

Bark/Trunk canker

EXOTIC PEST – CALL THE EXOTIC PLANT PEST HOTLINE IF SUSPECTED

What is Bark/Trunk Canker?

Bark canker/Trunk canker is caused by several species of *Phytophthora*, only some of which are widely distributed. *P. menzei* is a serious canker pathogen on avocado in California and Mexico and is not present in Australia.

What does it look like?

- *Phytophthora menzei* invades the large structural roots, the trunk and may extend into the lower limbs of trees.
- It can cause cankers, defoliation and twig dieback. The bark may become discoloured, cracked and fissured at or below ground level.
- Cankers are normally found at the base of the trunk but can be higher, especially where wounds have occurred.
- Cankers appear as regions of dark bark which often exude red resin. Tissues under cankers appear orange-tan to brown and may have a fruity odour.
- Early foliar symptoms are similar to those caused by phytophthora root rot (*Phytophthora cinnamomi*).

What damage does it do?

- Infected trees show a gradual loss of vigour and decline at the top of the canopy.
- Moderately affected trees can appear healthy and persist for several years.
- Depending on environmental conditions and rootstock, trees may overcome the disease and lesions may heal, or the disease may progress rapidly, leading to tree death.
- Bark canker also causes avocado fruit rot, but this is usually of minor importance.

What can it be confused with?

Symptoms of *P. menzei* resemble those caused by *P. cinnamomi*. However, a major difference is that symptoms of *P. menzei* spread further up the trunk and into lower branches.



Canker caused by *P. menzei* with a brown necrotic lesion on the inner bark

John Menge, University of California



Old avocado tree with cracked, flaking bark from *Phytophthora* trunk canker caused by *Phytophthora menzei*.

David Rosen, (Eskalen and Faber 2016).



Where is it now?

Bark canker is a serious pathogen of avocado in California. It has not been reported outside of California. In California, root rot and bark canker are increasingly found together.

What are the risk materials and pathways it can move around on?

- *P. menzei* is a soilborne pathogen. It is spread in surface water, infested soil and infected nursery plants.
- Natural spread can occur over long distances via water or soil movement.
- Human-assisted spread through soil or planting material is the most likely method of long-distance dispersal.
- Spores or plant material on shared equipment, vehicles, or clothing can also spread the pathogen.
- No evidence suggests transmission with healthy fruit, but early, non-symptomatic infections in fruit could be a pathway.
- Snails (*Helix aspersa*) and ants (*Iridomyrmex humilis*) have been shown to transmit bark canker.

On-farm biosecurity practices

Developing an on-farm biosecurity plan and making sure staff follow good biosecurity practices are functional ways to reduce the risk of pests and diseases entering your orchard. Suggested practices for bacterial canker complex include:

- Monitor regularly and maintain comprehensive records of pest and disease monitoring.
- Use planting material from accredited nurseries.
- Avoid sharing equipment.
- Disinfectant washes for footwear and vehicles.
- Have a visitor and staff register.
- Use farm zoning to control movement of soil and water.



External symptoms caused by *P. menzei* – note the sugary material exudate as a viscous liquid.

If you see anything unusual, call the
Exotic Plant Pest Hotline on 1800 084 881.

**EXOTIC PLANT
PEST HOTLINE
1800 084 881**

Use trees from ANVAS accredited nurseries



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