

EXOTIC PESTS AND DISEASES OF OLIVES

There are many pests and diseases both of olives and other crops overseas that are potential threats to the olive industry. The Biosecurity Plan for the Olive Industry (Version 2.0 – 2016) ([link](#)) lists five High Priority pests:

1. Olive fly (*Bactrocera oleae*). Olive fly is the most important pest of olives worldwide. It is widely distributed in the Mediterranean basin, northern and southern Africa, Western Asia, including India and Pakistan, and Northern America (California and Mexico). The female lays eggs in fruit, often when it is green, and developing larvae (maggots) burrow, usually causing fruit drop. Pupation commonly occurs in fruit. Adult flies resemble Queensland Fruit Fly, but have black markings on their wing tips.

2. Olive moth (*Prays oleae*). Olive moth is widespread in Mediterranean countries including northern Africa, and other European locations. The only host is olive and close relatives. Adult moths are silvery grey, and have long antennae. Green or light brown larvae can grow to 8 mm. The pupal stage is protected by loose silk webbing. There are normally 3 generations per season, attacking flower buds and flowers, fruit and leaves, respectively. Damage symptoms include frass (faecal pellets and webbing), or leaf mining.



Olive fly adult



Olive fly larva and damage



Olive moth adult



Olive fly larva damage

3. Leaf scorch (*Xylella fastidiosa* subsp. *multiplex* (with vectors)) and 4. Olive quick decline (*Xylella fastidiosa* subsp. *pauca* (with vectors)). The bacteria live in the plant xylem (water-conducting) vessels inhibiting the uptake of water and nutrients which leads to disease symptoms that look like water stress – called leaf scorch. A particular strain of *X. fastidiosa* subsp. *pauca* causes trees to dieback - killing them – called Olive Quick Decline Syndrome (OQDS). OQDS was first reported in olives in southern Italy in 2013, but has since been reported more widely, including in Brazil. Most introductions of *X. fastidiosa* occur with the movement of infected plant material. Once present, xylem-feeding insect vectors are the primary pathway by which the disease spreads.

5. Verticillium wilt (*Verticillium dahliae* (exotic defoliating strains)) One strain of this soil-borne fungus has been distinguished as the 'defoliating strain' (DS) on cotton in the USA. It causes wilt and death of olive trees in California and parts of Europe. Leaves in infected trees can drop when green or turn brown - often with a downward rolling along leaf margins – symptoms appear from autumn to late spring. Only some limbs or branches of a tree may be affected, giving the tree a patchy or one-sided appearance. Trees (particularly younger ones) often die or linger with reduced vigour.



Leaf scorch



Olive quick decline



Verticillium wilt (DS) infected grove



Verticillium wilt infected tree

If you suspect a new pest, call the Exotic Plant Pest Hotline on 1800 084 881

**Hort
Innovation**
Strategic levy investment

**OLIVE
FUND**

This project has been funded by Hort Innovation using the olive research and development levy, co-investment from the Australian Olive Association and Western Sydney University and funds from the Australian Government. For more information on the fund and strategic levy investment visit horticulture.com.au