

11<sup>th</sup> sweetpotato breeders annual  
meeting, Kigali, Rwanda  
April 22-26, 2013

Ethiopian sweetpotato improvement

# Introduction

- Ethiopia
  - ❖ Large country= >1 million square kilometre
  - ❖ 88 million people
  - ❖ Diversity in ecologies and crops

# Sweetpotato in Ethiopia

- Area = 81000 ha(CSA,2011)
- Productivity = <9 t/ha onfarm
- = 25-36 t/ha in research centers

Table1. Leading sweet potato producing countries in the world as of 2010.

Source: FAOSTAT, 2010(<http://faostat.fao.org/site/339/default.aspx>), browsed on April 22, 2012.

rank	country	Production (MT)
1	China	81175660
2	Uganda	2838000
3	Nigeria	2703500
4	Indonesia	2050810
5	Tanzania	1400000
6	Vietnam	1317060
7	India	10947000
8	USA	1081590
9	Angola	986563
10	Mozambique	920000
11	Japan	863600
12	Rwanda	840072
13	Madagascar	919127
14	Papua New Gunea	576000
15	Philippines	541525
16	Ethiopia	401600
17	Kenya	383520
18	Democratic Rep. of Korea	42700
19	Egypt	370905
20	Cuba	384700

Table 1:: sweet potato varieties released in Ethiopia, so far

No	Variety	Year of Release	Area of Adaptation		Growth Habit	Maturity Days	Dry Matter Content (%)	Flesh Colour	β-Carotene Content (µg/mg)	Root Yield (Kg/ha)		Center of release or recommend
			Altitude	Rainfall (mm)						On-research field	On-farm	
1	Kulfo(LO-323)	2005	1200-2200	980-1398	Semi-compact	150	29.8	Orange	172	27.0	25.6	Hawassa
2	Tulla (CIP 420027)	2005	1200-2200	980-1398	Semi-Compact	150	27.6	Orange	155	28.5	25.5	Hawassa
3	Kero (TIS-8250)	2005	1200-2200	980-1398	Semi-compact	150	23.1	Orange	32.7	35.4	26.6	Hawassa
4	Kudade (TIS-1499)	1997			Semi-Compact	90-120		Cream		24.1		Hawassa
5	Falaha(TIS-3017(2))	1997			Semi-Compact	90-120		White		16.7		Hawasa
6	Dubo (I-444)	1997			Semi-Compact	90-120		White		21.7		Hawasa
7	Guntute (AJAC-I)	1997	Mid-altitude	750-900	Semi-Compact	120-150	-	orange	-	35.4		Hawasa
8	Bareda (375)	1997			Spreading	120-150		White		29.6		Hawasa
9	Damota (Guralowlow)	1997			Semi-Compact	120-150		Cream		30.7		Hawasa
10	Awassa – 83	1998			Semi-Compact	150-180		White		36.6		Hawasa
11	Koka-12	1987				120-150		Pale orange		17.7		Hawasa
12	Koka-6	1987				120-150		Cream		26.9		Hawasa
13	192040-I (Belella)	2002			Spreading	90-120		Cream		18.3		Hawasa
14	192009-VIII (Temesgen)	2002			Spreading	90-120		White		17.6		Hawasa
15	Ordollo (192009-IX)	2005	1200-2200	980-1398	Semi-Compact	150		White		17.3	13.4	Hawasa
16	Jari(CN-2059-1)	2008	1650-1850	950-1204	Semi-erect	133	29	yellow	-	19.2	16.5	Sirinka
17	Birtukane(saluboro)	2008	1650-1850	950-1204	Semi-erect	150	27	orange	-	19.9	11.4	Sirinka
18	Berkume(TIS 8250-2)	2007	1650-2000	-	Semi-compact	188-195	-	white	-	19.5	-	Haromaya Univ.
19	Adu(Cuba-2)	2007	1650-2000	-	Semi-compact	150=180	-	cream	-	16.0	-	Haromaya Univ.
20	Ballo(Koka-18)	2006	1400-1800	850-1559	-	120	-	white	-	29.4	16.6	Bako
21	Beletech(192026-II)	2004	1200-2200	980-1398	-	150	-	white	-	18.4	16.9	Hawassa
22	Dimtu	2005	1200=2200	980-1398	-	120	-	white	-	-	-	Hawassa
23	ogansegan	-						white				MOA

Source: Ethiopian Ministry of agriculture, Annual crop variety registries(1997-2012)

# Constraints to Sweetpotato in Ethiopia

- Lack of high yielding varieties
- Sweetpotato virus disease
- Sweetpotato weevil
- ?
- ?

# Germplasm sources for improvement

- In past and recently
  - - local collections
  - - international organizations like CIP(mainly), IITA, AVRDC
  - - trying to develop our own variability creation(crossing block establishment)

# Sweetpotato improvement objectives

- To develop high yielding and stable, drought ,diseas and pest resistant/toerant varieties with acceptable quality



# Sweetpotato trials

Name of the trial	detail
Crossing block	Just planted with 24 parents
OT	WFSP and OFSP, 1700 clones including seven chekks at one location
Participatory variety evaluation	5 wfsp and 5OFSP at 10 locations
Drought screening	At 2 locations
Spvd screening	At one location
Adaptation trials	At 7 locations

# Other activities

- Utilization
- Seed multiplication and dissemination



Sweetpotato farm













THANK U