

NOT PRESENT IN AUSTRALIA – REPORT IT – CALL 1800 084 881

PINE PITCH CANKER

Fusarium circinatum

Description

Pine pitch canker is a disease of Pines caused by the fungal pathogen *Fusarium circinatum*. This fungus is thought to have originated in Mexico and since spread around the world. It can infect the vegetative and reproductive parts of susceptible trees of all ages. Temperature and moisture both affect spore germination and infection. Ideal temperatures are between 20-25°C, and high ambient humidity is more conducive to infection. Various stress factors can predispose trees to infection including excessive nitrogen in the soil, unbalanced watering cycles, and wounds from pruning or insect damage.

The disease is associated with reduced wood production and can result in higher mortality, posing a significant threat to urban pines, pine plantations and the timber sector in Australia.



Copious resin flow associated with stem canker caused by *Fusarium circinatum*.



Pine pitch canker symptoms on branch tips.

Affected tree species

Some 57 species of Pine are considered susceptible to *F. circinatum* as well as Douglas fir.

Symptoms

Seedling to mature trees can be infected. Needles and shoots typically show symptoms, but as the disease reaches an advanced state the main stem in older trees can become infected.

The disease can infect all vegetative and reproductive parts including shoots, branches, cones, seeds, stems, and exposed roots.

Wilting and yellow-green discolouration of needles are usually the first symptoms of Pine pitch canker. Affected needles subsequently turn red, shoots droop and branch dieback occurs away from the point of infection. Branch dieback progresses throughout the crown. Copious resin typically bleeds from infection sites resulting in a

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characteristic honey-coloured appearance. In young trees infection can occur close to ground level, causing stem girdling and subsequent mortality. In older trees large, sunken stem lesions can develop where the bark has been killed. Small, salmon pink fruiting structures called sporodochia may sometimes be observed on the bark of affected stems.

Suspected cases must be reported.

Time most likely to be seen

Symptoms appear in autumn and continue through winter and spring. In Mediterranean climates branch tip cankers tend to progress faster in spring than in autumn.

Can be confused with

Pitch canker can be confused with Shoot wilt caused by *Diplodia sapinea*, due to the general appearance of shoot blight and needle discolouration. However, *Diplodia* infection causes a characteristic blue stain in affected wood, and fruiting bodies are black.

Further information

- Pest and Diseases Image Library – <https://www.padil.gov.au/pests-and-diseases/pest/136630>.
- Atlas of Living Australia – <https://bie.ala.org.au/species/NZOR-6-105208>.
- Global Biodiversity Information Facility – <https://www.gbif.org/occurrence/search?taxonKey=6JT3V>.
- European and Mediterranean Plant Protection Organization Global Database – <https://gd.eppo.int/taxon/GIBBCI>.



Credit: B. Summerell, Royal Botanic Gardens, Sydney, PADIL

Resin flow observed on branches.

MyPestGuide Trees

For information on tree pests in Australia from your browser or favourite mobile platform visit:

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