"Meaningful Knowledge FROM Smallholders and FOR Smallholders."

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Bill and Melinda Gates Foundation

Highlights from various studies in SSA region
Feedback from the fields and successes in the improvement of variety selection and dissemination

A case of orange-fleshed sweetpotato (OFSP) in Sub Sahara Africa (SSA)
Goal

At least 50% vitamin A mean daily Requirement from OFSP

Source: Harvest Plus reports

Photo: M. Malungu
What do farmers and consumers look for in the improved varieties?

• **At field level**
  - Enough foliage to smoothen weeds
  - Resistance to major Diseases and pests (virus and weevils)
  - High root yields
  - Attractive root shape and flesh

• **At consumer level**
  - Good appearance
  - Taste
  - Starchiness
  - Fibrousness
How do you get feedback from small holders on the acceptance of any variety?

Participatory variety selection a process that involves farmers in growing and assessing the field performance and palatability performance in their fields

• Field days and demonstration plots
• Exchange visits between farmer groups
Farmers assessment and feedback loop

*How is it done?*

- ≥ 30 farmers (Men and Women) per assessment site
- Assess farmers’ capability to write and read
- For cross-coverage we use voting ballots (3 colors)
  
  *Green card* = better than the local check
  
  *Yellow card* = comparable to the local check
  
  *Red card* = Poor than the local check
- Card for Men are labeled ‘M’ and for women ‘F’
- For each variety and each attribute every farmer puts a card in a labeled bag
- Data tallied in a prepared sheet by researchers
Independent assessment especially for women ensures accuracy in providing individuals’ feedback.
Listening and interacting with the smallholders in the fields leads to demand-driven research.
## Major reasons for the non acceptance of some OFSP varieties

<table>
<thead>
<tr>
<th>Country</th>
<th>Lack of enough planting materials</th>
<th>Easily attacked by diseases</th>
<th>Succumb to drought</th>
<th>Root not dry enough</th>
<th>Bad smell and flavour</th>
<th>Not storable (rot fast)</th>
<th>Not marketable</th>
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Researchers and farmers interact on the varieties
Farmers and consumers & children assess the varieties
What about consumer acceptance?
Localized breeding of sweetpotato in Africa for Africa

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<th>Established sweetpotato breeding platforms in SSA region</th>
<th>Uganda</th>
<th>Breeding for East and Central Africa region</th>
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Breeding for sweetpotato weevil resistance

Breeding and screening varieties for drought resistance- ECA and SADC regions

Breeding varieties for different maturity periods

Link with the nutrition group to address the nutrient retention abilities of varieties

Develop more varieties for wider adaptability

Emphasis on the utilization of superior parents from the local germplasm
SPREAD THE WORD: COMMUNITY AWARENESS THROUGH VARIOUS CHANNELS

Messages:

1. Grow OFSP
2. Use clean seed
3. Feed it to your family and keep healthy
4. Give it to children they like it
5. Sell it and become rich

Lessons learnt:

1. Rapid scale-up
2. More demand created
3. Big coverage
4. More partners on-board
We are witnessing gradual inclusion of orange-colored varieties in the fields and diets of smallholders.

What is happening now??

- Cream / yellow
- Orange
- White
- Deep orange
Key learnings

• Localized research that integrates preferences by smallholders and consumers should be emphasized.

• Great role played by women in expanded production and utilization.

• Behavior change of communities takes time hence need for more awareness through different mechanisms.

• Children should continue to be integrated in consumer acceptability studies.

• Income generation component should also be emphasized for fast adoption.

• Alliances with key sectors (health and nutrition) is crucial for the impact in agric- interventions aimed at contributing to improved nutrition.