

BOTRYOSPHAERIACEAE DIEBACK

Macadamia
Protection
Programme



Background Fungi within the family Botryosphaeriaceae are highly diverse and are found in almost all geographical and climatic areas. They have a wide host range, although they occur mainly on woody hosts. They exist as one or more of the following: saprophytes (where they feed on dead matter), endophytes (where they live within the plant without causing any negative side effects), or as opportunistic pathogens (where they cause disease when the plant becomes stressed).



Pathogen type
Fungus

Family
Botryosphaeriaceae

Genus
Botryosphaeria

Symptoms

- Usually, a point of gummosis (bleeding) occurs on the affected branch or main trunk
- Leaves turn brown, and dead leaves remain attached to the tree
- Wood discoloration that often appear wedge shaped (cross-section through affected wood)



Disease Species in this family may enter a pathogenic life cycle when the host plant is experiencing stress, such as drought, nutrient deficiencies, mechanical damage and damage caused by pests and/or other pathogens. Stressed macadamia trees infected with Botryosphaeria are at risk of dieback and decline. Macadamias growing at the ends of the rows and/or in poor, shallow soil appear to be the most susceptible. However, an increase in macadamia dieback in both South Africa and Australia has been observed in orchards where there are no obvious physical or nutritional barriers to growth. These findings suggest that members from Botryosphaeriaceae are becoming a more serious threat to macadamia and may be attributed to the changing climate and adverse conditions occurring more often.

Treatment

- Remove infected branches to a point where no wood discoloration remains
- Use clean pruning equipment and paint the exposed cut surface with white paint
- Orchard health management



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