

Scaling-Up Orange-fleshed Sweetpotato Through Agriculture and Nutrition (SUSTAIN) in Malawi

During the 2016/2017 season, 32,040 households received planting material. Out of these, 19,000 were reached with nutrition messaging. Nankhwali Farm in Mulanje continued to multiply and supply planting material from an 11 hectare farm but Ripple Africa in Nkhata Bay has shown interest to do the multiplying in the Northern region from this year. Universal Industries continued to produce BETA crisps, purée and bread from orange-fleshed sweetpotato (OFSP). The project found that using one large-scale vine multiplier was an effective strategy.

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Fig 1 Tiwonge Nalwanda from Chitindi-Mlare completing her harvest

What is the problem?

Food insecurity, limited incomes and malnutrition are major problems in Malawi. These problems have been accelerated by climate change, limited knowledge and lack of crop diversification. In Malawi, the Scaling-Up Orange-fleshed Sweetpotato Through Agriculture and Nutrition (SUSTAIN) project (2014 to June 2018) is accelerating the diffusion of OFSP for household consumption, especially in the Northern region, where this crop has received limited promotion compared to other regions.

What do we want to achieve?

SUSTAIN Malawi seeks to build household family resilience in food security, improve income and nutrition levels through increased production,

sale, processing and consumption of OFSP by accelerating farmer access to quality planting material of the best five varieties: Chipika, Kadyaubwerere, Kaphulira, Mathuthu and Ana Akwanire. This will in turn contribute to increased food availability, dietary diversity, improved vitamin A intakes among pregnant women and young children and increased household incomes (Fig 1). The project is encouraging rainfed as well as irrigated winter production to ensure continuous availability and consumption of OFSP. Our goal is to reach 75,000 households with children under five years of age with planting material, nutrition messages and counselling by June 2018.

The project is supporting Universal Industries Limited, a commercial food processing company, with a goal of them purchasing fresh roots from at least 5,000 small OFSP producers to produce several commercially viable OFSP-based processed products.

Where and with whom are we working?

SUSTAIN Malawi is one of several projects promoting OFSP dissemination in Malawi, with the goal of having the needs of the entire country met. Currently SUSTAIN is focused on working with eleven partners in ten districts in the Northern region and supporting one Peace-Corp volunteer in Thyolo in the Southern region. Households farmers are reached through our partners (see Table 1).



SUSTAIN is a 5-year program (2013-2018), coordinated by the International Potato Center (CIP) with support from UKAid, to scale up the nutrition benefits of biofortified orange-fleshed sweetpotato (OFSP) to 1.2 million households with children under five years of age in children in Kenya, Malawi, Mozambique, Rwanda, and Bangladesh. SUSTAIN supports an integrated set of interventions in agriculture, nutrition, and marketing to increase production and consumption of OFSP. SUSTAIN emphasizes rigorous monitoring, operational research, and independent evaluation to assess the scalability of these interventions and contribute to global evidence on achieving large scale nutrition outcomes through biofortified crops.

Table 1 SUSTAIN partners in Malawi, with details of the districts covered and the target households reached from July 2016 through June 2017.

No Partner	Districts	Target Households
	Salima Nkhosakota Nkhatabay Dowa Ntchisi Kasungu Mzimba Rumphi Karonga Chitipa Thyolo	
1 Feed the Children	X X	4,000
2 World Vision International	x x	6000
3 Farmers World	X x x x	3000
4 CADECOM Mzuzu	x x	2000
5 PERFORM	X x x	3,000
6 CARE Salima	X	2,000
7 Welt Hunger Hilfe	X	2,000
8 Diosence Karonga	X x	2,000
9 Ripple Africa	X	2000
10 Peace Corps	X x x x x X X x x	3,810
11 Bliss of the Elderly	X	230
		32,040

How are we making it happen?

SUSTAIN is supporting a four-pronged approach to increase OFSP adoption, utilization and consumption by: (1) supporting one major commercial vine multiplier with vine production and marketing, (2) supporting government extension agents and NGOs in the implementation of OFSP 'mother and baby' trials (MBTs) to assess the acceptability of the 5 varieties at the local level, (3) supporting nutrition education activities with communication tools and training, and (4) introducing and promoting OFSP value addition at community level through home-based food processing technologies. The activities are implemented through partners who sign a non-financial binding agreement annually.

What have we achieved and learned so far?

Since 2014, a total of 86,895 household farmers have been reached with planting material (Fig 2). Out of these, 32,040



Fig 2 Farmer Lake Phiri transporting vines



Fig 3 Innocent Kacheche from Mzimba admiring the giant OFSP root



Fig 4 BETA Crisps made with OFSP by Universal Industries in Malawi (credit J. Kazembe)

received planting material during the 2016/17 season. A total of 43,631 caregivers have been reached with nutrition messages and counselling information and 19,000 of these were reached in the 2016/17 season. The project has successfully supported one commercial vine multiplier, Nankhwali Farm in Mulanje to ensure disease free quality vines. This vine multiplier has been supplying planting material to the project from his seven hectare farm. The vines are sprinkled with water and covered with a wet hessian sack then transported in Land cruiser vehicles to the partners. Our monitoring data show that approximately 70% of the beneficiaries who received planting material in 2015/16 are continuing grow OFSP on their farms (Fig 3). The same surveys showed that household beneficiaries are also sharing the new OFSP varieties with an average of 1.6 neighbors and relatives called indirect beneficiaries and again it was noted that 61% of these beneficiaries are women and 39% men. Another observation showed that 76% of the beneficiary households had at least one child aged less than 5 years old.

Universal Industries Limited continues to purchase roots from at least 5,000 small-scale OFSP farmers to produce and market BETA crisps, purée and bread from OFSP (Fig 4). In 2016 the company purchased 11 tons of roots from the farmers valued at six million Malawi Kwacha (US\$ 8,220). It is hoped that the farmers will increase their production to meet the increasing demand. The crisps are available through-out the country but the bread is available only in Blantyre.

What Next?

As the project is approaching the end, a review workshop with the partners is planned to capture the lessons learnt and conduct an internal end-of-project survey. A final project report will be prepared by June 2018.