



# Controlling Olive Fruit Fly at Home

University of California Cooperative Extension  
133 Aviation Blvd, Santa Rosa, CA 95403  
707-565-2621 • cesonoma.ucdavis.edu

June 7, 2005 • Paul Vossen and Alexandra Kicenik Devarenne

The olive fruit fly is a serious pest of olives in California. It was recently introduced from the Mediterranean where it has been a problem for thousands of years. The adult olive fruit fly is rarely seen. It lays its eggs just under the skin of the olive fruit. The larvae feed on the olive flesh, leaving brown tracks and tunnels. The damaged fruit is susceptible to rot, can drop prematurely, and is useless as a table fruit. Usable olive oil can be made if the damage level is below 10%, but the risk of off flavors and unacceptably high acidity rises as the damage level increases.



The olive fruit fly is not difficult to control, but without such efforts, 100% of the fruit may be damaged. Most of the visible damage occurs in the autumn from September to October; prior to that infested fruit appears only to have small spots or stings. When the fruit is cut open, however, brown lines (tunnels) and maggots are visible.

The olive fruit fly reproduces only in olives. In addition to producing fruit that is unusable for the many hobbyist olive processors, untreated residential olive trees can provide a virtually endless supply of olive flies. The flies are very mobile and can easily move from landscape trees to infest commercial groves.



Home olive growers can do many things to help control this pest. Olive tree owners can make a good start on their olive fly control program by cleaning up all old and fallen fruit. The flies can pupate in olives that are left on the tree or on the ground, ready to emerge as adults in the spring. Dispose of the fruit by sealing it in trash bags and placing it in the garbage, or by burying it 12" deep. Do not put infested fruit in your compost pile.

***If your olive trees are grown as ornamentals only, consider the following suggestions:***

**Plant fruitless olive trees** Varieties such as 'Swan Hill,' 'Majestic Beauty,' 'Wilsoni' and the dwarf 'Little Ollie' have little or no fruit. This is an excellent alternative if the desire is to have the landscape appeal of an olive tree, without the fruit. It also reduces the problem of stains from fallen ripe olives.

**Spray to remove fruit** Olive trees can be sprayed during bloom with plant growth regulators to prevent fruit set. The product Florel is available to homeowners. The timing of application is critical, and during extended bloom periods two applications may be necessary. Follow label directions carefully.

***If you intend to use your olives for oil or table fruit, olive fruit fly damage can be reduced by using one or more of the following treatments:***

**Spray with GF-120 Naturalyte** This is an organic insecticide (active ingredient: spinosad) that is formulated as a bait. It is mixed 1 part of material to between 1.5 and 4 parts water and applied at a rate of one ounce per tree. For the best results, weekly application is recommended. The adult flies are attracted to the bait, feed on it, and die. Contact your local county Agricultural Commissioner's office to determine if you qualify to purchase and use this product. See the product label for application instructions and safety information.

**Kaolin clay (Surround WP)** Another organic treatment is kaolin clay (brand name Surround). It is mixed with water at a rate of 1/4 lb to 1/2 lb Surround to 1 gal water and sprayed to achieve thorough coverage. It dries to a white powder, something that should be taken into consideration if trees are also decorative. This product acts as a repellent, rather than as an insecticide, and should be applied three times during the season. Start application in early June and repeat every 5-6 weeks. See product label for complete directions.



