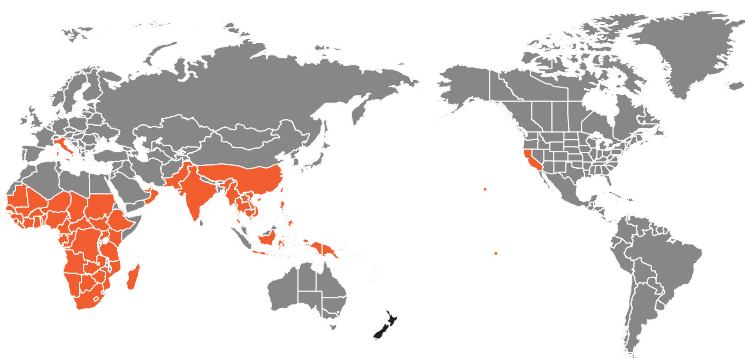


# Oriental fruit fly *Bactrocera dorsalis*

**What is it?** There are actually three different species of Oriental fruit fly (*Bactrocera dorsalis*, *B. papayae* and *B. carambolae*). These have been grouped and are known as the 'Oriental fruit fly complex'. All three are very similar and can only be distinguished by a fruit fly expert. Oriental fruit fly is a highly invasive species. It is a serious pest and with over 300 species of commercial and wild hosts, it has the broadest host range of any species of *Bactrocera*. It affects the main Prunus crops – apricot, cherry, plum, nectarine and peach, causing huge losses in unprotected fruit.

**Distribution.** In the USA, Oriental fruit fly is present in California and Hawaii. It is also present in many countries in South Asia including China, India, Pakistan, Bangladesh, Taiwan, Vietnam, Thailand and Indonesia. In Africa it is widely present.

For current distribution go to <https://gd.eppo.int/taxon/DACUDO/distribution>



**Morphology.** Eggs are white, oval in shape and measure about 0.9mm long. Larvae are 7.5-10mm long and creamy white, while pupae are white to yellow-brown with a barrel shape. Adults are 6-8mm in length, have clear wings, generally black torso and paler abdomens with a distinctive black T-shape marking. Females have an extremely long ovipositor allowing them to lay eggs under the skin of the fruit.

**Biology.** The eggs are laid below the skin of the host fruit. These hatch within a day (although this can be delayed up to 20 days in cool conditions) and the larvae feed for another 6-35 days, depending on the season. Pupation occurs in the soil under the host plant for 10-12 days at 25°C and 80% RH, but may be delayed for up to 90 days under cool conditions. The adults occur throughout the year and begin mating after approximately 8-12 days, and may live for 1-3 months, depending on temperature (up to 12 months in cool conditions).

**Dispersal.** It has a rapid dispersal ability, can fly long distances and has a broad range of host crops.

**Symptoms.** The main damage occurs when the female lays eggs in the fruit, placing at the same time fruit decaying bacteria and fungus. These eggs hatch into larvae or maggots, which in turn tunnel through the flesh of the fruit, making it unfit for consumption. Damage levels can be up to 100% in unprotected fruit.

## Preventative measures:

- Become familiar with Oriental fruit fly in all its different life stages.
- Monitoring is largely carried out by traps baited with male lure set in areas of infestation.
- Fruit should be inspected for puncture marks and any associated necrosis. Suspect fruit should be cut open and checked for larvae.
- If you believe you have found Oriental fruit fly in your orchard, call MPI's pest and disease hotline on 0800 80 99 66 or contact Summerfruit NZ.

Source: CABI

Photo – Scott Bauer, ARS - USDA



23mm



10mm



6mm

**Familiarise yourself with the common pests and diseases in your orchard so you can distinguish them from the attack of exotic organisms.**



Photo – Florida Division of Plant Industry, Florida Department of Agriculture and Consumer Services, Bugwood.org

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To report any suspected exotic organism, call MPI on:

**0800 80 99 66**