

S E P T E M B E R 2 0 1 6

Viable Sweetpotato Technologies in Africa for Northern Mozambique

We established multiplication sites with 52 individual decentralized vine multipliers (DVMs). Together with government extension services, we supplied 132,280kg of cuttings to 15,220 households. Since July 2015, 237.4 hectares of orange-fleshed sweetpotato have been planted. Our nutrition messages reached 7,784 households with children under five years of age.



Fig 1. Smallholder farmers receiving vines. (credit V. Bechane)



What is the problem?

Food insecurity in Mozambique's rural areas is still a significant challenge. At least 25% of people suffer from food insecurity throughout the year, and 43% of children under five years of age are stunted (chronically malnourished). Sixty-nine percent of children under the age of five suffer from vitamin A deficiency (VAD). Orange-fleshed sweetpotato (OFSP) is a vitamin A powerhouse that can improve nutrition, empower women and increase household incomes. Its short maturing period (3-4 months) and ability to grow under marginal conditions and flexible planting and harvesting times are production advantages that also help improve food security.



What do we want to achieve?

The Viable Sweetpotato Technologies in Africa (VISTA) for Mozambique project is a three-year effort (2014-2017) that aims to contribute to improved nutrition, food security and incomes

among smallholder farming families through increased production and better utilization of nutritious OFSP varieties, especially by those most at risk of VAD - children under five years of age and pregnant and lactating women. This initiative, which began in October 2014, relies on agriculture, nutrition and marketing approaches to reach 22,500 direct and 135,000 indirect beneficiaries with technologies related to OFSP. To increase vitamin A intake, most of the produced OFSP will be consumed at home. However, 15% of the households will be supported to produce large surpluses for sale. With peak prices of sweetpotato being around 28 cents/kg, we estimate that the project will generate at least US\$284,000 per year in cash revenue for smallholder farmers by the end of intervention period.



Where are working?

We work in four districts in Nampula Province (Monapo, Meconta, Rapale and Murrupula) and two in Zambezia Province (Alto Molócuè and Gurùè), all under *Feed the Future* (FtF) zones of influence.



How do we make it happen?

We are scaling-up proven drought-tolerant OFSP varieties linked to key nutrition messages. In addition, we are promoting improved technologies for managing the quality of OFSP planting material at the multiplier level, improving the ability of each household to maintain their own planting material, and improving post-harvest handling and fresh root storage at the household level. The project was built on recent and on-going sweetpotato research and development interventions aligned to USAID supported Feed the Future



Partners

- The African Fertilizer and Agribusiness Partnership (AFAP)
- The Mozambique Agrarian Research Institute (IIAM)
- Else-Marie Link (EMALINK)
- The District Services of the Economic Activities (SDAEs)
- The District Services of Health, Women and Social Action (SDSMAS)
- World Vision International-Mozambique (WVI-Mozambique)





Fig 2. Nutrition Promoters in training on IYCF on the first 1,000 days of life. (credit L. Valentim)

(FtF) zones of influence. We use a three-pronged integrated approach: agriculture-nutrition-marketing. Prior proof-of-concept research demonstrated that this approach can have a significant positive influence on vitamin A intake and status in Mozambique. The three areas are:

Agriculture: Increase OFSP supply through providing disease-free planting material of improved, drought tolerant varieties and promote technologies to improve roots and vine conservation (Fig 1). The latter includes net tunnel establishment at the community level to ensure that quality planting material is more accessible to local farmers.

Nutrition: Improve vitamin A intake through demand creation activities and training women and men on nutrition issues, including food preparation demonstrations and nutrition counselling to strengthen the efficient use of OFSP and other locally available nutritious foods (Fig 2).

Marketing: Increase access to fresh roots and OFSP products in selected urban markets and improve smallholder market access to accelerate adoption (Fig 3).



What have we achieved so far?

We established multiplication sites with 52 individual DVMs. In coordination with government extension services, we supplied 132,280kg of cuttings to 15,220 households, with those having children under the age of five being particularly targeted. We supplied 47 community-based organizations (CBOs) and five private enterprises with vines for root production and multiplication for sale (Table 1).

Table 1. Vines distribution by category from July 2015 to June 2016 in collaboration with government extension services

District	Households		DVMs	Private enterprises	CBOs			
	Male	Female			Producer organizations	Women groups	Schools	Churches
Gurúè	1,913	1,203	11	0	3	0	0	1
Alto Molócuè	1,595	1,172	11	1	5	0	6	0
Murrupula	1,842	2,297	10	1	4	0	4	0
Rapale	202	244	6	1	5	1	2	0
Meconta	1,151	758	8	2	6	0	3	0
Monapo	842	2,001	6	0	4	7	0	0
Total	7,545	7,675	52	5	27	8	15	1

Source: Project field data



Fig 3. Vasco Cavarro's OFSP shop. (credit R. Baessa)

Since July, 237.4 hectares of OFSP have been planted (Table 2). To create awareness on the importance of the OFSP-based "Power" Bread (*Pão de Força* in Portuguese) and OFSP consumption among Mária Bakery customers and sweetpotato growers, we prepared and aired two radio spots and composed one song highlighting the importance of consuming *Power Bread*. Three OFSP promotion days were organized in Monapo, Murrupula and Alto Molócuè districts. From July 2015, our nutrition messages reached 7,784 households with children under five years of age. Forty-two households and six health workers were trained on Infant and Young Child Feeding (IYCF) in the first 1,000 days of life, food diversification and preparation demonstration.

Table 2. Number of hectares under improved technologies (July 2015 - June 2016)

Category	Quantity of vines distributed per district (kg) vs. area planted: April-June, 2016						Total (kg)	Area (ha)
	Gurúè	Alto Molócuè	Murrupula	Rapale	Meconta	Monapo		
Farmers	26,976	24,400	34,272	5,768	18,848	22,016	132,280	211.6
DVMs	1,825	1,570	1,350	596	1,800	696	7,837	12.5
Private	0	0	0	300	312	150	762	1.2
CBOs	912	1,031	150	0	600	4,875.5	7,568	12.1
Total	29,713	27,001	35,772	6,664	21,560	27,737.5	148,447.5	237.4

Source: Project field data



What's next?

In the next season, we will train DVMs on Triple S (Storage-Sand-Sprouting) and ensure that DVM sites are established no later than October 15, 2016, establish net tunnels and conserve vines in the screen house. We will distribute vines to smallholder farmers, interested larger growers and NGOs. We will continue selecting and training nutrition promoters and community leaders to convey nutrition messages. Stores for OFSP fresh root sale will be constructed and/or improved. With additional funding from USAID, the program will be expanded significantly during the 2016/2017 season.