

Participatory Sweetpotato Improvement Tanzania (Lake and Eastern Zones)

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Objectives

- To improve and maintain Sweetpotato germplasm
 - Evaluate advanced sweet potato lines/promising clones that are in uptake pathways and in pipeline for release.
 - Generate new sweetpotato genotypes which include orange fleshed.
- Improve access to sweetpotato planting materials through mass multiplication of vines, tissue culture technology and virus testing
- Promote value addition of sweet potato through processing and product diversification technologies, utilization and access to market.
- Capacity building of the National programme staff.

Most important landraces in the Lake Zone of Tanzania



Lake Zone TZ	Root yield	Flesh	Dry matter	Earl	SPVD	Alt	Remarks
Name of landrace	t/ha	color	(%)				
Tanzania							
Simama*	16.6	Cr	33.3	E	r	r	Released 2000
Juhudi/Jitihada*	12.1	Cr	25.6	E	r	r	Released 2000
Polista	16.6	w	34.5	L	r	r	
Ejumula*	17	do	25.0	E	s	r	
NASPOT 1*	22.0	Cr	35.0	E	r	s	
Ukerewe*	18.0	lo	37.0	E	s	r	Released 2004
Berena	16.0	w		E	r	r	
Kakamega*	19.0	y	36.0	E	r	r	
Sekondari	10.0	cr	33.0	E	r	r	

Flesh color: White (w) cream (cr) yellow (y) light orange (lo) orange (o) deep orange

Most important landraces in the Eastern Zone of Tanzania



Eastern Zone	Root yield	Flesh	Dry matter	Maturity	SPVD	Alter	Remarks
Country	t/ha	color	%				
Tanzania							
Mbuta	15	Cr	34	E	r	r	
Shangazi	14	W	30	E	r	r	
Carrot Dar	10	O	26	E	s	r	
Simama*	18	Cr	33	E	r	r	
Ukerewe*	18	Lo	36	E	t	r	

Type of sweetpotato trials 2012/13



Type of trial	Details	2009/10	2012/13	2011/12	2012/13
Crossing block		LZ	LZ	EZ	EZ
1	No. of parents in crossing block	25	25	16	16
2	No. of seed collected from OP	1,142	1,700	7103	25,910
	a. Total no. of families of OP seed	4	9	29	38
3	No. of seed collected from crosses	10,057	5,100	210	356
	a. Total no. of families of controlled crosses	33	20	10	12
Seedling nursery					
1	No of seeds planted	10,205	6,800	4,401	5,200
2	No of seedlings established	8,800	5,584	2,036	2,005
3	Total no. of families planted	37	22	39	50

Type of sweetpotato trials 2012/13



Type of trial		Details	2011/12	2012/13
Observation trial (OT)			EZ	LZ
	1	No of clones planted	850	250
	2	No of checks (check clones) planted	3	2
	3	No. of locations	1	1
Preliminary yield (PT)			EZ	EZ
	1	No of clones planted	139	
	2	No of checks (check clones) planted	2	
	3	No. of locations	1	

Type of sweet potato trial.....

Advanced yield trial (AT)			2012/13 EZ	
	1	No of clones planted	36	0
	2	No of checks (check clones) planted	2	0
	3	No. of locations	2	0
On-farm trials			EZ	LZ
	1	No of clones planted	10	8
	2	No of checks (check clones) planted	2	2
	3	Locations	4	6
No of varieties released			0	0
			EZ	LZ
No. of clones in pipeline for reelease by e.g. Oct. 2013			5	5

Type of sweetpotato trials 2012/13



Type of trial	Details	2012	2012/13
On-farm trials			
1	No of farms/farmers/ Districts	39 4	
2	Total no. of trials whole country		7

Other Project Information

- Funding source: AGRA; 150,000 USD**
- Govt of Tanzania (Commission for Science and Technology): USD100,00**
- Duration: 3 Yrs,**
- Number of scientists: 12**
- Technicians: 6**
- Constraints : Unreliable rainfall, prevalence of pests and diseases and shortage of clean virus-free planting materials**
- Proposed future activities:**
- Breeding for specific traits (e.g high dry matter, drought tolerance, disease & pest resistance e.t.c)
 - Multiplication and dissemination of planting materials
 - Sweetpotato value addition (Processing & utilization)



Dissemination

