Fact sheet

Spotted-winged drosophila

What is the Spotted-winged drosophila?

The Spotted-winged drosophila (SWD; *Drosophila suzukii*) is an invasive pest that originates in South-East Asia and has spread rapidly through fruit producing regions of North America, Europe and Japan. SWD is a small fly that is primarily a pest of thin-skinned fruit including berries, stonefruit (cherry, nectarine, peach, plum), currant and grape.

Unlike other *Drosophila* species, SWD are able to lay their eggs in healthy ripening as well as ripe fruit. Larvae feed on fruit pulp leading to fruit collapse and secondary fungal or bacterial infection. Larvae may also be present at harvest, making it unsuitable for sale. SWD can severely impact yield, with some berry growers in North America reporting up to 100% crop losses.

What does it look like?

Adult SWD are yellow-brown coloured with dark bands on the abdomen and bright red eyes. They measure about 2-3 mm long with a wing span of around 6-8 mm. Females can be distinguished from other *Drosophila* species by their double serrated ovipositor that enables them to puncture intact skin of suitable fruit and lay eggs. Males are typically smaller than females and have a distinctive small dark spot on the front edge of each forewing.

Larvae are cream or white and measure up to 3 mm in length. Pupae are red to brown, about 2-3 mm long by 1 mm wide and cylindrical shaped with distinctive pairs of horn-shaped protrusions on their ends.

What can it be confused with?

Adult SWD could be confused with other *Drosophila* species present in Australia such as the common vinegar fly (*D. melanogaster*) normally associated with over-ripe, rotting or damaged fruit. However, SWD can be distinguished by the black spot on the wing tips of males as well as the females' serrated ovipositor and ability to lay eggs in healthy fruit.

Martin Hauser, California Department of Food and Agriculture

Adult males are yellow-brown with dark abdominal bands, red eyes and distinct spots on the ends of their wings

Martin Hauser, California Department of Food and Agriculture

Adult females are yellow-brown with dark abdominal bands, red eyes and no spots on their wings

Hannah Burrack, North Carolina State University, Bugwood.org

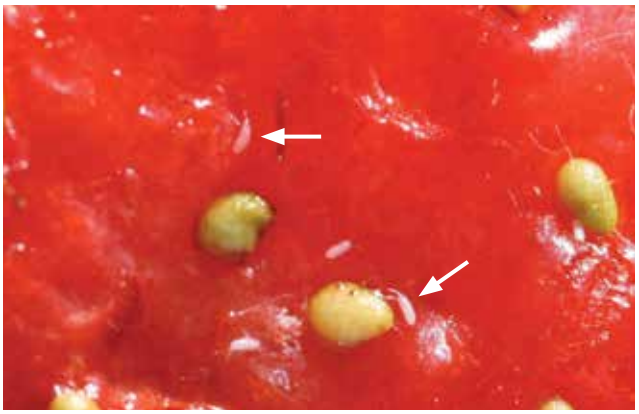
SWD adult on raspberry fruit

Hannah Burrack, North Carolina State University, Bugwood.org

SWD adult on raspberry leaf

Hannah Burrack, North Carolina State University, Bugwood.org

SWD larvae in raspberry



Hannah Burrack, North Carolina State University, Bugwood.org

SWD eggs on strawberry

What should I look for?

The presence of larvae in intact fruit prior to harvest should alert suspicion to possible SWD infestation. Signs of infestation may be confused with normal ageing of mature fruit. However fruit that has been attacked by SWD shows rapid softening and wrinkling within a few days after egg laying. Pin prick sized holes or scars on the fruit surface (from ovipositing females) from which sap exudes may also be evident. Larval feeding on fruit pulp leads to softening and collapse around the feeding site causing indentations and a wrinkled appearance that becomes very obvious after 5 days. Infested fruit rot early due to secondary infections and are prone to attack by other insects.

How does it spread?

Adult SWDs are highly mobile and can spread throughout a crop through flight. Longer distance dispersal occurs through movement of plant material (primarily fruit) infested with eggs or larvae.

Where is it now?

SWD are native to SE Asia but have recently spread to become a pest in Japan, North America and Europe.

How can I protect my farm from the Spotted-winged drosophila?

Check your farm frequently for the presence of new pests and unusual symptoms. Make sure you are familiar with common caneberry pests so you can tell if you see something different.

If you see anything unusual, call the Exotic Plant Pest Hotline

EXOTIC PLANT PEST HOTLINE
1800 084 881

PHA13-018