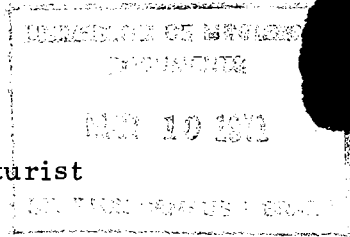


MN 2500 FGL 3/71

FRUIT GROWERS' LETTER



By Leonard B. Hertz, Extension Horticulturist

March 1971

TREE FRUIT SHORT COURSE

March 26 is the date of the 1971 Tree Fruit Short Course (held this year in conjunction with the dedication of the Horticultural Science Building). The program has been developed around the general theme, "Cold Protection in the Orchard." Discussions include critical temperatures for fruit trees, and results of field tests; the economics of cold protection; and the effect of pollution and suggested standards for the orchard.

Following noon lunch, the annual business meeting of the Minnesota Fruit Growers' Association will be held. This meeting will be adjourned before the afternoon program commences. Plan now to attend. The time: 8:00 a.m. - 4:00 p.m. The place: Room 495 in the Entomology, Fisheries, and Wildlife Building, (next door to the new Horticultural Science Building on the St. Paul Campus, University of Minnesota.)

* * * * *

SMALL FRUIT SHORT COURSE

A one day session developed for commercial strawberry and raspberry growers is scheduled for Tuesday, March 23, 1971, in the new Horticultural Science Building on the University of Minnesota's St. Paul Campus.

The all-day session starts at 10:00 a.m. Topics covered will include:

- Irrigation devices for small fruit
- Agricultural chemicals
- Social harvesting (U-pick-um)
- Labor saving devices

Several outstanding small fruit research workers representing the North Central States Research Committee on Small Fruit will contribute to the program. They will emphasize the practical side of growing and marketing small fruit.

* * * * *

This archival publication may not reflect current scientific knowledge or recommendations.
Current information available from University of Minnesota Extension: <http://www.extension.umn.edu>.

ALAR FOR "TOPPED" APPLE TREES

A number of Minnesota growers have shown interest in using Alar sprays to control vegetative growth without affecting the fruit of "topped" apple trees. Recent research at Penn State University, however, has shown that when Alar is sprayed over the top of the tree or the entire tree, a similar response in fruit development is obtained. Their work indicated that fruit drop control was the same following both methods of application. Of the two methods used, fruit size was slightly larger, and fruit of comparable size less firm on trees which had been sprayed in the top only. However, the difference between the two treatments was less than when each was compared with fruit from unsprayed trees. (From Penn State Horticultural Reviews, January 1971)

* * * * *

NEW FEDERAL LEGISLATION FOR PESTICIDES

The House Committee on Agriculture starts hearings on February 22 on H. R. 4152, which would classify pesticides for (1) general use, (2) restricted use, and (3) use by permit only. Those cleared for general use could be purchased and used by the general public; those cleared for restricted use could be used by a licensed applicator only; and those designated as more dangerous could be obtained and applied only by special permit. (New York State has a similar statute on the books and Ohio is considering one.)

* * * * *

PESTICIDE CANCELLATION DEADLINE EXTENDED

The U. S. Department of Agriculture and the Department of Health, Education and Welfare agreed that the deadline for cancellation of registered pesticides still needing residue tolerances for use on food and feed crops should be extended beyond December 31, 1970, provided certain conditions are met.

The agreement states, "additional time is needed to complete action on all pending petitions" for establishment of negligible residue tolerance, but that in no event should extension of registration be granted beyond December 31, 1971.

The original deadline of December 31, 1970 was set by USDA and HEW in April 1970, after a recommendation by the National Research Council's Pesticides Residue committee that all "no residue" or "zero tolerance" registration of pest control chemicals for use on food and feed crops be eliminated or a definite safe residue level or tolerance be set for such uses.

Shell Chemical Company, Agricultural Chemical Division, and Velsicol Chemical Company have petitioned the Environmental Protection Agency for the continued use of Endrin in orchards for mouse control.

It is not anticipated that there will be action on the petition before mid-1971. (From The Packer, December 12, 1970)

* * * * *

FROST DAMAGE

Every strawberry grower in Wisconsin has observed strawberry blossoms with a black or brown center. The main reason for this condition is the occurrence of below freezing temperatures at or before bloom. Many growers fail to recognize that blossoms can be damaged by freezing temperatures before the white petals are showing in the bud. Generally, the king blossom (the one that produces the largest berry) is lost. Most growers use solid-set sprinkler irrigation for frost protection. It is suggested that your system be ready for use any time after the bud cluster becomes visible at the crown of the plant. Small plantings can be protected with straw or hay or paper or colored plastic covers.

Following is a guide of critical temperature and injury:

| <u>Stage of Development</u> | <u>Temperature When Damage Can Occur</u> |
|-----------------------------|--|
| Full bloom | 31-32° F. |
| Balloon | 28-29° F. |
| White showing | 26-27° F. |
| Open cluster | 25-26° F. |
| Closed cluster | 23-24° F. |

Frosts may either kill the flowers outright or injure them so as to cause nubbins or misshapen berries. When a flower is injured by cold, the pistils which are the tenderest part, are killed first. If most pistils are killed, a nubbin may result or if killed after fertilization, the embryos do not develop and a seedy spot on the berry results. Frost injury on a very small berry may stop it from enlarging. Loss of the king blossom and berry will not cause or result in larger secondary fruit.

In severe cases, crown damage may occur. If crown temperature approaches 20° F., injury will be severe enough to reduce yields. If crown temperatures reach 10° F., the plants are unlikely to survive. Repeated freezing and thawing cause more crown injury than constant temperature. Crown damage generally happens in fall rather than spring.

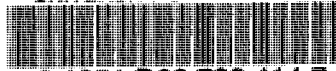
The best frost protection in spring is provided by solid-set sprinkler irrigation. Apply about one-tenth inch of water per hour with a low volume sprinkler. Start applying water when air temperature at the top of plant reaches 34° F. (at the lowest part of the planting). Continue to sprinkle and stop only when ice has melted from the plants. (From Wisconsin Strawberry Newsletter, February 1971)

* * * * *

Trade names are sometimes used in this publication to clearly describe products. The use of a trade name does not imply endorsement by the Minnesota Agricultural Extension Service, nor does omission of other trade names imply nonapproval.

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 55101.

UNIVERSITY OF MINNESOTA



3 1951 D02 732 414 7