

# Why Invest in Orange-fleshed Sweetpotato in Sub-Saharan Africa?

## A Vitamin A and Food Security Powerhouse Packed into One Root



■ Mozambican mother feeding mashed OFSP to her child (credit J. Low)

Sweetpotato, with roots that are white or yellow inside, are widely grown throughout Sub-Saharan Africa (SSA). This easy to grow, resilient crop is known as the classic food security crop that is there when the maize fails. Since 1995, area under sweetpotato has expanded faster than any other major food crop in SSA, in part because this crop provides more food (194 MJ) per hectare per day than maize (145 MJ), cassava (138 MJ), or yam (94 MJ). Its short maturing period (3-5 months), ability to grow under marginal conditions and flexible planting and harvest times are also driving its expansion.

So why invest in **orange-fleshed** sweetpotato (OFSP), a product that is so little known in Africa? The answer is simple: to cost-effectively improve nutrition, empower women, and increase income earning opportunities, even for the poorest households.

### ✦ Invest for better nutrition

Every year, 4.8 million children in SSA die before the age of 5. A third (35%) of these deaths is attributed to undernutrition. Infant and young child feeding is characterized by low rates of exclusive breastfeeding, lack of timely introduction of appropriate complementary foods and a high prevalence of deficiencies of essential micronutrients (vitamin A, zinc and iron). An estimated 44% of preschool aged children in Africa are deficient in vitamin A, a micronutrient that helps young children grow and develop normally and stay healthy. Women of childbearing age, food insecure and HIV/AIDS affected households are also at high risk of vitamin A deficiency (VAD).

Nine SSA countries have already incorporated OFSP into their conventional sweetpotato breeding programs because they value **biofortified** crops --staple foods with very high levels of at least one essential micronutrient. OFSP is extremely rich in bioavailable beta-carotene, which the body converts into vitamin A (retinol) at a ratio of 12 to 1. **Just one small root (100-125 grams) of most OFSP varieties supplies the recommended daily allowance of vitamin A for children under five years of age.** Even at low yields (6 tons/ha), just 500 square meters can generate an adequate annual supply of vitamin A for a family of five. That is why **OFSP is a vitamin A powerhouse**. OFSP can be used as an entry point for changing behaviors that lead to large increases in vitamin A intakes among young children and mothers. In addition, OFSP contributes significant amounts of vitamins C, E, K and several B vitamins. Leaves also have good micronutrient contents and adequate protein (4%) for use as food and animal feed.

Urban consumers in SSA are increasingly becoming conscious of the need to avoid



■ Ugandan OFSP grower and processor displays her products at fair

consuming foods like refined white bread that increase the risk of diabetes (reflected in high glycemic index values). Sweetpotato is a good source of dietary fiber (2.5-3.3 g/100 gm) and is classified as a low glycemic index food.

### ✦ Invest to empower women

In most SSA countries, sweetpotato is grown, sold and processed in small quantities by women. Firstly, OFSP provides women, as producers who also play a key role in making decisions about child feeding and household nutrition, with a low cost product that addresses both VAD and undernutrition. Secondly, due to its relatively low cost of production and the higher productivity of many OFSP varieties, women can grow surplus OFSP and sell both roots and processed products. The orange colour attracts consumers. Women can make significant profits from selling sweetpotato products. Higher female income typically translates into better household nutrition and welfare.

### ✦ Invest to improve income-generating opportunities

High rates of urbanization across Africa have given rise to the need for inexpensive but healthy foods for the urban poor and created concurrent demand for fast food outlets and healthier foods by a

growing middle class. The nutritional advantages of OFSP offer a unique opportunity to promote increased marketing and processing of sweetpotato, which will boost demand and ultimately producers' incomes. A campaign just to eat a boiled OFSP root for breakfast instead of bread would vastly improve vitamin A intakes and create market opportunities. Backed by an effective nutrition awareness campaign, OFSP roots sell at a higher price than white-fleshed roots.

OFSP can substitute for potato in making chips and crisps and serve as a partial substitute (20-50%) for wheat flour in bakery products. OFSP products have a golden colour that make it easy for marketing campaigns to promote them as vitamin A enhanced products, thus increasing demand. Since all classes of farmers can grow OFSP, investing in fresh root and product marketing can easily be pro-poor if governments provide a supportive policy environment.

## OFSP is a healthy food for all.



■ Fathers are also part of the OFSP revolution (credit J. Low)

**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.

#### Contacts:

Adiel Mbabu (CIP)  
a.mbabu@cgiar.org

Sonii David (HKI)  
sdavid@hki.org