

Breeding and promotion of sweetpotato genotypes for consumer preferred traits in time and space in Zambia

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SWEETPOTATO ACTION FOR SECURITY AND HEALTH IN AFRICA

### **Objectives**



# To develop and select high yielding sweetpotato varieties with consumer preferences including high dry matter and beta-carotene content

- To develop and select high yielding diseases resistant clones that are preferred by consumers
- To develop and select high yielding vegetable clones for consumers
- To improve the skills of farmers, research and extension staff and stakeholders in the production, seed multiplication and plant protection of sweetpotatoes.



## Most important landraces in .. country SASHA Sweetpotato Action for Security and Health in Africa

Country/	Root yield	Flesh	Dry matter	Earl	SPVD	Alt	Remarks
Name of landrace	t/ha	color	(%)				
Zambia							
Matembele	6.6	W	37	L	R	R	Vegetable
L2-20/5	7.8	cr	35	L	R	R	
Carrot	6.2	0	26.4	E	S	R	
L4-138/3	9.6	С	33	L	R	R	
Zimbabwe	5.5	lo	27	L	S	R	
Unknown 2/1	7.9	W	34	L	R	R	

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

### Type of sweetpotato trials 2012/13 SASHA



Type of trial		Details	2009	2012/13
Crossing block				
	1	No. of parents in crossing block		42
	2	No. of seed collected from OP	5000	
		a. Total no. of families of OP seed	18	
	3	No. of seed collected from crosses		
		a. Total no. of families of controlled crosses		
Seedling nursery				
	1	No of seeds planted	1,624	161 <mark>9</mark> 0
	2	No of seedlings established	733	9740
	3	Total no. of families planted	3	122



### Type of sweetpotato trials 2012/13 SASHA

Advanced yield trial (AT)					
	1	No of clones planted	7	23	
	2	No of checks (check clones) planted	2	(3)	
	3	No. of locations	2	2	

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### Type of sweetpotato trials 2012/13 SASHA

Type of trial		Details	2009	2012/13
On-farm trials				
	1	No of farms/farmers/region/district /	Nil	9/9/1//2/
		province		
	2	Total no. of trials whole country		45
No of varieties released				
No. of clones in pipeline for realease by e.g. Oct. 2013				

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### **Other Project Information**



Funding source/amount /duration AGRA/\$185,000/3 years GRZ/\$20,000/perpetual Number of scientists and technicians in program

S-5, T-4

**Constraints** 

- Lab facilities for quantifying quality traits, virus indexing and cleaning
- Collaboration challenges



#### **Other Project Information**



**Proposed future activities** 

Working with industries to promote sweetpotato utilization

Livestock

Snacks

Stakeholder sensitization and training e.g.

**Extension workers** 

**Farmers** 

Consumers

**Transporters** 



### **Other Project Information**



#### **Proposed future activities**

Promotion of sweetpotato based weaning foods in health centres and community health centres

Make disease free sweetpotato seed available to partners and farmers on demand by providing a sure source.



