

The Spanish “OLIFE” Trap For Olive Fruit Fly

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For several years, thousands of certified organic acres in Spain have been protected by using the OLIFE (Olivarera los Pedroches) trap to control olive fruit fly. This system has been able to control populations and to keep olive damage to below about 10%. The success of the OLIFE in Spain may be due in part to the high temperatures and scarcity of water. In coastal California, where temperatures are ideal for the development of very high fly populations and almost all olives are irrigated or close to sources of water, the situation is different. The OLIFE trap has not adequately controlled the olive fruit fly when used as a stand-alone measure. In our field trials from 2002 to 2005, mass trapping with the OLIFE reduced damage to about 30-60% (compared to 80-90% damage in untreated trees). It can catch

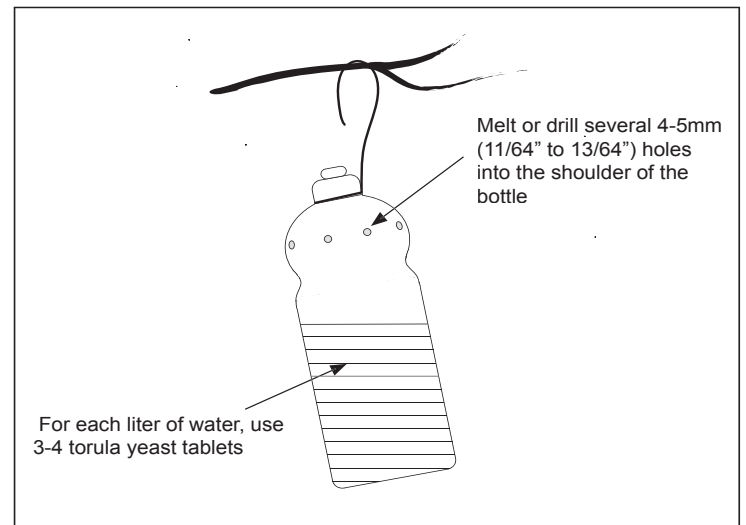


significant numbers of flies and reduce overall populations, making it a useful IPM tool. It is critical that fruit be evaluated on a weekly basis for stings and larval damage in order to determine if there is a need to spray with GF-120 the only effective spray bait control material registered for olive fruit fly control in California.

Stings are easy to identify and quick to count, but stung fruit should also be checked to see if there is a live form of the insect present. Young larvae are very difficult to see, but as they get older and larger the feeding track is bigger and usually turns brown. Shave thin slices off the olive at the location of the sting and look for a thin brown line. The presence of this line indicates that the eggs are hatching and the larvae are surviving. Temperatures above about 95°F greatly impede the development of the olive fruit fly, killing eggs and larvae inside the fruit. The threshold level of 3% live forms of the insect is a starting point that should be used to start sprays. Some growers are using the OLIFE trap year round to keep the population level down, then starting a spray program at fruit pit hardening (mid June) with GF-120 to prevent any significant damage. Spray timing will depend on the severity of the infestation, with two week intervals being the average.

The OLIFE trap is made from a 1½ to 2 liter plastic non-food bottle with 4-5mm (11/64 to 13/64) sized holes around the shoulder. The

bait solution is made with 3-4 torula yeast tablets in about a liter of water. The flies are attracted to the yeast bait, crawl inside the bottle, and drown. The addition of a spiroketal pheromone has not been shown in California experiments to improve the effectiveness of the traps. The holes can be made by taking a 11/64” to 13/64” size drill bit, holding it with a vise grips, heating it on a gas burner, and melting several holes into the shoulder area. Good ventilation is essential if you are using this method. An alternative approach is to drill the holes. Hang the trap in the shade on the north side of the tree. The yeast solution should be changed monthly.



The advantage of the OLIFE trap is that it is low cost, low tech, and easy to use. Although not sufficient for control by itself, the OLIFE can serve a useful function in an integrated program by lowering the overall fly population. Torula yeast tablets formulated for insect traps can be purchased from the sources listed below and other vendors:

Better World Manufacturing
bettertrap@aol.com

Scentry Biologicals
www.scentry.com

ERA International Ltd.
(516) 379-5579

Suterra
www.suterra.com

Great Lakes IPM
www.greatlakesipm.com

John Taylor Fertilizers
(707) 678-2358

ISCA Technologies Inc.
www.iscatech.com

Tréce Inc.
www.trece.com

Wilber Ellis Co.
(800) 426-3491

WARNING ON THE USE OF CHEMICALS

Pesticides are poisonous. Always read and carefully follow all precautions and safety recommendations given on the container label. Store all chemicals in their original labeled containers in a locked cabinet or shed, away from foods or feeds, and out of the reach of children, unauthorized persons, pets, and livestock. Confine pesticides to the property being treated. Avoid drift onto neighboring properties or gardens containing fruits and/or vegetables ready to be picked. Dispose of empty containers carefully. Follow label instructions for disposal. Never reuse the containers. Make sure empty containers are not accessible to children or animals. Never dispose of containers where they may contaminate water supplies or natural waterways. Do not pour down sink or toilet. Consult your county agricultural commissioner for correct ways of disposing of excess pesticides. **Never burn pesticide containers.** PHYTOTOXICITY: Certain chemicals may cause plant injury if used at the wrong stage of plant development or when temperatures are too high. Injury may also result from excessive amounts or the wrong formulation or from mixing incompatible materials. Inert ingredients, such as wetters, spreaders, emulsifiers, diluents, and solvents, can cause plant injury. Since formulations are often changed by manufacturers, it is possible that plant injury may occur, even though no injury was noted in previous seasons.



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