

Q: I lost my entire crop of olives last year to the new fly that is ruining the olives. I would like to prevent the tree from setting fruit this year if there isn't a cure. What is the update on this?

A: The olive fruit fly (*Bactrocera oleae*) has spread throughout California during the past few years, decimating home olive crops and threatening the olive industry. This fly originated in the Mediterranean and parts of Africa. In 1998, it was found in Los Angeles, and by 2002 had been located throughout the coastal counties and inland.

The adult flies are about 4-5mm (3/16th) in length, with large red eyes and little antennae. The bodies are a reddish-brown and the wings are clear and tipped with a small dark spot. Excellent photos can be seen at: Olive Fruit Fly http://fruitsandnuts.ucdavis.edu/Olive_Fruit_Fly_02.pdf.

The larvae are dirty-white maggots with mouthparts that resemble hooks. There can be as many as five generations a year of these prolific pests. Each female can lay 50-400 eggs, one per fruit. The larvae can hatch in as little as 2 days when the weather is good, and mature to adults in a month. The adults live for 2-6 months. These flies over-winter in fallen fruit or fruit that remains on the tree. The females disfigure the surface of the fruit when they lay their eggs (oviposition stings) causing fruit drop or destruction of the pulp, rendering the fruit useless for home canning or oil.

The larvae cause the acidity of the fruit to increase, lowering the quality of oil and eating fruit. If you had a major infestation this past year, you will need to remove any fruit remaining on the tree and be meticulous about picking up the fallen fruit. This is the time of year to inspect the fallen or remaining fruit for larval infestation. Traps are hung in the trees in the spring, baited with Spiroketal pheromone (a male fly sex lure) and a feeding attractant that captures both the male and female flies. In winter, the traps are hung on the south side of the tree and on the north side in the summer. They will last for 1-6 weeks, longer if kept clean. Attract and kill traps are currently under review for registration in California for regular and organic growers. These traps live up to their name, killing the flies when they visit, without spreading pesticide residue on the fruit or around a garden. A tiny parasitic wasp has been released that will provide a level of biocontrol if it is able to become established.

If you wish to prevent fruit set use a chemical such as 'Fruit Stop', which contains Naphthaleneacetic acid (NAA), when your tree is in bloom but before the fruit has set. In this area this usually occurs around Easter time- sometime between April and May. Spray when 80% of the blossoms are open, before they turn brown and start to drop. If the tree continues to flower, you may need to repeat. You will need to cover the blossoms thoroughly and may want to contact a certified arborist who will have the proper equipment. There have been anecdotal reports of persons developing rashes when spraying NAA. Further instructions can be found at <http://www.ipm.ucdavis.edu/PMG/r583301311.html>.