

# Can OFSP Enhance Food Security in Sub-Saharan Africa?

By contributing the multiple food security benefits of sweetpotato plus significant amounts of vitamin A, orange-fleshed sweetpotato (OFSP) is a winning choice in securing food security for all.



■ **High yielding** sweetpotato generates surplus for women to sell (credit J. Low)

Even though the world produces enough food to feed every woman, man and child, around 30 percent of Sub-Saharan Africa's population – 218 million people, suffer from chronic hunger and malnutrition. The dilemma facing farmers in the future will be how to grow more from less land, with less water. Food security experts grapple with serious questions such as:

- Can Africa produce enough food at affordable prices?
- What are the new technologies that can help farmers use scarce land and water resources more efficiently?
- Will new technologies be available to the poor, particularly women farmers?

Sweetpotato, with its broad genetic diversity that provides sweet and non-sweet varieties of varying colours (white, yellow, purple, and orange fleshed), can contribute to the food security solution by improving food availability, access, and utilization.

## ✦ Food availability

Meeting food supply needs caused by rapid population growth and rising urbanization rates across Africa requires not only increased agricultural output, but also the provision of a wide range of diverse foods to meet the micronutrient requirements of children and adults. Sweetpotato roots, though bulky and perishable, can contribute to improved food availability. In situations of land scarcity, farmers increasingly turn to crops like sweetpotato that provide high output per unit of land and can produce on marginal soils. Improved early maturing sweetpotato varieties are ready in 3- 5 months, the crop can be harvested as needed over several months, and in many settings, 2-3 crops can be produced annually.

The key is to begin closing the yield gap between current average yields under rainfed cultivation in sub-Saharan Africa (6 tons/ha) and yields of 50-60 tons/ha achieved under good management and intensive input use. Just using disease-free planting material can boost yields significantly. Adoption of high yielding, drought-tolerant, beta-carotene rich sweetpotato varieties, better integrated crop management strategies, including improved water and nutrient management regimes, and post-harvest technologies to reduce perishability, are critical supply side interventions for increased availability.



■ **Timely access** to quality vines is critical for area expansion (credit J. Low)

### ✦ **Food access**

Individuals access food by growing it or purchasing it. Sweetpotato can be easily integrated into many cropping systems and its relatively low labor requirements compared to other crops, and ability to be stored in the ground for some time, enhances access for producing households. Increasing urban consumers' access to sweetpotato is predicated on the cost of roots and leaves being reasonable compared to other foods. There is huge potential to use sweetpotato in agro-processing (for example, for partial wheat flour substitution), as a confectionary and snack food.

The greatest challenge to improving access to sweetpotato at household production level is the timely availability of quality vines. Recent research has focused on testing two approaches to improving vine access: investing in trained community based vine multipliers who maintain quality planting material to serve the surrounding villages, and the Triple S approach, a system designed for households in drought prone areas to store small, healthy roots in sand during the dry season and re-sprout them 6 to 8 weeks prior to the onset of the rains.

Technological innovations can also improve access to sweetpotato among urban consumers. To increase shelf-life, adoption of improved

techniques to cure the sweetpotato in the ground prior to harvest or after harvest need to be promoted, along with more careful harvesting and handling during transport. Processing techniques that reduce water content significantly lower transport costs and make the cost per 100 grams of valuable nutrients more affordable.

### ✦ **Food utilization**

Undernutrition is not just caused by inadequate food intake, but is related to the quality of food consumed, the health status of household members, power relations between household members and knowledge and information about nutrition. Orange-fleshed sweetpotato, as a staple and food rich in beta-carotene, contributes to improved food utilization in several ways:

- Where sweetpotato is part of the diet, it is relatively easy to introduce OFSP varieties that have consumer preferred characteristics. **Just 125 grams of most OFSP varieties can meet the daily recommended allowance for vitamin A of young children and non-lactating women.**
- Nutrition messaging, an important component of OFSP promotion, provides an entry point for improving food utilization through nutritional and health education.
- A wide range of OFSP-based processed products such as bakery products, juice, chips, and crisps, are not yet fully exploited in Africa. These attract urban consumers in particular, enhancing their vitamin A intakes, and open up new markets for producers.
- Where sweetpotato is largely grown by women, promoting OFSP can empower women by improving their knowledge of nutrition and their intra-household bargaining power through higher incomes from the sale of fresh roots and processed products.

## Clearly, OFSP is a Food Security and Vitamin A Powerhouse.

**Reaching Agents of Change (RAC)** Project advocates for increased investment in orange-fleshed sweetpotato food-based approaches to combat vitamin A deficiency (VAD) among children less than five years old and their mothers. RAC also builds institutional capacity to design and implement gender sensitive projects to ensure wide access and utilization of orange-fleshed sweetpotato in selected African countries. Its efforts contribute to the broader Sweetpotato for Profit and Health Initiative (SPHI) which aims to improve the lives of 10 million African families by 2020.

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