

# Sweetpotato support platforms to build a community of practice

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Key to building a community of practice is to participate in shared learning experiences. In August 2012, sweetpotato breeders from Africa and Asia learned modern molecular methods at a course hosted by the University of Ghent in Belgium. Back in SSA, SASHA conducted 9 three day in-country trainings on CloneSelector 3.0 and 12 SSA breeding programs shared their progress at the Speedbreeders annual meeting held in Kigali, Rwanda in April 2013.



Attendees at Gender Lens Training in Uganda.

## What is the problem?

Compared to its value relative to other food crops in Sub-Saharan Africa (SSA), there has been a major underinvestment in sweetpotato. In Eastern and Southern Africa particularly, a disproportionate share of agricultural budgets is devoted to maize research and dissemination and to non-food cash crops.

Key bottlenecks to the full potential utilization of sweetpotato have been identified, but there is a dearth of researchers addressing those problems and development agents knowledgeable in good sweetpotato production and post-harvest management techniques.

## What do we want to achieve?

We want to see a growing and vibrant community of practice, with sweetpotato researchers and development agents able to obtain and apply sweetpotato knowledge effectively. By developing tools, such as gender-sensitive protocols for data collection, and sharing information among stakeholders, we want to build synergy and avoid unnecessary duplication of effort.

More broadly, we want to increase breeding capacity to ensure the continuous production of high yielding, disease-resistant, nutritious varieties

adapted to local agro-climatic conditions and consumer preferences. We also want increased access to those materials for any African country to use. We want to change the image of sweetpotato from being a crop of the poor to being a healthy food for all.

We want to reach the Sweetpotato for Profit and Health Initiative's (SPHI) goal of enhancing the lives of 10 million households in 16 SSA countries by 2020 through the effective and diversified use of sweetpotato. The three sub-regional Sweetpotato Support Platforms (SSPs) are integral to fulfilling that goal.

## Where are we working?

To ensure access to germplasm and technical backstopping, a SSP has been established within each major sub-region of SSA. For East and Central Africa, the SSP is hosted at the National Crops Resources Research Institute (NaCRRI) in Uganda and the Kenyan Plant Health Inspection Service (KEPHIS). For Southern Africa, the SSP is based at the Agrarian Research Institute of Mozambique (IIAM) in Maputo. The West Africa platform is located at the Crops Research Institute (CRI) in Kumasi, Ghana.

Support for the establishment of the Platforms and the holding of SSP meetings is provided by the Sweetpotato Action for Security and Health in Africa Project, led by the International Potato Center with over 26 collaborating partners.

### ✦ How are we making it happen?

Building the next generation of sweetpotato breeders is core to this effort. Working in close collaboration with the Alliance for a Green Revolution in Africa (AGRA), CIP breeders based at each SSP are backstopping national program breeders in 12 SSA countries and co-supervising PhD candidate breeders being trained in AGRA-sponsored programs. Annual sweetpotato *speedbreeder* meetings are held to learn the latest methods and share findings. Our goal is to have at least 6 new sweetpotato breeders in SSA by 2016 and all national programs using the *CloneSelector* Excel-based program to record and analyze their sweetpotato trial data based on a standard protocol.

At each SSP, capacity will exist to conduct virus testing and produce disease-free planting material and provide all national programs within SSA access to that material. Each SSP will have a quality laboratory, capable of quickly screening breeding material to determine its nutrient composition, including essential vitamins and minerals for human health.

Regular SSP meetings being held in each sub-region provide fora for sharing new skills among community of practice (COP) members. Core to the COP effort was the establishment of the Sweetpotato Knowledge Portal ([www.sweetpotatoknowledge.org](http://www.sweetpotatoknowledge.org)) in 2010 – a website that enables users to contribute their own knowledge as well as learn from others. Standardized gender aware survey modules for conducting baseline surveys for interventions using sweetpotato have been developed and tested.

Since 2011, the Reaching Agents of Change (RAC) project has enabled the expansion of SSP activities to include communication, advocacy, and training components (see RAC brief).

### ✦ What have we achieved so far?

1. Two annual breeding meetings have been held during SASHA Year 4 (July 2012-June 2013). A two week sweetpotato breeders' course held in August 2012 at the University of Ghent in Belgium focused on learning molecular methods. The speedbreeders meeting hosted by the Rwanda Agricultural Board in Kigali in April 2013 focused on sharing breeding progress and interpreting data emerging from *CloneSelector* output.
2. Three PhD breeders have graduated, and an additional 6 are in the pipeline.
3. SSP meetings are held twice a year in each sub-region, often linked to other professional meetings and increasingly focused on specialized topics. However, in the first half of 2013, SSP meeting funds were used to conduct 9 in-country



■ Data manager Luka Wanjohi demonstrates bar coding at KEPHIS.

trainings of scientists and technicians in the use of *CloneSelector*.

4. 7 West African scientists were sponsored to present at the 16th Triennial International Society for Root and Tuber Crops Meeting, held in Abeokuta, Nigeria, the 24-28 September 2012.
5. Fifteen SSA breeders presented either oral or poster presentations at the 9th Triennial African Potato Association Conference held in Naivasha, Kenya in July 2013, the highest representation of sweetpotato breeders ever at this event.
6. As of 1 August 2013, the Sweetpotato Knowledge Portal had 895 registered users and 6,422 content items. In year 4, the site registered 14,781 visits. The Portal was upgraded from March-June 2013.
7. Quality nutrition labs are functioning in Uganda, Mozambique, and Ghana.
8. There has been substantial rehabilitation of germplasm related facilities at the KEPHIS, Kenya (which serves all of SSA), and the introduction of bar-coding equipment for tissue culture management in 2011.
9. SSPs in each sub-region are serving as centers for germplasm clean-up, maintenance and exchange and are striving to meet international standards of operation.
10. The gender specialist developed a one day course entitled *Learning to use a gender lens in implementing sweetpotato research and development activities*, based on 4 case studies drawn from SASHA research work in the areas of seed systems, value chains, animal feed and nutrition-health and implemented this course at the SSP for East and Central Africa in October 2012.
11. The annual SPHI technical meeting in September 2012 brought together 9 different sweetpotato projects to share experiences. For the first time, an exhibition was held for the broader community to highlight progress being made in sweetpotato research for development.

Led by CIP, the five year Sweetpotato Action for Security and Health in Africa (SASHA) project is designed to improve the food security and health of poor families in Sub-Saharan Africa (SSA) by exploiting the untapped potential of sweetpotato.

The Reaching Agents of Change (RAC) project, led by the International Potato Center in close collaboration with Helen Keller International, seeks to ensure the capacity of African institutions, advocates, and implementing organizations to generate awareness, obtain funding, and effectively implement medium- to large-scale programs to combat vitamin A deficiency (VAD) and food insecurity by exploiting the potential of orange-fleshed sweetpotato (OFSP). The five target countries are Tanzania, Mozambique, Nigeria, Ghana, and Burkina Faso.