

## Management

The simplest means of monitoring for spotted wing drosophila is with a basic red wine/apple cider vinegar trap, although more sophisticated traps are being developed. A combination of immediate disposal of infested fruit, clean picking, pruning to maximize sunlight, weed control to improve air circulation, and treatment of ripening fruit with insecticides is good practice for protecting crops.



Spotted wing drosophila trap. Photo: Juliet Carroll, NYS IPM Program, Cornell University

## For More Information

Spotted Wing Drosophila. 2012. NEIPM Regional Pest Alert. <http://tinyurl.com/nm7lcps>

Spotted Wing Drosophila Fact Sheet. [www.nysipm.cornell.edu/invasives\\_exotics/swd/swd.pdf](http://www.nysipm.cornell.edu/invasives_exotics/swd/swd.pdf)

Spotted Wing Drosophila, Cornell Fruit Resources. [www.fruit.cornell.edu/spottedwing](http://www.fruit.cornell.edu/spottedwing)

2014 - Spotted Wing Drosophila (SWD) Monitoring Traps. <http://tinyurl.com/n8obhg7>

Cornell Fruit: Spotted Wing Drosophila (SWD) Management. <http://tinyurl.com/nw7uu88>



[www.fruit.cornell.edu/spottedwing](http://www.fruit.cornell.edu/spottedwing)



[nysipm.cornell.edu](http://nysipm.cornell.edu)



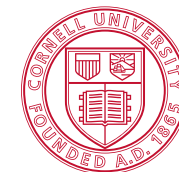
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# Spotted Wing Drosophila

A new, destructive pest on berries, cherries, peaches and plums



Photo: T. Martinson, Cornell University

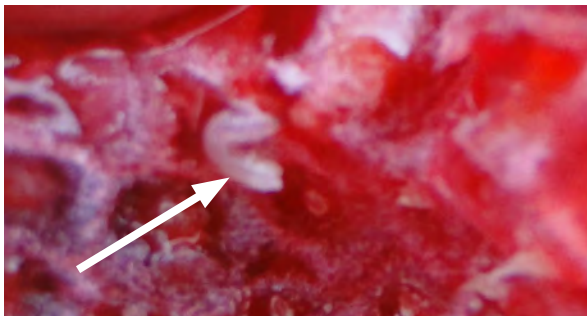


Cornell University  
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The spotted wing drosophila is a vinegar or fruit fly of East Asian origin. It has been in Hawaii since the 1980s, but was first discovered in California in 2008. By 2013, it was reported from most of the continental US, except Arizona, Nevada, New Mexico and South Dakota. It infests raspberries, blueberries, day-neutral strawberries, grapes, cherries, peaches, plums, and other late-season, soft-flesh fruits, both wild and cultivated.

### Damage

Spotted wing drosophila deserves notice because they lay their eggs inside fresh fruit, often before harvest. Aside from the superficial scars left by the female's ovipositor (their egg-laying device), most damage is done by the larvae feeding inside the fruit. After only a few days, the fruit skin becomes dimpled or wrinkled, forming craters in the fruit, and making it susceptible to decays and rots. It is possible, however, for early-stage larvae or eggs to leave no visible impact on the fruit.



Larva inside raspberry. Photo: Hannah Burrack, North Carolina State University.

### Description

Just as one could imagine from the insect's common name, male spotted wing drosophila have a single black spot on the tips of their wings. Females lack this particular trait, making them more difficult to identify, but both genders have distinct red eyes. What sets female spotted wing drosophila apart from other fruit flies is the dark brown to black, saw-tooth edges that line either side of their ovipositor. Spotted wing drosophila are a medium sized fruit fly, generally about 0.08-0.12 inches long.



(L) male SWD, showing spotted wings; (R) saw-toothed ovipositor of female. Photos: M. Hauser, CDFA.



Adult female (left) and adult male (right) on raspberry. Photo: Hannah Burrack, North Carolina State University.

### Life Cycle

Females use their ovipositors to cut through the surface of the fruit into the flesh, where they then lay a single egg, laying 7-16 eggs per day. Damage is initially a tiny pinhole on the fruit's surface, but after 5-7 days of the larvae feeding inside, the skin collapses and the fruit may leak juice. The larvae then exit the fruit to pupate, taking anywhere from 3-15 days for adult flies to emerge. As adults, the lifespan of spotted wing drosophila can be as long as 3-9 weeks. Ten generations per year are predicted to occur in the United States, depending on the climate.



Blackberries severely infested with SWD will hang limp, drip liquid, and dry out on the fruit cluster. Photo: Hannah Burrack, North Carolina State University.