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2.) AGRICULTURAL EXTENSION SERVICE UNIVERSITY OF 1.) MINNESOTA

3.) FRUIT GROWERS' LETTER

By Leonard B. Hertz, extension horticulturist January 1975

MINNESOTA APPLE TREE SURVEY COMPLETED IN 1974

The leading apple variety, among apple trees of all ages in the commercial orchards of Minnesota is Red Delicious (20 percent of all trees). Haralson ranks second (15 percent), followed by Jonathan and Minjon, Beacon, and McIntosh.

Minnesota currently has a total of 264,212 apple trees of all ages planted on 3,240 acres. This is an increase of about 70,000 trees and 400 additional acres of orchard. (This, of course, indicates that high density orchards are currently being planted.)

The LaCrescent area is the prominent apple growing area with 29 percent of orchards, 39 percent of the total trees and 51 percent of the total acres in orchards. More large orchards are established in that area. The LaCrescent area has the largest number of bearing-age trees (91,004) and has 12,213 young nonbearing trees. The Red Wing-Rochester area has 48,007 bearing-age trees and 12,238 young trees, while the St. Croix area has 42,192 bearing-age trees and 49,817 young trees.

Twenty-eight percent of the Minnesota orchards were small in 1974, as compared to 33 percent in this small group five years ago. The medium-sized orhcards (1,000 to 2,499 trees) decreased to 24 percent of the total number of orchards, compared to 33 percent in the previous survey. The very large orchards (over 5,000 trees in size) comprise 13 percent of the total number, an increase of 2 percent above the 11 percent in the last apple tree survey. These very large orchards contain 62 percent of all apple trees, as compared to 51 percent of all trees in the previous survey.

The LaCrescent area contains 24 percent of all dwarf trees and 43 percent of the standard trees in Minnesota commercial orchards. The Red Wing-Rochester area contains 19 percent of the dwarf and 26 percent of the standard trees. The St. Croix area contains 47 percent of the dwarf and 20 percent of the standard trees. Five times as many dwarf trees (60,382) as standard trees (12,285) were planted since 1969. Fifty-three percent of all the standard trees are 20 years or older.

(From the 1974 Apple Tree Survey by Minnesota Crop and Livestock Reporting Service.)

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GRAPE VARIETIES FOR MINNESOTA

With the expanded interest in growing grapes, many varieties have been planted which are not adpated to Minnesota's severe winters. Certainly, temperatures in the range of -20° to -30° F. have a significant effect on many grape varieties. The following list describes the range of adaptability or susceptibility of grape varieties commonly planted in Minnesota. The varieties include the standard labrusca or American types, the labrusca-vinifera hybrids, and French hybrids.

Grape Varieties Tolerant to Severe Winter Temperatures: Beta.

Grape Varieties Susceptible to Slight-to-Moderate Damage with Severe Winter Temperatures: Red Amber, Warden, Concord, Van Buren, Aurora, Foch.

Grape Varieties Susceptible to Moderate-to-Severe Damage with Severe Winter Temperatures: Fredonia, Niagara, Interlaken Seedless.

When tender grape varieties are grown in Minnesota, the training system should allow the canes to be laid down and covered with a good mulching material each fall, particularly in the northern areas.

Select and tie a strong cane to the lower wire of the trellis. Later, tie the branches that develop from this cane to the upper wires for support. In the fall, cut back these upright branches to two or three buds. Lay the canes down and cover.

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STRAWBERRY VARIETIES FOR MINNESOTA

One of the first problems facing the commercial or home strawberry grower is choosing the right variety to plant. The ideal strawberry would be hardy, would grow in any type of soil, and would produce enormous quantities of large, firm fruit (with, of course, excellent quality, fresh or frozen) at just the right time of year. No variety measures up to this standard, but some come close in one or more ways.

To help growers select the best June-bearing strawberries for Minnesota, continuing variety evaluation plantings are maintained at the Horticultural Research Center, Victoria; North Central Experiment Station, Grand Rapids; West Central Experiment Station, Morris; and the Sand Plains Experiment Field, Elk River. New plantings are made every other year and include new selections and varieties which appear suited to Minnesota growing conditions. Records are kept on growth and fruiting characteristics, including susceptibility to insects and disease, vigor, season of ripening, yield, berry size distribution, and berry quality. Berries from these plantings are also used to determine freezing quality of the fruits. Variety descriptions follow.

Early Maturing Varieties

Earlimore is a June-bearing introduction from Minnesota. The plants are vigorous, hardy, and are resistant to leaf spot and scorch. The fruit is attractive, medium in size; the outside color and flesh are red; berries tend to be soft. It is only an average freezer. Fruit production of this variety is high.

Veestar originated in Canada. The fruit are medium sized, a glossy red color, and moderately firm, with excellent flavor. Veestar ripens early. The plant is productive, upright with medium vigor, and has moderate runner production.

Cyclone is a June-bearer from Iowa. The berries are large, sweet, and bright red. They ripen early, are soft, but do have good freezing quality. Cyclone is less productive than Earlimore.

Midseason Varieties

Redcoat is a June-bearing variety from Canada. The plants are vigorous, produce runners freely, and produce large quantities of fruit. The fruit are large sized, glossy, and light red. The berries are very firm, have good freezing qualities, and are excellent for desserts.

Trumpeter strawberry is a Minnesota developed June-bearer, which ripens in midseason. The fruit are medium in size, soft, glossy, and have good flavor. The fruit is only fair for freezing. The plants are vigorous, winter hardy, very productive, and produce runners freely.

Sparkle originated in New Jersey. Berries are medium sized with dark red skin and soft flesh; fruit quality is excellent for freezing. Plants are productive and produce many runners.

Stoplight originated in Iowa. The fruit is large, an attractive bright red with a uniform interior. A fresh berry is medium-firm to firm. Stoplight is a good plant maker, is productive, and matures in midseason.

Late Season Varieties

Badgerbelle is a June-bearing variety which originated in Wisconsin. The fruit is large; skin is medium red, glossy, attractive; flesh is medium red and moderately firm. Fruit quality is fair for freezing but excellent for fresh fruit. The plant is vigorous, forms runners easily, and is consistently productive.

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DORMANT PRUNING

Apple trees of 3 to 5 years old are at a critical age, as far as managing them for fruiting or for excessive branch growth. Often it is a temptation to hit them pretty hard, eliminating bearing branches and inducing more tree vigor. At this age period, most apple varieties should be coming into good cropping; so it is important not to remove this potential.

Self spreading varieties tend to fruit well on lower branches and close into the leader. This is desirable and must be kept in mind when quick pruning decisions are made. Remove only those branches which will allow more light to the lower fruitful part of the tree.

The top one-third of the tree needs close attention, because it often takes off, leaving the lower two-thirds in the shade. Eric Gunn said the grower should be more concerned with the top portion of the trees than the bottom.

Eliminate the upright growing branches which might eventually fruit out and put an umbrella over the tree. Allow the more slender horizontal branches in the top one-third to fruit.

In young apple trees it is better to underprune than to overprune. It is easy to cut a branch off but impossible to put it back onto the tree. Try not to delay fruiting and good yields by taking out more branches than necessary for good light exposure.

(From Compact Fruit Tree, December 1974.)

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FOR WHAT THEIR WORTH!

Fertilizer and Pesticide Shortage. A 15 to 30 percent shortfall on fertilizer and pesticides is predicted for 1975. Be guided accordingly.

Wage-Hour Law Changes. Effective January 1, 1975, newly-covered agricultural employees' minimum wage will be $1.80 per hour. Minimum for other employees covered by law prior to February 1, 1967, will become $2.10. Minimum for employees covered effective February 1, 1967, or later is $2.00.

In Dwarf Apple Trees, 50 percent of the Photosynthates goes into production of fruit and the other 50 percent into production of wood. In standard large apple trees, according to Dr. S. A. Pieniazek of Poland, two-thirds or more of the photosynthates are used for wood production and one-third or less for fruit production. Fruit trees are grown primarily to produce fruit and not for the production of firewood.

The Leading Apple Varieties in the U.S. in order of production are Delicious, Golden Delicious, McIntosh, Rome Beauty, Jonathan, York Imperial, Stayman, Winesap, Yellow Newton, Cortland, R. I. Greening, and Northern Spy.

Less Apple Bruising During Harvest was found in Ohio when picking could be done completely from the ground level versus a significant portion being picked from ladders. This was true, according to D. C. Ferree, for both Golden Delicious and Delicious. Ground level trees were on M.9 root stocks and ladder trees on M.7.

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FUTURE FRUIT MEETINGS

January 22-24, 1975. Minnesota-Wisconsin Apple Association's Annual Meeting: Sheraton Inn, Madison, Wisconsin.

February 5-6, 1975. School for Apple Growers: Midway Motor Lodge, La Crosse, Wisconsin. An in-depth school for commercial apple growers.

March 24, 1975. Minnesota Small Fruit Workshop: Student Center, St. Paul Campus, University of Minnesota. The commercial production and marketing of strawberries and raspberries.

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AGRICULTURAL EXTENSION SERVICE UNIVERSITY OF MINNESOTA

FRUIT GROWERS' LETTER

By Leonard B. Hertz, extension horticulturist January 16, 1975

NOTICE! NOTICE! NOTICE!

CHANGE OF DATE

OF THE

WISCONSIN-MINNESOTA APPLE SCHOOL

Because of several conflicts the date of the Wisconsin-Minnesota Apple School has been changed to March 5 and 6, 1975. (It had formerly been scheduled for February 5 and 6, 1975 and was mentioned in the December 1974 and January 1975 Minnesota Fruit Growers Letter.)

Place:	Midway Motor Lodge, LaCrosse, Wisconsin
Program:	An in-depth school for commercial apple growers

Some growers may not be on our mailing list, so, inform them, if you will, of this important meeting.

Issued in furtherance of cooperative extension work in agriculture and home economics, acts of May 8 and June 30, 1914, in cooperation with the U. S. Department of Agriculture. Roland H. Abraham, Director of Agricultural Extension Service, University of Minnesota, St. Paul, Minnesota 55108. We offer our programs and facilities to all people without regard to race, creed, color, sex, or national origin.