

# Block 2 Poster 10

## Community Phytosanitation Approach: What can we learn?

### TECHNOLOGY DESCRIPTION

Studies of the transmission of cassava brown streak viruses (CBSVs) that cause cassava brown streak disease (CBSD) have shown that the virus particles are not efficiently retained by the whitefly vector (*Bemisia tabaci*), hence CBSD spreads over relatively short distances. CBSD control is therefore possible through the careful management of the health of cassava plants (phytosanitation). Three key elements of phytosanitation to control CBSD are important: establishing crops using healthy planting material; maintaining the health of cassava crops during the active growth period; and avoiding to plant healthy cassava cuttings near to diseased cassava crops. The 'Community Phytosanitation' approach for CBSD management was tested at a pilot level by communities in two of the major cassava-growing agro-ecological zones of Tanzania. The aim was to demonstrate that it is possible to greatly reduce the overall incidence and consequent impact of CBSD by implementing a community-wide phytosanitation program

**CBSD root necrosis affects value addition of cassava roots: and increases labor for women who are obliged to remove necrotic tissues from affected roots**



The many faces of CBSD root necrosis



### END USERS AND BENEFITS

A relatively small number of farmers were involved in testing the approach. However, smallholder producers, in particular those who are presently experiencing production losses due to CBSD, most of whom are women, will benefit from the project not only in terms of improved yields (fig. 3) but also in terms of increased family income resulting from sale of cassava roots arising from the improved cassava productivity.

### SCALING STRATEGY

The scaling strategy includes sharing of the findings with stakeholders through meetings, workshops, publications and demonstrations.

Factors to be considered for successful scaling include:

- Does the area have an important CBSD problem?
- Are farmers ready to collectively address the disease?
- Is there support from Local Government Authorities?
- Is clean planting material available?
- Are there robust and affordable CBSVs virus-testing kits?
- Is there a choice of several CBSD resistant/tolerant varieties?
- Are markets for value-added cassava products available?
- Will capacity building efforts focus on women and the youth?

### LEVEL OF ADOPTION OR USE

About 600 small-holder farmers participated in piloting the community phytosanitation approach in two villages in Tanzania, of which 52% were women. We expect the technology to be readily adopted in parts of Tanzania where CBSD incidences are very high, such as in the Lake Zone; or where investors contract farmers to produce cassava roots for industrial processing, such as in southern Tanzania. For the community phytosanitation approach to work, it is essential that there are readily accessible sources of clean planting material. Also, community willingness to work together to solve a common problem is key to success.

### CRITICAL GAPS AND NEXT STEPS:

The Regional Authority and Local Government Authorities in Mara region, Lake Zone, Tanzania have shown keen interest to invest in the same kind of approach and set a budget for the next 4 years starting from 2017/18. Lessons learned in this pilot project will be disseminated to stakeholders in the Lake Zone and elsewhere to make sure that they are guided through the planned investment.

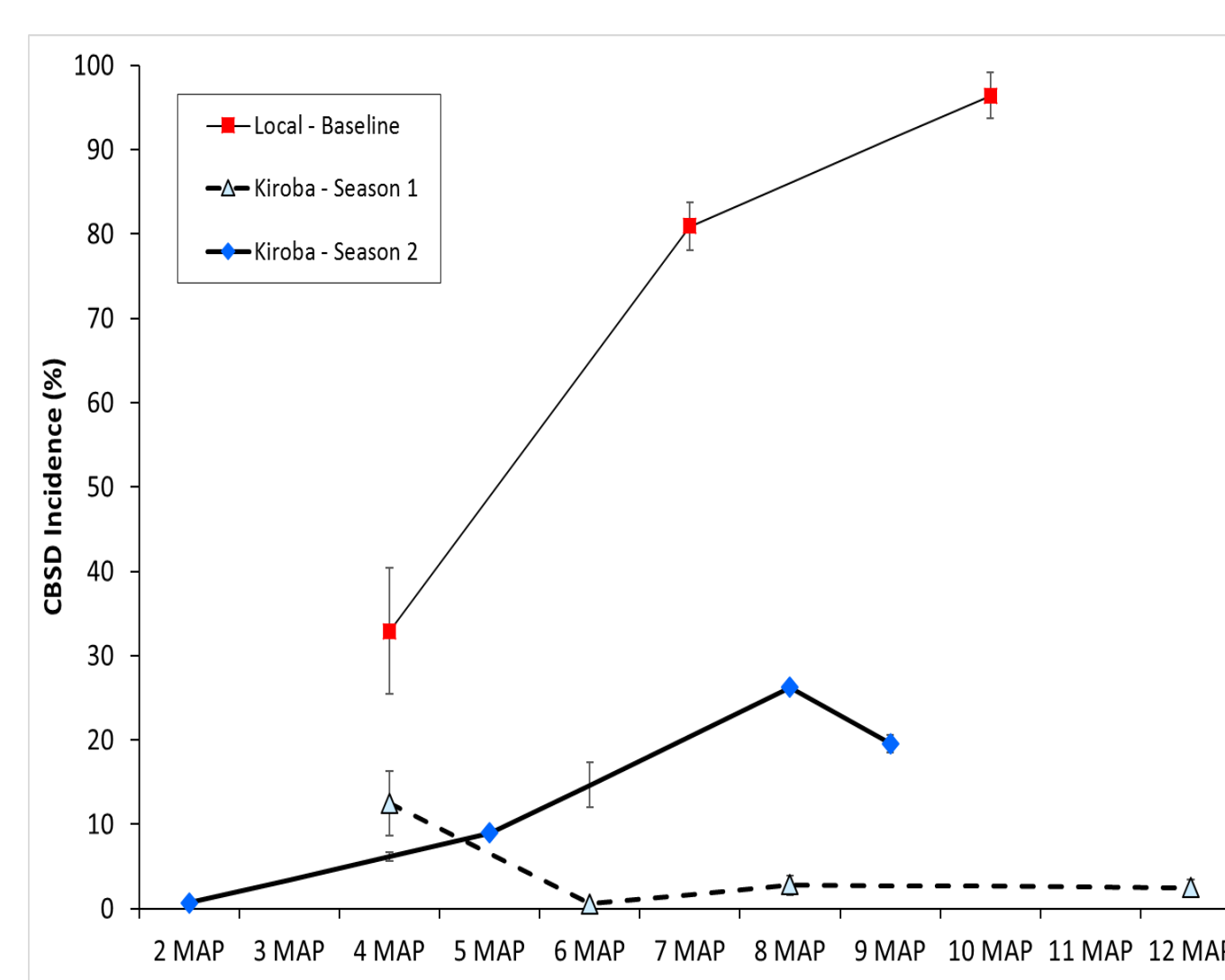


Figure 1. CBSD disease progress curves for three seasons in the Primary Recipient Group (PRG), Chato.

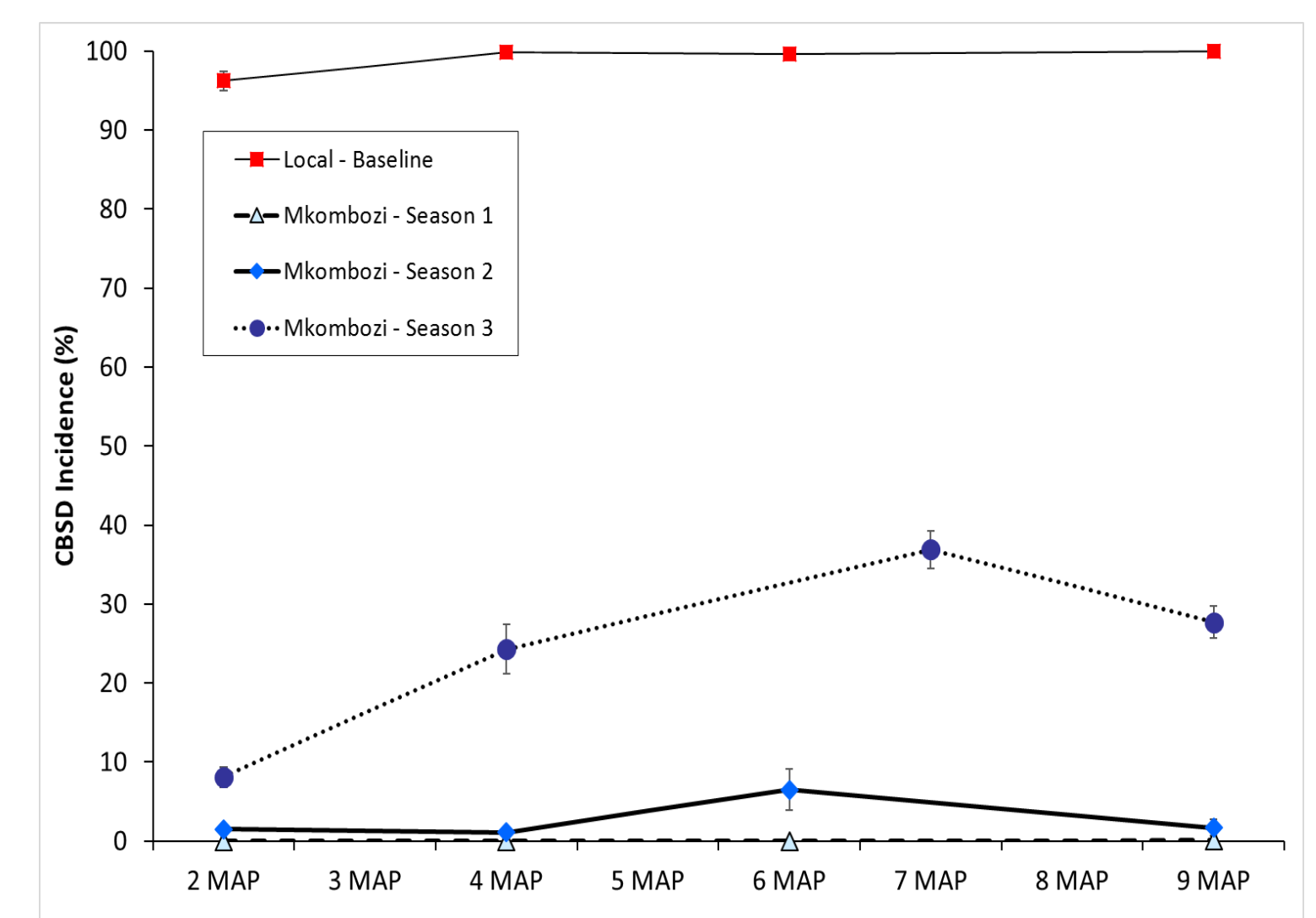


Figure 2. CBSD disease progress curves for two seasons in the Primary Recipient Group (PRG), Mkuranga.

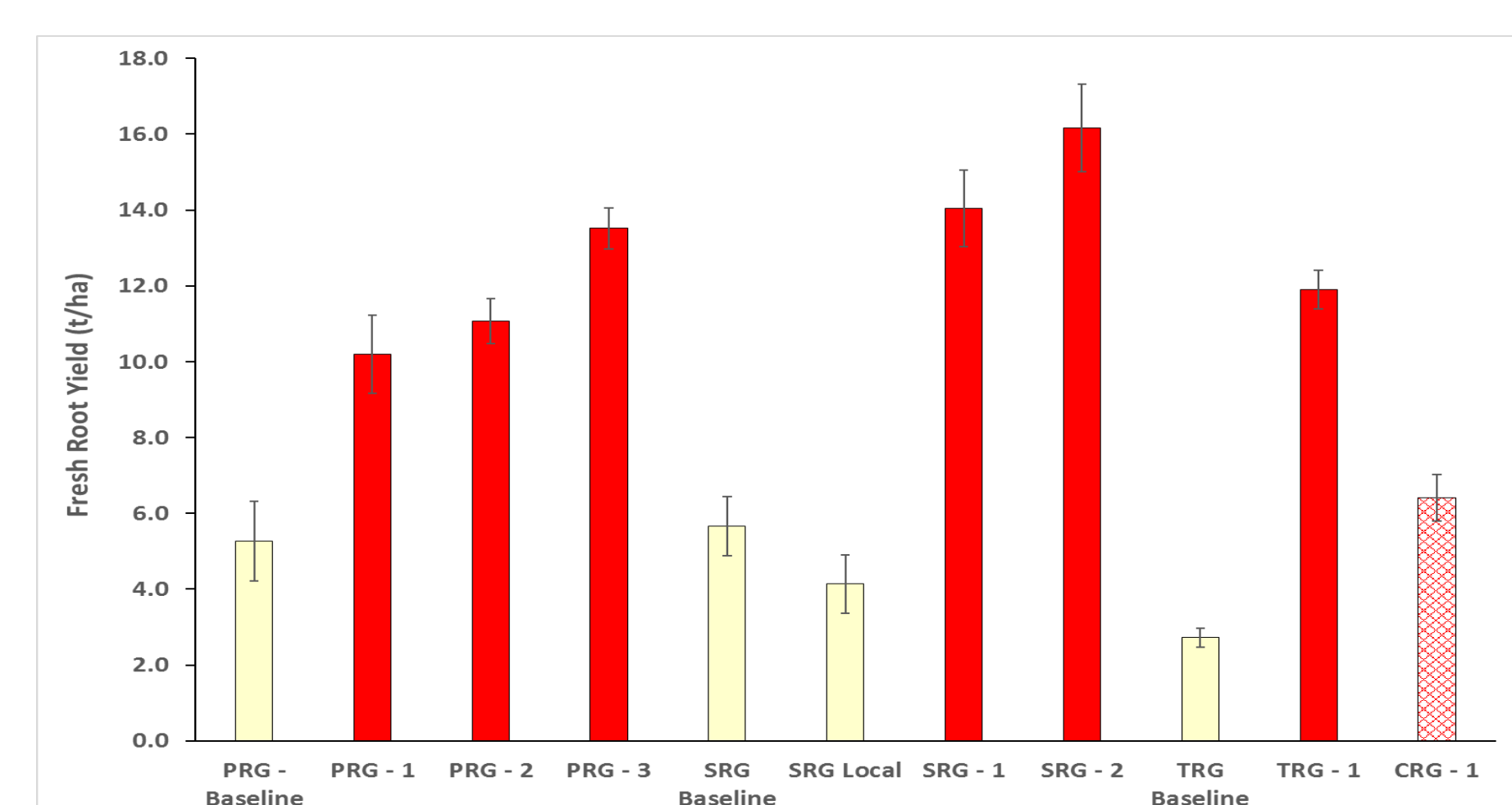


Figure 3. Fresh root yields recorded from farmer groups in Chato for PRG, SRG, TRG and CRG plantings.

### KEY PARTNERS FOR SCALING:

Key partners for scaling include the Local Government Authorities, NGOs and investors who want to cultivate CBSD-free cassava. LGAs are important for community sensitization, organization, political support and for the local rules and regulations; NGOs can contribute in multiplying clean seeds and investors are important in supporting farmers to produce clean seeds, offering credit facilities and markets for the cassava roots and hence providing the chance to make cassava production and processing sustainable.



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