Experiences in implementing Triple S method in Uganda: Emerging issues and implications to seed systems research

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Theme: “Targeting Improved Seed Systems”

Introduction

Vines sold on the streets in Gulu

- Estimated that 53 percent of 904,931 total households in northern Uganda experience serious food shortage during the months of April – July months every year
- Although many would prefer planting sweetpotato, many fail because of lack of planting material and the majority cannot afford the cost of planting:
  - Vines desiccated during dry period
  - Food reserves exhausted during off-season
  - Planting material costly at the on-set of rains

Triple S = Potential alternative:

- Instead of farmers struggling to keep vines alive during the prolonged dry season
- Small or medium but healthy roots are stored in dry, cool sand in a container for sprouting.
- Sprouted roots are then planted in minimally irrigated root beds to conserve and multiply planting material

Implementation approach

- Identification, sensitization in a total of six districts including a total of 1,506 beneficiaries
- A total of 18 Triple S cadres (Community Resource Persons) of implementing partners (World Vision and local Government) trained
    - root selection for storage
    - how to store roots
    - leaflet provided for reference
- Participatory Triple S method demonstrations were conducted to validate
- Participatory progress reviews conducted and suggested modifications discussed

Storage in Sand and Sprouting

Source of water for irrigating root beds

Fencing to ward off grazing animals


PREVIOUS
SEASON
IN-GROUND
ROOTS
TRIPLE'S

Av. # of vines/seed-root and heaps planted

Cost of vines in Gulu at the beginning of first season		
Bundle unit	# of cuttings	Unit price (UGX)
1	83	500
2	50	500
3	35	500
4	65	500
5	80	500
6	62	500
7	75	500
8	60	500
9	80	500
10	60	500
Average	65	500

- Saved 66 roots and planted 0.6 acres (0.24 Ha) or 2400 heaps planted x 3 cuttings = 7200 cuttings (About 110 cuttings per root)
- Equals (7200/65) x 500 = UgSh. 55,000
- Able to plant early
- Able to stagger plant
- Able to plant clean material

Importance 10 – 15 cm stamp concept

Introducing the Triple S tool box

Triple S Spanners, Bolts and Nuts

Reviewing the Triple S leaflet

Positive selection of seed roots

Pre-storage selection

Post-planting selection

Seed root maturity

Avoid premature roots

Use mature roots

Storage containers and medium

Paper box Plastic basins Papers

Bags

Sand and Storage conditions

Sand medium should be dry
with relatively course texture

Indication of fine sand and moist sand

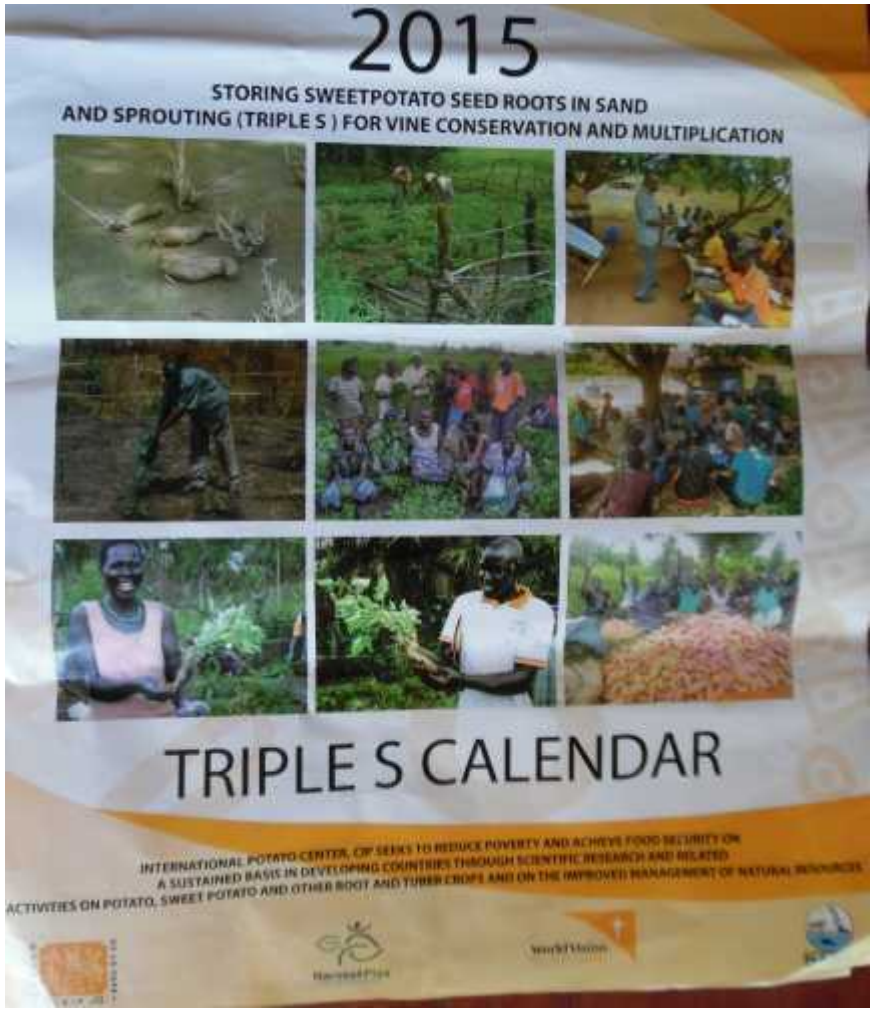
Millipedes

Common infestation at the beginning of the rains

Other issues

- Need plan for seed root production – we aim at small roots so plant spacing may be narrowed
- Use roots coming from clean (tissue culture material)
- Curing necessary before storage
- Triple S calendar developed
- Triple S leaflet revised

- Technology to be scaled out in other DDBC project implementing areas including Kamwenge and Isingiro districts



Farmers improving the method using soil clods

Factors affecting seed root storage and sprouting

- Roots- variety, dry matter, age (physiological),
  - size, growth spread (spacing)
  - Stalk removal or detachment
  - Health status
  - Curing prior to storage
- Storage containers and medium:
- Plastic basins, sacks, boxes, broken pots
- Sand should not be fine and moist
- Storage environment:
- Iron roofed and grass roofed houses

Documentation

- Papers
- Leaflets revised,
- Recorded voices of farmers explaining the relevance of the method,
- Triple S calendar 2015 published and revised for 2016,
- Press article on the method published in the Monitor newspaper
- Poster and
- Protocol chapter in HarvestPlus technical manual on sweetpotato seed systems being reviewed

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And

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"Together we will achieve 10 million by 2020"