Tropentag, September 20-22, 2017, Bonn



"Future Agriculture: Socio-ecological transitions and bio-cultural shifts"

Mainstreaming Biofortification in Africa: A Contribution Towards Reducing Malnutrition and Hunger

Elisabeth Y. Parkes¹, Edward Kanju², Pheneas Ntawuruhunga¹, Nzola-Meso Mahungu³, Femi Aina¹, Alfred Gilbert Dixon¹, Peter Kulakow¹, Robert Asiedu¹, Kingsley C. Akuwa¹, Bakare Moshood¹, Afolabi Agbona¹, Bello, R. Abolore¹, Deborah Olaosebikan¹, Paul Ilona⁴

¹International Institute of Tropical Agriculture (IITA), Nigeria
²International Institute of Tropical Agriculture (IITA), Tanzania
³International Institute of Tropical Agriculture (IITA), DR Congo
⁴HarvestPlus, Nigeria

Abstract

Adequate progress has been made towards reduction of the menace of micronutrient deficiency through cassava biofortification across Africa. In Nigeria, 6 biofortified cassava varieties have been officially released by IITA and partner NRCRI with total carotenoids content ranging from 6.1 to $10.4 \,\mu \mathrm{g \, g^{-1}}$ of fresh weight will reach about 2 million farmers by 2018. On-going research effort by IITA and partners is geared at reaching the 3^{rd} wave target of $15 \,\mu \mathrm{g \, g^{-1}}$ of fresh weight has already identified promising pipelines genotypes with sufficient potentials.

This success story has been achieved through concerted effort in breeding and dissemination strategies using diverse platforms. Breeding strategies incorporates cultivar development with building the capacity of NARS across Africa for sustained qualitative research that promotes sustained impact of the gains from biofortification into the future. These interventions are achieved through training on fast screening method of total carotenoids quantification using the iCheckTM device, training on the use of tablets to enhance qualitative data collection and data capture, enhanced knowledge on data sharing and repository through training on cassavabase and also the use of various dissemination and awareness creating platforms towards sensitization and increased awareness through farmers field days, Nutritious food fairs, commercialised Agroshop online market and model villages across several communities.

A paradigm shift towards the approach to awareness creation combines nutrition campaigns with training on new nutritious food forms and value addition as well as understanding gender preference for biofortified cassava varieties.

The outstanding results from combining these various strategies have yielded substantial positive results towards increasing the acceptability of biofortified cassava varieties and products in Nigeria and across Africa. Hence the development of a vibrant and stronger cassava vale chain with multi-sectoral engagements and new markets now is developing in Nigeria. These promotes access to biofortified products, increase the cash returns to farmers and promotes industrial growth thereby reducing hunger and malnutrition and ensuring food security and increased income for farmers in SSA.

Contact Address: Elisabeth Y. Parkes, International Institute of Tropical Agriculture (IITA), PMB 5320, Oyo Road, Ibadan, Nigeria, e-mail: E.Parkes@cgiar.org

 ${\bf Keywords:} \ {\rm Awareness, \ biofortification, \ cassava, \ genotypes, \ malnutrition}$