

Diseases

For *Phytophthora*, see section *Phytophthora / Root Rot* on page 15.

VERTICILLIUM WILT

Verticillium wilt is a disease caused by the fungus *Verticillium dahlia*. Soil-born *Verticillium* enters via the roots and affects the water-conducting tissues in the trunk and branches. The visual symptoms are sudden browning and wilting of the canopy with the leaves remaining on the tree. Pink/brown staining can often be seen in the vascular strands of affected branches. Parts of a tree or the whole tree can be affected.

Verticillium infection can arise through planting avocados on land previously occupied by a susceptible crop, replanting after removal of diseased trees, or spreading via contaminated pruning tools.

If trees are affected by verticillium wilt, remove all infected tissue back to a point where new, unaffected growth is visible. Remove infected branches from the orchard, and burn. Disinfect pruning tools.

If verticillium is present within the orchard, ensure to regularly disinfect pruning tools and avoid pruning in wet conditions.



Figure 20: Tree with *Verticillium* wilt.

OTHER FUNGAL DISEASES

Other fungal diseases (including *Colletotrichum*) can cause branch dieback. Warm and wet conditions are conducive to infection. Young and stressed trees are particularly susceptible.

Management practices include:

- Remove tree stresses.
 - Prune any flowers off.
 - Ensure soil moisture management is sufficient.
 - Protect trees from wind.
- Apply fungicide to protect the remaining healthy material.
- Remove infected tissue and deadwood by trimming out any affected plant parts. Ensure to sterilize cutting tools between trees.