

KAURI DIEBACK ID FIELD GUIDE

THIS GUIDE IS INDICATIVE ONLY AND THE SYMPTOMOLOGY OF PTA IS STILL UNDER RESEARCH. IT IS IMPORTANT TO NOTE THAT THESE SYMPTOMS DO NOT NECESSARILY INDICATE KAURI DIEBACK AND DISEASED TREES DO NOT ALWAYS SHOW ALL THE SYMPTOMS.

WHAT IS KAURI DIEBACK?

Kauri dieback disease, also known as *Phytophthora taxon Agathis* (or PTA) was identified as a new disease to science and major threat to kauri in April 2008.

The disease is specific to kauri and is killing trees of all ages and sizes.

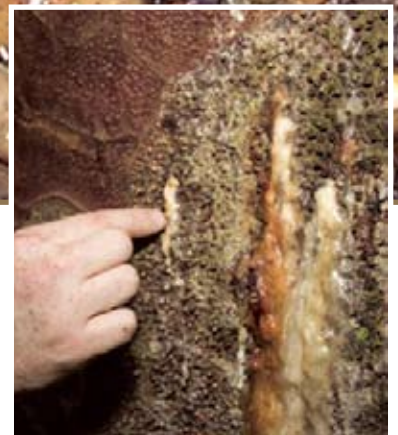
PTA is a fungus-like disease that is spread in soil and water via two different forms of spores. The soil-borne spores have a hard outer shell that allows survival in soil and transportation within soil on equipment (for example footwear, earth moving machinery), while the water-borne spores have a small tail which allows movement through water (catchments or water films in soil) to other areas of kauri.

WHAT ARE THE SYMPTOMS?

Infected kauri can show a range of symptoms including globs of gum at the base of trunks often developing into collars of gum encircling the lower trunks, yellowing leaves, reduced leaf size ("little-leaf syndrome"), thinning canopy, dead branches and sudden death.



Small globular bleeds at the base of the trunk are symptomatic of early infection.



Above: Dead branches and a thinning canopy resulting in stag-heads

Right: Affected kauri trees at Huia, Waitakere Ranges





WHAT ELSE CAN CAUSE KAURI TO DECLINE?

Other factors that can cause a decline in the health of kauri include living “on the edge” (unprotected by other trees), lack of water or “wet feet”, strong winds, soil compaction, disease and root disturbance. If no gum can be seen on the lower trunk of a sickly kauri, it may be suffering from one of these stressors.



Gummosis: fresh bleeding gum around base of tree

WHAT YOU CAN DO TO HELP

- › Make sure shoes, tyres and equipment are clean of dirt before and after visiting kauri forest.
- › Clean shoes and any other equipment that comes into contact with soil after every visit, especially if moving between bush areas.
- › Keep to defined park tracks at all times. Any movement of soil around the roots of a tree has the potential to spread the disease.
- › Keep your dog on a leash at all times. Dogs can inadvertently spread the disease if they disturb the soil around the trees.



Gum can eventually form a “collar” around whole lower base of tree

The collaborative effort to address kauri dieback includes MAF Biosecurity New Zealand, the Department of Conservation, Auckland Regional Council, Northland Regional Council, Environment Waikato, Environment Bay of Plenty and Maori