

# Commercialization of orange-fleshed sweetpotato based products in Malawi

The international Potato Center (CIP) is promoting Orange-fleshed Sweetpotato (OFSP) production, consumption and marketing as an easily accessible source of vitamin A to tackle to vitamin A deficiency (VAD) especially among under five children, pregnant women and lactating mothers in Malawi. CIP has advanced its partnership with public and private institutions in promoting and expanding production and commercialization of OFSP across value chains.



Fig 1. Evaluation of elite genotypes for crisp making (credit F. Chipungu)

## What is the problem?

In Southern Africa, Malawi is the largest producer of sweetpotato with a production of 3,219,581 metric tons from 184,959 ha, reflecting average yields of 17.4 t/ha<sup>1</sup>. However, apart from the fresh market, farmers struggle to find reliable and well-structured markets where they can sell fresh roots at prices that would give them the desired return on their investments. Generally, farmers opt to grow white and yellow-fleshed sweetpotato varieties which have long dominated in local markets. This implies inadequate production and supply of OFSP roots on the market as consumer knowledge of OFSP benefits in terms of vitamin A content and yield advantages is not yet widespread. There is need to build demand of OFSP roots through knowledge dissemination to consumers and link smallholder farmers to processing and manufacturing companies that have capacity to add value to the crop. Once sufficient demand is created, this will drive farmers to demand high quality planting material (vines)

from multipliers and in turn produce more and high quality roots for sell to both fresh and agro-industrial markets.

## What do we want to achieve?

Through the Feed the Future Partnering for Innovation (FTF P4I) project funded by USAID and the Root and Tuber Crops for Agricultural Transformation in Malawi (RTC-ACTION Malawi) funded by Irish Aid, CIP is working to promote OFSP production by farmers who will then supply roots to University Industries Limited (UIL) for use in the development of commercial OFSP products. CIP intends to develop efficient and sustainable value chains among farmers, linking vine multipliers to root producers and further facilitating linkages between root producers and agro-processing entities, enhancing different capacities of all key actors along the value chains.

## Whom are we working with?

As a means for enhancing public-private partnership aimed at supporting smallholder farmers in Malawi to expand their market access and access to improved inputs and technical training, CIP has partnered with UIL in the implementation of the FTFP4I and RTC-ACTION projects. CIP is also working with Government Agencies namely, the Department of Agricultural Research Services (DARS) to develop the right OFSP varieties for the right use (Fig. 1) and provide disease-free planting material and the Department of Agricultural Extension (DAES), who mobilize farmers for vine and root production. In addition, CIP works with NGOs such as Concern Worldwide, CARE, United Purpose (UP) (formerly known as Concern Universal), CADECOM, Catholic Relief Services and Save the Children as well as informal marketers of doughnuts (mandazi) and OFSP root wholesalers and retailers.

<sup>1</sup> 2016 national statistics data from the Malawi Ministry of Agriculture Water Development and Irrigation





Fig. 2 Beta Crisps on sale in a supermarket (credit J. Pankuku)



Fig 3. Billboard installed at Chinakanaka Market to create consumer awareness



Fig. 4 Mr Hussein Hamuza and his wife Esnart standing in front of their new house constructed from sales of OFSP roots to UIL (credit L. Masikini)

### Where are we working?

CIP is strengthening OFSP value chains in Chikwawa, Nsanje, Mulanje, Chiradzulu, Zomba and Blantyre districts by facilitating linkages among farmers and to Universal Industries Limited.

### How are we going to make it happen?

CIP will provide technical support to 80,000 farmers through the five year RTC-ACTION project of which 8,500 will be empowered on commercialization through P4I and 5,000 by RTC-ACTION. Apart from training on production and acquiring disease-free planting material to increase productivity, farmers are being linked to supply roots to UIL and other fresh markets where farmers can sell roots profitably. CIP has further trained households on OFSP utilization to achieve diet diversity and therefore nutritional security. Small-scale marketers of doughnuts have also been trained on use of OFSP purée (steamed and mashed roots) to improve the profitability of their businesses.

### What have we achieved so far?

- Training of Smallholder farmers: A total of 10,000 beneficiaries comprising of vine multipliers and OFSP producers have been reached in 2017 with trainings on vine multiplication and root production as a business.
- Household food and nutritional security: The beneficiaries have been trained to produce more OFSP to cater for household use and sell the excess to earn income. Increased OFSP use supports improved food and nutrition security through consuming the roots and using the generated income to diversify the household diet.
- Improvements on OFSP value chain: Inclusion of all actors in OFSP value chain from government agencies, NGOs, multipliers, root producers, traders, processors and consumers imply sustainability in vine and root production and efficient and high quality service to processors and consumers
- Small-scale entrepreneurs: Have been trained on use of OFSP purée as a key ingredient for doughnuts and how to fry fresh chips. Doughnut selling is a widespread small-scale business amongst the Malawian women and if adopted, could absorb considerable amounts of OFSP roots.
- Enhancements in building public-private partnerships: On a large-scale, CIP has partnered with private institutions (such as UIL) on value addition and processing of OFSP-based products, including crisps (Fig. 2), MADYO soft cookie biscuits, purée and bread. It is anticipated that as the market for value-added OFSP

products is being expanded by UIL and others, more farmers engage in OFSP production, thereby providing more roots on the fresh markets. CIP has also continued working with DARS in the breeding program to screen varieties for commercial use.

- Knowledge creation: CIP has used various approaches to disseminate knowledge to farmers and consumers on nutritional benefits of OFSP, including radios, TV, and promotion days. Billboards at local markets where farmers, traders and consumers converge for sweetpotato in Mulanje are particularly effective (Fig 3).
- Economic Empowerment of Smallholder Farmers: Decentralized Vine Multipliers have been linked to markets to for selling their vines for root production to CIP and other NGOs. Farmers (suppliers) from the targeted districts have been selling OSFP tubers to UIL (Table 1) at U\$0.2/kg, a profit generating price (Fig. 4). UIL does not deal with individual small-scale suppliers. This has driven many farmers to organize into groups to be able to aggregate their supply to send to the processor.
- Improvements in good agricultural practices: 8,500 smallholder farmers have been imparted with up-to-date knowledge in OFSP production which will improve OFSP yields if consistently utilized.

**Table 1:** Number of male and female smallholder farmers selling OFSP Roots to Universal Industries in 2016/2017 season

DISTRICT	ROOT SUPPLIERS	MALE	FEMALE
BLANTYRE	1	1	0
CHIKWAWA	7	7	0
MULANJE	53	33	20
NSANJE	50	21	29
THYOLO	16	8	8
GRAND TOTAL	127	70	57

### What's next?

CIP will continue exploiting opportunities available in public-private partnerships that are aimed at supporting smallholder farmers in expanding OFSP market access in Malawi and in broadening technical knowledge concerning OFSP good agricultural practices.

### CONTACTS

International Potato Center (CIP)  
 Felistus Chipungu, F.Chipungu@cgiar.org  
 Universal Industries  
 Jean Pankuku, jpankuku@unibisco.com