MACADAMIA HUSK ROT

Macadamia Protection Programme

Background Husk rot is a fungal disease of the pericarp. The disease is becoming more important in South African macadamia orchards and could significantly reduce yield if not controlled effectively. There is uncertainty regarding the causal agents of husk rot, with multiple genera frequently isolated from diseased nuts. However, both Diaporthe species (Phomopsis husk rot) and Colletotrichum species (Anthracnose husk rot) have been identified as pathogenic to macadamia pericarps. 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. A recent study suggested that macadamia nuts in the earlier stages of development, such as match-head and pea size, are more susceptible to natural infection than 50% expanded or mature nuts. All of the above should be taken into consideration when implementing management options.

Pathogen type	Anthracnose husk rot	Phomopsis husk rot
Fungus	*Colletotrichum sp.*	*Diaporthe sp.*

Symptoms

- Soft and spongy black lesions on pericarp
- Premature nut drop
- Internal discoloration
- Shorter shelf life

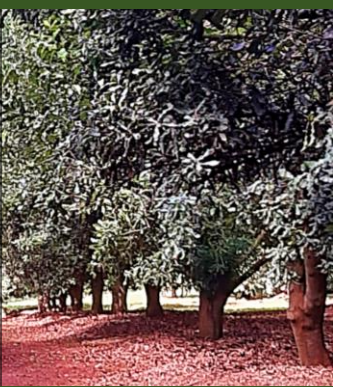
Disease Husks are usually infected during prolonged (2 - 5 days) wet weather conditions with air temperatures above 15°C. It is hypothesized that the most common mode of infection is through wounds caused by insect damage and/or mechanical damage such as wind rub. Infection can occur during nut development and remain latent or dormant until disease development is triggered by stress.

Treatment

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

Registered product

- Bellis



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