

Landholders' guidelines for managing dead and dying *Pinus spp*

January 2017

Pine nematodes

Pine nematodes may be linked with rapidly dying pine trees (*Pinus* species). Most pine nematodes feed on fungi inside the tree without causing problems. There are a few species of pine nematodes including some *Bursaphelenchus* species which feed directly on plant cells. In these cases feeding by pine nematodes can lead to rapid wilting and tree death.



Assessment and planning

Pine trees infested with *Bursaphelenchus* nematodes characteristically die from the top downwards within a few months of the onset of symptoms (Figure 1). Infested trees cannot recover.

Obtain quotes from professional arborists for removal of your tree.

Obtain appropriate approvals before you remove your tree.

Destruction

Wood chipping a pine tree suspected of being infested with *Bursaphelenchus* nematodes is recommended. Wood chipping **reduces the risk of survival** of both the nematodes and any beetles which could carry the nematodes from infested to healthy pine trees in the area.

Grind the stump to below ground level or remove by excavator if other pine trees are nearby.

If possible pile the woodchips back over the stump and cover the pile with black plastic.

Covering the pile with black plastic traps any beetles which survive the chipping process, increases the internal temperature of the pile to assist in killing the nematodes and begins decomposition of the woodchips.

If it is not practical to retain the woodchip pile on site the woodchips could be relocated to another site but must not be placed near living pine trees. Nematodes may move into living pine trees through wounds in the trunk or roots.

Nematodes in the woodchip pile are likely to die within four to six weeks after this time the woodchip could be used as mulch.

Decontamination

Clean equipment, tools and boots before leaving the site so that nematodes are not spread from an infested tree to a healthy tree in sap, soil or plant debris.

Brushes, high pressure water spray and disinfectants could be used. Chainsaws could be wiped over with a decontaminant and left to dry in direct sunlight, especially if they are to be used on a healthy tree in another location.

Launder or decontaminate overalls, hats, gloves and boots before using them at another location.

More information

www.dpi.nsw.gov.au/biosecurity

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