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#### SUMMARY

Olive fruit fly can breed multiple generations per year, and in doing so can destroy an olive crop. Sanitation, baits and barriers can be effective controls.

## Controlling Olive Fruit Fly

By Jan Adair, UC Master Gardener

### Olive Fruit Fly can decimate an olive crop.

*Q: There are worm-like insects inside the fruit of my olive tree. What are they and how can I get rid of them?*

*A: From your description, the pest appears to be olive fruit fly. The larvae (maggots) of the olive fruit fly feed inside the fruit, destroying the pulp and allowing the entry of secondary bacteria and fungi that rot the fruit and degrade the quality of the oil. Feeding damage can cause premature fruit drop and reduce fruit quality for both table olive and olive oil production.*

#### **Recognizing Olive Fruit Flies:**

The adult olive fruit fly is about ¼ inch long. The head, thorax, and abdomen are brown with darker markings, and the thorax has several white or yellow patches on each side. It has large reddish eyes and small antennae. The clear wings contain dark veins and a small dark spot at the wing tip. Larvae are yellowish-white maggots with pointed heads.

#### **Olive Fruit Fly Life Cycle:**

The adult female can lay 200 to 500 eggs in her lifetime, but typically lays only one in each fruit. The first sign of damage is an egg laying "sting" on the fruit surface. This looks like a small indentation or lump on the surface of the fruit and sometimes there is discoloration. The larva then tunnels inside the fruit and feeds. Depending upon the time of year, the larvae either pupate in the fruit or leave the fruit and pupate in the soil. The adult fly emerges from the pupa and the cycle starts again. It is believed that at least three, possibly four, generations of olive fruit flies could develop annually in some areas of California.

#### **Controls for Ornamentals:**

You did not mention if you harvest your olives in order to process them for table olives or oil, and the best method for controlling this pest depends on if the tree is to be harvested. If your tree is used for ornamental purposes only then use a plant growth regulator to prevent



***“If you plan to harvest the fruit, follow good sanitation and consider using traps, bait sprays or barrier films. Good sanitation means removing old fruit remaining on trees after harvest and destroying all fruit on the ground.”***

fruit formation. Apply the growth regulator during bloom and the chemical will cause the flowers to drop so that fruit is not produced. Any fruit that might develop should be removed and destroyed. Growth regulators are readily available at home and garden stores. Unmaintained ornamental trees can be a significant source for invasion of other homeowners’ trees or of commercial groves. Your neighbors will appreciate your efforts.

**Controls if Harvesting Fruit:**

If you plan to harvest the fruit, follow good sanitation and consider using traps, bait sprays or barrier films. Good sanitation means removing old fruit remaining on trees after harvest and destroying all fruit on the ground.

Traps baited with food lures can be used to reduce population by mass trapping. Bait sprays (GF-120NF Naturalyte Fruit Fly Bait) containing Spinosad attract adults which feed on the bait and then die. Barrier film sprays (Surround) consisting of kaolin clay protect the fruit from attack. This material leaves trees covered with a white residue.

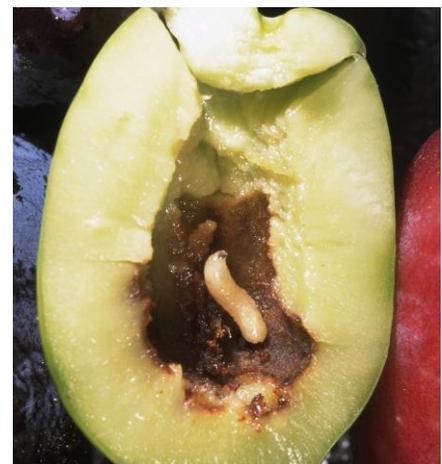
**For More Information:**

Olive fruit fly is not an easy pest to control, so for more detailed information on its lifecycle and management options go to the following University of California free publication:

<http://ipm.ucanr.edu/PMG/PESTNOTES/pn74112.html>



Olive Fruit Fly Adult



Olive Fruit Fly Larva

Photos Courtesy of U.C. Statewide IPM Program