

How to Recognise Banana Xanthomonas Wilt

Recognize the problem

Banana Xanthomonas wilt (BXW) is a devastating bacterial disease of banana and plantain which is widespread in Central and East Africa. Once an outbreak occurs on a farm, significant losses are inevitable. All types of banana are susceptible, no cultivars have been found to be resistant. This disease is not present in Ghana or West Africa yet but be vigilant and familiarise yourself with the symptoms.

The most distinctive symptom is premature ripening of the fruit. Single bananas start to ripen while the rest of the bunch remains green and the inside of the fruits have a brown/black discoloration (Figure 1). The male flower bud turns black, shrivels and eventually dies. Young emerging leaves turn yellow, wilt, fold over and collapse. If the fruit and leaf stalk or pseudostem of an infected plant is cut, cream/yellow bacterial ooze (discharge) starts to flow from the wound (Figure 2). Fusarium wilt (or Panama disease) can cause similar symptoms to BXW but Fusarium wilt causes yellowing to older leaves first, does not affect the fruit and causes a dark staining inside the pseudostem which is absent in BXW.

Background

BXW is spread by the bacterial ooze from infected plants. Cutlasses or farm tools used on infected plants can transfer the disease to healthy plants. Insects such as bees and flies which visit the male flower can transmit the bacteria from plant to plant. Planting material taken from a diseased plant may not have symptoms so make sure you know the source of your planting material.

If you see the symptoms of this disease please report it to your local PPRSD office.

Management

- Once the plant is infected, it will die
- Rogue infected plants immediately they are seen, cut the plants into pieces and bury deep outside the banana farm
- Remove the male bud before it opens when the last hand is exposed. The risk of the spread of the disease is reduced if de-budding is done with a forked stick rather than with a cutlass.
- Infected farm tools such as cutlasses should be disinfected with 10% household bleach (Parazone) or sterilized using heat from a hot fire
- DO NOT using suckers (planting materials) from an infected farm to start a new plantation

Internal discoloration of infected fruits caused. (Photo by Pascale Lepoint / Bioversity International)



Cut section of banana pseudostem showing yellow bacteria discharge. (Photo by G. Blomme, Bioversity)



When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval.

Scientific name(s) > *Xanthomonas campestris* pv. *musacearum*

The recommendations in this factsheet are relevant to: Ghana



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