

‘I heard it on the grapevine’

For immediate release

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Frontline research protects grapevines from exotic diseases

Currently, if an exotic disease is found in a vineyard, grapevines that have or are likely to have the disease are removed, burned and/or buried. This eradication strategy can incur significant costs to industry and the community if vineyards are re-established and returned to previous levels of production and quality.

“The challenge is to develop alternative strategies that result in the eradication of the exotic disease while minimising negative economic and social impacts,” explained Dr Bob Emmett, Senior Research Scientist, from the Victorian Department of Primary Industries.

Australian horticultural industries have experienced the devastating effects of exotic disease incursions in the past. “The citrus canker outbreak that occurred three years ago in Queensland, resulted in the destruction of half a million trees and a ban on planting until just recently. However, in the case of black sigatoka, which affects bananas, removal of the entire plant was unsustainable; an alternative strategy was developed that involved partial plant removal and chemical control,” Dr Emmett said.

The Cooperative Research Centre for National Plant Biosecurity has established a research project to optimise strategies for the eradication of exotic plant disease incursions on perennial plants. The project, led by Dr Mark Sosnowski, Senior Research Officer, from the South Australian Research and Development Institute (SARDI), will involve researchers from SARDI, the Victorian Department of Primary Industries and the Northern Territory Department of Primary Industries, Fisheries and Mines.

Estimating the ability to eradicate an exotic disease is difficult when the disease is not in Australia. Dr Emmett will be involved in the development of a protocol for evaluating new approaches to disease eradication. In the protocol “local diseases with similarities to exotic diseases will be identified and used as models to evaluate alternative disease incursion management strategies. Successful alternative strategies will then be validated in overseas vineyards that have the exotic disease,” Dr Emmett said.

“The initial disease to be investigated is black rot, which occurs in many grape producing regions in North and South America. Black rot has caused up to 80 per cent crop loss in these countries. The disease is regarded as a high priority threat to the Australian wine industry. A trial will be set up to evaluate an extreme pruning strategy for eradication of black rot using the local disease, black spot as a model. The strategy aims to substantially reduce the cost of vineyard re-establishment after disease eradication.”

If successful, the black rot eradication strategy will be included in the Viticulture Industry Biosecurity Plan and further research may be initiated to evaluate alternative eradication strategies for other high priority exotic diseases such as grapevine leaf rust.

This project is part of the Riverlink research network that encourages collaboration between regional research agencies in Sunraysia and the Riverland.

ENDS

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