University of California Cooperative Extension ■ Tulare County

# Olive Notes

Volume 1, Issue 1 October 2003

## TULARE COUNTY OLIVE PEST CONTROL DISTRICT
## GROWER EDUCATIONAL MEETING

**Friday, November 14, 2003**

**10:00 A.M. to 12:00 P.M.**
**Ivanhoe Memorial Building**
**33209 Hawthorne Rd., Ivanhoe, CA**

**1:00 P.M. to 3:00 P.M.**
**Porterville Veteran's Memorial Building**
**1900 W. Olive Ave., Porterville, CA**

## PROGRAM SCHEDULE

**Neil O'Connell, Moderator**
**University of California Cooperative Extension**

**Olive Fruit Fly: Pest, Problem, and What Researchers are Doing About It**

**Marshall Johnson, Extension Entomologist**
**University of California Kearney Agricultural Center**

**Are the Flies Really Here? The Trap Monitoring Program**

**Judy Stewart-Leslie, Pest Control Advisor**
**Pest Management Associates, Inc., Exeter, CA**

**Formation of a Pest Control District and Proposition 218 Vote**

**Bill Appleby, Assistant Agricultural Commissioner/Sealer**
**Tulare County Agricultural Commissioner's Office**

**Question and Answer Session**

**Members of the Board of Directors**

**Terry Baker, Chair**
**Woodlake**

**John Corkins, Vice-Chair**
**Porterville**

**Dan Dreyer, Secretary**
**Lindsay**

**James P. Akin**
**Visalia**

**Michael White**
**Lemon Cove**

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Olive Fruit Fly is regarded as a major threat to the commercial production of olives. The Tulare Pest Control District was established by the Tulare County Board of Supervisors. The purpose of the district is to monitor, research and support the control of any pest or disease which endangers the commercial production and/or viability of olives in Tulare County. In order to fund the operation of the district an assessment is proposed. A ballot of olive producers will be conducted. The meeting on November 14 will address these issues in detail.

**For additional information contact Neil O'Connell (685-3303)**
**or the Olive Pest Control District (686-1361).**

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## Fall Copper Spray

A fall copper spray is critical for control of the Peacock Spot fungus(Olive Leaf Spot) and the Olive Knot bacterium. The copper spray must be applied after harvest and before fall rains begin. Copper applied then and dissolved in subsequent rainfall protects the tree from both diseases. An October spray is equal to two winter sprays(November and January) after rains have begun.

Olive Knot is a bacterial disease caused by Pseudomonas savastanoi. The organism, spread through the tree by rainwater, can only enter the tree through wounds, commonly leaf scars, frost cracks, pruning wounds, etc. Trees at most risk are those with numerous entry points during periods when a high probability of rain exists. The knots or galls associated with the disease reduce production by causing defoliation and killing fruitwood. Infections have also been noted to be associated with reduced fruit size and oil content. Off flavors in fruit have been associated with olive knot infected trees. Olive knot control involves pruning in summer to remove inoculum(knots in the trees) and tree protection with copper containing bactericides prior to and during the rainy season. Copper protects openings in the plant from being infected. For effective protection a copper spray before fall rains and a second spray in early spring(March ) are required.

## Peacock Spot

Fall appears to be the most important period for infection by the Peacock Spot fungus. Once the fall application of copper is applied, additional applications are not necessary for Peacock Spot control.

Which copper is best?
Experiments conducted in the northern district with Kocide, Nordox, Bordeaux, and Tribasic copper sulfate did not detect differences in efficacy between these materials for olive knot control. The important thing is to use a labeled copper and time it correctly.

## Fall Weed Control

Residual, preemergence herbicides need to be applied to olives in October and November before winter rains and before winter annual weeds germinate. Most of these herbicides kill annual weeds as they germinate not after they are up and growing. Once they have established a postemergence herbicide will be required.

**Herbicides Registered for Olives**

| **Preemergence** | | **Postemergence** | |
|---|---|---|---|
| Devrinol | R | Goal | R |
| Goal | R | Gramoxone | R |
| Karmex | R | Fusillade | NB |
| Simazine | R | Poast | NB |
| Surflan | R | Prism | NB |
| | | Touchdown | NB |

R = registered;
NB = registered in nonbearing orchards.
Note: THIS IS INTENDED AS A GENERAL GUIDE ONLY! BEFORE USE OF ANY HERBICIDE CONSULT THE LABEL CAREFULLY. LABELS CHANGE FREQUENTLY AND OFTEN CONTAIN SPECIAL RESTRICTIONS REGARDING SPECIFIC USE OF A COMPANY'S PRODUCT.

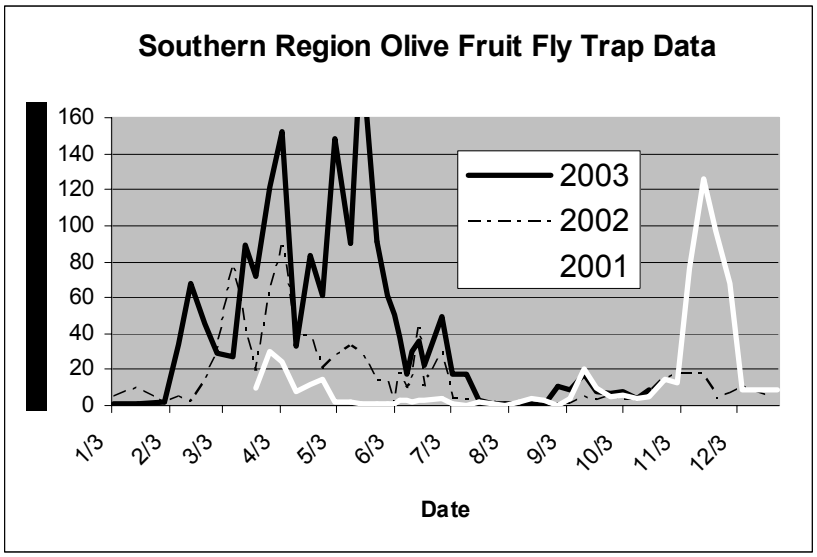
## Black Scale

An excellent time to control black scale is after harvest, as the insect is in a susceptible stage for chemical treatment. After harvest there are more chemical choices than when fruit is on the tree. If populations are heavy at harvest a fall spray is recommended. Pruning in the spring to thin out olives is also a helpful management tool as dry, hot air results in substantial mortality of the pest and densely foliaged trees are conducive to its survival.

## Olive Fruit Fly 2003

Significant male flight activity was detected in pheromone traps in February followed by peak activity in April and May with numbers then declining to very low levels in July, August with a slight increase the end of August and September. (See graph courtesy California Olive Committee/modified from color to b&w). In

the previous two years numbers of males trapped remained low during October. During November of 2001 there was a dramatic increase in numbers while last year, although there was an increase, it was not nearly as great. Olive fruit fly adults are able to use fruit left after harvest as sites for egg laying. The removal of this fruit might serve to dramatically reduce the numbers of overwintering flies. The feasibility and economics of this removal have not been documented at this point. An intensive research program continues on Olive Fruit Fly. One study is investigating the development of the fly and the olive fruit in relation to temperature in order to detect at what point the olive is attractive to the fly. A degree day model will be constructed with a reference point or biofix from which an individual can predict major events such as pit hardening, egg laying, etc. Research investigating the potential of various biological control agents is continuing as well as studies of dispersion and activity of the fly in relation to climate including survival during hot dry summer months.



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October 2003

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