# Ghana's KNUST: Equipping the Next Generation of Sweetpotato Change Makers



Kwame Nkrumah University of Science and Technology (KNUST) in collaboration with its partners is repositioning sweetpotato in Ghana's food economy for health and wealth creation, making it an entrepreneurial hub in Africa. The capacities of participants of its annual Sweetpotato Training of Trainers (ToT) Course dubbed "Everything you need to know about sweetpotato" have been built for community impact and engagement. Four editions have been organized so far with participants from 16 different countries in Asia, America and Africa. Most of the participants have imparted the acquired skills and knowledge from the ToT course to farmers in their communities; a few have established sweetpotato businesses.



AUGUST 2019

Fig 1. Fourth ToT Course in Ghana in Action: Practical training on the selection, cutting and planting of clean sweetpotato vines on the field (Credit: Dr. A. Boakye)

## What is the problem?

For most agri-preneural training programs, the challenge is having trainees apply the knowledge and skills acquired for community impact. Although the incidence of unemployment is soaring globally, the nutritional and economic potential of sweetpotato, particularly the orangefleshed sweetpotato, (OFSP) have not been fully exploited. The sweetpotato value chain presents several lucrative agro-processing and agribusiness opportunities that the younger generation can harness.

#### What do we want to achieve?

The aim of KNUST's sweetpotato ToT (Fig. 1) course is be a training hub for training agencies and other stakeholders to implement technically strong and cost-effective interventions that drive uptake of sweetpotato (especially the vitamin A rich orange-fleshed varieties). It is expected that participants are not only trained for personal development but to apply the skills and knowledge acquired from the course for community engagement and impact. Ultimately, we aim to empower African youth to take up roles along the sweetpotato value chain for enhanced productivity, improving health and creating wealth. Our goal is to promote the consumption, utilization and commercialization of sweetpotato. The demand for sweetpotato should increase significantly through the collaborative efforts of all stakeholders of the sweetpotato value and supply chain in making the nutritious crop an everyday food choice. This would be achieved through practical training programs and active engagement of as many people as possible in the commercial production of sweetpotato roots and leaves for food and manufacture of value-added sweetpotato-based products appealing to their peers (Fig. 2).

## Where are we working?

We are currently working at the Kwame Nkrumah University of Science and Technology (KNUST) and at the test field of the Crops Research Institute (CSIR-CRI) and the International Potato Center (CIP), Kumasi in Ghana.

# How are we making it happen?

The sweetpotato ToT course is structured such that participants' capacities are built with regards to the technical aspects of sweetpotato production, utilization and dissemination; entrepreneurship and marketing skills for designing cost effective interventions along the OFSP value chain; as well as facilitation skills for organizing training sessions at the national and international levels. Thus, the training is comprehensive as it spans across topics such as the origin and importance of sweetpotato, OFSP and nutrition, role of gender in the sweetpotato value chain, and basic training in product marketing, costing and other aspects of running a business. The 2018 revised version of the manuals for the course are available at www. sweetpotatoknowledge.org.

In addition, participants are equipped with practical skills in identifying sweetpotato varieties and their characteristics, sweetpotato production and crop management, sweetpotato pests and diseases and their management, selecting, preserving and multiplying sweetpotato planting materials as well as harvesting, processing and postharvest management. Participants are taught how to valorize the roots and leaves of sweetpotato through novel food product development lessons and practical cooking sessions.

To actively involve participants in the training process, they are put into groups and tasked to develop and make



**Fig 2.** Second ToT Course: Participants being shown the diversity of potential profitable OFSP products (Credit: K. Boakye and S. Tawiah)

presentations on value-added sweetpotato-based products such as drinks, pastries, complementary foods, yoghurt and gari (small roasted grains made from roots). During the 4th ToT course, one of participants happily shared her self-developed sweetpotato bread. An important part of the training is grooming participants on how to effectively plan a dissemination programme and to train others with the knowledge, skills and experiences obtained. Besides the curricular activities, participants have fun by embarking on an extra-curricular tour where they socially interact with one another and network with notable sweetpotato farmers and processors in Ghana. We ensure that participants make impact with the skills and knowledge gained in their communities. A post-course monitoring system has been established in that effect, to document the success stories and challenges of participants.

### What have we achieved so far?

So far, four editions of the 10-day ToT course have been organized with a total number of 79 participants from 16 different countries in Asia, America and Africa including: Ghana, Burundi, Mali, Mozambique, Kenya, Ethiopia, Burkina Faso, Zambia, Tanzania, Cameroon, Gambia, Guinea, Nepal, Nigeria and Liberia (Fig. 3). We have therefore created an entrepreneurial hub in Africa.

Some participants of the ToT course have proven to be positive change makers in their communities. Albert Zempare (2016 Cohort from World Vision - Ghana) has ventured into production and utilization of OFSP in Atebubu Amantin and Kintampo South districts in Ghana. He has trained farmer groups in these districts to develop various food recipes from the leaves and roots. Also, Albert has distributed OFSP vines to over 30 trained farmer groups as a starter package for production. In his community, he continues to educate inhabitants on the nutritional benefits of OFSP consumption. Agnes (2016 Cohort from MoFA-WIAD



Fig 3. Participants and trainers of the 4th ToT Course (Credit: J. Kusi)

## Contact

Ibok Oduro, KNUST, iguomma@yahoo.com

- Ghana) trains women in the Volta Region of Ghana how to make OFSP bread. She has exhibited a range of OFSP-based products at a number of conferences. Sylvie Tougouma (2017) Cohort from Peace Corps - Burkina Faso) has organized a knowledge transfer session for 17 Peace Corps trainees (PCTs) in Burkina Faso; planting of 71 OFSP vines in collaboration with Community Economic Development project team. At the moment, Wanduku Tembung-Njoh (2017 Cohort from Peace Corps, Burkina Faso) is training local women in Ebolowa, Cameroon in home gardening and nutrition of sweetpotatoes and preparing seed vines for their villages (Fig. 4). Mohammeth Kane (2018 Cohort, Peace Corps - Mali) has trained over one-hundred-and-twenty (120) individuals in OFSP production, storage and processing through partnerships with CIP and Peace Corps in his community. He is currently working with an entrepreneur to produce and export OFSP roots to Germany. The change-making stories from previous participants of the ToT course are impressive and we continue to receive more success stories about their entrepreneurial startups, community engagement and impact.

## Next steps

Future plans will mainly center on diversifying the means of advertising and attracting specific target audiences. This would be achieved through collaboration with interested stakeholders to raise the needed finance to develop and run the virtual option for the ToT course. Furthermore, the initiative of running tailor-made courses to meet the needs and demand of interested stakeholders will be adopted. Going forward, we plan to continually engage previous participants to be aware of their challenges and success stories and acquire grants to help fund their business startups and or explore their entrepreneurial ideas. In the long run, we envision that Ghana would become the ideal hub for hands-on entrepreneurial training on sweetpotato value chain advancement.



**Fig 4**. Wanduku training women in Cameroon home gardening and nutrition of sweetpotatoes (Credit: W. Tembung Peace Corps-Burkina Faso)

**Partners -** Kwame Nkrumah University of Science and Technology (KNUST), Crop Research Institute - Council for Scientific and Industrial Research (CRI-CSIR), International Potato Center (CIP), Ministry of Food and Agriculture (MoFA), Ghana, Women in Agricultural Development – MoFA, Ghana.

visit the sweetpotato knowledge portal www.sweetpotatoknowledge.org









CIP thanks all donors and organizations which globally support its work through their contributions to the CGIAR Trust Fund. https://www.cgiar.org/funders/



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