WILL *PHYTOPHTHORA CINNAMOMI* BECOME RESISTANT TO PHOSPHITE WITH ITS INCREASING USE?

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Phosphite is increasingly being used as a means of control for dieback caused by *Phytophthora cinnamomi*. We wish to study the likelihood of *P. cinnamomi* evolving resistance to phosphite, given the clonal populations of the fungus present in Western Australia. We have collected isolates of *P. cinnamomi* from areas where phosphite has been used intensively for up to 15 years (avocado orchards) as well as areas of less frequent use and no use of phosphite. Our testing involved stem inoculating a clonally propagated host (*Leucadendron* sp.) that was treated with one of three levels of phosphite (0%, 0.25% and 0.5%). We measured the extent of colonisation by each *P. cinnamomi* isolate

after eight days of incubation in a controlled temperature plant growth cabinet. Preliminary results suggest that less aggressive isolates are not present in populations obtained from areas where phosphite has been used. Also, the few isolates that colonise the phosphite treated host to a large extent, all come from areas of phosphite use. Research is continuing to replicate these results and investigate their significance to the control of *P. cinnamomi* using phosphite.

MEETING HANDBOOK

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