



**SPHI Seed System Community of Practice  
Summary of Discussion Topic**

**Title: Topic 3-How about a cocktail of innovations for a healthy Sweetpotato seed system? A focus on the potential and drawbacks of a phyto-sanitation approach-will we get our heads chopped off?**

**1. Summary of participation statistics**

Table 1 shows the summary of participation statistics under this topic.

Duration	Lead discussant; institution & country	No. of contributions	No. of unique respondents	No. & type of institutions	No. of countries
4 days 13- 16/04/2015	Gorrettie Ssemakula (NaCRRRI) Uganda	15	11 (6 male, 5 female)	NARI (4), CIP (6), ARI (1)	9

**2. Introduction**

This discussion topic explored the pros and cons of a suggestion to use a community-based phyto-sanitation approach, involving a combination of innovations to establish and maintain healthy sweetpotato seed systems. The discussion kicked off with a description of the suggested approach. *All planting materials of popular varieties are cleaned up, multiplied in net tunnels (small scale) and in isolation (large scale away from sweetpotato growing areas). All sweet potato planting materials (which are likely loaded by viruses) is gotten rid off from the gardens in one community, and the farmers are supplied with clean material, sensitized (e.g. using farmer extension agents) on the benefits of using clean planting materials, (training, demonstrations, FFDs) with a view of creating demand for clean planting material. Key multipliers establish net tunnels with clean planting materials that they supply/sell to the community.* The idea in the suggested approach is to clean up whole community (get rid of all diseased planting materials) and replant with clean seed. The topic attracted 11 contributors, with 15 contributions. This summary highlights key areas of consensus, divergence of views, insights and learning points. It also identifies and tracks any follow-up actions suggested or taken to further learning and develop practice.

**3. Key points and areas of consensus/disagreement.**

The discussions portray both interest and to some extent, optimism in the approach, concerns over its complexity as well as questions about its practicability. To provide clarity on what would be involved in this approach, one of the contributors enumerated the four steps. 1) *Eradicate all sweetpotato – all vines and all roots of all varieties in a village.* 2) *Return with clean material for planting.* 3) *Create farmer demand for clean material.* 4) *Establish local vine enterprises to produce clean material to meet farmer demand.*

These are the chief concerns raised. 1. The feasibility and logistics of destroying all sweetpotato (which likely were planted at different times and without replanting) from all plots in the affected community. 2. The question of how to amass and supply/distribute the large quantity of clean planting material that

would be required for replanting the destroyed fields (also recommended that the clean planting for replanting should at least be of resistant varieties). 3. Ensuring that there is no reinfection e.g. by a farmer bringing vines from elsewhere. 4. Encouraging high standards for seed maintenance plots through, for example positive and negative selection, (farmers might be reluctant to rogue plants that show virus symptoms). The key issues, which illustrate the complexity and question the practicability of this approach were: (i) *Will farmers be compensated for the eradication and loss of vines & roots (harvest)?- though sometimes farmers may be seriously against destroying their crop even with the offer of compensation.* (ii) *How will the requirement to eradicate all material and stop bringing farmer material back in be enforced?* (iii) *Will the clean material brought in be of the same varieties that farmers had and were eradicated, or will these be improved varieties?* (iv) *If improved varieties, will this improvement include virus resistance or tolerance?* (v) *Is the objective of commercializing the vine enterprises (selling directly to farmers at a profit) sustainable?* (vi) *How about the challenge of alternate hosts for virus vector?*

On the positive side, an experience from Tanzania on a community phyto-sanitation for cassava (with 60% level of success) was shared. The approach involved a basket of practices such as sanitation (removing crop residues, weeding etc.), roguing, use of virus-free planting materials and isolation from infected fields, routine selection of clean and healthy planting materials to use for control and management of viral diseases. However, its usefulness was limited by challenges such as lack of special schemes for protecting virus-free materials, virus recovery phenomenon, latent infections and farmers' reluctance to rogue. Being knowledge-intensive, the strategy required training communities to understand the causes, symptoms and effects of CBSD, and to participate in its control and management.

Another positive perspective shared suggests progressively moving towards community-wide healthy sweetpotato fields. This is inspired from on-going study looking at degrees of saturation of OFSP varieties from the dissemination work of HarvestPlus in Uganda. Here, higher levels of adoption (with higher rates of saturation) could progress towards community level healthy sweetpotato fields (if introduced material is more virus resistant and replacement of old, with better material). Still, others supporting the community phyto-sanitation, suggest to link communities to sources of clean planting materials in efforts to address the challenge of reinfection, and to consider inclusion of conservation strategies such as Triple S into the cocktail of innovations, especially in countries such as Ethiopia, where planting material is often wiped out by prolonged dry seasons.

#### **4. Status on suggested follow up actions on emerged ideas or techniques (to be updated at CoP meeting)**

No specific ideas or techniques, which members could try/test in their own countries/work, were identified from the online discussion.

Table 2: Status of suggested follow up actions on ideas or techniques

Suggested idea for action	Follow up action taken	Where (country) & institution	Feedback to CoP