

## Appendix 5.1.7

### **Outbreak of Banana Xanthomonas Wilt (BXW) in Tarime District, Mara region, Tanzania**

By: Mgenzi S.R. Byabachwezi<sup>1</sup> and Elia Marandu<sup>2</sup>

#### **Introduction**

The disease symptoms were reported by Mr. E. Marandu the C3P project Manager for Tanzania. He presented some photos from infected maiden banana suckers. Since there were no clear photos showing other symptoms, the verification trip was planned.

The team including Mgenzi from ARDI Maruku and Marandu from CRS, travelled to Tarime on 30<sup>th</sup> January 2007. On 31<sup>st</sup> January, the team visited the village suspected to have BXW.

#### **Area information**

Mara region is located in the east of Lake Victoria. The great part of the region is under cassava and cereal production. However, in Tarime and some of highland areas, banana production is a major crop catering for food and income to poor farmers. Bananas from Tarime are consumed within Mara region and some are imported across the border to Kenya.

Banana types produced include AAA-EA mainly Mbwairuma, Nshakara and some Ntobe that are consumed locally; they also grow Gros Michel and Sukari Ndizi that are sold in cities of Mwanza and Nairobi.

#### **Location information**

**Region:** Mara      **District:** Tarime      **Division:** Inchege      **Ward:** Binege

**Village:** Mogabiri      **Subvillage:** Kikumaya

**GPS readings:** S 01° 22.330'; E 034° 24.921'; Altitude 1622 m; the village is about 10 km from Tarime town.

#### **History of the disease in the village**

Farmers explained to have seen the symptoms to one of banana plots of Mr. Issa Mohammed Robo by June 2006. To their surprise, they were used to see wilting of Sweet bananas including Bukoba (Gros Michel) and Sukari Ndizi but this new disease attacked Uganda types (AAA-EA)! The disease slowly spread to neighbouring plots from the first victim and now more than 60 plots are infected.

Further questioning to the first victim farmer found that his wife is from Kagera region (where BXW have been identified since January 2006) and when she visited her home in March 2006, came back with some banana suckers for planting. When asked what they call the common wilting disease they could not tell but they know it affects sweet bananas.

---

<sup>1</sup> ARDI Maruku, Bukoba, Tanzania

<sup>2</sup> CRS, Mwanza, Tanzania

After noting the new disease, farmers were just cutting the infected plants (not even at the ground level) and leave other suckers in the mat intact. They also noted that even the follower suckers were equally dying after some time.

### Findings

There was wilting symptoms on mostly AAA-EA bananas cultivar Mbwairuma. The foliage symptoms were clearly of BXW. Further investigations into the village came to clear symptoms of thick yellow ooze from the pseudostem, premature ripening of the bunch showing BXW damage to the fingers. The following photos were taken from the site in Kibumaya subvillage.



Foliar symptoms



Yellow ooze from the stem



Affected banana fingers



Premature ripening



Farmers under the infected plant

Inspite that BXW have affected some bananas in the village, still exists some good banana plots. \if efforts are not made to stop further spread of the disease farmers will loose everything available.



Clean banana plot

### **Extent of infection**

It was observed that it is possible the disease is still in one subvillage since the team tried to see if there were some symptoms into other villages and could not find them. The number of affected households were estimated to 60 each having an average of 10 mats diseased. However, the conclusion if the disease is in one sub village will come after the general meeting to be held in Binagi ward and after the team have visited other banana growing areas in Mara region.

### **Main disease dissemination means**

It was clearly indicated that almost all infected plants were through tools. This is because almost all bananas in the area have male bud intact and are not infected by the disease. Bees and other insects are normal in bananas. In addition, it was noted that farmers cut all infected plants before flowering but without precaution not to spread the disease.

### **Recommendations**

1. Efforts should be made to ensure all infected bananas are disposed from the village
2. Awareness of the disease should be made to farmers and extension staff to ensure they should keep track of disease outbreak, report and manage the disease before it spreads further