EVALUATION AND RELEASE OF ORANGE-FLESHED SWEETPOTATO (*IPOMEA BATATAS* L.) VARIETIES IN THE ANGOLAN HIGHLANDS

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Integrated Research and Development Project for Production and Marketing Systems of Banana, Manioc, Sweetpotato, and Potato in the Provinces of Uíge, Kwanza Norte, Huambo, and Huila in Angola

This project is a five year initiative implemented by the International Potato Center (CIP) and the Agronomic Institute of Research (IIA) in collaboration with public and private partners. Main objective is the sustainable increment of the economic contribution of four vegetatively propagated crops-- banana, cassava, sweetpotato, potato – for improved food security and diets of the communities with Vitamin A-rich foods as well as increasing the income of the farmers and poverty reduction in the rural areas of 4 provinces with diverse agro-ecologies: Uige, Kwanza Norte, Huambo and Huila.

Materials and methods

A total of 167 advanced orange-fleshed sweetpotato (OFSP) clones and varieties were introduced into Angola from CIP Mozambique in 2008. The clones were evaluated in four areas in the highland region : Huambo province (Chianga), Huila province (Humpata and Chibia), Kwanza Norte (Quilombo) and Uige (Candande Lowé).

OFSP Evaluation trial EEA Chianga , Huambo province2009/2010 and 2012/13

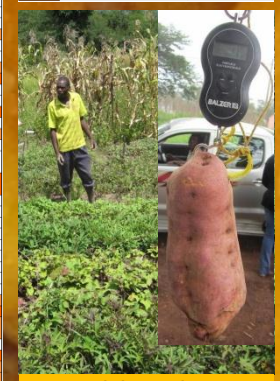
OFSP Evaluation trial EEA Humpata ,Huila province in 2012

Results

28 OFSP clones and varieties were selected in 2012 for further multiplication and distribution to farmers

Huambo 2009/2010	Ngongolinge 2010	Huambo 2010/2011	Humpata 2010	Kwanza Norte 2009/2011	Huambo 2011/2012	Release as variety in Angola
11-2 Jonathan		11-2 Jonathan				
11-3 LO323		11-3 LO323		11-3 LO323	11-3 LO323	11-3 LO323
11-4 Taimoge64						
			11-5 Japan Selecto		11-5 Japan Selecto	11-5 Japan Selecto
11-6 CN1448-49			11-6 CN1448-49		11-6 CN1448-49	11-6 CN1448-49
11-7 Cordner			11-7 Cordner		11-7 Cordner	11-7 Cordner
11-8 Guba-Guba		11-8 Guba-Guba			11-8 Guba-Guba	11-8 Guba-Guba
11-9 199062.1		11-9 199062.1	11-9 199062.1		11-9 199062.1	11-9 199062.1
11-10 MGL01			11-10 MGL01		11-10 MGL01	11-10 MGL01
15-1 Naspot.1		15-1 Naspot.1	15-1 Naspot.1	15-1 Naspot.1	15-1 Naspot.1	15-1 Naspot.1
			15-2 Resisto			
		15-3 Cenoro6-C				
15-4 K-135		15-4 K-135	15-4 K-135	15-4 K-135	15-4 K-135	15-4 K-135
			15-5 Gueri	15-5 Gueri		
Zambezi			15-6 Zambezi			
15-7 Ukerewe			15-7 Ukerewe		15-7 Ukerewe	15-7 Ukerewe
15-8 Mayai	15-8 Mayai	15-8 Mayai	15-8 Mayai	15-8 Mayai	15-8 Mayai	15-8 Mayai
15-9 X566632	15-9 X566632		15-9 X566632	15-9 X566632		15-9 X566632
15-10 K118	15-10 K118			15-10 K118		
15-11 Ejumula	15-11 Ejumula	15-11 Ejumula	15-11 Ejumula	15-11 Ejumula	15-11 Ejumula	15-11 Ejumula
15-12 Pipi		15-12 Pipi				
15-13 SPK004	15-13 SPK004	15-13 SPK004	15-13 SPK004		15-13 SPK004	15-13 SPK004
		19-1 CEMSA74228	19-1 CEMSA74228			19-1 CEMSA74228
19-3 Huambachero		19-3 Huambachero	19-3 Huambachero		19-3 Huambachero	19-3 Huambachero
19-4 Resisto		19-4 Resisto				
19-5 Yanshu		19-5 Yanshu				
19-6 Xushu 18			19-6 Xushu 18			
19-7 Wagabouge		19-7 Wagabouge	19-7 Wagabouge			19-7 Wagabouge
19-8 Jewel		19-8 Jewel				
		19-9 MOHC	19-9 MOHC			19-9 MOHC
		19-10 NCSU 1560	19-10 NCSU 1560			19-10 NCSU 1560
			19-12 Blesbok			
		19-14 Brondal				
19-15 Naneto		19-15 Naneto	19-15 Naneto		19-15 Naneto	19-15 Naneto
19-16 Zapallo		19-16 Zapallo	19-16 Zapallo		19-16 Zapallo	19-16 Zapallo
		19-17 Santo Amaro	19-17 Santo Amaro		19-17 Santo Amaro	19-17 Santo Amaro
19-18 Tanzania		19-18 Tanzania	19-18 Tanzania			
MUSG 13		MUSG 13	MUSG 13	MUSG 13	MUSG 13	MUSG 13
MUSG 21		MUSG 21		MUSG 21	MUSG 21	MUSG 21
MUSG 26		MUSG 26			MUSG 26	MUSG 26
Nemanete		Nemanete		Nemanete	Nemanete	Nemanete
LO-326		LO-326	LO-326	LO-326	LO-326	LO-326
Cacuso	Cacuso	Cacuso	Cacuso	Cacuso		Cacuso

	selected in field trial and participative evaluation
	selected in field trial but not in participative evaluation
	not selected in field trial but selected in
	for forrage
	showed drought resistance
Name	white or cream fleshed
	no results
Cacuso	**control in all field trials**
	proposed for release in 2012
	proposed for further trialling



OFSP vine multiplication and Participative Evaluation with farmers in Chilela, Huambo

Discussion and conclusions

The farmers and consumers participating in the evaluation selected nine varieties (Zapallo, Nemanete, LO326 (Camuto), LO323 (Cenoura), MUSG13 (Helena), Musg 21 (Lombe), Musg 26 (Morena), Huambachero and Mayai (Banza Luanda) based on market demand and taste of cooked roots. Seven varieties were proposed for release by the Instituto de Investigação Agronómica (IIA), the research institute of the Ministry of Agriculture (MINAGRI) for production in Angola in 2012. The selected varieties were multiplied using conventional and rapid multiplication techniques in 223 decentralized plots and 7 centralized fields. The project also developed and promoted OFSP products such as Golden Bread, juice and other bakery products.

OFSP varieties being launched in Angola							
CIP-Name	LO 326	LO 323	MUSG13	Zapallo	Nemanete	Huambachero	Mayai
Given name Angola	Camuto	Cenoura	Helena	Zapallo	Nemanete	Huambachero	Mbanza Luanda
t/ha	15,0 – 18,0	7,5 – 40,8	14,-16,4	15,3 - 22,2	15,0 – 18,0	8,3 - 20,1	13,8 – 29,9

References

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