MACADAMIA HUSK ROT

Macadamia Protection Programme

Background Husk rot is a fungal disease of the pericarp or husk that can cause premature nut drop and internal discoloration. Multiple fungal genera are known to cause husk rot including Diaporthe (Phomopsis husk rot, black lesions) Colletotrichum (Anthracnose husk rot, black lesions with orange concentric fruiting bodies on lesions in ideal climatic conditions) Calonectria (Calonectria husk rot, white mycelia black lesions) growing on and Botryosphaeria (Botryosphaeria husk rot, black shiny lesions covered with mycelia and fruiting bodies). Different species, however, differ in their ability to cause disease. both in terms of incidence and severity. These genera can occur separately or simultaneously on diseased tissue. All of the above should be taken into consideration when implementing management options.

Akinsanmi OA & Drenth A (2016) Characterisation of husk rot in macadamia. *Annals of Applied Biology* 1: 104-115.

- Twiddy et al. (2024) Biology and pathogenicity of fungi causing husk rot of macadamia in South Africa. *European Journal of Plant Pathology* 170: 501-515.
- Maduke et al. (2025) Botryosphaeriaceae associated with racemes, fruits and leaves of Macadamia in South Africa. Plant Pathology 0:1-15



Anthracnose husk rot Colletotrichum Phomopsis husk rot Diaporthe Calonectria husk rot Calonectria

Botryosphaeria husk rot Botryosphaeria



Symptoms

- Soft and spongy black lesions on pericarp
- Premature nut drop
- Inadequate maturation
- Internal discoloration

Disease Husk rot symptoms are often observed after prolonged (2 - 5 days) wet weather conditions with air temperatures above 15°C. Infection can occur during nut development and remain latent or dormant until disease development is triggered. It is hypothesized that disease is most commonly triggered by wounds caused by insect damage and/or mechanical damage such as wind rub combined with favourable climatic conditions.

Treatment

- Insect control in orchards
- Removal of infected tissue
- Application of fungicides

Registered product

Refer to MacShield

