



Trap in a strawberry field



### Surveillance:

Surveillance of spotted wing drosophila in the Southern Interior Valleys of B.C. in 2010 indicated that :

- Spotted wing drosophila was widespread in the Okanagan and Similkameen valleys and present in the Creston valley.
- Adults were present from June to November; with very high numbers recorded from late July to November.
- More adult female flies were present until early August. It is therefore very important to have female flies identified.

Surveillance for spotted wing drosophila will continue in 2011. Check the B.C. Ministry of Agriculture website for monitoring reports.

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## Spotted Wing Drosophila (*Drosophila suzukii*), a new vinegar fly pest in British Columbia



**Information for fruit stands,  
grocers and the home gardener**

### Management:

- Good sanitation practices are critical to controlling spotted wing drosophila.
- Clean up leftover and fallen fruit. Bury fruit to a depth of more than 12" or seal in plastic bags or freeze for at least 48 hours before disposal.
- Home composting of infested fruit will not kill flies.
- It is recommended that local grocers properly dispose of rotting fruit by either burying to a depth of more than 12", sealing in plastic bags before disposal, or put all rotten fruit through a garborator.
- If numbers are high, insecticides registered for control of other fruit pests in the home garden containing pyrethroids or malathion will provide control of spotted wing drosophila. Read and follow label directions and do not apply when bees are present.
- Contact a commercial pesticide applicator for other chemical control options.

### Further Information:

- B.C. Ministry of Agriculture :  
<http://www.al.gov.bc.ca/cropprot/swd.htm>
- Oregon State University:  
<http://swd.hort.oregonstate.edu/>

# Spotted Wing Drosophila

Spotted wing drosophila, a vinegar fruit fly pest was first detected in California in 2008 and in Florida, Oregon and Washington in 2009. In September 2009, spotted wing drosophila was confirmed in berries in the Fraser Valley area of British Columbia and cherries in the Central Okanagan Valley.

## Identification:

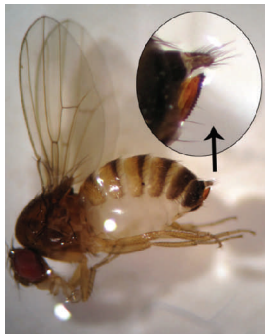
Spotted wing drosophila adults are light yellow or brown flies with red eyes, about 2 - 3 mm long. They look like regular vinegar flies but male flies have a single black spot on the end of each wing. Females have no spots, but have a distinctive saw-like egg laying device (ovipositor) which enables them to cut into thin-skinned fruit and deposit eggs inside.

## Hosts:

Known hosts in B.C. are cherry, peach, plum, nectarine, apricot, strawberry, blueberry, blackberry, raspberry, mulberry, table grape, Oregon grape, black currant and blue elderberry.



Spotted wing drosophila adult male with wing spots.



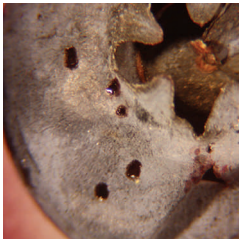
Spotted wing drosophila adult female. Inset shows ovipositor.

Photo Credits: Sheila Fitzpatrick, Agriculture & Agri-Food Canada, Agassiz

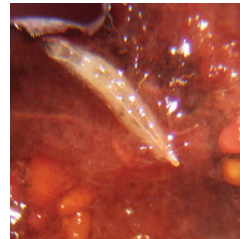
## Damage:

Unlike most vinegar flies which normally infest overripe, fallen, decaying fruit, spotted wing drosophila females lay their eggs inside intact ripening fruit. Larvae hatch and begin to feed within the fruit, causing softening in the area of feeding. Fruit gets contaminated with larvae and become soft and unmarketable.

There can be several larvae in a fruit, which hastens softening and fruit collapse. Holes the size of pin pricks from the females' egg laying activities are evident within the soft areas of infested fruit. Oviposition holes provide entry points for disease-causing organisms.



Spotted wing drosophila oviposition holes in blueberry.



Spotted wing drosophila larva in blueberry fruit.



Spotted wing drosophila-infested blueberry fruit with pupae.

## Monitoring:

- Monitor adult flies from mid-May.
- Any 250 - 750 ml plastic container or cup with a tight fitting lid can be used to make a trap for capturing and monitoring adult flies.
- Drill 4 - 5 holes (use a 3/16 inch drill) on one side of the container to allow flies to enter (holes shouldn't be too big or other large insects can get in). Containers that already have holes, like commercial Con-tech fruit fly traps will work.
- Add about 1½ inch (4 cm) pure apple cider vinegar or a mixture of 2 parts apple cider vinegar to 3 parts red wine to the trap.
- Hang trap near fruit level or for berries place on the ground in a cool area.
- Replace bait once a week and look for male flies (a black spot on each wing) in the bait solution.
- Do not dump the old bait solution on the ground as this will attract more flies.
- Use a magnifying glass or hand lens to help identify male flies.
- Female flies are more difficult to identify. Send suspect flies to the Ministry of Agriculture office for identification.



An apple cider vinegar trap.