BIOLOGICAL CONTROL OF *PHYTOPHTHORA CINNAMOMI*: THE POTENTIAL OF WESTERN AUSTRALIAN NATIVE LEGUME SPECIES TO REDUCE INOCULUM LEVELS IN SOIL.

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Sporulation by *Phytophthora cinnamomi* is significantly suppressed in forest sites dominated by *Acacia pulchella* compared to forest sites dominated by species of Proteaceae (1). In this investigation an inoculation trial was conducted to determine the effect of 14 other Western Australian native legumes on population levels of *P. cinnamomi* in the soil compared to *Banksia grandis*. Direct plating of soil onto *Phytophthora* selective agar was used to quantify inoculum levels. *A. alata, A. extensa A. latericola, A. pulchella, A. stenoptera, Kennedia coccinea* and *K. prostrata* showed low mortality and decreased inoculum of *P. cinnamomi* in soil compared to *B. grandis*. *A. drummondii, A. urophylla* and *Viminaria juncea* also showed low mortality but had no effect on inoculum of *P. cinnamomi. Bossiaea aquifolium, Daviesia decurrens, Hovea chorizemifolia, Labichea punctata, Mirbelia dilatata* and *B. grandis* showed high mortality due to *P. cinnamomi* infection. Of these species population levels were only quantified from *B. grandis* pots for comparison.

1. Shea, S.R., Gillen, K.J. and Kitt, R.J. (1978). Variation in sporangial production of *Phytophthora cinnamomi* Rands on jarrah (*Eucalyptus marginata* Sm.) forest sites with different understorey compositions. Australian Forestry Research, 8:219-226.

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