

Banana *Xanthomonas* wilt

What is banana *Xanthomonas* wilt?

Banana *Xanthomonas* wilt (caused by *Xanthomonas vasicola* pv. *musacearum*) is a devastating bacterial disease of banana in East and Central Africa. It has caused significant reductions in banana and enset production in Ethiopia since its discovery in 1968 and is now causing massive losses in other parts of Africa. The recent rapid spread is thought to be due to the suitability of environmental conditions and an abundance of vectors, as well as the relative increase in banana production.

Banana *Xanthomonas* wilt is so severe that it can kill whole plants within a month of the first appearance of symptoms. The bacteria block the water conducting tissues of the plant, resulting in severe wilting, crop loss and eventually death of the entire plant mat. Whole plantations are commonly affected, causing complete loss of the crop. The bacterium survives well on infected plant material and moves easily in soil water, making this pest very difficult to manage.

What do the symptoms look like?

Symptoms include general wilting of the plant prior to flowering, fruit rotting and premature ripening and eventual death of the entire plant.



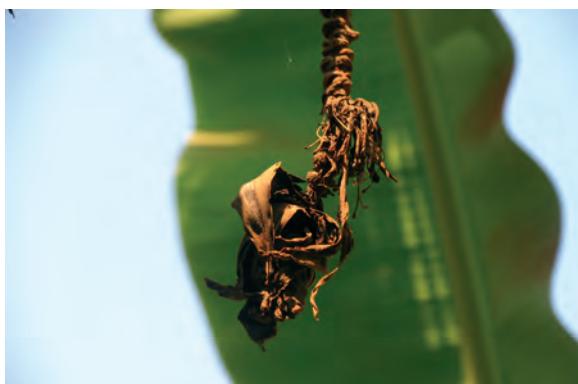
Banana plant exhibiting yellowing and collapse of leaves typical of banana *Xanthomonas* wilt

Anthony Young



Oozing pseudostem and uneven ripening

Anthony Young



Desiccated flower of a banana plant affected by *Xanthomonas* wilt

Anthony Young



Internal discolouration and dry rot of fruit

Anthony Young

What can it be confused with?

Banana *Xanthomonas* wilt symptoms are similar to those of other bacterial wilts (blood disease, Moko and bugtok) and Panama disease.

What should I look for?

- Infected stems produce a thick yellow ooze 5–15 minutes after being cut.
- Pockets of cream-yellow coloured bacterial ooze within leaf bases of the stem.
- Yellow and brown streaking in vascular tissues, especially the stem.
- Wilting of bracts, followed by shrivelling and rotting of the male buds.
- Flower stalks turning yellow-brown.

How is it spread?

Infection occurs either through the inflorescence or from soil-borne bacteria moving up through the lower plant parts. Bacteria only survive in the soil on infected plant parts, but these can survive in the soil for over 6 months.

Short and long distance transmission of the pest mainly occurs via contaminated tools and insects, though other organisms such as birds, rats, bats, and livestock can also spread the pest.

Where is it now?

The pest has been recorded in Burundi, Democratic Republic of Congo, Ethiopia, Kenya, Rwanda, Tanzania and Uganda.

How can I protect my farm from banana *Xanthomonas* wilt?

Check your farm frequently for the presence of new pests and unusual symptoms. Make sure you are familiar with common banana pests, so you can tell if you see something different.

Bacterial oozing from any banana plant or heliconias should be reported immediately.

If you see anything unusual, call the Exotic Plant Pest Hotline on 1800 084 881.

**EXOTIC PLANT PEST HOTLINE
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