

Development of High Yielding Multiple Resistant Sweetpotato Germplasm



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Objectives

Meeting food needs – **food security**

Reduction of child malnutrition – **improved health**

Improving smallholder incomes – **poverty reduction**

Through development and deployment of:

- **High yielding, pest resistant and adaptable sweetpotato varieties that meet consumer and market demands**
- **Integrated pest and disease management packages**
- **Agronomic packages for optimal yields**
- **High quality and quantity planting materials & timely (QQT)**

Food security

**Poverty
reduction**

- **Orange-fleshed sweetpotato for combating vitamin A deficiency**

**Improved
health**

Most important landraces in ..country



Country/ Name of landrace	Root yield t/ha	Flesh color	Dry matter (%)	Earl	SPVD	Alt	Remarks
Uganda							
Nylon		C	>35%	E	S	M	
Magabali	5-10	C	>35%	E	S	M	
Araka	>5	C	>35%	E	S	M	
Silk		W	>35%	E	S	M	
Otada	5	C	>35%	E	S	M	popular in the north
Dimbuka	2-10	C	31%	E	S	M	Officially released
Osapat		W	>35%	E	S	M	popular in the east
Tanzania	10-15	Y	>35%	E	M	M	Officially released

Type of sweetpotato trials 2012/13



Type of trial		Details	2009/10	2012/13
Crossing block				
	1	No. of parents in crossing block	27	28
	2	No. of seed collected from OP	>100,00	>20,000
		a. Total no. of families of OP seed	27	25
	3	No. of seed collected from crosses	10,000	On-going
		a. Total no. of families of controlled crosses	15	on-going
Seedling nursery				
	1	No of seeds planted	50,000	-
	2	No of seedlings established	38,000	-
	3	Total no. of families planted	12	-

Type of sweetpotato trials 2012/13



Type of trial		Details	2009	2012/13
Observation trial			>10,000	
(Seedling nur	1	No of clones/families planted	.	42
	2	No of checks (check clones) planted	.	
	3	No. of locations	1	1
Preliminary yield (PT)				
	1	No of clones planted		47
	2	No of checks (check clones) planted		3
	3	No. of locations		3
Advanced yield trial (AT)				
	1	No of clones planted	26	9
	2	No of checks (check clones) planted	3	3
	3	No. of locations	4	4*

Type of sweetpotato trials 2012/13



Type of trial	Details	2009	2012/13
On-farm trials			
1	No of farms/farmers/region/district / province	15F/5D	15F/5D
2	Total no. of trials whole country	75	75
No of varieties released (since 2007)		6	.
No. of clones in pipeline for release			1+2(OFS P)

Other Project Information

Funding source/amount /duration

McKnight (no-cost extension-) 1 Yr

Harvest Plus, 1 Yr

SASHA – 5 Yrs (2010-2014)

Staffing

4.5 scientists, 6 technicians

Constraints

Communication- internet, faxes and phones: unreliable, require good budget allocation for maintenance

Unreliable electricity supplies interrupts activities & communication

Limited funding, climate change

Proposed future activities - gene introgression, population screening, On-farm testing, promotional activities, Foundation and breeder seed production