Phytophthora in macadamia

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Points to consider

Diseases caused by *Phytophthora* are common in macadamia, reduce orchard productivity and should be controlled.

The soilborne *Phytophthora cinnamomi* is the most common species affecting macadamia worldwide. However, other species of *Phytophthora* cause significant diseases and tree death in other countries.

Most commercial cultivars are susceptible to *Phytophthora,* however, some cultivars are tolerant and may withstand infection for much longer period than the susceptible cultivars before significant yield loss is noticeable.

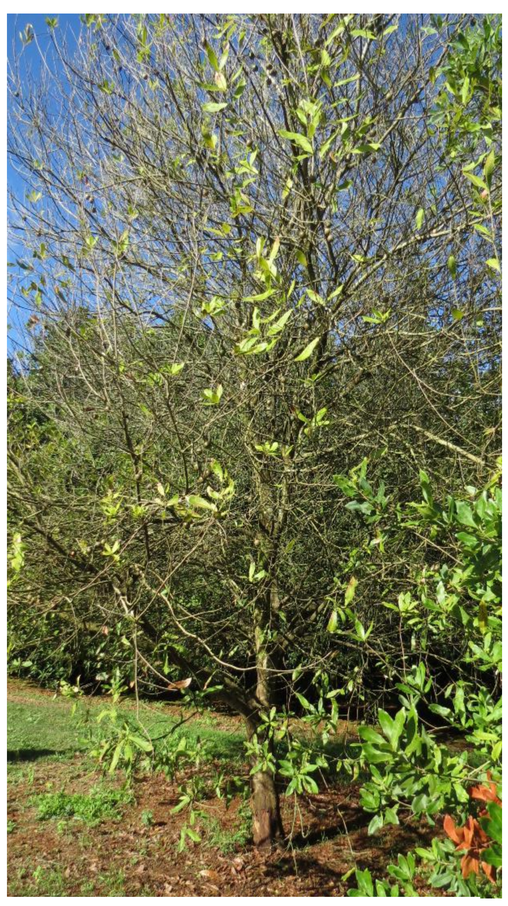
Systems approach from clean planting materials, orchard selection and preparation to maintenance of healthy mature trees is important to maintain orchard productivity.

Top 10 Susceptible Varieties

H2	842
816	849
508	A4
333	A16
814	246

Symptoms caused by *Phytophthora* species

Trunk Canker



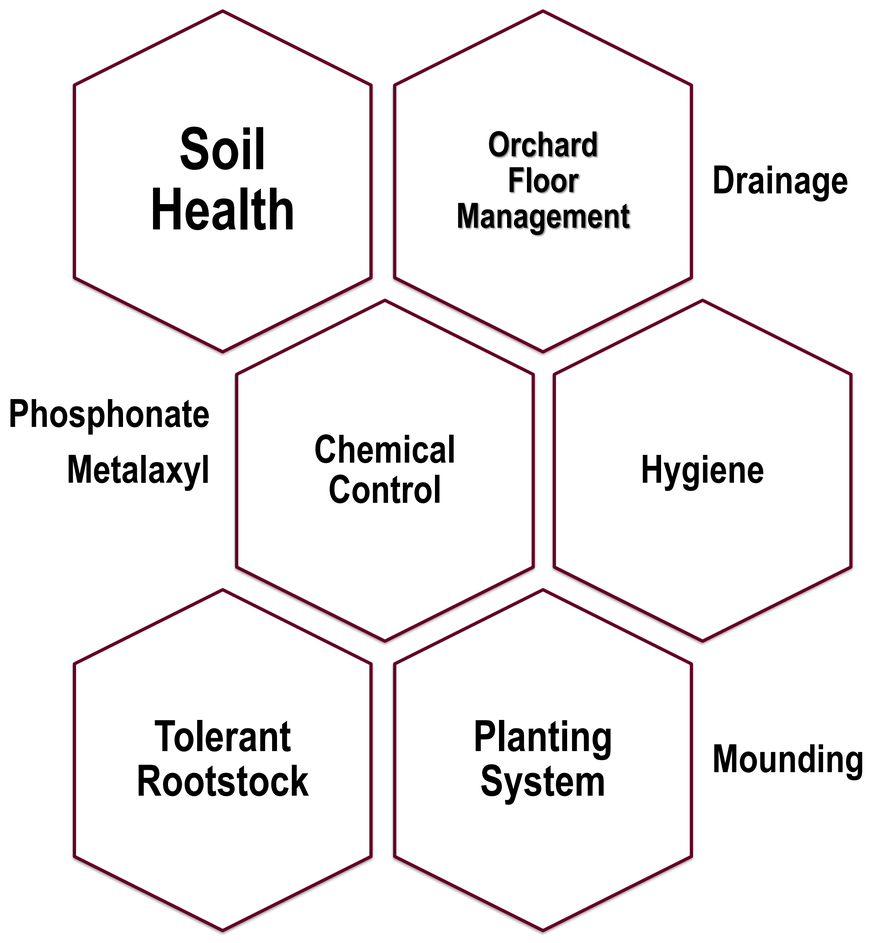
Slow Decline & Dieback

Phytophthora Root Rot

Macadamia Quick Decline

Phytophthora Blight

Control Strategies



Tools for assessing tree health

Tool	Activity	Signal	Interpretation
Root network check	Routine check of feeder roots under the canopy	Rare to few 'snapping' roots within 0-50 cm depth	High risk of tree death/dieback under severe/mild weather conditions
Yield trend	Monitor trend of tree productivity	Unexplainable reducing trend	Most likely poor soil health
Canopy look	Observe noticeable changes in leaf flush pattern	Increasing sparse leaf canopy	Poor soil health and root system
Tree vigour	Any noticeable excessive flowering with no new flush	Off-shoots with poor canopy density, stem canker/bleeding wounds	Very poor root system, scion at risk of death

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