

Sweetpotato seed systems community of practice – what are we learning? What are we practicing?



Fig 1. Participants of the 2019 SPHI Seed Systems CoP meeting in Mekelle, Ethiopia (Credit: F. Njunge)

- Nine consultations were held from April 2015 to May 2019, with participation from diverse actors in the seed system i.e. researchers from CIP and NARIs, NGOs implementing sweetpotato projects, regulators, seed producers and farmers.
- Participants say that the community of practice (CoP) is the best way to experience sharing, learn new practices and increase interaction between researchers and practitioners.
- An online survey was conducted in May 2019. All respondents listed new knowledge and skills that they have learnt, and the majority reported on new technologies that they have tried in their contexts.



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What was the problem?

Scientists and development practitioners have diverse experiences. We wanted to leverage explicit and tacit knowledge to improve understanding of seed system research questions and potential solutions.

What objectives did we set?

Peer-to-peer learning is fundamental in identifying common constraints and working towards solutions. We also want to avoid new members having repeat mistakes made in the past.

Where did we work?

The CoP is global with more than 130 members from sub-Saharan Africa, Europe, the United States of America, and South America (Fig.1). Participants interact through on-line discussion topics, an annual face to face meeting and learning journeys. A sub-group of members from National Agricultural Research Institutes (NARIs) who received grants also meet twice a year to focus on sharing experiences and learning from the implementation of business plans for sustainable Early Generation Seed production.

What did we achieve during SASHA Phase 2?

Nine consultations were held with either the broader CoP group (with 50-60 participants at each meeting); or the sub-group from the NARIs (18-25 participants). Themes for the meetings were identified in consultation with the host country institution and reflected the experiences from that country. Themes have included: "Marketing Strategies for Quality Sweetpotato Seed"; and "Engaging Youth for Improved Sweetpotato Seed and Root Production". "Learning journeys" were held during the meeting to provide opportunities and space for in depth discussion. We adapted this approach from www.africa.procasur.org, as an iterative and reflective process for researchers and practitioners to interact in the field (Fig. 2).

Twenty on-line discussions have been hosted using a Google groups listing. Topics and lead discussants may be identified during the annual meeting as a follow up to issues raised during the learning journeys. The on-line discussions help to keep members interacting throughout the year. Topics have included phyto-sanitation and seed standards, strengthening public-private partnerships for enhanced vine marketing and weevil management. The discussions are then summarized, with recommendations or next steps and posted on a web portal (www.sweetpotatoknowledge.org) to be available to a wider audience. The Knowledge Portal is the content repository for all presentations and reports from the Seed Systems and Crop Management CoP.

A recent online survey targeting participants at the 11th consultation of the CoP identified technical and business technologies that participants have implemented in their program as a result of the learning experiences in the CoP. These are highlighted in Table 1.



Fig 2. Learning journey to Serge Ganza, Kamonyi Enterprise Rwanda (Credit: F. Njunge)

Table 1: Technical and business innovations that have been shared by CoP members

Technical innovations	Business innovations
Seed multiplication in high virus pressure zones. In Nigeria and Uganda, members modified the design for net tunnels by using different materials for the frames (e.g. polyurethane or reinforcing bar). In Ethiopia and Tanzania, zips were used to improve the closure for the net tunnels. Different countries have used different sizes of screen-houses, e.g. mobile net tunnels in Ethiopia and Rwanda. In Tanzania, TARI has used black net as part of their screenhouse construction to provide additional shading. In Burkina Faso, INERA has used “aluminet” for temperature management.	Managing EGS supply to meet customer requirements. In Ghana the Crop Research Institute (CRI) is encouraging customers to make advance payment for orders made. Contracts have been signed with institutional buyers to produce seed quantities as per their demand.
Use of beds for vine multiplication in screenhouses. Most countries started by using pots or poly bags; but have now shifted to beds in order to increase screenhouse plant population and yield.	Using different pricing strategies based on when the customers pay. In Kenya early orders and payments qualify for a discount. Purchases in bulk (over a set number of vines) also qualify for a discount.
Use of trellising or staking of vines in the screenhouse. This practice is now common across countries. It increases the screenhouse multiplication rate and consequently seed available for sale.	Use of ICT such as SMS alerts and Tanzania, Kenya, Nigeria and Ghana have used Whatsapp groups for marketing and general information sharing such as release of new varieties.



Fig 3. Dr. Nessie Luambano from the Tanzania Agricultural Research Institute (Credit: F. Njunge)

Perspectives on the CoP from Dr. Nessie Luambano Tanzania Agricultural Research Institute

Q: Kibaha has launched a successful marketing campaign highlighting the benefits of quality seed for better yield especially for orange-fleshed sweetpotato. What has helped you get this right?

A: We produce six different varieties of orange-fleshed (the majority) and other white or cream fleshed sweetpotato. This has ensured that we provide our seed customers with different options and making us the best source of early generation seed.

We market through advertising on radio and television, organizing and participating in farmer days, agricultural days, exhibitions and other events where we meet different customers, market sweetpotato seed and exchange contact details for further follow-up. We are also using social media, Whatsapp and Facebook, to bring different stakeholders together. We currently have a group comprising of 135 members who have become advocates of the use of clean seed from TARI Kibaha.

Were there any key challenges or lessons learned?

CoP members who attend the annual meetings, report that the face to face meetings are very useful to share experience and provide initial contacts that can then be followed up on line; however, the physical meetings are expensive to host.

While the focus of the CoP on sweetpotato seed systems and crop management has allowed in-depth exploration of key topics, we need to strengthen linkages with the sweetpotato breeders to ensure that newly released varieties are multiplied in the seed system as quickly as possible.

What's next?

We propose to merge the SpeedBreeders' and Seed Systems CoPs to function as three sub-regional groups i.e. for East and Central Africa; Southern Africa and West Africa. We want to ensure that preferences of diverse end-users contribute to decision making in breeding programs; and that seed producers are part of this process to ensure that enough seed of market preferred varieties is available.

Partners

Tanzania Agricultural Research Institute (TARI) • National Crops Resources Research Institute (NCRRI) • Rwanda Agriculture and Animal Resources Development (RAB) • Institut de l'Environnement et de Recherches Agricoles (INERA) • National Root Crops Research Institute (NRCRI) • Zambia Agriculture Research Institute (ZARI) • Southern Agricultural Research Institute (SARI) • Instituto de Investigação Agrária de Moçambique (IIAM) • Department of Agricultural Research Services (DARS) • CSIR-Crops Research Institute (CSIR-CRI) • BioCrops Uganda

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