvest.

"The Guthion, diazinon, standard and carbaryl spray programs were the most effective, in that order, for total insect control," the report stated. "The results were substantiated by a continuation of the study through 1964."

The study took place in Door County, Wisconsin, in 1959 with Red Delicious, and with McIntosh during the balance of the years. Commercial orchards were used rather than isolated trees in possible actual growing conditions. The orchards comprised mature trees with an orchard to approximate as much as known economic insect infestations.

In addition to the two insects already mentioned, the others were the codling moth, Carpocapsa pomponella (Linneaus), eye-spotted bud moth, Spilonota ocellana (Denis & Schiffermuller), and "others" including, fruit tree leaf roller, Archips argyrospilus (Walker), and apple aphid, Aphis pomi DeGeer.

The authors showed that all the programs could be used to control a complex of apple insect problems. However, successful, "Guthion was found to be the report did state that, while all were the best single material . . . for an effective, simplified and economical program for apple pest control in Wisconsin."

Guthion is manufactured by Chemagro Corporation, Kansas City, Mo.

Formerly Associate Professor, Department of Entomology, University of Wisconsin, Madison; now Assistant Entomologist, Department of Biological Control, University of California, Riverside, California.
 Formerly Extension Specialist in Entomology

² Formerly Extension Specialist in Entomology, Department of Entomology, University of Wisconsin, Madison, now in Nigeria at the University of Ife.

Why is it that the boy you were sure wasn't good enough for your daughter turned out to be the father of the world's smartest grandchildren?

STILL THE TRUE SINGLE CHEMICAL ALL-SEASON FRUIT INSECT CONTROL* *outstanding control of plum curculio



Guthion is the modern chemical you've heard so much about...the *single* chemical control. Years of success with Guthion have proved its broad range effectiveness...longer control over the major fruit pests. And best of all—Guthion means more profit for you—for three big reasons:

- 1. GUTHION DOES THE JOB-FROM BLOOM TO HARVEST
- 2. LOW COST-PER-SEASON WITH A GUTHION SCHEDULE

 Guthion is not intended for single-spraying clean-up of severe infestations.

 But when used on a program, right up to harvest, Guthion prevents build-up of infestations—gives low cost-per-season control.
- 3. BETTER FINISH AND HIGHER GRADE FRUIT—controlled tests plus years of commercial use have consistently proved that you get better color, better finish and consistently higher yields with Guthion. And Guthion leaves lower visible residues.

2348

LOOK FOR THE BIG BLUE BULLSEYE



A TRIP TO BRAZIL

(Continued from page 1)

have about 260 miles of continuous beautiful sandy beach, two large fresh water lakes and a host of smaller ones just inland from the coast. The largest lake, Lagoda dos Platos (lake of the ducks), is nearly 120 miles long and 25 miles wide. Their main industry is livestock with over ten million head of cattle and twelve million head of sheep. They also grow a good deal of corn, wheat, rice and manioc. Major fruit crops are grapes (over 200,000 tons), bananas, peaches, pears, quince, oranges, figs and pineapples. Vegetables grown are potatoes, tomatoes, beans, asparagus, squash, greens and many others. They also produce tobacco, sugar cane and honey. A truly diversified agricultural state.

Unfortunately, most of the farming is still done by hand or oxen: roads are very poor; and communication by mail or telephone is next to impossible. There is only one main road, running north and south, through the two states. This one is asphalt and would compare with one of our modest, secondary roads. Their secondary roads are few and poor. I was grateful on many occasions to be traveling in a four-wheel drive jeep, rough as it was. After over 5,000 miles in that critter, one gets a bit saddle sore and calloused. After two and a half months in that area, one can appreciate why we are the leading agricultural country in the world and you wonder why a country nearly as old as we are, can be so far behind.

Next time, I'll report more about the fruit industries of the area.

The wings of an owl have fringed edges to muffle noise so that it can fly as silently as a shadow, the National Geographic says.

Join our Wisconsin Apple & Horticultural Council by paying your dues now.

Follow Label for Best Results

"One for good measure" is a great American custom, but don't be tempted to practice it when you are mixing up a tankful of insecticide, fungicide, or weed killer is the admonition of a chemical company.

The recommendations for dosage if closely followed will give the best results. Also, you will get maximum control per gallon of spray if you follow the dosages on the pesticide label. You add nothing to control by using extra material and so just waste money.

When you overdose you risk residue problems and other complications.

The label on the container represents the results of years of intensive resarch When the user reads it—and heeds it—he automatically gets the dosage rates he needs, plus a wealth of other information on the practical, profitable, and safe way to apply and handle the pesticide.

SOVIET UNION IS LARGE HONEY PRODUCER

The current level of honey production in the Soviet Union apparently is 90-95,000 metric tons. The United States is the only country with a larger production.

There are reportedly 10.3 million bee colonies in the USSR. Bees can work for nectar in large areas of buckwheat, sunflowers, coriander, mustard, cotton, melons, fruit, and berries, as well as the vast Siberian forested area. These resources are said to be adequate for a threefold to fourfold increase in the number of bee colonies maintained in the country. Nevertheless, colony numbers have decreased on many farms in recent years.

Although honey production is said to be inadequate to meet the domestic demands, it has been exported in recent years. Honey exports totaled over 10 million tons in 1962-64. The principal buyers are Poland and Hungary.

The winner:



The losers:

aphids, leafhoppers, potato tuberworms, green stink bugs, flea beetles, potato psyllids, southern army worms, leaf-footed plant bugs, Colorado potato beetles, European corn borers, white flies, false chinch bugs, three-lined potato beetles.

Thiodan

Thiodan is a registered trademark of Farbwerke Hoechst, A.G. FAIRFIELD CHEMICALS • NIAGARA CHEMICAL DIVISION • MIDDLEPORT, N.Y.





The most economical way to conquer the number 1 disease threatening apple growers is to rely on Cyprex throughout the year.

It's a proven fact! As little as ³/₆ of a pound of this time-tested fruit fungicide provides unsurpassed control of scab when it is used consistently on a 5 to 7-day schedule. This includes both new and established infection!

One reason for this top record of performance over many years is the fact that Cyprex is retained on the leaf surface, even during heavy rains. At the same time, it spreads out to protect new growth between applications!

Remember, Cyprex is the *only* fungicide that offers you all of these important advantages:

- (1) Most effective control, inside and out, against both new and established infection.
- (2) Most durable control, clinging to the surface during rain, yet spreading out to protect new growth between applications.
- (3) Most economical control, with as little as ³/₈ of a pound on a 5 to 7-day schedule to do the job.
- (4) Compatibility with other pesticides and oil.

No wonder Cyprex continues to be the material of choice, year after year, when it comes to controlling apple scab. Whether you prefer to dust or spray, stay with Cyprex all the way! You'll harvest a crop of high-profit, fine-finish apples in return.

Now's the time to place your order for Cyprex. See your dealer today! Before using any pesticide, stop and read the label.

CYANAMID

SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

AMERICAN CYANAMID COMPANY PRINCETON, NEW JERSEY

STAGE	1965	PEST CONTROL	RECORD	
STAGE	DATE	FUNGICIDE	RIETY-RED DELICIOUS LO	OCATION-SOUTH 40
Delayed dormant	April 15	ONGICIDE	INSECTICIDE	NOTES
Pre-bloom	April 20		Malathion and oil	No sign of scab
Pre-bloom	April 27	- i	_	No sign of scab
Pre-bloom	May 1		_	No sign of scab
Bloom	May 12	CYPREX 65-W	Cygon™	No sign of scab
Petal fall	May 22	FRUIT FUNCTOR	_	No sign of scab
irst cover	June 5		Lead arsenate	
econd cover	June 19		Lead arsenate	No sign of scab

Board of Trustees Meet At Washington, D. C.

(Notes on meeting of Board of Trustees at Washington, D. C. on February 10-11, 1966, attended by Henry Mahr, Trustee from Wisconsin.)

The evening session heard an excellent presentation by Mr. Wayne Hawkins, Production and Marketing Manager of Florida Fruit and Vegetable Association. He discussed the (1) Florida Sweet Corn Industry which has a State Marketing order. (1) the Pole bean industry which has a voluntary marketing agreement and (3) the potato industry which operates a promotional campaign with little more than a gentleman's agreement.

He stressed a few points that are necessary before any type of promotion is attempted including apples, (1) you must break down the feeling of sectionalism and the first step in this direction is to meet jointly. (2) There is no "one" person capable of solving all industry. (3) The most important factor to remember is, Programs must originate with the growers themselves and not from hirelings or governmental workers.

Mr. Cline Howard and Mr. Ed. Collier of Young and Rubican, Inc., outlined the need for a National public relations program for apples, for better grower organizations and understanding of the need for and means to finance for greater national promotion of apples. Such a program could include a sales tool or presentation to be used by the industry to generate the funds to create and sustain such a program.

The N. A. I.'s new film, The Miracle of Apples, will soon be ready for dis-

tribution.

The new apple Kitchen Cookbook written and edited by Demetria Taylor, is designed to sell at 75ϕ per copy. The N. A. I. will have a Musical theme produced and will be available to all member groups in the near future for advertising apples.

If the apple industry is to survive and be prosperous, the apple grower must work together as a unit to support our state and national organization financially or we will be left behind by our competitors.

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Oconomowoc, Wis.

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APPLE SCAB EARL K. WADE

Univ. of Wis. Ext. Plant Path.

Apply scab infections were much in evidence in several orchards late in the season last year; this means that there is plenty of inoculum in the form of ascospores which will be released from the old dead leaves on the ground this spring. With each rain shower or heavy fog or dew these spores will be released and carried to the developing buds and leaves on the trees in the orchard. These spores can infect the new growth starting at bud-break and continuing on for several weeks after petal fall. After the first primary infection, secondary infections develop from the conida or secondary type of spores that develop in the lesions or scab infections. Growers should therefore apply the fungicide scab sprays according to the schedule outlined in the spray chart.

(Spray chart available from the Univ. of Wis. Extension Service Cooperative Extension Service, 240 Agr. Hall, Madison, Wis. 53706.)

It should be noted that a special delayed-dormant oil spray is recommended this year for insect control. When this oil spray is applied, captan canot be added to the spray as the two materials are not compatible (see footnote 2 in spray chart). Also, captan should probably not be used in the spray following the oil application. It is suggested that dodine (Cyprex) 65W be used at delayeddormant in the oil spray and also for the spray application 7 days later. Dodine can be used in the rest of the sprays, or captan or glyodin may be used in its place.

Although not listed in the spray chart, enough trials have been conducted out East (also one trial in Wisconsin) to indicate that the combination of 1 quart of glyodin plus ¼ lb. of dodine per 100 gallons of spray is quite effective against apple scab. Some growers may want to try this combination spray on part of their orchard and compare it with

their regular fungicide schedule for scab control.

New Varieties of Apples MALCOLM N. DANA

Department of Horticulture University of Wisconsin

Apple growers continue to seek new varieties to supplement present production and to add new interest to their orchard operation. This constant striving for improvement is healthy and a good sign of active interest in the future of the industry. But, I submit, that oftentimes growers get carried away in this area of interest and tend to look upon the fabled new variety as a panacea and forget that one can also make a success of growing standard varieties well. Does your market demand new varieties, or does it rather demand standard varieties with known quality and characteristics but with a high degree of uniformity and excellent appearance? Are you justified in spending an inordinate

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amount of time looking for a new variety that may possibly help you many years hence? It seems to me that many growers already have too many varieties, too many trees occupying space and producing fruit that must be sold at below premium prices because the market doesn't know or want the variety. These trees are comparable to the boarder cows and the cull chickens that our friends in other segments of agriculture speak about. Can you afford to have one tree of Westfield Seek-no-further or Tolman Sweets because one family buys one bushel per year. I think, as apple growers, you cannot afford this luxury. As hobbyists, you can, but don't expect to make money at it.

So what is new in apple varieties? As has been true for many years, the most active area of new apple varieties is Red Delicious and its multitude of color sports and spur types. Many of these are too new to have been fully evaluated under our conditions, but it would seem that the Starkrimson, Redspur, Wellspur, and Miller Sturdy Spur are all worthy of trial. The Red Prince, Imperial, Red Queen and others may also be tested. Many of these are early coloring sports that provide red color in August although the fruit may not be ready for harvest at that time. With these strains, we must use other criteria than color to determine the appropriate harvest date. Flesh color, flesh firmness, ease of picking and sugar content will become increasingly important as meaures of maturity.

The Golden Delicious also now has several spur sports available. Again, the recommendation of any particular type will need to await further testing in this and other states.

Among the newer varieties that seem to be finding a place in our orchards are Spartan and Idared. The Spartan is a McIntosh type, slightly later than McIntosh with better keeping quality and a more uniform shape and size. I believe Intosh plantings with a high quality fall and early winter variety. Growers in

the northern section of the state find this a promising variety.

it can be used to supplement your Mc-Idared is a highly colored late apple that is finding favor in some areas of Michigan. The production from a few plantings in this state have been well received on the market. A recent report from the East suggests that this variety is too soft for processing, but this will not limit its fresh market appeal.

Puritan is a new early variety, ripening about with Early McIntosh. It is large, firm, pinkish red color, tart and only fair quality. Its size and color may be of sufficient interest to give it a place in the early varieties for local market sale. Its firmness and size are its best features.

The earliest, quality apple we have is the Wellington from New York State. This variety was introduced for the processing market but seems to be of high enough quality to justify its use on the fresh market. It has good size and color and is very early. It reportedly ripens its crop all at one time which is an unusual condition for an early variety.

From New York there are several new varieties that may be worth looking at. Niagara, similar to McIntosh, ripen about ten days before McIntosh would seem to offer little advantage in our marketing situation but might extend the harvest season in a helpful way. Spigold is similar to Northern Spy but reportedly a more reliable bearer. A very firm flesh, high quality, and good size are characteristics which may provide this variety with a place in our orchards.

The variety Mutsu, a Golden Delicious type from Japan, and Tydeman's Red, a McIntosh type from England, are receiving rave notices from other growing areas. Mutsu would compete with Golden Delicious in size and quality. Tydeman's Red is about four weeks earlier than McIntosh and is a much firmer variety. This would precede Niagara in season.

Weed Control in Strawberries and Raspberries

MALCOLM N. DANA

Dept. of Horticulture, Univ. of Wis.

Weeds and their control occupy the attention of all crop producers and many professional research and extension people. One would think that from such extension study would come the ready solutions to all weed problems and that pure and unfettered crops would everywhere be producing abundant yields of quality produce. But such is not the case and for some years to come, I see no hope for development of that paradise. Perhaps this is good, for weed control provides a good outlet for excess energy and a wholesome occupation for the leisure time that weighs heavily upon the conscience of society.

For large and small producers of strawberries and raspberries, there is no weed control tool that exceeds the versatility of the hoe. This method of weed control, often referred to as the "strong arm method," is selective and sure although it may often be slow and tedious. For the present, at least, it is irreplaceable and other methods are supplemental to it.

A few ingenious people have made attempts to mechanize the hoe and have attained a considerable success in doing so. So much so in fact that some strawberry growers have detached themselves from the hoe and now do the hoeing from a sitting position. Two machines that provide the opportunity for relaxation are now on the market. the In Row Weeder and the Wiggle Hoe. Properly operated, either one will do an acceptable job of removing small weeds from around well-spaced strawberry plants. In soils with numerous clods and stones, the In Row Weeder would appear to be most useful for it permits more flexibility of operation and exercise of judgment by the operator than does the other machine. However, properly operated either machine

will relieve the grower of some of the tedium of hand hoeing.

No one can grow small fruits in a field infested with quackgrass. Anyone is foolish to establish a planting before the eradication of quackgrass is accomplished. I care not how the weed is removed; I only know that it must be removed before you start.

Summer fallowing may be successful in some areas while cropping followed by either dalopon or amitrole may be successful in other areas. Another method is to apply 2 lb./A of atrazine in early spring followed by plowing in mid-May and either planting of corn to be heed or drilling corn as a smother and green manure crop.

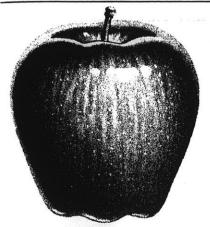
I am sure we all look upon chemical weed control as the cure-all that will one day remove all unwanted vegetation and leave only the crop waving gently in the summer breezes. We are a long way from that state today.

Herbicides registered for use on strawberries are helpful, but surely do not do the entire task. Sesone is the oldest of the materials and still remains the cheapest of those available. It has severe limitations insofar as it will kill weeds only as they germinate; it has only a short residual period (3 to 6 weeks) and if used at too high a rate, may do considerable damage to runner rooting. It may not be used after August 15 because of the hazard to developing fruit buds and the resultant deformed berries.

Dacthal has been used successfully by growers in several areas of the state. Like Sesone, it has no value against established weeds, and the effects of a treatment last only 3-6 weeks. Dacthal may be slightly better than sesone against annual grasses, but the difference in value is not striking.

Diphenamid is the newest of the preemergence herbicides for strawberries. It is sold as Dymid when formulated by Elanco Products Company and as El-

(Continued on page 19)



ORTHO°

ORTHOCIDE® 50 WETTABLE:
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ORTHOCIDE stimulates wax formation on all varieties of apples. Wax gets heavier, glossier. Skin stays smooth and tight. Your apples have more buyer appeal. They resist rot and bruising—and keep better, too.

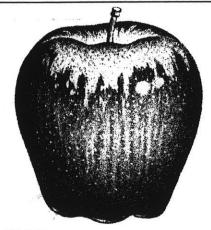
ORTHOCIDE is a broad-spectrum fungicide that works overtime. It gives lasting scab control. And used regularly, it actually sparks tree vitality. You get fuller, greener foliage. Firmer, healthier apples—and more of them.

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TOM BRANDT

Sturgeon Bay Wisconsin

The oil used in formulating Ethion-Oil meets the specifications recommended in the 1966 Apple Disease and Insect Control Circular from the University of Wisconsin.





- WEED CONTROL -

(Continued from page 16)

ide when formulated by Upjohn, Inc. This material has a wide spectrum of weeds on which it is effective and has a long residual effectiveness. It is more effective against grasses than either of the other materials. There must be at least twelve months between herbicide application and harvest of the crop, a restriction which limits diphenamid usefulness to applications before about June 20 in the Bayfield area. To be fully effective, diphenamid needs to be incorporated into the soil either by irrigation This is one herbicide cultivation. whose action is not destroyed by cultivation after application. The rate of treatment is limited to 6 lb./A on heavy soils, but for sandy soils 4 lb./A should be adequate for most purposes.

We feel that any of these herbicides may best be used as supplemental treatments following cultivation. In the early weeks of the planting, it would appear that one of the mechanical hoes could be used most effectively. When runners start to form and young plants fill in the row, then apply the herbicides to reduce the amount of hand labor necessary to maintain a clean planting.

Post-emergence applications, that is materials applied after weak germination, have not been highly successful in strawberries. CIPC or chloro IPC at very low rates (1/4 to 1/2 lb./A) is highly effective against smartweeds and relatively non-toxic to strawberries. It may be used in the first year of a strawberry planting, but may not be used in the fruiting year. The amine formulation of 2, 4-D may be used in the early spring of the fruiting year where susceptible broadleaf weeds are a problem. would use this treatment only as a last resort as the herbicide can do severe damage to the strawberries and is only mildly effective against many weeds. A ate of 1/4 to 1/2 lb./A is all that may be used safely and this is inadequate against most problem weeds.

Raspberries

An established planting may be treated with simazine at 4 to 5 lb./A for quackgrass and broadleaf annual weed control. A fall application of 5 lb./A is best for quackgrass and a lighter spring application (2-3 lb./A) is best for annual weed control. This herbicide has been highly successful for this crop. Be sure to use simazine and not atrazine for the low solubility of simazine is necessary to prevent deep leaching with resultant injury to the raspberries.

Diuron may be used for annual weed control in red raspberries. This should be applied at 2 lb./A in the spring. No material should be allowed on the foliage of the raspberry.

For further details on these and other herbicide treatments in fruit crops, ask your County Agent for Special Circular 33, 1966 Chemical Weed Control for Fruit Crops, University of Wisconsin Extension Service.

Circulars Available

The new 1966 Chemical Weed Control for Fruit Crops and the 1966 Apple Disease and Insect Control are now out and available from the Extension Service of the College of Agriculture, University of Wisconsin. Both pamphlets contain up to date and useful reference material.

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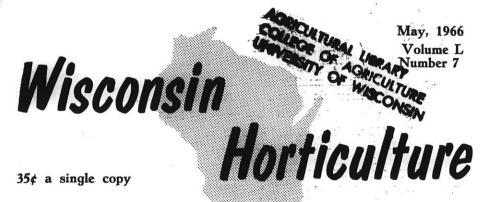
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Prevention-Control Measures For Fire Blight on Apple And Pear

EARL K. WADE
Extension Plant Pathologist

The following control measures for fire blight were compiled from the recommendations of several states where this bacterial disease is a problem on apple and pear trees. These controls are based both on research test results and on actual grower experience and practice. It does not necessarily follow that all of these control measures are effective under Wisconsin conditions, or that they will work equally well for both apple and pear. However, some of the practices listed are based on Wisconsin research data as well as on data from other states having similar growing conditions.

In view of the fact that several growers in the state are experiencing fireblight outbreaks, especially where dwarf trees of blight susceptible varieties have been planted, it was thought that a survey of possible prevention-control measures might be of some value.

A. Avoid Planting Too Many Varieties Having High Susceptibility To Fire Blight

Although there is some disagreement among workers regarding the susceptibility of apple and pear varieties to fire blight, the listing that follows attempts to classify varieties as being susceptible or somewhat resistant or tolerant.



Susceptible

Apples: Jonathon; Transcendent Crab; Lodi; Wealthy; Yellow Transparent; Ida Red; Virginia and Hyslop Crabs; Prairie Spy; Cortland; Snow; Secor; Beacon.

Pears: Bartlett; Anjou; Lincoln; Clapp's Favorite; Flemish Beauty; Sheldon; Parker.

Tolerant to Resistant

Apples: Red Delicious; Whitney, Hopa and Dolgo Crabs; N. W. Greening; Northern Spy; McIntosh.

Pears: Kieffer; Seckel; Moonglow; Magness.

(Continued on page 4)

WISCONSIN HORTICULTURE

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Do Not Delay —

Join WAHC Today!!

Coming Events

June 16-18 — The 31st Annual Meeting jointly sponsored by NAI and the Dwarf Fruit Tree Assn. in Traverse City, Mich. An extremely interesting meeting has been planned including two tours. Mechanical apple harvesting will be the subject of a panel discussion. Many other perintent issues will be x-pertly covered. A special attraction will be Governor George Romney as the featured banquet speaker.

Establish New Idaho Apple Commission

Idaho's Governor Robert E. Smylie recently signed into law a bill establishing the Idaho Apple Commission, created specifically for the purpose of advertising and promoting Idaho apples.

Thus, the new commission will set to work immediately to promote this coming year's crop.

The governor appointed three grower members and two dealer members to the commission.

Growers will be assessed one cent per box. A provision has been made in the bill to permit the growers to raise the tax to as much as five cents per box. Processing apples are exempt. A normal crop would be around 1,400,000 boxes this year.

The new commission will not be limited to advertising apples as Idaho apples. The bill provides that Idaho apples could also be advertised as "Northwest Apples," leaving the door open to co-operative advertising with other states or areas on promotion programs.

Size-Controlled Apple Trees

MALCOLM N. DANA
Department of Horticulture
University of Wisconsin

Perhaps no subject has captured the imagination of fruit growers more completely than the problem of rootstocks for apples. Traditionally, in America, we have produced apple trees by grafting scions of standard varieties onto seedling nurse roots to produce a healthy and vigorous orchard tree. This procedure was relatively inexpensive, simple and satisfactory for the economy of fifty years ago. But the changes in our society have now produced new problems for the orchard man; problems that must be faced squarely if we are to survive in a competitive business.

Among the most serious problems facing us is the need for adequate labor to care for and harvest our fruit. Gone are the days when men came knocking at your door asking for the privilege to climb tall ladders and harvest delectable fruit from far ranging and graceful branches of apple trees. Gone are the days when the winter crew would climb amongst the branches on a frigid day and prune for a few cents an hour. In place of these conditions, we must now scavenge for labor and provide it with wages and comfortable working conditions. To compensate for these conditions, we must increase efficiency which is to say that each prune" must make more cuts per hour and each picker must harvest more apples per hour. Machinery replaces some of the labor demand but cannot ever eliminate all need for the human element.

One of the obvious programs to improve efficiency was to produce a tree of smaller stature; one that would not require the use of long ladders and a monkey's agility for its management. To this end, it is fortunate indeed that our ancestors long ago recognized that certain trees, when used as a rootstock, produced orchard trees of small size that bore fruit of normal size and qual-

ity. It was only necessary to develop knowledge about these size-controlled rootstocks and to put them to work in our orchards. It has fallen upon our generation to do this work.

The size-controlling rootstocks offer real promise for the production of fruit for the "Pick-your-own" trade. For those who live near centers of population but may have difficulty hiring hourly labor, it seems to me that "pick-your-own" offers a real opportunity for increased return on your crop and a reduced reliance on a questionable quality and quantity of labor. The opportunity and perhaps necessity to develop the "pickyour-own" market dictates that apple growers move to smaller trees that may be harvested by ordinary citizens out for a little outing and incidentally buying quality fruit.

Size-controlling rootstocks are mainly of two series. The Malling series have been known for the longest period and are the most widely grown. The members of this series all arose as chance seedlings. They were assembled at the East Malling Research Station and each clone was then characterized and given a number. Originally these designations were EM 1 to EM XVI. These identifying numbers have gradually been corrupted until today often it is written as M 1 to M 16. The second series of stocks arose from a breeding program conducted between the East Malling and the Merton Research Stations in England. From this program were selected fifteen rootstock clones of which only four have been introduced to commercial practice in this country. These stocks were given the names MM 104, MM 106, MM 109, and MM 111. At the present time from these two series. there are about twelve clonal rootstocks that may be obtained in America.

Size - controlling rootstocks present problems that require adjustment of those management practices that commonly applied to standard trees. If you are unwilling or unable to make these adjustments, then you'd better forget

(Continued on page 14)

FIRE BLIGHT CONTROL

(Continued from page 1)

- B. Soil Type, Tree Nutrition, and Cultural Practices Have a Significant Effect on Fire Blight Infection.
- 1. Try to plant in the proper soil type. Years of observations on blight development by workers in eastern United States indicate that susceptible varieties planted in deep, fertile, well-drained but not droughty soil are less subject to blight infection than when located in very wet, poorly drained soil.
- 2. Be careful when fertilizing blightsusceptible varieties, especially with respect to nitrogen. Both greenhouse and field tests have shown that of the three major nutrient elements, nitrogen has the greatest effect by far on blight susceptibility.

Trees receiving a yearly spring application of 2 lbs. or more of ammonium nitrate have been more susceptible to fire blight than those getting 1 lb. or less, or none at all.

Experiments that have been conducted on pear trees indicate that less blight develops where half of the nitrogen is applied on the ground and the other half on the foliage in the form of urea. One to several application of urea can be made, depending on the color of the foliage and other conditions. These should be applied after bloom.

An adequate supply of potash should be maintained in the soil; the pH level should be checked and lime applied if needed. This would usually be when the pH of the soil registers 5.5 or less.

3. Keep susceptible varieties under sod culture. Growing trees in sod, at least in strips extending out to the drip line, reduces the danger of blight development as compared to bare ground or under cultivation make a more rapid and vigorous growth and have a higher percentage of succulent wood than those grown in sod. However, it is more difficult for those trees grown in bare ground to harden off for the winter.

C. Dormant and Summer Pruning to Remove Fire Blight Inoculum

1. There is universal agreement on the value of removing overwintering fire blight cankers as part of the regular pruning operations while the trees are dormant. When this is done an effective disinfectant should be used to disinfect the tools after each cut. Cankers and blighted areas should be removed at a point 8 inches or more beyond any sign of infection, due to the bacteria being found beyond the margins of the canker underneath healthy-appearing bark. Cankers located on large branches and limbs or on the trunk of the tree should be removed surgically by cutting out all of the discolored tissue and then painting the wound with the Reimer's or California solution described in the next paragraph, or with the cadmium-sulfate solution described later on in this discussion.

Various materials are recommended for use as disinfectants. Mercury materials are very effective but have the

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704 Concord Road OCONOMOWOC, WISCONSIN 53066 Telephone 567-6635 disadvantage of being corrosive to metal as well as being very poisonous. A good mercury disinfectant is Reimer's solution. It is prepared as follows: On a weight basis dissolve 1 part mercuric chloride and 1 part cyanide of mercury in 500 parts distilled water; or make the "California solution" by replacing 10 per cent of the water with glycerine.

Other types of disinfectants being used (a) Mercuric chloride (corrosive sublimate) 1 part, water 1,000 parts (one 7.3-grain tablet mercuric cloride dissolved in 1 pint of water, or 1 ounce per 7½ gallons water). Mercuric chloride is also known as bichloride of mercury. All mercury preparations must be kept in glass, plastic, or stoneware bottles or jugs, plainly marked as poisonous and kept out of reach of children and pets. (b) Denatured alcohol, such as you can buy in paint stores, not the alcohol used as anitfreeze. (c) Streptomycin solution, 200 ppm (such as "Agrimycin 17", "Agristrip", or "Phytomycin" dissolved in water). (d) A 1 per cent sodium or calcium hyochlorite solution (household bleach such as Clorox diluted with 5 parts water, or B-K powder or liquid prepared as a 1 per cent hypochlorite solutions break down rapidly in the presence of dirt and other foreign matter and should be discarded at frequent intervals when used to sterilize pruning tools, etc.

2. There is a difference of opinion on the value of summer pruning of active blight infections as a control measure. Most workers do agree that new shoots or sucker growth should be removed as soon as possible from limbs and trunks during the growing season. One recommendation is to wear leather gloves and "rub" them off rather than to use a pruning shears. It has also been recommended that fruiting spurs located on the lower portions of the tree be removed, especially on pear trees. This is to reduce the chances of fire blight invading the scaffold branches and trunk of the tree through infected fruit spurs.

In Wisconsin we have not been recommending the removal of active cankers and freshly blighted twigs during the growing season. Tests conducted many years ago in Wisconsin did not favor the practice, and there is some danger of actually spreading the infection.

It is claimed in Illinois that the value of summer pruning depends on the season; that early fire-blight infections probably should be pruned out, but if blight continues to develop until early in August, summer pruning has no value.

Orchardists who decide to try summer pruning should be careful to cut 8-12 inches back into healthy-appearing wood and to disinfect the cutting tools after each cut.

3. 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.

A solution called Cadmium paint, or Cadmium-sulphate solution has been developed for use as a canker treatment. It is reported to be less injurious than zinc and probably just as effective. It can be used also as a disinfectant when pruning out blighted twigs, etc.

The formula for Cadmium-sulphate solution and directions for use are available from the author of this article.

D. Use of Copper and Streptomycin Sprays

1. Some states recommend the application of a dormant copper spray in the spring as part of the fire blight control program. Copper sprays suggested are Bordeaux mixture, 4-4-50, a 45-53% insoluable or fixed copper fungicide at the rate of 4 lbs. per 100 gallons water, or Instant Grade soluble copper sulfate powder (blue vitriol), at 4 lbs. per 100 gallons.

Both insoluble fixed copper sprays and sprays of soluble copper sulfate have been used in a few Wisconsin orchards, but so far these copper sprays have not been an aid to fire blight control. Growers in Illinois claim that the yearly use of a dormant copper spray is beneficial in reducing blight infections on susceptible varieties. If a dormant copper spray is used, it is recommended that home-mixed Bordeaux, 4-4-50, be applied.

2. Weak copper sprays can be used during bloom, and some growers have added copper to the early cover sprays in an effort to reduce the spread of fire blight infections. There is always the danger of fruit russeting when copper is used, especially under poor drying conditions. However, it was found by Wisconsin, California and New York investigators that blossom infections are favored by high humidity and high temperatures; on dry days the sugar concentrate in the nectar of open blossoms is too high for the fire blight bacteria to grow. Therefore, it probably does not pay to apply copper sprays during bloom unless the relative humidity is 60% or higher and the prevailing temperature is 70°F or higher. A 1-2-100 Bordeaux spray is recommended for applications during bloom. Make two applications 4 days apart, starting when the first blossoms appear.

Streptomycin, an antibiotic, is more effective than copper for controlling blossom blight. (Available as Agrimycin 17, Agri-Strip, and Phytomycin.) Here again, streptomycin will be of little value during bloom unless fairly high moisture and temperature conditions prevail prior to and during the bloom period.

The use of streptomycin is warranted when the following conditions prevail:

- (1) At any time after the first blossoms open that a temperature of 65°F or higher and rainfall or relative humidity 60% or higher occur or are forecasted.
- (2). When one-half of remaining blossoms are open and above weather conditions continue or recur, apply a second spray. (This may be a day or so after the first spray, or it may be several days, depending on prevailing weather conditions.)

(3) Three of 4 days after the second spray application, if many active blossoms still remain, apply ε third spray of streptomycin.

Use of streptomycin at rates recommended by the manufacturer, or apply at a dilution of 100 ppm; or apply at 50 ppm and add 2 quarts of glycerin, CP or USP grade, to 100 gallons of spray. Work done in Illinois indicates that streptomycin sprays are more effective when applied at night.

Because of residue restrictions, streptomycin should not be applied to bearing trees after the fruit has formed. Nonbearing trees may be sprayed as often as considered necessary, and growers having new plantings of dwarf trees of a susceptible variety should perhaps consider using streptomycin in the cover sprays until they reach bearing age.

Workers in Illinois also suggest the use of the fungicide zineb 75W during bloom at 2 lbs. per 100 gallons on blight-susceptible varieties in place of the regular scab fungicide. It has some effect on bacteria as well as on fungus organisms. On bearing trees they also recommend use of zineb 75W, 1 lb., plus either Dodine (Cyprex) ½ lb. or captan 50W, 1 lb. after petal fall in the cover sprays for protection against fire blight and scab. On non-bearing trees night applications of streptomycin at 100 ppm are recommended in the cover sprays for protection against twig blight.

E. Maintain an Adequate Spray Program to Control Aphids and Other Sucking Insects — Both Before and After Bloom

Although there are conflicting reports on the importance of aphids and leaf-hoppers in spreading fire blight infections, there is some evidence that these insects contribute to blossoms and sucker infections. Therefore, an effort should be made to control early aphid infestations as well as those that appear later on during the season.

F. Check on Nearby Sources of Fire Blight Inoculum

Check the area around and near your orchard for sources of fire blight inoculum that could be brought in. This might include other orchards, backyards, trees abandoned or growing wild.

For Complete PRE-BLOOM to HARVEST Protection



Morestan is the new carbonate pesticide for mites and pear psylla. Tested throughout the world and used commercially in this country during 1964, Morestan has proved to be an excep-

tional pre-bloom miticide. Morestan's excellent residual action controls mites for an extended period of time. It kills by contact and is equally effective for control of mite adults, nymphs and eggs, both resistant and non-resistant strains.



For over 5 years, this outstanding insecticide has been the favorite with fruit growers from coast to coast. No other insecticide can match its broad spectrum effectiveness. It effectively

controls the major insects, (Plum Curculio, Coddling Moth, Apple Maggot), that attack fruit crops and continues to control them from one cover spray to the next. Controlled tests have consistently proven that Guthion gives higher yields and better finish fruit with lower visible residues.



As an aphicide, Systox (Demeton) is second to none. Systox is a systemic insecticide that works within the sap stream and even protects new growth. Aphids cannot escape . . . even when

on the underside of leaves. They are poisoned when they pierce any part of the foliage and begin sucking juices. Once Systox has been absorbed, it will not harm your beneficial pollinators. Remember, it's INSIDE the tree or plant.



Fruit Crops of Southern Brazil

Extension Specialist, Fruit Production
The University of Wisconsin
Madison, Wisconsin

Last month I provided a general view of the agriculture in the two most southern states in Brazil. Now, let's look a little more closely at the fruit crops of that same sarea.

The largest fruit industry of this twostate area is grape growing. A fivecounty region in north central Rio Grande do Sul has over 95% of the industry. The names of counties like Bento Goncalves. Flores da Cunha and Garibaldi make one realize that this area is made up of people of Italian descent. They are excellent grape growers and produce well over 200,000 tons annually. The Escola de Viticultura and Enologia (school of grape culture and wine making) at Bento Goncalves and the Estação Experimental de Viticultura and Enologia (grape and wine experiment station) at Caxias do Sul have excellent collections of French hybrid and vinifera varieties as well as the knowledge of production and certainly wine making. Unfortunately, over 60% of the farm production still consists of the Isabella variety-one of the oldest American types. The Niagara variety is also quite common.

It becomes obvious in a short time that the means of getting experimental results to and adopted by growers are indeed lacking. One can see the real value of an efficient extension service such as we have in this country.

Grapes are not trained as they are here. Most plantings are grown in an overhead system with plants about 10' by 10 apart. The main stem is trained upright for about 6 to 7 feet, then about six arms are allowed to grow outward like spokes of a wheel. Fruiting wood originates from these arms. The vines are trained on heavy gauge wire which is held up by granite posts. One post seven feet long and six inches square made by hand costs about 20 cents.

Grower income would be improved if they would adopt the newer varieties which would make better wine, be valuable in the fresh market, and used for juice and even raisins. As it is now, all the grapes are in one basket—mostly for wine.

Apples are of real interest to the Brazilians. They want them and will pay the price, often up to 20 cents apiece. Almost all are imported from Argentina and even a few from the United States. The varieties—what few are grown are Rome Beauty, Jonathan, Northern Spy, Winter Banana and a couple of unknowns. All are low chilling requirement kinds. There are only limited areas where commercial orchards could be established and these are in the higher elevations, possibly up to 20 to 30 thousand acres. The main problem is that no practical apple growing know-how is available in Brazil. Until local people are trained in such professions or such knowledge is imported, apple production will likely be limited in that country.

There are many interesting things though. I spent a few days trying to run down information about a good many dwarf trees which had been propagated by the inter-stem method. Many of these trees were at least forty years old, not over eight feet tall and still producing good crops. Another item of interest—I saw no fire blight either on pears or apples.

In some states, figs, olives, bananas and pineapples are grown in quantity, but that's till another story.

Pest Control Sheets

The Cooperative Extension Service, 240 Agr. Hall, Univer. of Wis., Madison, has released new pest control sheets for home gardeners, for strawberries, raspberries, and plum, charry and peach...

The winner:



The losers:

aphids, leafhoppers, potato tuberworms, green stink bugs, flea beetles, potato psyllids, southern army worms, leaf-footed plant bugs, Colorado potato beetles, European corn borers, white flies, false chinch bugs, three-lined potato beetles.

Thiodan Thiodan Thiodan Is a registered trademark of Farbwerke Hoechst, A.G.

FAIRFIELD CHEMICALS . NIAGARA CHEMICAL DIVISION . MIDDLEPORT, N.Y.



The most economical way to conquer the number 1 disease threatening apple growers is to rely on Cyprex throughout the year.

It's a proven fact! As little as 3/6 of a pound of this time-tested fruit fungicide provides unsurpassed control of scab when it is used consistently on a 5 to 7-day schedule. This includes both new and established infection!

One reason for this top record of performance over many years is the fact that Cyprex is retained on the leaf surface, even during heavy rains. At the same time, it spreads out to protect new growth between applications!

Remember, Cyprex is the *only* fungicide that offers you all of these important advantages:

- (1) Most effective control, inside and out, against both new and established infection.
- (2) Most durable control, clinging to the surface during rain, yet spreading out to protect new growth between applications.
- (3) Most economical control, with as little as 3/8 of a pound on a 5 to 7-day schedule to do the job.
- (4) Compatibility with other pesticides and oil.

No wonder Cyprex continues to be the material of choice, year after year, when it comes to controlling apple scab. Whether you prefer to dust or spray, stay with Cyprex all the way! You'll harvest a crop of high-profit, fine-finish apples in return.

Now's the time to place your order for Cyprex. See your dealer today! Before using any pesticide, stop and read the label.



SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

AMERICAN CYANAMID COMPANY PRINCETON, NEW JERSEY

		PEST CONTROL	RECORD	
STAGE	DATE		'ARIETY-RED DELICIOUS LOCATION-SOUTH 40	
Delayed dormant	April 15	FUNGICIDE	INSECTICIDE	NOTES
Pre-bloom	April 20		Malathion and oil	No sign of scab
Pre-bloom	April 27		_	No sign of scab
Pre-bloom	May 1	CYDDEX.	_	No sign of scab
Bloom	May 12	CYPREX 65-W FRUIT FUNGALIN	Cygon™	No sign of scab
Petal fall	May 22	FRUIT FUNGALIA		No sign of scab
First cover	June 5		Lead arsenate	No sign of scab

The Fruits of Advertising

CARLTON D. STODDARD

Vice President and Agricultural Accounts Supervisor The Cramer-Krasselt Co.

Cars on the highway are a tremendous market in motion.

Over 3,700,000 out-of-state cars come to Wisconsin for vacations. Add to that over 2,000,000 native Wisconsin cars full of vacation-happy people in a holiday mood. Cars full of kids with constant appetites.

The best way for Mom n' Pop to stop the kids' hollering is to drive in at the Roadside Market and fill 'em up with fruit.

A Tote-Pack of fruit to eat on the way has real appeal. Why not advertise free napkins, with a litter-bag for the cores? Have gift packs of Wisconsin fruit ready to mail. Vacationers will send some home.

But now comes the big question How do you STOP 'em going 60 miles an hour—88 feet per second? They've got about 5 seconds to spot your market. . . . size it up . . . look to see what Mom thinks . . . and decide to drive in for a look at your merchandise.

You have to flag them fast. Even the commuters are going at a fast clip these days

The Michigan Apple Commision has gotten a lot of publicity for its FLAVOR-BEST APPLES promotion. Last year they used a circus theme—"The Greatest Apple Show on Earth." They put out banners and balloons and circus clown displays for use in stores. Handout recipe booklets are available from the National Apple Institute for \$2.60 per 100 copies.

The word about you doesn't get around by accident. You've got to tell 'em so sell 'em.

The U. S. D. A. has just put out a National Roadside Marketing study reporting on 1500 roadside markets in the United States. Over 78% use newspaper advertising. Over 67% use signs which are probably the cheapest way to advertise. Only 29% use radio. It's surprising more don't use radio. There are 62 million cars in America with radios. The best time for you to reach them is 4 to 6 p. m. when people are hungriest and the traffic is homeward bound.

Only 2% of the growers use television. Banded together in an association, fruit-growers could capitalize on a more powerful advertising program with a united trademark.

Washington growers are beginning to trademark apples. Snoboy marks each apple with edible white vegetable ink—like Sunkist oranges. It's an electrostatic process that doesn't squeeze or bruise the apples.

Here's a significant thing—over 9% of the roadside markets surveyed by the U.S.D.A. gross over \$60,000 a year. They spend an average of \$2,485 yearly for advertising. Significantly—growers with less than \$5,000 sales spend only \$71 annually for advertising.

Michigan moves 18 million bushels of apples annually. They have a \$240,000 promotion budget. Michigan sells 10 million bushels in October, more than they used to during the entire year, without advertising. Their checkoff is only 6 cents per 100 lbs. or 3 cents a bushel.

Washington growers have passed a referendum authorizing 12 cents per 100 lbs. for advertising. Florida citrus (Continued of page 19)

FRUIT & VEGETABLE FARM IN GREEN LAKE COUNTY

175 Acres—114 cropland. Includes 28 acres strawberries for customer picking. COMPLETELY EQUIPPED.

Contact KEMNITZ AGENCY, Beaver Dam, Wisconsin

\$ NOW \$

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Your Most Needed Orchard Equipment!

We will Lease or Rent any of the following Equipment:

- Sprayers
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- Rotary Mowers
- Apple Graders
- Apple Washer Polishers
 - Apple Baggers
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Let us know what your needs may be . . . we will supply the complete details with no obligation.

Remember - Leasing or Renting is completely tax deductible!

Let Us Hear From You!

WISCONSIN ORCHARD SUPPLY COMPANY

704 Concord Road

Oconomowoc, Wis.

Phone "Bill" Aeppler - 567-6635

SIZE CONTROLLED APPLE

TREES - Continued from page 3
(Continued from page 3)

about these trees. They demand intensive culture if success is to be realized.

In the first place, planting distances must be adjusted to closer spacings in order to make maximum use of land area and to provide optimum bearing surface per acre. This requires a high initial investment in planting stock and careful planning for drive areas in the orchard.

Suggested spacings for some of the different rootstocks are as foolows:

Rootstock Rootstock	Between Trees Between Trees in row	Between Between Rows
M IX	6 to 10 ft.	16 to 18 ft.
M 26	10 to 14	16 to 20
M VII MM 106	12 to 18	18 to 25
M II MM 111	14 to 20	20 to 28
MM 104 ALNARP2	18 to 24	25 to 30
Seedling	30 to 35	30 to 35

In the early years of growth, certain clonal rootstock trees are not well anchored either because of poor rooting or because of brittle roots. These trees must be provided with a stake or trellis for support against strong winds. In this group are the M 1X, M VII, M 26, and M VIII.

Early and heavy bearing are characteristics of these trees. Several of them start fruit production in two or three years after planting. It is generally agreed that fruiting at such an early age may be undesirable for it restricts tree size and slows the development of adequate bearing surface for high production in later years. This demands two practices, (1) the picking of blossoms of small fruits in the early years and (2) careful attention to culture to speed development of the trees. In the latter case, clean cultivation with mechanical equipment or herbicides is mandatory. We have long urged this practice on standard trees but re-emphasize is importance for size-controlled

trees.

The pruning program differs lit le from that with which you are familiar. We believe a modified leader system is appropriate for this type of tree. There are many other systems that can be used successfully but special care is needed for tree development. Size-controlled trees tend to lose their leaders unless special attention is paid to the maintenance of the tree. Defruiting of the leader is recommended until the framework is completed and the tree is ready for full production.

The hardiness of these stocks has not vet been fully evaluated. Evidence is conflicting with some reports telling of sure death in cold climates and others reporting little or no injury under any circumstances. At our orchard in Arlington, we have trees on several rootstocks going into their seventh growing season under clean cultivation with no winter injury evident, yet. Several growers have similar experiences in the state. It would seem that a straw mulch would be an appropriate safeguard against winter injury for the early years of the orchard but may not be necessary for all stocks.

Some characteristics and observations on the several rootstocks are as follows:

M IX. This stock is the most dwarfing producing mature trees that are 10 to 12 feet in height and capable of producing two to three bushels per tree. The root is brittle and thus the trees must be given support. Useful for hedgerow system but we feel it is too small for orchard acceptance at this time. Spaced closely and intensely managed, trees on this stock in other areas are producing 1,500 bushels or more per acre.

M 26 produces trees slightly larger than M IX with a better root system but still needs staking. This stock is promising for use in intensive culture in the hedgerow system. This stock is not as well tested as some others but early reports are favorable.

M VII. This stock produces a semidwarf tree up to 15 to 18 feet in height. This has long been the main clonal stock fer planting in Michigan and several other states. Some growers find it necessary to stake these trees in their early years of development.

MM 106 is the most promising semidwarf stock. It produces an excellent tree with McIntosh. This stock develops a good root system. Early results indicate that this is the rootstock most useful for producing trees in the 15 to 18 foot size range.

M II. This stock produces a semivigorous tree that approaches a standard in size. This is possibly the most hardy of the stocks tested and for this reason may have real interest for Wisconsin growers. It does not produce a dwarf tree in the sense that most of us think of the term dwarf.

MM 104. This stock produces trees in the semi-vigorous size classification. Its main advantage is the early fruiting habit, somewhat earlier than that found for M II. The trees are well anchored. It seems to be particularly tolerant of thin, poor soils but is intolerant of poor drainage. The mature trees will be larger than those on M II.

MM 111. Trees on this stock are comparable in size to those on M II but are generally more productive. They withstand summer drought better than M II. This stock produces relatively large trees and should not be thought of as a dwarfing stock.

t would seem to me that we in Wisconsin do not have full information on the adaptability of these rootstocks to cur conditions and that any planting must be done with full knowledge that certain hazards exist. However, enough e erience is available to give reasona e confidence that some stocks at least will be moderately successful.

n the basis of early evaluations, I welld suggest the trial of MM 106 as a re stock for McIntosh and Delicious w re the grower is interested in a sn all tree with high production but dem. ading intensive care. For larger trees the M II offers promise of success with pessibly MM 104 and MM 111 for part of the planting. I am still not ready to put all my apples in the size-controlling stock basket, but I sure think we must move in this direction as old blocks of standard trees are removed to make room for new material.

On Lookout For Pear Sawfly

A. R. KURTZ

Entomologists of the Plant Industry Division, Wisconsin Department of Agriculture, are currently conducting a survey among orchardists with pear trees to determine if the pear sawfly exists in the state. This sawfly, (Hoplocampa brevis) an economic pest of pear in Europe, was discovered in Canada in 1964. Feeding of the larvae may be observed in the side or calyx end of developing pears. Fruit attacked, according to reports, falls at an early stage and a massive drop may be indicative of the presence of the pest.

Timing of this survey is highly important in detection of this insect. Adults are active for about 10 days only and larvae about 20-25 days. Since the adult is needed for positive determination, a vellow board coated with a sticky substance is placed in the orchard to capture the elusive insect. Traps are placed in pear orchards just prior to bloom to be in readiness during blossoming time when the adult is known to be active.

The survey for the pear sawfly is being conducted in known pear-growing regions of the state.

JOHNNY APPLESEED

The United States Post Office Department has inaugurated its "American Folklore Series" with a commemorative five cent stamp honoring the legendary pioneer John Chapman, better known as Johnny Appleseed. It will be released on September 24th at Leominster, Mass., Chapman's birthplace and birthday. It will be available elsewhere on September 25th.

Weed Control in Orchards Prepared by M. N. Dana

Weed control in orchards presents a somewhat different set of problems than that set forth for strawberries and raspberries. The major problem in orchards is the suppression or eradication of quackgrass that competes heavily with trees for nutrients and water and the elimination of dandelions that may compete heavily with apple flowers for the attention of pollinating insects. At the same time that we are removing these competitive factors, we are exposing the soil to erosion and possibly creating problems with machinery operation during the spraying and harvesting seasons. Indirect benefits may be gained through fire and mouse control by removal of vegetation near the trees.

We have long recognized that young orchards should be grown with clean cultivation or mulching to reduce weed competition and encourage development of vigorous young trees. There are multitudes of data to support this practice as a standard procedure. Unfortunately, many growers have not recognized the importance of weed competition and have not used cultivation effectively in the establishment of young orchards.

The discovery, testing and registration of new herbicides has produced four materials that may be effectively used on orchards for control of a wide range of weeds. All these materials must be used properly to be fully effective and must be applied according to label limitations. Careful handling of materials and critical calibration of equipment is essential for safe and successful use.

The herbicides recommended are not viewed as a cure-all for all problems. They can supplement other practices and make the job of growing quality fruit an easier and more profitable enterprise.

Three of the materials are what we call long residual, selective herbicides that will act as soil sterilants at excessive rates. You may find them slow

acting and for this reason you may become impatient with their performance. However, your patience will ultimately be rewarded with good weed control. The fourth material is a general, systemic, non-selective herbicide that has little or no residual value but does provide a quick knockdown of weeds.

Diuron (Karmex) may be applied in the spring at 3.2 lb./A of actual diuron or 4 lb./A of the 80% formulation. This calculation is based on the ground area actually treated, not on the total area of the orchard. Diuron is particularly effective against annual weeds at the recommended rate. It should not be used on first year trees.

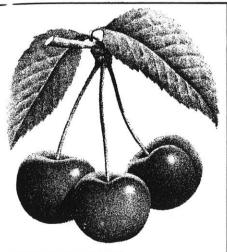
Simazine may be used in several ways, alone and in combination with other herbicides. As a fall application, used alone at a rate of 4 lb./A, it will do a creditable job on quackgrass and very good job on broadleaf annuals. We believe that a program commencing with a fall application for one or two years at 4 lb./A followed in the third spring by an application of 2 lb./A should give acceptable control. A combination of simazine plus amitrole in the spring will give a quick knockdown and long residual control of most weeds. If amitrole is used, it must be applied pre-blossom and great care should be exercised to avoid drift onto the apple branches.

The latest addition to the list of orchard herbicides is dichlobenil or Casoron. This is an excellent material for quackgrass control and will do a better job on dandelions than does simazine. The preferred treatment is a fall application at 6 lb./A followed by reduced rates in succeeding years.

Amitrole may be used for poison ivy, bindwind, thistle, and nightshade suppression if applied before fruit forms. Again, great care must be used to prevent contamination of apple foliage.

The herbicides diuron, simazine, and dichlobenil, when properly used, will provide a substantially vegetation-free

(Continued on page 19)



MAJOR CHERRY DISEASES

Brown Rot: Spray at the "popcorn" stage. Use again in post-bloom up through harvest.

Leaf Spot: PHALTAN again - clear through harvest. Won't slow down tree growth or stunt foliage. Add Ortho Spray Sticker for best control. With PHALTAN there's no residue to worry you. No reduced yield. No fruit

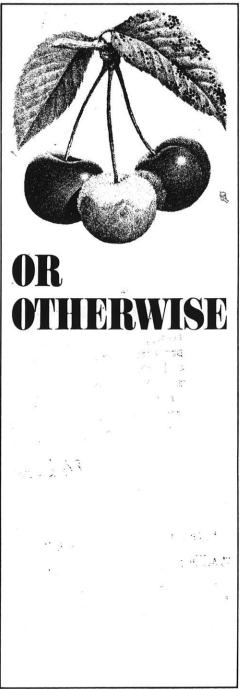
set. Or sugar content of red tarts. It's actually a

safener for lead arsenate. Helps prevent foliage burn.

CHEVRON CHEMICAL COMPANY, ORTHO DIVISION Part of the great group of Chevron companies



CALS, READ DIRECTIONS AND CAUTIONS SEFORE USE.



T.M. RES. U.S. PAT. OFF.: ORTHO, CHEVRON, PHALTAN.

SURE MITE CONTROL



New, powerful Tedion miticide gives you positive protection against red mite, two spotted mite, and other important mite pests. Tedion can be used through the season; get it on early for sure control before mites get started. Its long residual action will keep your crop protected and save you money on repeat applications.



GEORGE MATHES

238 N. State St. Chilton, Wis. LONN KING

2301 Strange St. Stevens Point, Wis. TOM BRANDT

Sturgeon Bay Wisconsin

WEED CONTROL

area. Because this will lead to problens with soil erosion if the entire orchard floor is treated, we suggest that these herbicides be used only as band treatments around the trees leaving the row middles in sod. A strip four to five feet wide around mature trees under the drip of the limbs should be adequate for much assistance in moisture and fertilizer conservation and still leave adequate sod for erosion protection. Around young trees up to five or six vears, a band six feet wide on either side of the row should be adequate. This band may be increased in width as the trees increase in size.

The use of herbicides has not been fully evaluated under orchard conditions in this area. Although they are highly successful in other areas, we cannot be entirely sure of their behavior under all conditions. Therefore, we urge that you use them on only part of your orchard until you have proven to your own satisfaction their limitations under your own conditions.

ORDER BULLETIN NO. 700

Those wishing to order copies of Bulletin No. 700 entitled "Pests and Diseases of Trees and Shrubs" are urged to do so now. Copies of this informative 79-page bulletin contains habits, damage, and controls of nearly 80 invertebrate pests and 35 plant diseases of ornamental trees and shrubs may be obtained at a cost of 50¢ per copy or 40¢ each when ordered in quantities of 25 or more. Send your check or money order made payable to the Wisconsin Department of Agriculture to:

Pests & Diseases of Trees & Shrubs Visconsin Department of Agriculture Pill Farms State Office Building Madison, Wisconsin 53702

Join our Wisconsin Apple & Horticultural Council by paying your dues low.

FRUITS OF ADVERTISING

(Continued from page 12)

growers have recently raised their assessment to 12 cents a box. As they sav—you have to spend money to make money. Supermarkets won't do it for you. They want to buy cheap and don't mind taking a lion's share of the profit.

A good way to spread your sales season is by advertising items in season. Some roadside markets open in early spring with shrubs and plants and flowers. Many are adding green houses to their operation. By adding Christmas trees, firewood, honey, cheese and delicatessen items, many keep open the year 'round.

A white picket fence, evergreens, and flowers can help give your place a freshly inviting look. Landscaping looks especially nice floodlit at night—living advertising that appropriately tells the world you are a quality grower.

Some roadside marketers are finding fresh cider is a better traffic stopper than Coca-Cola or beer. Don't use free Coke signs to advertise your market. They cheapen and commercialize. It's far better to have a fresh cider mill in your display window. People like to see fresh cider made on the spot. Advertise free cider and doughnuts for pick-it-your-se!fers and you'll draw crowds.

(To be continued next month)

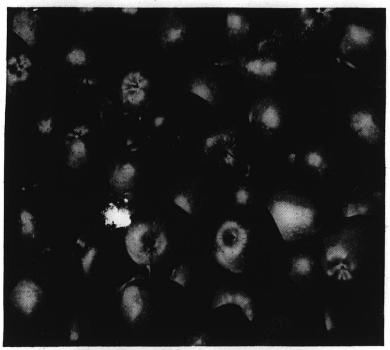
STRAWBERRY PLANTS

STATE INSPECTED

Midway and Early Dawn Varieties

Also Viking
Raspberry Plants
TORBICK FRUIT FARM
Bayfield, Wis. 54814

Agriculture Library College of Agriculture University of Wisconsin Madison. Wisconsin Sec. 34.66 P. L. & R U. S. Postage PAID Permit No. 45 Lake Mills, Wis.



Captan is for growers who want higher profits

Everyone knows that Stauffer Captan 50-W controls scab and summer diseases of apples.

But not everyone knows that apple trees become more vigorous, set and hold more fruit, and produce more fruit buds for the follow-

ing season through proper use of captan.

Captan 50-W makes your orchard produce at a more profitable level. Use it this year for better scab protection and *all* the captan benefits, including better fruit finish and color. Stauffer Chemical Company, Agricultural Chemical Division, 380 Madison Avenue, New York, N. Y. 10017.

READ THE LABEL. HEED THE LABEL AND GROW WITH STAUFFER CHEMICALS

Stauffer



The Apple Maggot MARLIN CONRAD, Survey Entomologist Plant Industry Divisions

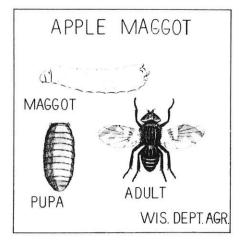
Wisconsin Department of Agriculture

The apple maggot, Rhagoletis pomorella, is a most serious pest of apple fruit throughout much of Wisconsin. The adult is a fly slightly smaller than the common house fly distinguished by the 'W' shaped black markings on its wings. From the soil where it overwinters in the pupal stage, apple maggot flies emerge about the first week of July. Early apple varieties are generally the most susceptible and most attractive for egg laying. The egg is inserted just beneath the skin.

Larval feeding first occurs just beneath the skin but later is deeper in the flesh of the apple. As it feeds, it tunnels a winding path which becomes increasingly more evident as decay organisms turn apple flesh in tunnels to a light brown color. Due to the winding paths within apples, this pest in some localities is referred to as the "railroad worm."

Infestations are commonly found after it is too late for control. Egg laying may occur from mid-June until late August and since the egg is laid under the skin, treatment is aimed to control the adult when it comes to the apple.

There is evidence that larvae will not en er pupation when soil conditions are too dry. There is further evidence that it may take two years for some of the population to emerge from the soil.



Forecasting the exact time when apple maggot adults will appear or their relative abundance is difficult for different geographical locations. Locally, close surveillance by orchardists is advised. A number of different bait traps have been and are being tried by entomologists.

Survey entomologists with the Wisconsin Department of Agriculture's Plant Industry Division have been interested in trying to better serve the state's orchard industry with timely information in regard to the apple maggot. Weekly insect survey bulletins during the growing season contain as much current information on the pest as is possible. An attempt is being made to increase such information through personal contact with and cooperation of orchardists.

WISCONSIN HORTICULTURE

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(Mrs.) Nancy Knight - Executive Secretary and Editor 5514 Dorsett Drive, Madison, Wis. 53711 Phone 233-9359

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Coming Events:

July 11:

The Wisconsin Berry Growers Association and the University of Wisconsin Extension Service annual summer berry tour, beginning at the Peninsula Experiment Station, Sturgeon Bay, Wisconsin, and continuing at the Ty Perry Berry Farm. The station is located four miles north of Sturgeon Bay on Highway 42. For those who wish to see one of the most outstanding everbearing plantings in the Midwest, they can visit the Phil Erickson Farm, Baileys Harbor, Wis.

Dr. F. A. Gilbert, Director of the Peninsula Station, will conduct the tour through trials, tests, numbered seedlings, varieties and berry culture. Other fruit plantings and trials will also be available at the station for observation for those interested.

Saturday, July 23:

The summer tour will be at Gays Mills. George Klingbeil and a local committee are planning an interesting and informative program. Mark the date on your calendar and plan on joining us.

December 1 & 2:

Our Wisconsin Apple & Horticultural Council, Inc.'s annual meeting will be at the Loraine Hotel. Early arrivals will be able to register on Wednesday night, November 30. A fine program is being planned covering the subjects You Members wish to hear about.

Additional ACTIVE Members of WAHC

Russel Aiken
Barrett-Goebel Orchards
Conrad W. Bartz
Wm. C. Dahlke
Decoraland Orchards, Inc.
R. J. Dietrich
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Kaufman's Orchard
Hipke Orchards
Herbert Klug
Walter M. Kugler, Sr.
Edward Muencheberg
Star Orchards

Sustaining Members -

We are proud to announce the following commercial companies as Sustaining mempers:

Wisconsin Orchard Supply Co. FMC Corp. Niagara Chemical Div.

Here and There

GREEN GOLD — The Plant Industry Division in cooperation with the U. S. Forest Service has prepared a bulletin on White Pine Blister Rust Control entitled, "Green Gold in Wisconsin." The bulletin is beautifully illustrated and is available free of charge from the Plant Industry Division of the Wisconsin Department of Agriculture.

Seed Law Revision Passed by Legislature — The Legislature has adopted a proposed revision of the Wisconsin Seed Law. At this writing the bill is awaiting the Governor's signature. The revision updates the present law in light of changes that have come about in agricul-

ture generally. If the act becomes effective upon the Governor's signature, the Department will prepare a summary of the law to make the industry aware of the changes.

1965 Commercial Fertilizer Summary. The 1965 fertilizer tonnage report was recently released by the State Department of Agriculture. It indicates an increase of more than 15% over 1964. The total tonnage of fertilizer used in 1965 is in excess of 600,000 tons. It is interesting to note that well in excess of 100 grades of fertilizer are registered with the Department. The average plant units per 100 lbs. within the last ten years has increased from 37 lbs., 1956 to 46 lbs. this past year.

SIMON: Air Kut Strawberry Pruner

JOHN BEAN SPRAYERS

COMET CANNON Bird Scare

FRIDAY TRACTOR EQUIPMENT

(Power Hoe - Wish Basket - Straw Spreader)

WOODS: Rotary Brush Cutter NIAGARA CHEMICALS

BUDDINGH INROW WEEDERS

BOLENS: Tractors & Tillers

FMC: Washers & Graders

POLLARD: Windrow Turners

HYPRO (nylon roller) PUMPS

Pruning Saws

Agri-Tox Respirators

Grafting Wax

Picking Bags

Tree Paint

Shears & Loppers

WAUKESHA POWER EQUIPMENT

1316 So. West Avenue

Waukesha, Wisconsin

Sales & Service

OLLIE HEEREN 542-8144



The most economical way to conquer the number 1 disease threatening apple growers is to rely on Cyprex throughout the year.

It's a proven fact! As little as ³/₈ of a pound of this time-tested fruit fungicide provides unsurpassed control of scab when it is used consistently on a 5 to 7-day schedule. This includes both new *and* established infection!

One reason for this top record of performance over many years is the fact that Cyprex is retained on the leaf surface, even during heavy rains. At the same time, it spreads out to protect new growth between applications!

Remember, Cyprex is the *only* fungicide that offers you all of these important advantages:

- (1) Most effective control, inside and out, against both new and established infection.
- (2) Most durable control, clinging to the surface during rain, yet spreading out to protect new growth between applications.
- (3) Most economical control, with as little as 3/8 of a pound on a 5 to 7-day schedule to do the job.
- (4) Compatibility with other pesticides and oil.

No wonder Cyprex continues to be the material of choice, year after year, when it comes to controlling apple scab. Whether you prefer to dust or spray, stay with Cyprex all the way! You'll harvest a crop of high-profit, fine-finish apples in return.

Now's the time to place your order for Cyprex. See your dealer today! Before using any pesticide, stop and read the label.

CYANAMID

SERVES THE MAN WHO MAKES A BUSINESS OF AGRICULTURE

AMERICAN CYANAMID COMPANY PRINCETON, NEW JERSEY

67.	1505	PEST CONTROL	RECORD	
STAGE	DATE	Ellucia	RIETY-RED DELICIOUS LO	CATION-SOUTH 40
Delayed dormant	April 15	FUNGICIDE	INSECTICIDE	NOTES
Pre-bloom	April 20		Malathion and oil	No sign of scab
Pre-bloom	April 27		_	No sign of scab
Pre-bloom	May 1	awnney'	_	No sign of scab
Bloom	May 12	CYPREX 65-W	Cygon™	No sign of scab
Petal fall	May 22	FRUIT FUNGICIES	_	No sign of scab
First cover	June 5		Lead arsenate	No sign of scab

The Fruits of Advertising

(Continued from May issue)
CARLTON D. STODDARD
Vice President and Agricultural
Accounts Supervisor
The Cramer-Krasselt Co.

Some growers advertize fall Harvest Hayrides . . . free wagon rides through the orchards. Announce in your advertising when trees will be in blossom and you'll attract spring customers, too.

Your advertising should take especially to the homemaker. She's the menumaker. She decides for the family.

Your best advertising is the simple, direct, honest approach. Tell the benefits . . . the truly good things about your products . . . the earnest effort you make to preserve the fresh country quality. Avoid distracting gimmicks Don't feature bargain-basement prices. Cutting the price seldom sells. People want quality goodness, fresh from the garden or orchard. And they'll drive miles to get it.

The best advertising of all is a genuinely friendly smile. Somehow, customers can see it a mile away. And a pleasant smile doesn't cost a dime.

You're going to need a good sign. Really GOOD. A sign that reaches down the road and puts a foot on the brake.

Over 80 percent of roadside markets have approach signs that lead the traffic in. The day of approach signs may be doomed. You may not be able to use teaser signs down the road a mile or so, not if Mrs. LBJ has her way.

You may be allowed just the on-premise sign at your market. So it better be good.

The best thing you can have going for you in a sign is a trademark that is a landmark.

Give it color. Pep. APPEAL!

Your sign should have personality as well as visibility. Something better than "GLOTZ'S MARKET."

A good name is worth its weight in gold. Here are a few names that are good because they make good picture trademarks-

BLUE JAY ORCHARDS
JACK O' LANTERN FRUITMART
FRUIT BASKET FARM
GREEN THUMB MART
HAPPY HARVEST FRUIT FARM
AEPPLER'S APPLES
BLUEBERRY HILL ORCHARDS
FRUIT FIESTA (with a big sombrero
on an apple)

TOTEM POLE MARKET

One roadside market in Ohio calls it self GREMLIN GARDENS. Gremling are on the roof. Climbing ladders. It the trees. They have arms and legs that move. Motion is often the best stopper of all.

Light and color are stoppers. That's why they use them in traffic signs. Red says STOP. So use it in your fruitmart sign. Lots of red and yellow. And green to indicate garden freshness.

What does a good lighted sign cost?
Here's an example. A typical sign company will send out a salesman, draw a color sketch, and erect a freshly hand-painted sign for \$3.50 to \$4.00 per square foot. That includes illumination, steel mounting poles, and brackets.

They will also erect an interior-illuminated plastic sign for about \$12.00 per square foot, single face, or \$20.00 per square foot double face so traffic can see it from both directions.

For a roadside mart sign, you might like to have panel inserts for your feature-of-the-week attraction.

Most of these illuminated marqueetype signs average 30 to 50 square feet —about 4 x 8 feet or 5 x 10 feet.

They are hand-painted signs. Unless you have a large association of growers, it wouldn't pay to go to large silk screen billboards.

Often times a good billboard for the roadside market is the roof itself. Most any sign company will paint it for you. It's best to keep the lettering LARGE . . . SHORT . . . and SIMPLE.

That's true of any sign. A good sign is brief. Just your market's name is often enough.

(Continued on page 8)

STILL THE TRUE SINGLE CHEMICAL ALL-SEASON FRUIT INSECT CONTROL* *outstanding control of plum curculio



Guthion is the modern chemical you've heard so much about . . . the *single chemical* control. Years of success with Guthion have proved its broad range effectiveness . . . longer control over the major fruit pests. And best of all—Guthion means more profit for you—for three big reasons:

- 1. GUTHION DOES THE JOB-FROM BLOOM TO HARVEST
- 2. LOW COST-PER-SEASON WITH A GUTHION SCHEDULE Guthion is not intended for single-spraying clean-up of severe infestations. But when used on a program, right up to harvest, Guthion prevents build-up of infestations—gives low cost-per-season control.
- 3. BETTER FINISH AND HIGHER GRADE FRUIT—controlled tests plus years of commercial use have consistently proved that you get better color, better finish and consistently higher yields with Guthion. And Guthion leaves lower visible residues.

2348

LOOK FOR THE BIG BLUE BULLSEYE



FRUITS OF ADVERTISING

(Continued from page 6)

Keep the country flavor if you can. Don't try to be too slick and commercial like the supermarts.

People like to drive out in the country for tree-ripened fruits and garden fresh vegetables. One grower made a hit with his "Sunrise Sweetcorn" . . . "picked this morning while the dew was still on the husks."

People will drive 50 to 100 miles to a colorful country market. They like to bring a picnic lunch and pick their own fruit.

Why not advertise ORCHARD PIC-NICS? Provide a few picnic tables, ladders, baskets. Tell them to go ahead and enjoy themselves. They'll tell a hundred others and you've got the grape-vine going for you. It's the fastest telegraph there is—word of mouth. That's advertising, too never forget it.

One grower in Ohio says not to lay down a lot of rules for pienic pickers. Tell them to go ahead—help themselves. Pick the biggest, ripest, juiciest apples they can find. All you do is sit back and collect the money! Strawberry pickers are something else. You have to keep them from trampling the plants.

If pickers avoid a not-so-good tree, just post a sign "THIS TREE RE-SERVED." They'll have it picked free by sundown!

Another idea is to advertise free bamboo poles with cans on the end to reach the tree-top fruit. Many people are afraid to climb ladders.

With a little imagination, you can make your place a landmark that people will remember and talk about.

There are hundreds of good ideas. Paint an old wagon bright red. A name like RED WAGON RANCH has a country-sounding appeal that draws people. You might paint a tractor with fork-lift pallet of fruit . . . or an antique tractor. Use bright, fresh colors.

One countrymart in Ohio builds a Mountain o'Gold every fall with 90 tons of pumpkins grown on only 4 acres. They even have talking pumpkins, wired for sound.

Another grower makes a big FRUIT FLAG with alternate strips of red and yellow apples. You can make all so ts of designs with fruit and vegetables, even spell out your market name.

One of the best promotion ideas I've run across is the APPLE SMORGAS-BORD they have every year at Sparia, Michigan. They feature hot apple pie, apple muffins, apple fritters, apple cake, apple sauce, apple butter, apple taify rolls, and apple pancakes. People from all over Michigan come to eat and take apples home.

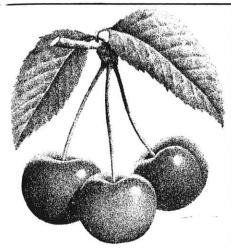
Use Pesticides Wisely When Spraying Fruit Plants

G. C. KLINGBEIL Extension Specialist, Fruit Production

The National Chemical Association has developed a list of rules for proper pesticide usage. A pesticide includes any chemical used to control weeds, insects or diseases. Generally, the chemical used to control insects is an insecticide, those used to control plant diseases are called fungicides and chemicals used to control weeds are called herbicides. Anyone that uses such chemical pesticides should follow these rules closely.

- 1. Always read the label before using sprays or dusts. Note warnings and cautions each time before opening the container.
- 2. Keep sprays and dusts out of reach of children, pets and irresponsible perple. Pesticides should be stored outside the home and away from food and feed
- 3. Always store sprays and dusts in original containers and keep them tightly closed. Never keep them in anything but the original container.

(Continued on page 14)



ORTHO

PHALTAN® STOPS THE MAJOR CHERRY DISEASES

Brown Rot: Spray at the "popcorn"

stage. Use again in post-bloom

up through harvest.

Leaf Spot: PHALTAN again – clear through harvest. Won't slow down

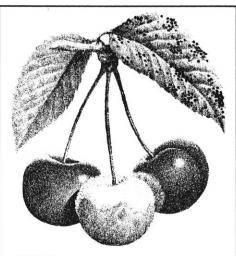
harvest. Won't slow down tree growth or stunt foliage. Add ORTHO Spray Sticker for best control. With PHALTAN there's no residue to worry you. No reduced yield. No fruit set. Or sugar content of red tarts. It's actually a

safener for lead arsenate. Helps prevent foliage burn.

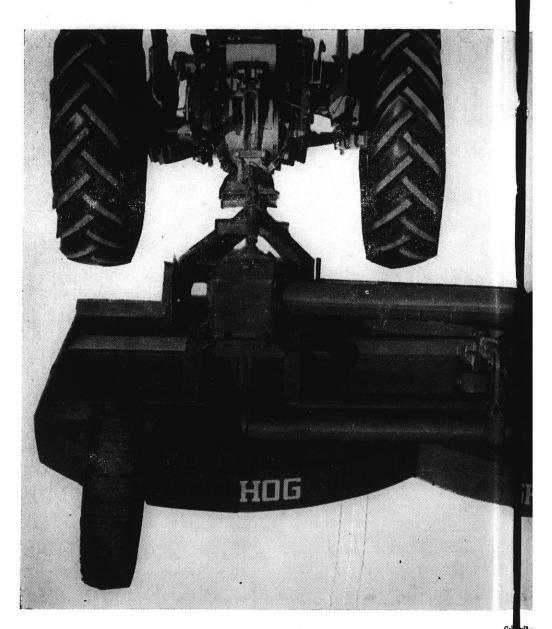
ORTHO)

CHEVRON CHEMICAL COMPANY, ORTHO DIVISION Part of the great group of Chevron companies





OR OTHERWISE



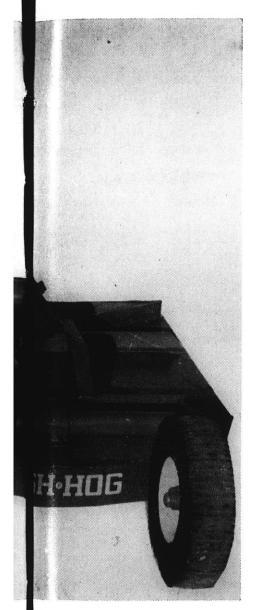
WE HAVE THESE UNITS IN STOCK AT OCONOMOWOC

Ask for a Demonstration

WISCONSIN OR

704 CONCORD ROAD

"EVERY THE



Soleribused by

RO SUPPLY COMPANY

epp er

od oc, vis. telephone 567-6635
in he declardist"

NOW--ALL NEW 9' CUT BUSH-HOG

FEATURES:

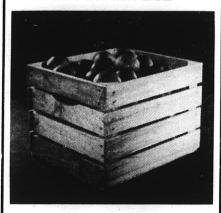
- 9' Offset Rotary Cutter
- For speeedy orchard "clean-up"
- Mulches prunings where they fall
- Chews up toughest brush
- Cuts 3" 4" Brush and smaller
- Works under low-hanging limbs
- With additional off-set will cut more than 5' beyond tractor wheel
- Can be used to clear land
- Clip pastures
- Shred and Mulch Stalks
- Distribute mulching material
- Cuts the highest grasses
- No skipping full 9 foot cut
- Easy adjustment from 1" 10" cut
- Low profile
- Cut complete at low or high speed
- No belts all gear driven
- Rugged construction − full ¼" top deck plate across entire mower
- Gets the area you always wanted to cut
- Wheels behind − no obstruction on right or left side
- Fits any PTO 35 HP. Tractor or larger

FIELD CRATES

Don't Wait . . .

Order Now

STURDY CONSTRUCTION FOR LONGER LIFE



79c NOW!

FEATURES:

- Standard Bushel Size
- Crescent Handhole Cut-out
- Bottoms all Screw Nailed
- 45° Angle "Can't-Strips" nailed in all corners
- All Side & End Pieces same Width
- Top & Bottom End Pieces Extra Heavy for Added Strength.
- Bottoms Completely Solid

Price after August 1, 1966, 84¢

F. O. B. Oconomowoc Sold & Distributed by

WISCONSIN ORCHARD SUPPLY CO.

704 Concord Rd., Oconomowoc, Wis. Telephone 567-6635

Insects in the Orchard By CHUCK KOVAL

Extension Entomologist University of Wis.

A recent trip around the state gave some indication of possible orchard insect problems to come later this summer.

Aphids appear to be particularly numerous this year and orchards should be watched carefuly for this insect. They prefer to feed on the growing terminals which become curled, stunted, and distorted, and generally reduce the vigor of the trees. Aphid feeding on immature apples results in stunted and deformed fruits commonly referred to as "aphid apples."

Weekly examination of fruit trees is essential to detect potential aphid infestations before loss occurs. For early detection, it is necessary to closely examine the undersides of several termminal leaves. Too frequently aphid control is practiced only after leaf curling has occurred, and then some damage has already resulted.

European red mites were noted in several orchards throughout the state. Once again, the fruit has already sustained injury when the typical "bronzed" appearance of mite injury is evident in the foliage. Early detection and early control of mites should be a "must" in all orchards. So examine the leaf underside paying particular attention to areas along the leaf midrib.

Should mites build up populations before they are noticed, it must be emphasized that complete control cannot be expected with a single application of any of the available miticides. In high mite populations two miticide applications are necessary, preferably spaced 8-10 days apart.

For control materials note Special Circular 101, 1966 Apple Disease and Insect Control, available from the Wis. Cooperative Extension Service, 240 Agr. Hall, University of Wiscosin, Madison.

NEW!FOLIAR FEEDING

A Fertilizer, Shock Resistor and Root Stimulator



Write for Full Descriptive Literature.

Fruit Growers' SPECIAL

THE PRICE IS RIGHT . . .

WILL YOU REAP THE HARVEST?

Liquid Fertilizer, time tested, proven by America's leading Fruit Growers as a leaf feeding program.

Leaf samples analyzed from a Door County orchard by Michigan State University showed foliar feeding with WATCH-US-GROW more than SUCCESSFUL as a Fertilizer.

NO EXTRA LABOR — add to regular SPRAY — Add one Gallon of WATCH-US-GROW to every 250 gallons of Spray Solution. Compatible with all known fungicides.

We recommend at least 3 applications of WATCH-US-GROW at approximate cost of \$6.00 per acre per SEASON!

A. Petal Fall Spray

B. First Cover Spray

C. 3rd or 4th Cover Spray

A Well Fed Tree should have less June Drop.

PRICES: 1 Gallon \$8.00

1 Gallon \$8.00 4/1 Gallon \$28.00

5 Gallon Drum \$31.10

30 Gallon Drum \$169.50

F. O. B., Oconomowoc, Wis., or Door County, Wisconsin, warehouse

Sold and Distributed by

WISCONSIN ORCHARD SUPPLY CO.

"BILL" AEPPLER

704 CONCORD ROAD — OCONOMOWOC, WIS. — TELEPHONE 567-6635

Summer Strawberry

Growing Tips

G. C. KLINGBEIL
Fruit Production
Extension Specialist

The spring of 1966 will long be remembered by strawberry growers. First, because of the severe temperatures in mid-May and, secondly, for the lateness of the season. Most growers, however, weathered the storm quite well thus some tips may be in order to improve plantings during the remainder of the season.

Let's look at newly set plantings first. By mid-June, they should be well established and developing new leaves and runner plants. At this stage of development, major problems are weeds and lack of moisture. If we look at the root system of the plant, it is easy to see why. About 70 percent of the roots of a strawberry plant are in the top three inches of soil and 90 percent are in the top six inches. This means that the plant will suffer easily during dry periods and that they are poor competitors against weeds. Solution: frequent applications of water by irrigation and shallow cultivations to control weeds. Chemicals can be used by commercial growers for weed control, but these practices are not recommended for home gardeners because they do not have the equipment to apply the materials in the precise amounts required.

Because there is a need for additional plant food when the plants begin to form and root new runner plants, it is recommended that fertilizer be added to the soil about mid-June to early July. The most commonly used is nitrogen in the form of ammonium nitrate (33-0-0). From 75 to 100 pounds per acre or two pounds per 100 feet or row (4 cupsful) can be spread or sidedressed along each side of the row and either worked into the soil by shallow cultivation or by irrigating it with water.

(Continued on page 17)

PESTICIDES

(Continued from page 8)

- 4. Never smoke while spraying o dusting.
- 5. Avoid inhaling sprays or dusts. When directed on the label, wear protective clothing and masks.
- 6. Do not spill sprays or dusts on the skin or clothing. If they are spilled, re move contaminated clothing immediately and wash thoroughly.
- 7. Wash hands and face and change clothing after spraying or dusting. Also wash clothing each day before reuse.
- 8. Cover food and water containers when treating around livestock or pet areas. Do not contaminate fishponds.
- 10. Always dispose of empty containers so that they cannot harm humans, animals or valuable plants.
- 11. Observe label directions and cautions to keep residues on edible portions of plants within the limits permitted by law.
- 12. If symptoms of illness occur during or shortly after spraying or dusting, call a physician or get the patient to a hospital immediately.

Fruit Disease Notes

EARL K. WADE

Extension Plant Pathologist University of Wisconsin

1. Apple scab

In most sections of the state we have had enough moisture for scab infection periods. Remember that primary spores from the old leaves on the ground may be released for a period of several weeks after petal fall. For example, at an air temperature of 68° F. a wet period of only 4-6 hours is required for primary scab infection. At the same time, secondary infection from the production of conidia developing in the primary infection spots, may very well be taking place. At temperatures between 65-70 ° F. the secondary infection period (when spores contact leaf surface to time when infection spots can be seen) is approximately 8 days.

Application of cover sprays from 10-14-day intervals should be maintained to protect the foliage against possible scab infections. When checking for scab development be sure to examine the under sides of the leaves.

There are several choices as to the fungicide for use in the cover sprays. Examples are: dodine (cyprex) 65% WP; captan 50% WP; glyodin; and a combination of dodine plus glyodin. Where this combination is used, it is suggested that the two fungicides be combined at the ratio of one quart of glyodin to 4 cz. dodine in 100-150 gallons water.

2. Fire blight

1000

Fire blight infections in the form of blighted terminals and spurs will normally start to appear on susceptible apple varieties from 10 days to three weeks after petal fall. However, temperature and moisture condition prior to bloom were somewhat unfavorable for blight development this spring. If and when infections do appear, they may occur much later in the season. In the meantime remove any shoots or sucker growth appearing on the trunk or scaffold branches as they make good points of entry for fire blight infection. One method of removal is to rub them off by wearing leather gloves. It is a good idea to use a disinfectant or bactericide such as household bleach diluted with 5 parts of water or a streptomycin solution at 160 ppm strength regardless of whether these suckers are removed by pruning or rubbing.

It also may be worthwhile to prune out the first freshly blighted terminals and twigs that appear in the orchard. Cut these off at least 8 inches back into the healthy-appearing wood. If blight continues to develop, further pruning is not recommended.

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STRAWBERRY TIPS

(Continued from page 14)

Not much can be done to plantings bearing fruit this season until after the harvest season is over. At that time, plant rows should be reduced in width and plants thinned out and also a complete fertilizer should be added. Usually 600 to 800 pounds of a complete fertilizer such as 10-10-10 or 12-12-12 is applied per acre or 6 to 8 pounds per 100 feet of row for the home gardener. Also, at this time, all weeds should be removed in the planting either chemically or mechanically.

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—Nat. Hort. News

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From time to time, nurserymen and others encounter insects or plant disseases which they cannot identify. When this occurs, these persons can take advantage of the identification service offered by the Plant Industry Laboratory.

Although our laboratory facilities are often heavily taxed by incoming work loads, we will be happy to examine plant or insect specimens for ourposes of identification or disease diagnosis. It is requested that the name and address of the collector and/or owner and the date collected be clearly indicated with each specimen submitted.

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Free Literature

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FRUIT AND VEGETABLE PROCESS-ING has had the most rapid growth of any agricultural processing industry except poultry. Over half of the commercial crop of fruits and vegetables in the United States is now processed. Fruit and vegetable processing has increased at a rate of 4.9 per cent per year since 1947 while population growth has been around only 1.7 per cent per year.

CONSUMPTION OF APPLE SAUCE & JUICE has skyrocketed. Apple sauce consumption has increased six times faster than population in recent years, according to Mabel G. Flanley, of the Processed Apple Institute, Inc. Apple juice has increased nine times faster than population growth. Promotion of a quality product has been an important factor in this increase. However, promotional effort must be continued to further improve upon the apple production situation, especially with forecasts of increased apple production and greater competition from other fruits.

BOERNER BOTANICAL GARDENS

A new bog garden has been added in the Boerner Botanical Garden, Hale; Corners. The area contains a wealth of native plants, and plans are to include many other adaptable species, bot i woody and herbaceous. A natural have I for birds, nature lovers will find this area of particular appeal.

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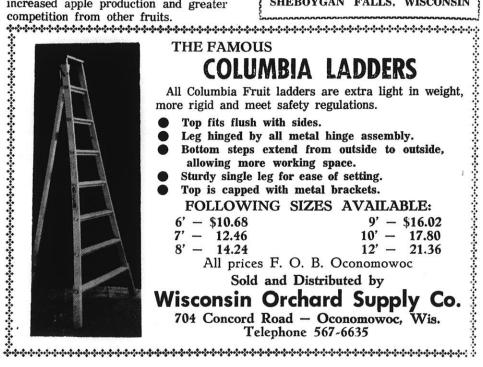
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AUGUST, 1966 Volume L Number 9

Horticulture

Board Sends Labor Resolution To Washington, D. C.

The following resolution with the Ap proval of the Board of Directors and the help of Gilbert Hipke and his legislation committee was sent out the later part of June. As a result representatives of the Wisconsin and Minnesota State Employment Services and a representative of the Chicago Regional office of the Farm Labor Service met with our Board of Directors and a few of the Minnesota Apple Growers on July 22.

The purpose was to discuss the shortage of apple harvest labor for 1966 because of an industrial expansion in the apple growing areas. It was a successful meeting for it allowed a free exchange of views and better understanding on the part of the growers and Employment service agencies.

If you as an apple grower are going to require additional help at harvest time you are urged to immediately get in touch with your local employment office. Inform them what you will need, when you will need it and much much you are willing to pay. Included is a list of all the Wisconsin Employment Offices. Another important point brought out is the apple industry needs to improve its public by advertising the earnings potential as well as the need for labor.



Part of the Wisconsin delegation at the NAI Meetings in Traverse City, Mich., discussing the labor resolution with Gordon Yates of Minnesota. Henry Mahr, Fritz Meye, Gordon Yates, Tom Connell and Dee Erickson.

Resolution to Secretary of Labor, Hon. Willard Wirtz—and Wisconsin Members of Congress:

Whereas: The Wisconsin Fruit industry finds itself in a very critical situation relative to adequate labor to harvest and process the rapidly maturing crop, and,

Whereas: The economic climate has so completely reversed itself as concerns the small and independent grower of fruits that they are unable to find labor within the production area, and.

Whereas: The prospects of the crop are not indicative of a great abundance of food so very much needed to carry out the commitments of these United

(Continued on page 4)

WISCONSIN HORTICULTURE

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(Mrs.) Nancy Knight - Executive Secretary and Editor 5514 Dorsett Drive, Madison, Wis. 53711 Phone 233-9359

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New Members

The response to the membership letter sent out to orchard owners the first part of July has increased our number considerably. The larger the budget (from dues) the more promotional material can be ordered and the more effective will be our campaign to educate the man on the street to eat those good Wisconsin apples. If you are already a member, encourage the next orchard up the road to join. I will be sending out kits of material to ACTIVE MEMBERS within the next two weeks. Here are our new members:

Barnes Blue Ribbon Orchard Louis Brux Lloyd Conrad Finley's Orchard Gerald Fleming

Frank Orchards, Inc. Frenz Orchards Grandview Orchard (G. Babriel) Haas Orchards Hall Enterprises Herbert Hasslinger Wm. Kreutzfeldt Bigelow Lourie Carl Lukitsch Oakwood Fruit Farm (Wm. & John Louis) James Robertson Walter Schultz Russell H. Smith Waldo Orchards (Fritz Meyer) Arthur Wendel

Leon Miller - In Memoriam

Oscar Wiechert

Leon Miller of Oconomowoc, Wis., passed away on May 10th, 1966 after a short illness. He was born in Howell, Michigan, April 12th, 1904.

Leon was sales representative of the John Bean Division for Wisconsin and upper Michigan since 1939 and an employee of the company since 1934. Having worked in the service department of the company prior to coming to Wisconsin, he was very familiar with every phase of spraying equipment.

Leon Miller was more than just a salesman, he earned the confidence of all who knew him because of his honesty and fair business dealings. Many years will transpire before another like Leon Miller will re-appear on the Wisconsin scene.

- By William Connell

of Philippin

Coming Events

Aug. 12 throug the 21. Wisconsin State Fair at West Allis. We are again sponsoring a booth in the Farm Crops Building. This year we will be featuring dental health. Do plan to stop by and see us. We will also offer apples, sweet cider, baked apple products and the new Apple Kitchen Cook Book for sale.

Dec. 1 and 2. The Loraine, Madison. Our Annual Meetings. We hope to see all of you there. Plan now to bring along your best apples to exhibit. Details will be in the next issues.

BOERNER BOTANICAL GARDENS

Another new significant project is the development of the first stages of an experimental ten-acre tract of Wisconsin prairie in the undeveloped southwest section of the park. This was accomplished through the cooperation of Dr. David Archbald, Dir. of the U. of W. Arboretum and Dr. Philip Whitford, Prof. of Botany of U. of Wis., Milw.

Complete records have been kept which will be helpful to other arboretums, conservation and highway departments, and other related organizations in similar planting undertakings. It will play an important role, too, in acquainting students and citizenry in general to the plight of our fast-disappearing Wiscensin prairie remnants.

Summer Tour

An enthusiastic group of over 100 attended the summer tour at Gays Mills Saturday, July 23. A sincere vote of thanks should certainly go to George Klingbeil who directed it with the help of all of the local growers and Marlon Schwier. All who attended, appreciated not only their efforts but also their fine hospitality.

This year, one of the features was the following crop round-up:

Bayfield - Good

Door County - Average

Eastern Wis. — Average—lacking

moisture

Southern Wis. - Average

Western Wis. - Above average.

At Teachs', the group was shown a planting where root stocks were planted directly after bench grafting. The block of 800 trees had excellent growth, were 100% viable and had extreme uniformity.

At Myers, another new planting was viewed. The trees were put in the field directly by a tree planting machine with double row offset spacing. Here, too, the survival and growth are excellent. This is a radical new method and bears watching in the future. His new cold storage building was another stop on the tour.

Norman Johnson of the U. S. Wildlife Div. cautioned that rodent control should be started early in orchards.

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Labor Resolution

(Continued from page 1)

States to feed our military personnel and relieve the starving in foreign countries:

Be it resolved that: Secretary of Labor Wirtz, U. S. Senators Proxmire and Nelson, and the Hon. Congressmen of Wisconsin are hereby implored to make every effort to release or divert a supply of agricultural labor to save the fruit crop from complete loss. It is further resolved that a copy of this resolution be sent to each of the aforementioned officials.

Adopted: Signed by: Thomas W. Connell, Pres. Mrs. Nancy Knight, Sec'y.

Wisconsin State Employment Service Offices

APPLETON (Zip – 54910)
P. O. Box 1146
427 West College Avenue
Telephone: 733-4451
Outagamie and Waupaca Counties

ASHLAND (Zip - 54806)
220 Sixth Avenue West
Telephone: 682-6655
Ashland, Bayfield, Iron and Price
Counties.

BEAVER DAM (Zip – 53916)
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Telephone: 885-5529
Dodge County and the Townships of
Randolph, Courtland, Fountain Prairie
and Columbus in Columbia County.

BELOIT (Zip – 53511)
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Telephone: 365-8848
Townships of Avon, Newark, Beloit,
Turtle and Clinton in Rock County
and Rockton, Laona, Roscoe and Shirland of Winnebago County in Illinois.

EAU CLAIRE (Zip – 54701)
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Barron, Chippewa, Dunn, Eau Claire,
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Counties and that portion of Polk
County South of U. S. Highway 8.

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201 South Marr Street
Telephone: 921-7330
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Telephone 437-6525
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211 N. Parker Drive
Telephone: 754-3367
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508 5th Avenue South
Telephone: 2-8182
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Corner 9th and Jay Sts.
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Telephone: 735-7454
Florence and Marinette Counties.

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Milwaukee County.

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MILWAUKEE (YOUTH OP-PORTUNITY CENTER)

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(Continued on page 12)

Size Controlled Apple Trees By GORDON YATES

President, Dwarf Fruit Tree Assn.

Dr. Malcolm Dana's article on size controlled apple trees in the May issue of Wisconsin Horticulture was both timely and to the point. While I have no criticism of the article as a whole there are a few points that I believe should be further clarified.

Firstly the Mailing series should never be written or reported in any other way than the correct form. That is E M I or E M VII. The reason for this is pretty well self-explanatory but to illustrate a point a popular choice has been Jonathan on E M II. We have also been very successful with Jonathan on E M XI. If this was reported as Jonathan on M 11 as Dr. Dana suggests, then no one would be sure just what was meant. Let's keep the Malling series correctly categorized with Roman numerals and the Malling Merton with Arabic.

With regards to tree spacing of different rootstocks, what Dr. Dana gave was a general plan for the different sizes of the rootstocks. But equally important for spacing between rows and between trees is the variety that is worked on the rootstock. The vigor of the variety must be coupled with the vigor of the rootstock before deciding at what distance you are going to plant. whether all the trees are going to be permanent or whether fillers are going to be removed after so many years. I would advise anyone starting to decide how big a tree he wants and then fit the rootstock to the variety so that he can maintain a uniform planting distance throughout his entire acreage with the different varieties.

The ability of these rootstocks to set fruit on auxiliary buds (1 year old wood) means that to obtain maximum yields at the earliest possible time, fruit in the early years must be removed. This can be done quite easily with a mixture of 10 ppm NAA plus 2 lbs.

SEVIN. However, if you are looking for a low tree wall with a vigorous variety, such as Beacon or McIntosh, and you don't wish to use the brittle rooted E M IX; by putting them on E M VII or M M 106 and allowing them to fruit immediately you will get the same result. So remember that whereas removal of the fruit may be usually desirable, nonremoval may help you achieve what you want.

Dr. Dana's appraisal of the different rootstocks was, I presume, made on the basis of published information from Europe, Michigan, etc., and would apply to these areas. However, for S. E. Minnesota and I presume Western Wisconsin they are a little out of line. They are based mainly for a 250 day growing season with mild winters where rootgrowth could be expected year round. An evaluation for us with a 180 day growing season and a 240 day rootgrowth I would say as follows:

EM IX—6-7 feet—(7 year Red Delicious EM 26—7-8 feet (5 ft.)
EM VII—79 feet—(9 year Beacon 7 ft.)
MM 106—8-10 feet—(5 year Mac 7 ft.)
M II—10-12 feet—(9 year Mac 10 ft. & Golden 8 ft.)

MM 104—12-15 feet—(6 year Spur Del. 6 ft.—nonspur 7 ft.)

MM 111—12-14 feet—(6 year Del 6 ft.) The varieties in parenthesis are those we have experienced with at Fruit Acres.

More important than height with the rootstocks will be the spread. This will depend on the type of growth and wideness of angles thrown by a variety on a particular rootstock. For example, we have 9 year Macs on EM II already 10 feet high. But we have 9 year Cortland or EM VII only 7 feet high but the trees cover almost twice the area due to the wide angle crotch thrown by the Cortland. This spread factor will show up the different rootstocks much more clearly than height.

(Continued on page 8)

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Free Literature

Toxicity of Insecticides

1. Highly Toxic Pesticides. Severe bee losses may be experienced as the following materials are used during bee activity. Field hazards by insectides are usually measured in days of residual activity of the toxicant to the bees. Experimental data is limited on this subject but the days of residual activity, based on commonly used dosages, is given for some of the materials.

Aldrin Lindane Malathion-2 days Arsenicals Methyl Iso - Systox BHC Methyl Parathion-Chlordane Diazinon 1 day Dibrom Methyl Trithion Parathion—1 day Dieldrin — 7 days Phosdrin Dimethoate Phosphamidon — DNOSBP EPN 2 days Sevin — 7 days Guthion—4 days TEPP Heptachlor Zectran

2. Moderately Toxic. The following pesticides can be used around bees if the dosage and timing are correct. However, they should not be sprayed directly on the bees in the field or around the colony.

Chlorobenzilate Thimet
DDD (TDE) Thiodan
DDT—1 day Trithion —
Di-Syston 5 hours
Endrin

3. Relatively Nontoxic Pesticides. These materials can be used with a minimum of danger to bees.

Aramite Nicotine Bacillus thuringi-Ovex ensis Pyrethrin DNOCHP Rotenone Dylox Ryania Systox (demeton) Ethion Sulphenone Genite Kelthane Tedion Tetram Kepone Toxaphene Methoxychlor Mitox

Fungicides having a low order of toxicity include: Bordeaux mixture, Captan, Copper oxychloride sulfate, Copper sulfate (monohydrated), Cyprous oxide, Cunilate, Cyprex, Farbam, Karathane, Maneb, Mylone, Nabam, Phaltan, Sulfur, Thiram, Zineb, Siran.

Herbicides having a low order of toxicity include: Amitrol, Dalapon, IPC, MCPA, Monuron, NPA, Sesone, Sesin, Simazine, 2, 4-D, 2, 4, 5, -T.

E. C. Martin & P. H. Wooley Ohio Dept. of Entomology

SIZE CONTROLLED APPLE TREES (Continued from page 6)

Incidentally the reason EM 26 is written with Arabic and not Roman numerals is that it came out of the Malling Merton series as also did EM 25. They are both good rootstocks worthy of introduction but do not possess the one factor for which the Malling Merton series was bred. That is woolly aphis resistance. Conesquently, altho they came out of the Malling Merton program they cannot be a part of that series.

Finally, I would like to compliment Dr. Dana on a very good article giving Wisconsin growers a good overall picture of the dwarfing rootstocks. years from now we shall all be in a better position to judge the rootstocks and the stock scion relations. In the meantime, I suggest you growers in Wisconsin get busy and pressure the University of Wisconsin to make some funds available for Dr. Dana, Dr. Gilbert, and Prof. Klingbeil, so that they can get out of the state and see some of the plantings that are now established. Illinois, Michigan, New York, Virginia, Massachusetts, and Pennsylvania all have extensive plantings and research work with a mass of data accumulated. If they can't get out to see them, they can't be expected to give you the proper answers to your problems or advice on your plans.

Plant Industry Notes – Here and There

By ARTHUR R. KURTZ

A special committee of the Wisconsin Honey Producers Association has developed, in cooperation with the staff in the Wisconsin State Department of Agriculture, a proposed revision of the Wisconsin Bee Law. The proposal has been reviewed in the two summer district meetings of the Wisconsin Honey Producers Association. On the basis of these discussions, appropriate changes will be made and the proposed legislation will be studied further at the time of the Association's annual meeting in Wisconsin Rapids, November 4 and 5.

NEW LEGISLATION

The Legislature has approved a Pest Control Compact which provides for the establishment of a Pest Control Insurance Fund for the purpose of financing other than normal plant pest control operations. In order for the Compact to become effective, a similar act must be ratified by the adjoining states; namely, Minnesota, Illinois, Iowa, and Michigan. To date, Michigan is the only other state in the north central area that has adopted the Compact.

Similar legislation has been prepared and introduced in most of the states. The proposal was developed by the Council of State Governments made up of legislative representatives from each of the states.

It is estimated that annual plant losses from depredations of pests approximates \$7 billion in the United States. The migratory character of pests makes it necessary for states to complement each other's control activities when faced with some serious pest infestations.

FRIDAY STRAW SPREADER

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Farm Roadside Marketing *

By JOHN A. SCHOENEMANN

Dept. of Horticulture, U. of Wis.

The development of roadside marketing in the United States has paralleled the growth of the highway system and the use of the automobile. By the mid-1920's there were over one-half million farm roadside markets in this country. The World War II period of course slowed development and a decrease in this form of marketing was noted. In the early 1950's it appeared that due to the changing farm market structure, the development of the supermarket and decrease in numbers of smaller farms, this type of marketing would diminish in importance. However, the reverse is true and we are now seeing tremendous growth in the farm roadside market business. The future looks extremely bright, for not only do we have a large population "on wheels" but apparently the consumer wants this kind of shopping alternative.

What factors are involved in successful operation of a farm roadside mar-To maximize gross returns and minimize costs at a given level of business, the operator must have: an expanding business volume, a high traffic potential, receive good prices, have quality control, advertise, keep operational cost under control, and exercise management efficiency.

There are a number of things which are important for both the established operator and the newcomer in this business to consider carefully in the operation of a roadside marketing venture. These pointers are based upon research done in a number of states in recent years including: Ohio, Indiana, New Jersey, New York, Delaware, South Carolina, and others.

* Topic given at first anual Roadside Marketing Conference, Wisconsin State Department of Agriculture, Madison, Wisconsin, March 30, 1966.

(Continued on page 15)



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Commercial Fruit Farm Reassessment

By ALBERT TEN EYCK Pine Bluff Fruit Farm

On July 12, 1966, after passing both houses, the Governor of Michigan signed a bill providing for the exemption of all commercial fruit trees, shrubs, plants, and also Christmas trees, from assessment as part of the real estate.

This bill came into being as the result of reassessments which placed a value of as much as \$9.00 per cherry tree and \$2.80 per blueberry bush on some Michigan fruit farms.

Reassessment is now going on in Wisconsin, and the trend toward assessing orchards on a per tree basis is apparent. This reassessment is not a local matter but comes from the state level.

Wisconsin growers will be severely handicapped if they are taxed heavily on their trees while growers in Michigan are not taxed. This and other matters relating to this situation will be discussed during a meeting to be held on August 19, 1966, at 8:00 p. m., in the Wisconsin Farm Bureau Federation Bldg. at 801 W. Badger Road, Madison. It is hoped that a bill similar to the Michigan bill can be introduced to the Wisconsin legislature and passed during the next session.

All fruit growers are urged to attend the meeting on August 19, 1966. It would be appreciated if you would inform Wm. KasaKaitas of the Farm Bureau if you plan to attend.

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(Continued from page 5)

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MANKATO—Blue Earth, E. Sibley, Waseca, Watonwan, LeSueur, Nicollet.
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Those Lousy Plants By ARTHUR R. KURTZ

Plant Ind. Div., Wis. Dept. of Agr.

Nearly everyone familiar with plants is generally familiar with aphids or plant lice as well, for few, if any, plants are immune from their attack. The injury to plants is as diversified as the number of different aphids which feed upon them. Most are acquainted with the gall former, the distorter, the woolly ones. Most are also acquainted with the rapidity with which a small colony can blossom into a massive cluster with the resultant wilting of the plant and the sticky secretion upon which the sooty fungus disease forms.

Few are familiar with the habits of aphids and the reason for their appearance and disappearance. Although many species overwinter as a near-microscopic egg on the bark of a host plant and thence spends its entire life on this one plant, many more have alternate hosts. A very familiar aphid with such a habit

is the apple-grain aphid. This aphid leaves apples or related plants in the early summer and migrates to grains and grasses. Another, the snowball aphid, forsakes the snowball bush (but only after it severely distorts the flowers and leaves) for another unknown host only to return again in the fall to lay its eggs. A wide range of aphids have such curious habits and just as the swallows come back to Capistrano, these little creatures return to their respective hosts. It is also interesting that, whereas they multiply throughout the summer by a single aphid giving birth to living young without benefit of fertilization, as the days shorten and the temperatures drop, males begin forming and eggs instead of nymphs form within the mother These eggs after fertilization form the nucleus for next year's inhabitants. It is this built-in survival which allows these seemingly fragile insects to succeed in their highly competitive world.

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ROADSIDE MARKETING

(Continued from page 10)

1. Why do consumers buy at roadside markets?

Research has shown that people patronize these markets for one or more of the following reasons: getting really fresh produce, reasonable prices, appreciation of the rural atmosphere, they like to travel and purely by impulse buying or "just going by". The successful roadside operator recognizes these things and "plays up" to consumers by taking advantage of the above things to attract his customers and to keep them coming back for more.

2. A really good location

Studies have shown that volume of business decreases with distance from a high population center, the closer the better. Also volume is directly related to numbers of vehicles normally traveling the route. Best locations are on a straight road in level country, having good access off and leads onto the road and on the right side of the road leading into a town or city.

3. A permanent structure

Stands with the highest volume of business are those with good adequate, permanent building facilities.

4. Size of operation

Start at a modest scale but prepare to expand. This is the best rule for success. Adequate packing, good display space, storage facilities, and refrigeration rooms are necessary for a successful expanding business.

5. Good quality produce

Research indicates that the consumer is looking for freshness, quality and appearance in the produce purchased. Price is important but secondary. The wise operator will offer several grades and price them accordingly.

Most stands operate in summer and

6. A long season of operation

can be lengthened to include spring fall. With adequate facilities, the season and early winter. Handling plants, sod, nursery stock and seeds in the spring and Christmas trees and firewood in the early winter can lengthen the season and provide for reduced overhead and more efficient employment of labor and more total profits.

7. Be open the right hours and days

Evenings and weekends are the most important roadside market shopping times. Every day from 8 a. m. to 8 p. m and most of the day Saturday and Sunday are the high volume periods. Having regular hours people can depend on is also vital.

8. Good labor use

One of the big advantages for farmers who go into roadside selling is the ability to utilize available family labor. The younger people, as well as many older felks, can be employed full or part time. Labor is the largest single operational expense and will take up to 70 percent of the expense budget in a typical roadside marketing business.

9. Careful grading of produce

An honest pack is the best advertising. Having several grades available can satisfy both the "bargain hunter" and the "quality seeker". All stands must have a top quality grade available in any event if their business is to grow and be successful.

10. Packaging considerations

Studies show that most roadside market customers prefer to select from bulk displays or purchase produce in open type containers. Consumers apparently do not expect or even prefer any kind of pre-packaging in closed sealed packages. Apples or other produce in clear poly containers may be an exception. Having a range of container sizes helps sales, too.

1i. Have a good display

The key to successful merchandising is in a colorful, inviting mass display. The size of the display, however, must be tailored to the commodity and time of season. A big display of apples in the cool days of autumn makes sense but a big display of berries or sweet corn on

(Continued on page 16)

a hot summer day may lead to quality problems and losses for the operator.

12. Proper pricing important

Some "rules" often quoted about roadside market pricing include the following:

- a. In line with or a little lower than similar quality in city stores.
- b. Not too low or profits will suffer.
- c. A suitable difference in price between grades.
- d. Give a discount for quantity purchases.
- e. Price in multiples (2 for 35 cents, 3 for 40 cents, etc.)
- Use 5 cent increments rather than odd cents (30 cents per dozen rather than 29 or 31 cents).
- g. Price tags or signs are a must. People hesitate to ask a price and therefore you can lose sales as a result.
- h. "Rule-of-thumb" is wholesale plus 20 to 30 percent.
- Don't change prices too often or too drastically.
- Running "special" is not too important. Leave this to the supermarket.

13. Advertising helps people to "know you are there"

Signs are a must but keep them simple and in good taste and don't use too many. Newspaper advertising is good and can pay off. Also there are possibilities for use of radio and even TV. A good name for your market is important. Try to denote the rural atmosphere, the farm idea or the products you sell. "Apple Valley", "Jones Fruit Ranch", "Smith's Berry Farm", etc.

14. Numbers and kinds of products

Having a wide variety of produce can be important to volume of sales. However, be sure to concentrate on the popular items. Studies show that most people want items like berries, melons, sweet corn, tomatoes, apples, potatoes, and squash. Don't forget the speciality items such as syrup, honey, eggs and cider.

15. Source of produce

It's an advantage having most of your produce coming from your own farm. Remember freshness is the most important reason your customers stop Field fresh produce is your big selling point.

16. Maintain good quality

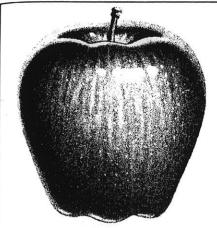
Most larger roadside markets are providing for some refrigerated storage space. Sweet corn loses half of its sugar in one day at 70 degrees compared to only 5 percent at 35 degrees. Apples deteriorate as much in one day at 70 degrees as they do in 10 days at 30 degrees. To provide really fresh produce in volume makes refrigeration necessary. Your own farm production is a real advantage here too.

Leaf Analysis By GORDON YATES

I have been asked by several growers to comment on the outcome of last year's leaf analysis, which as you probably remember, was not available at the time of my talk at the Eau Claire and Appleton meetings. I'm happy to report that everything came out as predicted: that is potash and phosphate were way up and nitrogen and calcium way down. As a result of my findings, Minnesota decided to run through all the leaf analysis results from all the orchards in Minnesota since 1961 to see if the same held true. In all, I believe, over 300 were run out of the computer and the relationship of crop and elements held out all the way-though more pronounced as the older trees were gone through.

It appears pretty safe to say that unless the size of the crop is noted at the time of sampling it will be impossible to read any accurate result out of one year's sampling. For those of you who will be having tissue tests run this year an average of our findings may help

(Continued on page 18)



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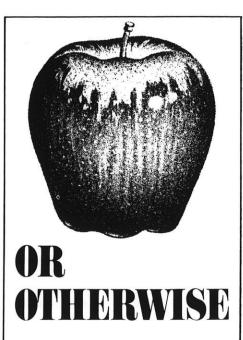
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LEAF ANALYSIS

(Continued from page 16)

to evaluate your results. Assuming 100 on the Chart Index represents a medium crop then a heavy crop will show a potash reading about 17 low, phosphate 20 low, nitrogen 10 high, and calcium 5 high. A low crop will show about the reverse. That is potash 17 high, phosphate 20 high, nitrogen 10 low and calcium 5 low.

None of the other elements show any pattern whatsoever and it appears that these must be read as they appear. Although it is apparent that climatic conditions may affect the readings on trace elements in some years.

At present we are still not sure just what it is going to take to alter the potash count. We now have applied over 600 lbs. per acre of actual potash to one block and have not altered the count. This year we have gone to heavy supplemental feeding with nitrate of potash as a foliage spray to try and alter this count in the block and this year's results should be interesting. We are also trying foliage sprays of all the other elements to see just how much we can alter the results. Last time we did this in 1963, the only one we could alter was zinc.

The drop in potash in the "on" year is not hard to understand when you remember that 4% of the dry weight of an apple is potash, and whatever potash is available is going mostly into the fruit. (The dry weight of an apple is about 15%. Whereas only 0.5% is nitrogen and 0.006% is magnesium. It would appear that most of the other elements are absorbed into the fruit and we get an apple which is higher in mineral content with little alteration in the foliage makeup. Somewhere there has to be an optimum level for all the elements to give up the best fruit quality with the least stress on the tree. Just what it is I don't know, but someone should be doing some intensive research on it.

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