

Drastic pruning technique to tackle exotic grapevine diseases



A new drastic pruning technique might be the key to efficiently removing potentially disastrous plant diseases from Australian grapevines.

Black rot in particular is an exotic disease which causes havoc in grapevines across the world. The fungus infects the leaves, stems, petioles and rots berries of grapevines.

"The current strategy to eradicate such a plant disease is based partly on the complete removal of whole-affected plants, followed by burning and burial," South Australian Research and Development Institute research scientist Dr Mark Sosnowski said.

"However, this practice incurs significant costs to industry, especially when perennial species are involved."

"Alternative strategies need to be developed that meet eradication goals while reducing the economic and social impact."

Leading a Cooperative Research Centre for National Plant Biosecurity project, Dr Sosnowski set up a trial in the Sunraysia district of Victoria in collaboration with Dr Bob Emmett (Department of Primary Industries, Victoria), using the endemic disease, Black spot (Anthracnose), as a model to develop and assess a drastic pruning protocol for disease eradication.

"The viticulture industry has been selected as an initial pilot to develop alternative pruning techniques to remove the harmful plant pest but allow enough residual plant material to guarantee rapid grapevine regeneration," Dr Sosnowski said.

"In collaboration with Cornell University, the project team has also established a trial in the USA to validate the pruning strategy on black rot infected vines."

"The results from this research have the potential to save the Australian wine industry more than \$18 million in lost production and vineyard re-establishment costs."

Dr Sosnowski says plant biosecurity is all about protecting the economy, community and the environment from problems associated with plant pests and diseases.

"Due to Australia's geographic isolation and strong focus on quarantine, we're in the fortunate situation of being free of many significant pests that adversely affect agricultural production in other countries."

"Fewer pest and disease problems provide an enormous market advantage to Australian producers."

"However, to maintain this highly-regarded position within the global wine industry, controlling exotic pests and diseases is paramount. The threat of this disease to our wine industry is heightened by globalisation and international trade."

Dr Sosnowski will be one of the many scientists presenting their research on a myriad of biosecurity topics at the first international *Global Biosecurity 2010 Conference* to be held in Brisbane in February.



The conference will bring together biosecurity experts to discuss best practice and how Australia can maintain effective biosecurity measures which are vital to keeping our agricultural industries and the environment healthy.

The conference is a partnership event between the CRC for National Plant Biosecurity, Australian Biosecurity CRC for Emerging Infectious Disease and the Invasive Animals CRC.

The *Global Biosecurity 2010 Conference* is sponsored by: the Grains Research and Development Corporation (GRDC); the Australian Centre of Excellence for Risk Analysis (ACERA); Queensland University of Technology (QUT) and the Australian Quarantine and Inspection Service (AQIS).

Registrations for the conference are now open. Visit www.globalbiosecurity2010.com

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