

(revision date:5/21/2013)

Common Insects & Mites : Spotted wing Drosophila (SWD)

Use Integrated Pest Management (IPM) for successful plant problem management.

Biology

Spotted wing Drosophila (SWD) resembles other Drosophila species (fruit flies or vinegar flies) in appearance, but unlike other members of the family which attack only overripe, damaged or decaying fruit, SWD attacks healthy fruit as it ripens on the plant. Adult SWD flies are about 1/8 inch long, with red eyes and a yellow-brown body. Darker bands may be visible on the abdomen. Male flies have a distinctive dark spot on the leading edge of the wing near the tip. SWD is the only fruit fly species in our area with this spotted wing, making identification of males relatively simple. Females lack the spotted wing, but have a large, sawlike egg-laying organ called an ovipositor at the tip of their abdomen. It is used to deposit eggs in fruit (oviposition). The eggs are laid beneath the surface of ripening fruit as it begins to soften and show color, continuing through to harvest. Scars left by oviposition may appear as indented, soft spots on the fruit surface. Small white- or cream-colored larvae hatch within a few days and feed in the fruit, causing the fruit to soften and collapse around the feeding site. Further damage may be caused by secondary pathogens (fungi and bacteria) which attack the damaged fruit. At maturity, the larvae may be up to 1/8 inch long. They may pupate inside or outside the fruit. The length of the life cycle depends on temperature, with adults most active at cool temperatures (around 68 degrees F). Most soft-skinned fruits are vulnerable to attack by SWD, including peach, plum, cherry, grapes (table and wine), strawberry, blueberry, and cane fruits. It has also been found in Asian pear, fig, and hardy kiwi.

Management Options

Non-Chemical Management

- ~ Monitor for SWD using vinegar traps. For information on building and placing traps, see Spotted Wing Drosophila (SWD) Monitoring, Identifying, and Fruit Sampling (WSU Extension Fact Sheet FS049E, available at <https://pubs.wsu.edu/>). **IMPORTANT:** Numerous species of Drosophila and other insects will also be attracted to vinegar traps. Learn to identify SWD (if in doubt, contact your local Extension office).
- ~ Vinegar traps are for **MONITORING PURPOSES ONLY** and will not provide control of SWD. Remember, chemical control is not necessary if SWD is not present.
- ~ Composting infested fruit in home compost piles is not likely to be effective at destroying SWD larvae and pupae.
- ~ Pick fruit regularly. Remove overripe or damaged fruit which may attract SWD.
- ~ Remove infested and fallen fruit from the garden. Dispose of infested fruit in a sealed container, or bury at least 6 inches deep in an area that will not be disturbed.

Select non-chemical management options as your first choice!

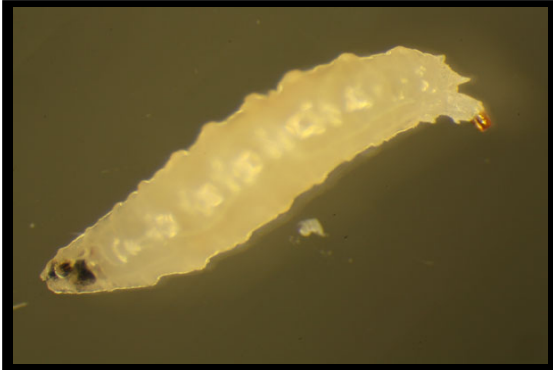
Chemical Management

IMPORTANT: Visit Home and Garden Fact Sheets for more information on using pesticides

Chemical applications are effective against **ADULTS ONLY** and will not control SWD eggs, larvae, or pupae in fruits. Monitoring for the presence of SWD is necessary to determine correct application timing, as currently available products are strictly protective and aimed at preventing oviposition by female SWD. Find information on chemical control options for a specific host by referring to the fact sheet for SWD on that host.

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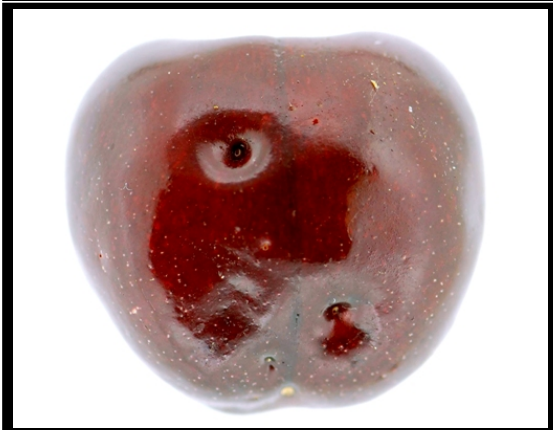
Images



~ Caption:
~ Photo by: B. Gerdeman



~ Caption:
~ Photo by: W. Hoashi-Erhardt



~ Caption: male SWD (thumbnail), damage on cherry (large)
~ Photo by: Fly: J. Davis; fruit: M. Hauser, CDFA