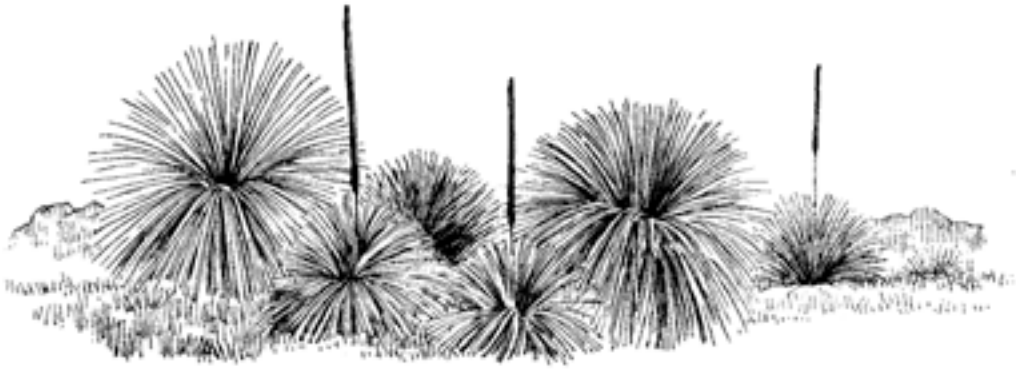
Phytophthora Newsletter



Department for Environment and Heritage **March 2007**

Phytophthora distribution map for Mount Lofty Ranges

A map with the known distribution of *Phytophthora* infestation in the Mount Lofty Ranges has been published on the SA-Department for Environment and Heritage (DEH) website together with a "NOTE FOR MAP USER", which provides the reader with additional information on the *Phytophthora* data displayed on the map.

Container plants

Surveys conducted in South Australia in 1973 and Western Australia in 2001-02 of container plants have shown that *Phytophthora* species were present in 10-20% of container plants. Results from the Western Australia survey showed that potting mix used for the container plants could be a potential source of *Phytophthora*. Although the potting mix may have been treated for pathogens before use, it can easily become contaminated through poor hygiene.

Container plants may become infested with *Phytophthora* through the use of contaminated potting mix and other growing media, pots, trays and irrigation water during propagation. Planting out of these infested container plants will easily introduce the pathogen into un-infested areas within the natural environment, a park or your garden and infect new host plants.

To prevent the introduction of *Phytophthora* into the natural environment, a park or your garden, please ensure that

- Potting mix is ideally stored on a hard and dry surface, or alternatively on a sheet of plastic on the ground
- Tools, pots and trays are disinfected after use
- Pots and seedling trays are elevated on benches to prevent direct contact with soil and waste water
- Use water that is free from *Phytophthora.* If in doubt, treat water with chlorine
- Unhealthy looking plants are not planted out.

Photo: Dennis May

Ideal storage of potting mix

Further information can be obtained from the *Phytophthora* Plant Propagation Guidelines (DEH) or from the Best Management Practice Guidelines 2003 published by Nursery Industry Accreditation Scheme, Australia (NIASA).

Updated *Phytophthora* Management Guidelines

The Department for Environment and Heritage (DEH) has released new guidelines for the ongoing management of the Root Rot fungus *Phytophthora*. Produced by the *Phytophthora* Technical Group, the guidelines are an update to the first published guidelines in 2003.

Front cover of 2006 Phytophthora *Management Guidelines*

The 2006 Guidelines provide government and non-government agencies, private landholders, community groups and individuals with two new approaches in the management of *Phytophthora* in South Australia. The first approach is to assume that *Phytophthora* is present in all vulnerable areas of the state and that hygiene measures are adopted in all of these areas. In the second approach, specific locations of *Phytophthora* infestation have been identified through soil testing, and hygiene measures are applied according to particular zones within the vulnerable areas.

The *Phytophthora* Management Guidelines can be downloaded from the DEH website or contact DEH for a hard copy.

Phytophthora and drought

Drought conditions lower plant vigour and weaken the roots of plants making them more susceptible to infection by *Phytophthora*. Plants resistant to *Phytophthora* under ordinary circumstances can become susceptible as a result of drought. When heavy rainfalls break drought conditions thereby creating ideal conditions for infection by *Phytophthora*, then unusually severe epidemics of disease may occur.

Dormant spores, called chlamydospores play an important role in the long-term survival of *Phytophthora*. These spores have a thick cell wall, which makes them resistant to adverse conditions. Chlamydospores are formed during dry periods in soil, gravel and plant roots and in water in the absence of adequate nutrition and oxygen. Chlamydospores for *Phytophthora cinnamomi* are known to remain dormant for up to 10 years in naturally infested soil and for up to 23 years in water. Chlamydospores will germinate once conditions become favourable again and infect new host plants.

The single most important cause in the spread of *Phytophthora* appears to be through the transport of infested soil, gravel, water and plant material by people. Although soil generally doesn't stick to machinery, vehicles, bikes, equipment, tools and footwear during dry soil conditions, *Phytophthora* may still get spread when infested material is moved to another location. Machinery used in grading a road or trail, logging, fire fighting, road construction and maintenance may all spread *Phytophthora* within the existing infestation or to a new location. Hygiene measures should be conducted to prevent the spread of *Phytophthora*.

New *Phytophthora* infestations

The following infestations have been reported since September 2006:

Location	Status
Mount Lofty Ranges	
Horsnell Gully, Rockdale Hill track	Suspected[1)]
Scott Creek CP, helipad track	Suspected
Charleston CP, fire access track	Suspected

1) Suspected = Symptoms of *Phytophthora* infestation are present in plants and *Phytophthora* has not been confirmed by soil testing or soil testing has not been conducted.

Please report new *Phytophthora* infestations to DEH.

For further information and previous issues of the *Phytophthora* Newsletter please contact
Department for Environment and Heritage (DEH) – (08) 8552 0306
Your local National Park Office
Refer to the brochure '*Phytophthora*, root-rot fungus is killing our plants!', which is available at selected park offices
DEH website: http://www.environment.sa.gov.au/biodiversity/plantsand.html
NIASA website: http://www.ngia.com.au/home.asp