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## Results of Plant Health Diagnosis

**Name:** John Ball  
Walker Corporation

**Address:** Mezzanie Level, Pran Central, Prahran VIC 3181

**Sample Location:** Kew Cottages

**Description of Task:**

**Tested By:** Paul Clements **Collector:** Ian Smith

Identify the cause of dieback

**Date of Test:** 27/2/2006 **Our Ref:** 1509

Sample Number	Sample Type	Sample Description/Test	Test Result
1	Soil	3m south of Bishop Pine 0-10cm, Sample moist	Phytophthora cinnamomi
2	Soil	3m south of Bishop Pine 20-30cm, Sample moist	Phytophthora cinnamomi
3	Soil	3m south of Bishop Pine 40-50cm Sample moist	Negative Result
4	Soil	3m south of Bishop Pine 90-100cm, Sample wet	Negative Result
5	Soil	3m north of Bishop Pine 0-10cm, Sample dry	Negative Result
6	Soil	3m north of Bishop Pine 20-30cm, Sample moist	Negative Result
7	Soil	3m north of Bishop Pine 40-50cm, Sample moist	Phytophthora cinnamomi
8	Soil	3m north of Bishop Pine 90-100cm, Sample wet	Pythium spp.
9	Collar	Wood core at base of tree, resin bleeding	No pathogens isolated
10	Stem	Wood core from trunk of tree	No pathogens isolated

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**Diagnosis:**

Results of testing suggest that *Phytophthora cinnamomi* is most likely the cause of the tree dieback. However while some pines species are susceptible, little is known of the susceptibility of *Pinus muricata* to this pathogen. The samples taken at 100cm showed the presence of very wet soils at depth. This can predispose a susceptible tree to disease caused by this pathogen. Symptoms suggests infection probably developed over the last 1-2 years.

**Recommendation:**

Stop any additional watering. Investigate cause of wet soils. Apply metalaxyl fungicide (Ridomil) at rate as per label. Should decline continue and tree removal is required, then hygiene measures should be taken during operations to reduce the chance of spread of the pathogen across the gardens. If replanting is to be carried out then I recommend the planting of a tree tolerant of the pathogen. Should a pine be preferred, then *Pinus elliotii* is known to tolerate the pathogen

**Additional Remarks:**

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