



**Sweetpotato
Breeder's Survey
2013:**

Preliminary Results

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Overview of Survey Participants to Date

By April 17th cut-off:

21 responses

67% NARIs

5% University

24% CGIAR (CIP)

5% Other

- 86% Breeders, 10% agronomists
- 76% Male, 24% Female
- 48% 35-49 years old
- 33% 50 years & above
- 19% Under 35 years



Community of Practice

- All consider themselves to be members of the community of practice
- How often do you communicate with other members of the sub-regional SP platform on professional issues (by email, phone, visits)?
 - Rarely 39%
 - On a monthly basis 22%
 - On a weekly basis 39%

1 As and when necessary

2 Undergoing studies which is taking much of my focus

3 This happens though not as often as I would have loved. We have much that we can accomplish by sharing research responsibilities and reporting to one another once in a while.

4 I communicate to different people almost on a daily basis during the working days

5 I am presently a PhD candidate overseas which limits regular communication with the rest of the breeders

8 CIP office Nairobi is also quite accessible sometimes I visit to discuss professional issues which need practical application

9 Communicate when need be and sometimes can be very frequent

Community of Practice & Use of Portal



- Have you made or received visits to/from other countries as a part of the SP platform activities?
 - 82% made a visit to another country's breeding program
 - Mozambique, Kenya, Peru, Uganda most frequent
 - 67% received a visit from colleagues in another program
 - Mozambique, Tanzania, Kenya, Uganda

- Signed up as a member of the Sweetpotato Knowledge Portal (SPK)? 85%
- How often do you use the SPK?
 - Rarely 65%
 - On a monthly basis 25%
 - On a weekly basis 10%
 - On a daily basis 0%
- Main problems: Connectivity, connectivity, connectivity
Only use it to seek info required at particular time.
Not everything you want to know about SP is on the SPK

Participation in SASHA Technical Meetings



- Number of meetings attended since 2009:
 - More than 5 37%
 - 3-5 26%
 - 1-2 26%
 - None 11%



Usefulness and Quality of Training Received



	Very Low	Low	Average	Good	Very Good	N/A	Rating Average	No. Responding
Clone Selector	5.60%	0	0	11.10%	66.70%	16.70%	4.6	
	1	0	0	2	12	3		18

1 I understand other robust statistical programs must be used to compliment clone selector. Shouldn't clone selector be improved so as to make it robust enough to be used alone instead of just using it for data management?

2 MET summary analysis using clonesselector 3.0 should soon be rectified.

More education on the use of augmented block and Alpha lattice designs.

4 Clone selector is good working tool for sweetpotato researchers

5 CloneSelector is a very useful tool

6 The clone selector is a good method to be used as a breeder to support the variety selection and environments each year

11 I've used Clone Selector for GxE analysis for my thesis 12 Haven't had direct opportunity to learn it.

Usefulness and Quality of Training Received



	Very Low	Low	Average	Good	Very Good	N/A	Rating Average	No. Responding
Breeder's Course	0.00%	0	0	13.30%	66.70%	20.00%	4.83	
Belgium, 2012	0	0	0	2	10	3		15

2 Experiences from the field and lab visits were so motivating.

4 Increased my capacity on conventional and molecular breeding, as well as an update on GxE analysis and interpretation

5 The course refreshed plant breeding knowledge and provided hands on training in modern techniques

8 This training offered me opportunity to meet sweetpotato breeders beyond the actual professional training.

11 One of the wonderful and complete training

12 Invited but couldn't attend due to VISA problem

Usefulness and Quality of Training Received



	Very Low	Low	Average	Good	Very Good	N/A	Rating Average	No. Responding
Breeder's Course	0.00%	0	0	13.30%	60.00%	26.70%	4.82	
Maputo, 2011	0	0	0	2	9	4		15

- 2 I first appreciated the use of cloneselector. Also, Maria's fields were exciting.
- 4 Got skills on accelerated breeding in sweetpotato and cloneselector
- 5 CloneSelector was very usefull for real data analysis
- 10 The training was good but application after training had hitches and I could not get the final analysis using the program. There is need for refining the program and making it more user friendly. Currently am using the field notebook I generated from the program to collect my field data
- 11 We have seen and learnt from the impressive research work undergoing in Mozambique
- 12 Invited but couldn't attend due to VISA problem

Usefulness and Quality of Training Received



	Very Low	Low	Average	Good	Very Good	N/A	Rating Average	No. Responding
Breeder's Course	0.00%	0	0	33.30%	26.70%	40.00%	4.44	
Mukono, 2010	0	0	0	5	4	6		15

5 Started on use of CloneSelector

9 It was an eye opener workshop to meet with other breeders and what is happening on sweetpotato production and promotion

10 The training was good for introduction of the program but the program was not ready for application

11 This was my first participation and it was really an opportunity to meet and exchange with experienced breeders

Sharing Knowledge Gained with Others

All responded that they have shared new skills and knowledge gained through the SSP with others

- Total number of colleagues:
 - 21% 5 colleagues or less
 - 21% 6-10
 - 16% 11-30
 - 10% 31-49
 - 10% 50-99
 - 10% 100 colleagues or more

How was this done:

100%	Shared resource materials
94%	One-to-one briefing
88%	Presentation to group
60%	Replicated training

Continued or Additional Short-term Training

- 1 The use of other statistical software packages e.g. SAS for analysis of data
- 2 Production of clean planting materials
- 3 GxE analysis of split plot design using clone selector
- 4 Interpretation of data analysis results, especially PCA graphs and Tai graphs: This is applicable to GE experiments
- 5 Regular CloneSelector training, especially MET
- 6 Project planning, management and administration. This is a fairly ignored relevant part of the breeding process
- 7 HOW TO MULTIPLY VINES; seed system related subjects
- 8 Germplasm exchange
- 9 Procedure for on-farm evaluation and data analysis
- 10 GERMPLASM CONSERVATION and collection
- 11 Scientific writing
- 12 Continuous Clone Selector training along with its update
- 13 Virus indexing for NARIs who still lack the know-how
- 14 Proposal writing

Continued or Additional Short-term Training

- 3 Interpretation of GxE analysis
- 4 Setting up experiments that have unbalanced genotypes. What designs are appropriate for these kind of experiments and how to analyze them
- 5 Use of GGE Biplot analysis in CloneSelector; using to analyze taste data
- 7 POST HARVEST
- 8 Data management/analysis
- 9 Procedure for making the variety descriptors
- 11 Leadership course
- 13 Effective phenotyping of SPVD
- 4 Use of the Knowledge portal
- 4 Field plot techniques for our technicians for us to reduce the sources of variation in our trials
- 6 Intellectual Property and Plant variety protection
- 8 Consideration of agronomic traits (fertilizer, irrigation)
- 11 Gender mainstreaming
- 13 Application of marker-assisted selection in sweetpotato breeding programs

Germplasm Exchange

- 57% have received botanical seed as part of support platform
- 52% have received SP germplasm as part of support platform
- How can we make SP germplasm exchange more useful or efficient?

1 The need to strengthen the following procedures for exchange of germplasm among countries. Import permits Transfer agreements and Issuing of phytosanitary certificates

2 Policy issues on benefit sharing among countries within regions need to be streamlined to allow easy germplasm exchange

3 Capacity to eliminate viruses from vines need to be build up to avoid sharing viruses.

4 It is good for 'breeders who receive germplasm and seed to give feedback on performance of germplasm

5 Stringent phytosanitary regulations make germplasm movement difficult

Germplasm Exchange

- 5 We need to get our act together (as we are) with respect to ISO procedures. Germplasm exchange needs to be an integral part of work plans for SSPs
- 7 Sub-regional exchange of materials is recommended since the generation of botanical seed is not common in most of the sweetpotato growing areas.
- 8 Important to observe MTA for future acknowledgement or inclusion of the donor in IPR benefits
- 9 Broaden breeding objectives and share seeds with other countries
- 10 Received OFSP varieties used in our breeding program Sent OFSP materials to Senegal (USAID) and Mali (IER) and Cote d'Ivoire (HKI) for OFSP promotion and research
- 11 Sharing of information about availability of germplasm that can be shared, in what form (seed, vine cuttings, in-vitro materials) and requirements for sharing.
- 12 Availing information on line for partners on available germplasm; giving passport information for the same to help partners make right choice of what

Financial Support & Publishing



- 33% have submitted proposals to at least one donor since 2009
- 40% have received AGRA grant (one before 2009)
- Among 11 who responded, 7 (64%) said their national research program received funds from other sources for their sp program since 2009
- 76% published articles on sp research and development since 2009
- 71% presented posters on sp research and development since 2009

Rating of the Importance of the Following Activities of the SP Support Platforms



	Very Low Importance	Low Importance	Average Importance	High Importance	Very High Importance	Rating Average
Proposal Development & funding opportunities	5%	0%	5%	21%	68%	4.47
Technical Backstopping Visits	0%	0%	11%	39%	50%	4.39
Web-based Sweetpotato Knowledge Portal	0%	0%	6%	50%	44%	4.39
Short-term training	5%	0%	0%	42%	53%	4.37
Germplasm Exchange	5%	0%	5%	32%	58%	4.37
General Networking Opportunities	5%	0%	0%	42%	53%	4.37
Physical Meetings Focusing on Specific Topics	5%	0%	5%	47%	42%	4.21
Long-term training (MSc & PhD)	5%	0%	5%	55%	35%	4.15

Other Activities Breeder's Support Platform Should be Involved In



- 1 Well planned visits to Lima to know more about SP research activities.
- 2 Mentoring students. This will ensure there are sweetpotato practitioners in the future.
- 3 Sweetpotato genomics. This will be relevant for making strides towards to use of molecular markers for enhancing sweetpotato breeding
- 4 Global conference on sweetpotato to sensitize governments about the crop
- 5 Development of high quality elite lines that can be evaluated and released in each country in the sub-region.
- 6 Strengthening linkages between private and public sector on clean seed production and dissemination
- 7 We can make the SSP relevant by having joint activities that make us meet in the field more often
- 8 We need to involve the technicians in some of these training programs as they are a vital link for the success of sweetpotato breeding work
- 9 It would be very good if the sweetpotato breeders could be supported to attend ALL trainings and annual meetings organized by SASHA since they play a very important role in the refining of the projects output

Final Suggestion....

??A Sweetpotato Party??

