



PHYTOPHTHORA DIEBACK

What are the Effects on the Environment?

Bushland infested with Phytophthora dieback still retains important conservation values. Therefore, it is important to retain and maintain remnant bushland even when it is affected by dieback. When Phytophthora dieback spreads to bushland, it kills many susceptible plants, resulting in a permanent decline in the diversity of the bushland.

- Dramatic change of community structure
- Local or general extinction of populations of some plant species
- Reduced habitat and quality for dependant flora and fauna
- Loss of native fauna species
- Invasion of weeds
- species
- Other land effects caused by the loss of vegetation.

For More Information

Contact

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Threatens about 45% of native species in southwestern Australia

What is Phytophthora Dieback?

It is a deadly plant disease caused by the microscopic water mould, *Phytophthora cinnamomi*, commonly known as Pc, present in the soil.

It attacks the roots of the plant causing them to rot. Scientists believe that Pc was introduced by the early settlers who brought live plants and soil to Australia.

What does it Attack?

It reacts with host plants in various ways ranging from symptomless infection of root tissue to complete invasion of the root and stem storage tissue, leading to plant death.

Some species are resistant: please refer to: *Native Garden Plants resistant to Dieback* pamphlet from Murdoch University, Murdoch. Susceptible plants are called "indicator species".

Where is it?

The disease is widespread and has spread into a wide range of vegetation types in rural, agricultural, horticultural and suburban areas.

Most bushland in Glen Forrest, Darlington and Mundaring is infected

Confined to areas with 400 mm - 600 mm annual rainfall

How is it Spread?

- Via microscopic spores; only when there is significant moisture in the soil.

- Through soil and water.
- In sloping areas, spores rapidly move downwards in water flows (slower up-slope).
- Root-to-root contact.
- Human activity causes the most significant, rapid and widespread distribution.
- Forest recreation eg bushwalking, picnicking, trail bike riding.
- Driving infested vehicles.
- Stock and animal movement.
- Tree planting and other bush restoration projects.
- By infected plants bought from nurseries.

Symptoms?

- Plant deaths; observe the banksias and shrub layer.
- Peak expression in summer/autumn.
- Dark discoloration of stem.

How does it Survive and Persist?

- In soil that is warm and moist and plant tissue during dry soil conditions.
- Many plants species which are not susceptible can act as a host for the pathogen-enabling it to persist indefinitely.
- Banksias provide Pc with a food base and protection from desiccation in summer.

