

## Spotted winged drosophila (SWD)

### *Drosophila suzukii*

#### What is it?

Spotted winged drosophila (SWD, *Drosophila suzukii*) is a newly emerging pest in North America. SWD is a small fly that attacks a range of soft-skinned fruit and reduces crop yield and quality through direct feeding damage and secondary infection of the fruit.

It is one of two of the 3000 species of *Drosophila* that can infest healthy crops.

The SWD prefers to lay eggs in healthy fruit including a range of berries, cherries, nectarines, plums and grapes. Apples, pears and other fruit with thicker skins are also hosts when fruit begins to rot.

#### Where has it been found?

SWD is native to Southeast Asia and is widely distributed in China, India, Korea, Myanmar, Russia and Thailand. Within Europe, this species is also widely distributed in France, Italy and Spain. Within the United States, it has been established in Hawaii since 1980. In the continental U.S., it was first detected in Santa Cruz County, California, on caneberry and strawberry plants. Since then, it has rapidly spread to new areas including Florida, Louisiana, Michigan, North Carolina, Oregon, South Carolina, Utah, Washington and Wisconsin in the U.S., and British Columbia in Canada.

#### What does it look like?

Adult SWD have a body length of 2 to 3.5 mm, an amber body colour with distinct dark banding of the abdomen, red eyes, and clear wings. The adult male has a dark spot on each wing near the tip and two small but distinct dark 'bands' on each front leg. The spot on the wings may not be apparent on newly emerged male SWD. The female is harder to identify as it is her ovipositor, unbroken banding of the abdomen, and sharp appearance to the cross vein in the wing that distinguishes her from other fruit flies. The dark bands with each abdominal segment are unbroken with the female and the cross vein is clear and distinct.



*Adult male spotted winged drosophila*  
Photograph by Martin Hauser,  
California Department of Food and Agriculture



*Adult female spotted winged drosophila*  
Photograph by Martin Hauser,  
California Department of Food and Agriculture

## What do I look for?

Most drosophila flies feed on damaged over-ripe fruit. Spotted wing drosophila is a serious pest because it attacks healthy ripening fruit as well as damaged or split fruit.

Female SWD prefer to lay eggs in ripe fruit but will also lay eggs in unripe, overripe and damaged fruit.

The female SWD penetrates the skin of soft-skinned fruit with a large serrated ovipositor. Eggs are laid just under the skin of the fruit creating a small puncture or 'sting' on the fruit surface.

Affected fruit does not show obvious symptoms of infestation until the flesh starts to break down leading to discolouration. White larvae are noticeable in the rotting flesh.

## What can it be confused with

Adult SWD look almost identical to the regular vinegar fly (*D. melanogaster*). SWD are distinguished from other *Drosophila* species present in Australia by the black spot on the wing tips in males.

## How will it spread?

The global fresh fruit trade, coupled with the cryptic nature of the larvae to hide inside the fruit undetected until after transportation, facilitate the increasing distribution of this pest. Given its very rapid spread in Europe and North America in recent years, it seem likely that *D. suzukii* will continue to expand its range in these continents to some extent. Australia currently only imports host fruit from the USA – strawberry, cherries and table grapes that could allow this pest to enter and establish in Australia.

SWD can only fly very short distances.

Human assisted transport rather than natural dispersion has spread this pest internationally.

## What should I do?

If you suspect spotted wing drosophila:

Call the Exotic Plant Pest Hotline

