

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

SEPTEMBER 2016



Fig 1. A screenhouse at Nankwali Farm, which is now the largest commercial multiplier in Malawi. (credit D. Matiya)

What is the problem?

The principle driver for SUSTAIN Malawi remains 'OFSP production for consumption'. After poor rainy seasons in 2015 and 2016, disappointing maize production and increased food insecurity, SUSTAIN has also focused on disaster recovery and resilience.

What do we want to achieve?

The plan for the 2015/16 rainy season was to reach 20,000 households, starting in the south with the onset of the rains and moving northward as the rains stabilised. However, rains were delayed in the south, requiring rescheduling to avoid delivering planting material before farmers had adequate soil moisture to plant.

Where do we work?

With the approval of a new Irish Aid funded project on OFSP in the Southern Region, SUSTAIN completed the shift northward into new districts. By the end of the year, we will be supporting OFSP activities in all districts in Malawi. We continue to embrace a 'partnering for scale' approach, supporting 12 implementing partners.

What have we achieved?

Success with the Mother and Baby Trial (MBT) approach: SUSTAIN used an MBT approach to plant over 560 farmer hosted mother sites consisting of all six OFSP varieties (400 in 2016 rainy season and 160 in the winter dambo season). In addition, 35,911 farmers (baby sites) received one bundle of one of the five new OFSP varieties.

With the construction of a screenhouse, Nankwali Farm is the largest multiplier of quality sweetpotato basic and quality Declared Planting Material. The Mother and Baby Approach has been adapted to include farmers' varieties and a high yielding white-fleshed variety to increase diversity and enhance the contribution of sweetpotato to system resilience.



Fig 2. Map depicting project partners according to their districts of operation

Commitment to partnership: Collaborating with 12 partners enables SUSTAIN Malawi to implement at scale, 'leaving no farm family without.' This year, we held two workshops for partners – the first prior to planting and



CIP

INTERNATIONAL POTATO CENTER
A CGIAR RESEARCH CENTER



UKaid
from the British people



SUSTAIN is a 5-year program (2013-2018), coordinated by CIP with support from UKAid, to scale up the nutrition benefits of biofortified orange-fleshed sweetpotato (OFSP) to 1.2 million households with under-5 year old 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.

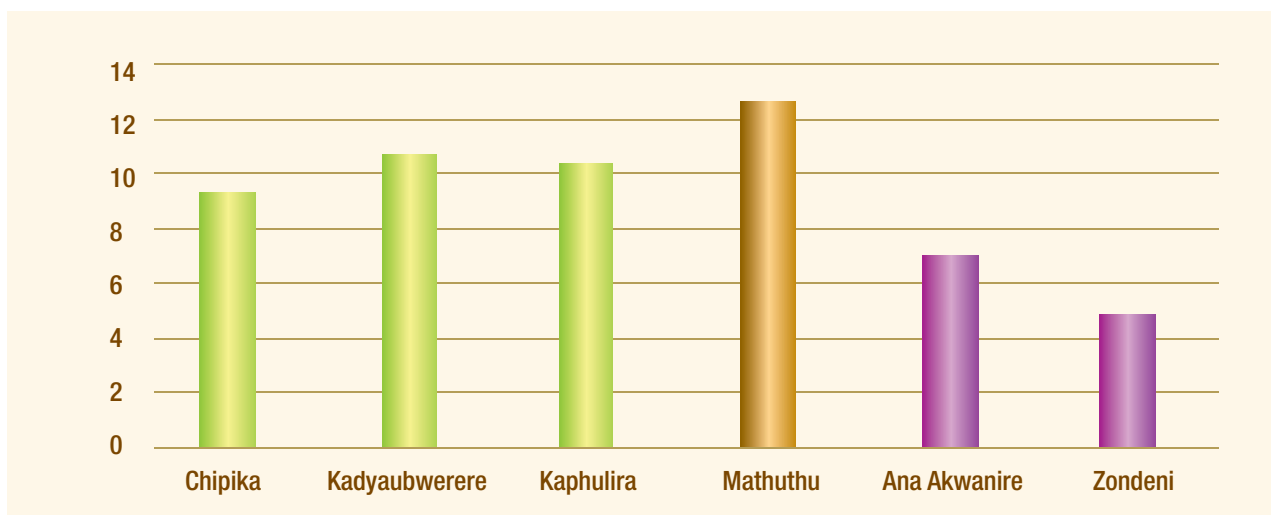


Fig 3. OFSP average yield of the six OFSP varieties during the 2016 rainy season MT/Ha (n=184)

the second prior to harvest. We also developed a partner assessment tool to identify strengths to build on, and weaknesses to correct to make partnerships more effective and sustainable.

We awarded small grants to two partners: Concern Worldwide for nutrition support and Feed the Children as bridge funding. Both grants will end this year. However, we will continue to work closely with Concern Worldwide, taking advantage of their strengthened capacity in OFSP nutrition. With the new 'Tiwalere' (to raise them up) Orphans and Vulnerable Children project approved, the bridge is complete and the OFSP partnership will be scaled up in 2017.

Tracking varietal performance, adoption and diffusion: Based on the performance of the six OFSP varieties over the past two years and four seasons in the farmer managed mother sites, we decided to drop Zondenii and Ana Akwanire, one of the five 2011 releases due to their long maturity period and low yields (Fig 3).

SUSTAIN designed and implemented a short adoption and diffusion survey with a sample of recipients of a bundle of one of the new, promising, OFSP varieties. The results indicate that farmers are adopting and diffusing the new varieties. Seventy five percent of the recipients harvest roots and vines. Farmers are maintaining their own planting material, doubling the area planted the next season and sharing vines with 1.5 neighbours.

What's next?

We use a different approach to planting material, that complements investments in public sector pre-basic and basic material and in decentralised vine multiplication. This year, Nankhwali Farm increased the amount of greenhouse starter material purchased from the Bvumbwe Research Station to produce basic material for sale to decentralised vine multipliers. To increase the supply of pre-basic material to meet the growing demand, we made a matching grant to the farm for the

construction of a greenhouse. We will continue to support Nankhwali Farm, now the largest commercial multiplier in Malawi (Fig 1).

The feedback that farmers who received one bundle of 100 cuttings of one variety are maintaining planting material and increasing area planted and sharing with others, indicates that the farmer planting material system is critical to the sustainable scale-up of OFSP. We are piloting an effort with Self Help Africa to support and encourage farmers to use rapid multiplication to increase quantity of planting material in the northern districts which are too far from the centres of multiplication.

Starting in 2017, we will modify the mother plot design to include the dominant local variety and a 2011 released white-fleshed sweetpotato variety. This will allow farmers to better evaluate the performance of the new OFSP varieties and also assist in better understanding the role of sweetpotato in system resilience in light of consecutive droughts. In 2017, we will partner with Farmers World Productivity Improvement Program for Smallholder Farmers (PIPS) to better understand sweetpotato soil fertility and make better fertiliser recommendations.

SUSTAIN will continue to implement through 12 partners. In addition to the two workshops on managing the MBTs, we are organizing two workshops. The first, organized by Concern Worldwide, is on OFSP Vitamin A nutrition and the second on ICT-enabled monitoring and evaluation. In addition, Concern Worldwide will support Nankhwali Farm with trainings in (1) Village savings and lending; (2) OFSP nutrition; and (3) Organising to produce and sell roots to Universal Industries for processing.

Partners

Department of Agriculture Extension Services • Research Triangle Institute Early Grade Reading Initiative • Feed the Children • Concern Universal • Concern Worldwide • Tetra Tech Protecting Ecosystems & Restoring Forests in Malawi • World Vision International • Catholic Development Commission in Malawi • Self Help Africa • Diocese of Karonga • Welt Hunger Hilfe • Peace Corps