



KALRO/NAVCDP Programme Factsheet No.../2024

Diagnosis and Management of Banana Bacterial Wilt (BBW)/ Banana Xanthomonas Wilt (BXW)

Introduction

The banana bacterial wilt disease is caused by the bacteria *Xanthomonas vasicola* pv. *musacearum* (Xvm), formerly referred to as *Xanthomonas campestris* pv. *musacearum*. The disease attacks all banana cultivars, with an estimated 100% loss in banana production when the disease is not properly managed. The disease rapidly multiply within the tissues and form visible slime in cut infected plants. The disease is easily spread by the use of infected planting materials and farm tools. It is transmitted by insects including bees through the male bud.

- Yellowing and collapsing leaves on older plants.
- Internal discolorations of the vascular tissues.
- Yellow or brownish bacterial ooze.



Healthy banana plant (Source: Ngugi, C N KALRO)



Ripening of premature fruit that later rot due to bacteria infection (Source: Lepoint, Pascale / Bioversity International)

Conditions for disease development

- Infected crop residues in the field
- Roots injury by farm tools or by soil borne pests
- Warm temperature and high soil moisture
- Slightly acidic soils
- Poor soil fertility
- Root-knot nematode infestation.

Pseudo stem yellow discoloration of bacterial ooze. (Source: Blomme, Guy / Bioversity International)



Symptoms and signs/Damage description

- Shriveling of the leaves on the male flower bud that turn black and the leaf blade become limpy.
- Premature ripening of fruit on a bunch that otherwise remains green.



Rusty brown stained tissues (Source: © IITA (CC BY-NC 2.0) <https://www.flickr.com/photos/iita-media-library/6755031667/in/photostream/>)



Management Strategies

Cultural methods

- Close monitoring of the crop
- Use of clean planting materials
- Observe quarantine
- Disbudding of male flower buds after fruiting forked stick (not a knife)
- Field hygiene;-Uprooting, destroying and burying affected plants

Use of pesticides

- Disinfecting farm tools after use and washing hands e.g. use of Jikl: 5 water
- There are no recommended chemicals to control Banana Xanthomonas wilt disease

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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

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