Fruit flies are a common occurrence in our homes, especially as the weather warms up; these flies, all Drosophila species, like to hang around rotting fruit because the females lay their eggs in the easily accessible flesh. Last year, a new Drosophila came to town. This one was different, the females wanted a better, fresher start for their young ones. They came well equipped for this task with a sawlike ovipositor that can inject eggs into fresh fruit while it is still on the plant. The emerged larva then takes a feast on that ripening fruit that was meant for you or me. Luckily, this pest does not pose a threat to food safety.

The Spotted Wing Drosophila, Drosophila suzukii, is native to Japan and was first found in California in 2008. Last year (2009) it was found in California, Oregon, Washington, and British Columbia. Spotted Wing Drosophila (SWD) seems to prefer the maritime climates of the west coast as it does not breed in temperatures over 80°F. All soft fruit can be targets of this pest: strawberries, raspberries, blueberries, blackberries, plums, kiwi, figs, peaches, nectarines, cherries, and grapes. Many of our native fruiting plants can also be targets of this pest, making it difficult to control. Harder fruit, such as apples, will probably not be as much of a target because it will be difficult for the female to get her ovipositor through the tough skin.

Since this pest is new to our region, work needs to be done to learn about how it acts and how it can be controlled. A group of researchers from institutions in California, Oregon, Washington, and British Columbia have come together to look into different aspects of the life cycle, monitoring, and management techniques. Some preliminary information that we do know includes identification, general life cycle, and some monitoring techniques.

**Identification:**
At first glance, SWD looks a lot like your run of the mill fruit flies. It is a bit larger, 2-3 mm long, but both SWD and other drosophila have red eyes and yellowish brown colored bodies. The distinguishing feature of SWD is the spot on the tip of the wing of adult males. Adult females have a saw-like ovipositor, but this can be difficult to accurately locate and identify.

**Life Cycle:**
It is estimated that between 3 and 5 generations of SWD can occur each year. Adult flies overwinter and start to mate when temperatures increase in the spring. Females oviposit 1-3 eggs at a time and each female can oviposit up to 350 eggs in her lifetime. The female uses her saw-like ovipositor to insert her eggs into ripening fruit (hard, green fruit are less attractive). The larvae emerge and start feeding on the interior of the fruit; they go through three instars before they pupate inside or outside of the fruit and then emerge as adults to start again. The adults can live for 3-4 weeks and will mate and lay eggs during that time with the potential to increase the population size rapidly over a short period of time.

**Monitoring:**
Monitoring traps can be made easily and inexpensively using a large plastic cup with a lid (or a used plastic container). Drill several holes about 2/3 the way up one side of the cup, 3/16” in diameter. Add about 1” of apple cider vinegar to the bottom. Hang the trap near fruit level. At least once per week, check the trap for male adult flies, using a 30X hand-lens.

To identify damage to the fruit, look for oviposition scarring on the sides of fruit. This can appear as a small hole or scar followed by a collapse of the fruit wall about 2-3 days after egg laying.

Fruit can also be monitored for presence of larvae using the fruit-dunk flotation method. Collect suspicious fruit and lightly crush it in a plastic zip bag. Add a mixture of sugar and water (1 quart water to ¼ cup sugar). The larvae will float to the top and the fruit will sink to the bottom.

**Management**
Techniques for home-owner management of SWD are still being developed. One method is to put several traps around the garden to catch as many adults as possible. Good sanitation should also be practiced, including cleaning up and destroying fallen fruit. Harvest the fruit often to minimize the amount of fruit available for females to lay eggs into. Some insecticides are available for home use against this pest, but they may interfere with beneficials, including pollinators.

**More Information:**
Oregon State University is hosting a website containing information on SWD and with updates from institutions on the west coast. There is much information on this site, including extension publications for farmers and gardeners, videos, and research results.

IPM Options for Home Gardeners [http://swd.hort.oregonstate.edu/information_homeowners](http://swd.hort.oregonstate.edu/information_homeowners)


Main SWD site [http://swd.hort.oregonstate.edu/](http://swd.hort.oregonstate.edu/)