

Cherry Fruit Fly

Pest management for control areas in Umatilla and Union counties

G. Fisher

Integrated Pest Management (IPM) principles are used successfully in Pacific Northwest orchards to manage insects, mites, diseases, and other pests. These research-based techniques provide effective monitoring and management practices for sustained and economical control of pests, while minimizing damage to beneficial organisms. Improved health and minimal environmental impact are benefits cited in IPM-managed orchards using reduced pesticide programs.

The comprehensive reference, *Orchard Pest Management: A Resource Book for the Pacific Northwest*, 1993, edited by Beers, Brunner, Willet, and Warner, was produced by research and Extension personnel from the tri-state region. It serves as OSU's guide to effective IPM principles for managing insect and mite pests.

We recommend its use in conjunction with the many regional OSU-ES Orchard Pest Management Guides produced and/or distributed in the tree fruit districts of the state. It addresses key elements of IPM for controlling pests, including prevention, monitoring, "action levels" or pest densities at which time to apply controls, and effective alternative strategies. Although designed for the commercial orchard, many principles and control considerations also apply to noncommercial trees.

Cherry fruit fly control area order and Integrated Pest Management

The intent of the pest control district in Umatilla and Union counties is to protect the commercial cherry industry from the Western cherry fruit fly (CFF). The

presence of just one maggot is sufficient to reject a lot of cherries delivered to the processor. Area-wide suppression of this pest is the most effective way to minimize its risk to the industry.

In recognition of the IPM act of 1991 as defined and mandated by ORS 634.655, which requires the Oregon Department of Agriculture to follow IPM principles in fulfilling its pest control responsibilities, the following: (1) addresses a source of information for obtaining and selecting elements of IPM that can be used successfully in tree fruit production in Oregon, and (2) provides acceptable cherry fruit fly management techniques that comply with the intent of OAR 603-52-150 to protect the commercial cherry industry within the control order zone.

Commercial cherry growers base CFF management on predicted emergence of overwintering adult flies from the soil using a degree day model and/or the appearance of the first flies trapped in "sticky" traps within or near the orchard. Sometimes a "sentinel" tree or area known to be infested with CFF is used to determine first emergence with sticky traps.

The most suitable insecticide for a given operation can be selected from the *1995 Crop Protection Guide for Tree Fruits in Washington*, EB 0419 (available from Washington State University Cooperative Extension) and applied to trees beginning no later than 7 days after CFF emergence. If available, formulations of 5 percent rotenone labeled for CFF control also should provide adequate control if applied consistently through the CFF flight period and/or as long as fruit is present on trees. Depending upon the

insecticide chosen, repeat applications may be

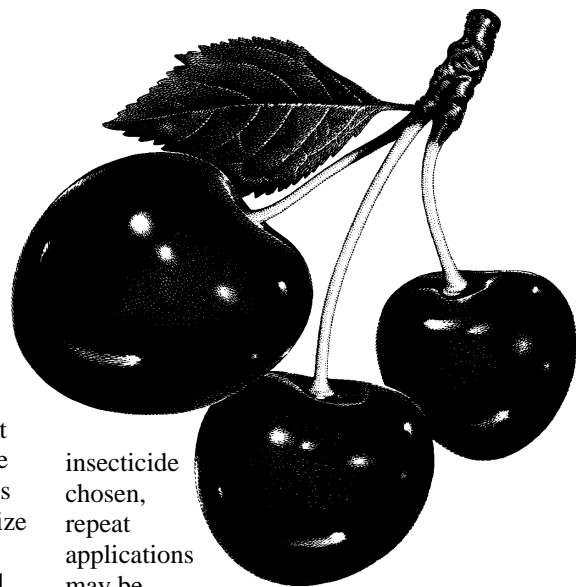
necessary to assure no maggots infest the fruit. Post-harvest applications often are necessary in commercial orchards because of fruit left on trees, the long flight period of CFF, and short residual nature of most insecticides.

Tree height and canopy influence effectiveness of sprays. Shorter trees pruned to open canopy interiors allow more effective coverage and penetration. Evaluation of commercial CFF control programs is based on fruit inspections at receiving plants, by ODA officials, and at port of entry for exported fruit.

Noncommercial cherry trees should be managed in the same manner in regard to CFF control. General use insecticides presented in this guide as well as 5 percent rotenone, if available, can be used and timed as above.

Methods other than insecticidal sprays are designed to prevent the presence of fruit when egg-laying flies are present. These include (1) tree removal, (2) removal of all bloom from trees, and (3) removal and proper disposal of fruit before CFF emergence.

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