

EFFECTS OF METALAXYL AND PHOSPHONATE ON PHYTOPHTHORA ROOT ROT OF WOLLEMI PINE.

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ABSTRACT

EFFECTS OF METALAXYL AND PHOSPHONATE ON PHYTOPHTHORA ROOT ROT OF WOLLEMI PINE.

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The Wollemi pine (*Wollemia nobilis*) was first shown to be susceptible to *Phytophthora cinnamomi* in pot trials in 1999, and since then precautions have been taken to prevent the inadvertent introduction of the pathogen into the wild population within Wollemi National Park, Australia. However, in 2005 *P. cinnamomi* was detected in soil surveys following observations of disease [Journal of Plant Pathology \(2008\), 90 \(2, Supplement\), S2.81-S2.465 S2.413 004b_testoOFFERED_S295_466 17-07-2008 11:15 Pagina 413](#) symptoms at the site. On the basis of systematic transects, subsequent surveys established the precise location of the pathogen, which appeared to be confined to two areas within one of the Wollemi pine stands. Concurrent to the on-going monitoring of pathogen spread, there was an urgent need to establish control strategies for managing this problem. A study was initiated to investigate the effects of metalaxyl and potassium phosphonate on *Phytophthora* root rot of Wollemi pine. Post-infection soil drenching of potassium phosphonate was shown to be effective in controlling this disease in a greenhouse trial. No phytotoxicity was observed on plants treated with phosphonate. However, neither foliar spray of phosphonate nor soil drenching with metalaxyl effectively controlled the disease. Implications of these results in relation to management strategies are discussed.

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