PAM04263

November 2006

Marri decline

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Marri Bulletin No. 1 A series outlining research findings associated with marri health in south-west Western Australia

Introduction

A severe canker disease has been causing decline in *Corymbia calophylla* (marri) across their natural range in south-west Western Australia for some years now. Cankers are a symptom caused by the death of areas of bark and the cortex tissue below that, and are usually caused by fungi.

Cankers are present on marri across its natural range and occur on trunks, branches and twigs of trees of all ages. The disease appears to be non-recoverable, and given the large number of infected trees, the future health of marri in the south-west is of serious concern.

The fungal pathogen *Quambalaria coyrecup* has been identified as the causal agent. The fungus is thought to be an endemic (native) pathogen, but the reasons for this recent disease epidemic are undetermined. Thus, it is of immediate importance to determine the factors driving this decline and develop control and management options.

Cankers on marri in Brunswick Junction.

Control and management

While there have not yet been control or management options developed for this disease, fencing off remnant stands of trees to encourage seedling recruitment and planting understorey species is encouraged.

A survey is available on the PATH website for landowners wanting to assess the health of marri on their property. This can be returned to the contacts provided below and will provide a valuable addition to our current knowledge on the incidence of this canker disease.

More Information

For further information on the work on marri canker and how you can help contact Trudy Paap on (08) 9360 6961 or email t.paap@murdoch.edu.au or visit the CPSM and PATH websites:

http://www.cpsm.murdoch.edu.au/

http://wwwscience.murdoch.edu.au/centres/others/path/

Forest and Wood Products Research and Development Corporation are acknowledged for financial support towards the research.

Supported by the Wandoo Recovery Group

CPSM Centre for Phytophthora Science and Management

PATH Program for Australian Tree Health

Department of Environment and Conservation

MURDOCH UNIVERSITY PERTH, WESTERN AUSTRALIA

Identifying the symptoms

The canker disease can easily be recognised by the following identifying features:

The bark surrounding the affected area cracks and is eventually shed. Large amounts of kino (gum) are produced, staining the limb or trunk dark red.

The pathogen *Quambalaria coyrecup* is sometimes observed sporulating on the diseased area, visible as a powdery white mass.

Large target-like lesions are formed as a result of a progressive 'tug-of-war'. The tree produces a defence response that 'walls off' the diseased region, but with time the fungus manages to penetrate this barrier and reinvade.

Once the disease has progressed to the point of girdling the host it has effectively ring barked it, resulting in the death of the affected limb or the entire tree if the trunk has been girdled. Scarring as a result of the canker is evident.