



KALRO/NAVCDP Programme Factsheet No.073/2024

## CROWN ROT DISEASE OF BANANA

**Disease name:** Crown rot disease of banana (*Musicillium theobromae*, *Colletotrichum musae*, *Ceratocystis paradoxa*, *Lasiodiplodia theobromae*, *Nigrospora sphaerica*, *Cladosporium spp.*, *Acremonium spp.*, *Penicillium spp.* and *Aspergillus spp.*, *Fusarium spp.*)

**Crop affected:** *Banana*



Crown rot symptoms. A, healthy crowns, and B to F diseased crowns with superficial mycelium and/or rot. (Lassois et al., 2010b)

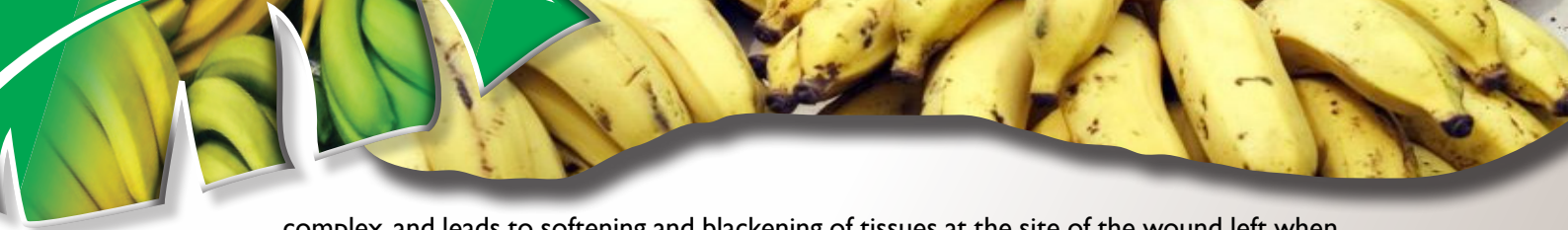
### Description of the disease

Crown rot is a fungal postharvest disease that affects export bananas in all banana-producing countries. Crown rot affects tissues of the 'crown', which unites the peduncles. Disease symptoms develop rapidly during shipping and ripening when the physiology of the fruit undergoes modifications that facilitate fungal development.

### Diagnosis/Identification/Symptoms

- The rot begins with mycelial development on the surface of the crown, followed by the peduncles and fruit.
- The bananas may detach from the peduncle in cases of severe infection.
- Crown rot results from the development in the crown of several common fungi, which constitute a fungal





complex, and leads to softening and blackening of tissues at the site of the wound left when the cluster was cut from the bunch.

### **Conditions prevailing that contribute to success of pathogen**

- Contamination of banana bunches in the field, at harvest or storage favours development of crown rot.

### **Management Strategy**

The following management options are recommended:

#### **Cultural practices**

- Remove senescent leaves hanging on the bunch to reduce fruit contamination
- Practise bunch sleeving with perforated plastic film to protect bunches from fungal contamination
- Deflowering to reduce contamination with inoculum

#### **Other management options**

- Treat bath water with active chlorine at the rate of 1-2 mg/litre.
- Clean fruits before trimmed them from the bunch.
- Trim banana hands with a clean stainless steel blade.
- Keep the crowns of freshly trimmed bananas away from all inoculum sources.
- Keep the packing station and the adjoining facilities clean.
- Cool bananas soon as possible to 13°C after packing and deliver them promptly to a ripening facility.

**Note:** Agro-chemicals should be used in consultation with professional practitioners and considering existing cautionary/safety measures, particularly the manufacturer's instructions.

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**Disclaimer:** The content of this publication is for general information to banana farmers and technical staff only and no person should act, or fail to act on the basis of the information herein without professional advice from crop health experts affiliated to Kenya Agricultural and Livestock Research Organization (KALRO).

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