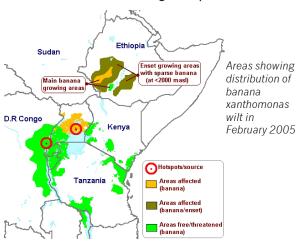
Removing the Darling Buds of Dismay

Bananas are part of the daily diet and cultural heritage of millions of people in sub-Saharan Africa. The so-called banana belt extends across the Great Lakes region and cultivation is particularly important for food security and income in Uganda, Kenya, Tanzania, Rwanda, Burundi, and Democratic Republic of Congo. In Ethiopia, a relative of banana, enset, has been known to be affected by an unusual bacterial wilt disease caused by Xanthomonas campestris pv. Musacearum and the disease has been considered a potential threat to the region. This threat was realised in 2001 when an outbreak of this disease now known as banana xanthomonas wilt (BXW) was discovered in central Uganda and, within three years, had spread to the eastern and western borders. In 2004 an outbreak was discovered in the north Kivu region of D R Congo, posing an additional threat to food security in this poverty ridden and unstable area. Farmers are abandoning their plantations and prices have already risen in affected areas, causing widespread alarm.



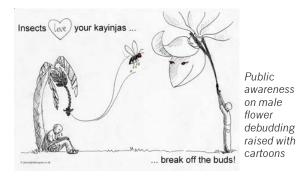
The CPP has had a long-standing association with the Uganda National Banana Research Programme (NBRP) on pest and disease problems, outputs of which have been brought under an IPM 'umbrella' project (R7567) using an approach termed participatory development communication (PDC). The IPM project team have diverted resources and applied PDC techniques to enhance farmers' awareness of BXW and of measures to limit its spread. A breakthrough came when scientists, working with specialist assistance funded by the Gatsby Charitable Foundation, observed that the disease was being spread most probably by insects carrying bacteria from diseased to healthy banana flowers. From experience gained with similar diseases elsewhere, researchers concluded that infection was occurring only



Participatory development communication in action

via the male part of the flower raceme. Since cultivated banana plants do not need male flowers to produce fruit, a solution was to remove the male buds as soon as the female flowers had emerged. But there was an additional twist to the tale. Rather than cutting off the bud with a knife, which can carry bacteria from plant to plant, researchers showed that the buds could be broken off using a forked stick, thus preventing transfer of infection from diseased to healthy plants.

Some farmers have adopted this method, thereby completely preventing infection or reducing its spread. However, the varieties that are most susceptible to inflorescence infection, notably *kayinja* (used for brewing), are a low input crop and farmers are unaccustomed to spending time on a novel practice to protect their plants. Working with the NBRP, CPP project R8482 is now using PDC to explore better ways to get this and other control measures across and to explore monitor, evaluate and improve their effectiveness.



R7567 and **R8482**: Integrated management of banana diseases in Uganda **Contact**: Mike Rutherford, CABI Bioscience, UK