SPHI Seed System Community of Practice

Summary of Discussion Topic

Title: Topic 4-Packaging and Transporting Sweetpotato cuttings: Would stripping off leaves be viable? What would be the effect on establishment?

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 (M/F)	No. & type of institutions	No. of countries
16 days 28/5/2015-12/6/2015	Sam Namanda - CIP, Uganda	36	18 (11 Male, 7 Female)	NARIs (5), CIP (9), ARI (2), Private sector (1), Student (1)	10

2. Introduction

This topic was put forth for discussion because of challenges faced in transporting sweetpotato planting materials, especially large quantities and over long distances. The challenges include its bulkiness and deterioration through rotting in transit. Members sought to learn from peoples /countries' experience on how sweetpotato cuttings are package and transported, the advantages and whether there are any adverse effects on cutting establishment. The issues in the questions posed to drive the discussions include: types of packaging materials and types of transportation trucks and any precautionary measure needed, any measure to extend the duration of planting once harvested and during transport, recommended age to harvest vines, and effect of stripping off leaves on establishment. The topic generated a vibrant discussion with 36 contributions from 18 individual respondents over a period of 16 days. Photographs and literature on this subject was also shared. This summary highlights key areas of consensus, disagreement, insights and learning points that emerged and any follow-up actions suggested or taken to further learning and develop practice.

3. Key points and areas of consensus/disagreement.

The discussions revealed the following packaging and transportation practices:

- Cuttings tied into bundles, which depending on quantities and distance to destinations, are transported on pick up trucks / Land Cruisers, bicycles or as a head load. Usually, the number of cuttings per bundle is specified (e.g. 100) as well as length of the cuttings (e.g. 30 cm). Bundles may also be labeled with relevant information such as name of variety and contact number of producer.
- Cuttings packed into sacks/bags before loading into the trucks. In some cases, the cuttings are first tied into bundles before they are put into the sacks. The use of bags was common for materials supplied to NGOs or government agencies.
- Stripping leaves off the cuttings primarily to reduce bulkiness, but also argued that it increases aeration and reduces transpiration loses during transportation.

Much of the discussion that followed sought to establish whether striping leaves off the cuttings had adverse effects on establishment. Contributors shared their observations, farmers' perceptions and recall from past study on this subject, all of which suggest that stripping of leaves negatively affects cutting establishment. However, research is required to verify/quantify these observations. Nonetheless, some key points of consensus are discernible from the shared experiences: (a) Stripping all the leaves off makes the vine less suitable as planting material, (b) Stripping off all the leaves also makes it difficult for farmers to judge the variety and health of the vines, (c) Stripping off the lower leaves, leaving the upper leaves which are exposed to the light and air when the vine is planted, may not be so damaging and allows farmers to check variety etc. (d) Keeping all the leaves makes vines very bulky for transporting.
There is no outright disagreement or consensus about which manner of packaging is better: transporting vines in bundles or in sacks. While there is likelihood of vines overheating when vines are packed in sacks, this can be countered by perforating and/or moistening the sacks.
In addition, the following interesting points came out of the discussions:

- The time between harvest and planting influences cutting viability, vigor and establishment.
- Two kinds of supply chains for vines were discernible, (i) An NGO/government (or public) supply chain management via tender vendors, which seems problematic with frequent cases of unsuitable planting material reaching farmers (ii) An informal commercial supply chain management often effective in maintaining quality (and timely supply) of planting material.
- Stripping all leaves requires significant labor, might reduce vigor and slow early growth and makes it difficult for farmers to identify variety and assess planting material health.
- Stripping the leaves reduces bulk, increases aeration, prevents overheatng and prolongs 'shelf life' compared to the transport of vines with leaves retained.
- Transporting bundles loose rather than in sacks reduces the time for loading and unloading, eliminates the cost of sacks, and allows easy inspection of the bundles.
- Planting of sweetpotato is normally done after planting of grains (e.g. maize)

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

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
A thorough research to be done on stripping off leaves from cuttings to establish the effects on establishment for different varieties, among other issues such as benefits (e.g., time savings on loading/ unloading) versus cost of labor for stripping			
Review published literature/track past studies done and any recommendations regarding stripping off leaves from vines			