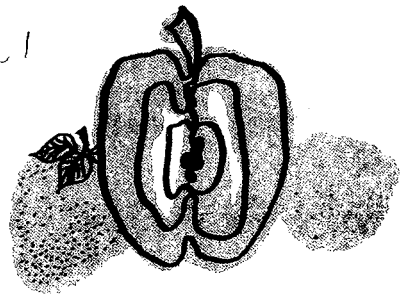
AGRICULTURAL EXTENSION SERVICE — UNIVERSITY OF MINNESOTA

FRUIT GROWERS' LETTER



By Leonard B. Hertz, Extension Horticulturist — July 1971

WISCONSIN-MINNESOTA SUMMER ORCHARD TOUR

The Wisconsin Apple and Horticultural Council and Minnesota Fruit Growers Association are sponsoring a field meeting for all interested apple growers July 22-23 at the Ten Eyck Fruit Farm located on Highway 11 and 81 about 4 miles south of Broadhead, Wisconsin. The meeting will begin at 1:00 p.m., Thursday and continue through Friday afternoon.

The Ten Eyck Fruit Farm is known for its apple production and marketing innovations. The orchards contain an excellent collection of many types of size controlled (dwarf) trees. A high density planting of 420 trees per acre of several varieties on EM 26 rootstocks will highlight the tour. There are 3,000 trees 4 years old and 2,000 one year old in this planting. In addition, there are several blocks of producing trees on EM VII, EM IX, MM 106, and other rootstocks. They range in age from 10 to 20 years.

In addition to the orchard tour a large machinery, equipment, and materials exhibit will be available for viewing and field demonstrations. Orchard equipment will be demonstrated both days. A meeting for all apple growers is planned immediately after lunch on Friday. Lunch will be available at a nominal cost at the orchard Friday noon.

Staff from University Extension, University of Wisconsin and Wisconsin Department of Agriculture will be conducting the field tours, equipment demonstrations, and meeting.

All midwest apple growers are invited to attend.

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RASPBERRY VIRUS INFECTIONS

Unthrifty growth, mottling, yellowing, and crinkling of leaves indicate virus infection. The most serious effects are decline in plant vigor and reduction in yield. Once the plant is infected, it remains infected and plants propagated from infected plants will also be infected. Roguing of diseased plants and those within 3 feet will help prevent virus spread to other plants. Control of the insect vector will also aid in disease control. (From Plant Pest Control, June 11, 1971, University of Minnesota.)

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NEWS BRIEFS
FROM THE HORTICULTURE DEPARTMENT

STORAGE LIFE OF APPLES

Apples are perishable and must be handled with extreme care. If you plan to use the fruit for pies or sauce you can harvest them before they reach full maturity. However, to store apples for extended periods of time you must harvest at the proper stage of maturity (when they separate readily from the fruit spurs and before they drop). Also, for extended storage, you must have optimum conditions of temperature (near 32° F.) and a room with high moisture.

Several of the Minnesota developed apples, as well as other recommended cultivars, have excellent "cold storage life" for fresh eating use. These have been grouped into three broad categories, full season storage, half season storage, and non-storage:

Storage Categories

Full Season	Half Season	Non-storage
Connell Red	Chestnut Crab	Beacon
Fireside	Cortland	Duchess
Haralson	Delicious	Mantet
Honeygold	Golden Delicious	Oriole
Prairie Spy	Lakeland	
Regent	McIntosh	
	Minjon	
	Red Baron	
	Redwell	
	Wealthy	

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COLD TEMPERATURE HARDINESS OF DWARFING APPLE ROOTSTOCKS

Much information was obtained in the 60's concerning differences in cold temperature hardiness of several dwarfing apple rootstocks when grown in Minnesota and adjoining states. Early results from a study being conducted at the University of Minnesota Horticulture Research Center have confirmed that significant cold hardiness differences between dwarfing rootstocks do exist, when grown under Minnesota conditions.

A planting of McIntosh propagated on EM 26, EM VII and seedling rootstocks was established in 1970. The entire planting was mulched with straw prior to freeze-up. An inventory this spring of all trees which had died during the first winter indicated a significant lack of winter hardiness of the dwarfing rootstock EM VII. This information is shown in the table:

Rootstock	Number planted	Number dead	Percent dead
EM VII	56	12	21
EM 26	56	1	2
Seedling	56	1	2

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FROM THE EDITOR

MINNESOTA APPLES--A PROFITABLE COMMODITY?

Growers of apples are increasingly discovering that the increased costs of production when combined with stable prices received are rapidly making the profit picture rather jumbled. Consequently, producers must continually evaluate their production costs for individual varieties, individual blocks, and finally the total enterprise.

Many of the costs of growing the crop are variable and often depend upon the grower's ability to correctly manage his enterprise. Two items, pruning and spraying, comprise the highest cost of growing apples, amounting to about 75 percent of the total cost. Innovations that will do the job at lower costs in these two areas will be most effective in reducing variables growing costs. It must be noted though that the high cost for a particular component, such as a new sprayer, may often be justified if it contributes to a sufficiently higher yield or improved quality.

Of the variable costs incurred in harvesting a crop of apples, labor is the major cost. Seventy-five percent of the cost of harvesting a bushel of apples involves labor. Consequently, good labor management will enhance the profit picture.

Yields obtained per acre are extremely important factors in determining production costs for each bushel of apples. If yields can be increased, costs per bushel will be reduced when compared to costs with smaller yields.

Although growers have some control over their own costs of production, they have little influence over costs in competing areas or in the market place. Consequently, a knowledge of what is happening in competing areas and of past and expected trends will help the grower make wise decisions and become "competitive."

Indications are that the total bearing tree numbers in the Eastern and Central States will remain fairly stable. A very large increase is expected, however, in the Northwest. As a result, Minnesota growers will have to "meet the competition" by maintaining their present market and in addition, take steps to expand market potential. If new markets can be found, then any problem of over production will tend to alleviate itself and Minnesota apples will continue to command premium prices on the fresh fruit market.

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FUTURE FRUIT MEETINGS

1. Wisconsin - Minnesota Summer Orchard Tour,
   Broadhead, Wisconsin, July 22-23, 1971

2. Strawberry Growers Field Day,
   Peninsular Experiment Station, Sturgeon Bay, Wisconsin, July 19, 1971

3. Minnesota - Wisconsin Apple Associations Annual Meeting,
   LaCrosse, Wisconsin, January 13-14, 1972

4. Wisconsin - Minnesota Apple Workshop,
   LaCrosse, Wisconsin, January 31-February 1, 1972

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