

New vitamin A-fortified cassava released in Nigeria, set to improve health of millions

The Nigerian Government announced on Wednesday the release of three new vitamin A-enriched 'yellow' cassava varieties that could provide more vitamin A in the diets of more than 70 million Nigerians who eat the root crop everyday. The yellow color (cassava is generally white) is due to the higher vitamin A content.

The newly released varieties are UMUCASS 36 (TMS 01/1368), UMUCASS 37 (TMS 01/1412), and UMUCASS 38 (TMS 01/1371).

Vitamin A deficiency (VAD) is widely prevalent in sub-Saharan Africa. It afflicts almost 20% of pregnant women and about 30% of children under-five in Nigeria. VAD can lower immunity and impair vision, which can lead to blindness and even death.

Children and women will be the main beneficiaries of these new yellow varieties, which could provide up to 25% of their daily vitamin A needs. Varieties with enough vitamin A to provide up to half of daily needs are already in the breeding pipeline and should be ready for release in a few years.

These new yellow varieties were bred using traditional (non-transgenic) methods by IITA and the Nigerian National Root Crops Research Institute (NRCRI). During field trials of these varieties, farmers said that they liked them.

Cassava is an extremely adaptable crop; it is drought tolerant, requires limited land preparation, and grows well in poor soils. The new yellow varieties are also high yielding and resistant to major diseases and pests.

"This [release] is an important milestone in our breeding efforts, which would not have been possible without the support



A processor sifting yellow gari made from vitamin A-enriched cassava. The newly-released biofortified cassava varieties are expected to help improve the health of millions of Nigerians who consume the root crop as their staple.

and collaboration of the different partners," said Peter Kulakow, leader of IITA's Cassava Program.

"This marks a new dawn in Nigeria's cassava industry as it is the first set of nutritious cassava developed and released in Nigeria," added Chiedozi Egesi, Head of Cassava Breeding of NRCRI.

"There is already big demand for these varieties, but it will take some time before we have enough quantities to give out," said Paul Ilona, the HarvestPlus Manager for Nigeria.

Ilona adds that the yellow cassava is already being multiplied through stem cuttings. In 2013, when sufficient certified stems are available, HarvestPlus and its partners will then distribute these to about 25,000 farming households initially.

Farmers will be able to grow these new vitamin A varieties and feed

them to their families. They can also multiply and share cuttings with others in their community amplifying the nutritional benefits. After the mid-2014 harvest, more than 150,000 household members are expected to be eating vitamin A-enriched cassava.

This work is funded by HarvestPlus. Other partners include the International Center for Tropical Agriculture (CIAT), the Brazilian Agricultural Research Corporation (Embrapa), and various Nigerian Government agencies.

HarvestPlus leads a global effort to breed and disseminate micronutrient-rich staple food crops to reduce hidden hunger in malnourished populations. It is part of the CGIAR Research Program on Agriculture for Improved Nutrition and Health and is coordinated by CIAT and the International Food Policy Research Institute.

Yam initiative offers inmates new lease on life

Prison inmates participating in a yam improvement project jointly led by IITA and Diocesan Development Services (DDS) are gaining skills on how to better cultivate the tuber crop, and are being empowered to face life's challenges when they eventually rejoin mainstream society.

Conducted as a pilot study with the Prison Farm Centre in Elele near Port Harcourt under the DFID-supported "Healthy Seed Yam" project, the initiative aims at creating greater availability of healthy planting material while expanding farmers' knowledge on improved production methods.

The choice of the prison is part of efforts to help reform prisoners so that they become more useful to the society, say Danny Coyne and Abiodun Claudius-Cole, IITA scientists.

To get healthy seed yam, researchers trained inmates on how to treat yam sets of approximately 80 grams with recommended fungicides/insecticides and drying them before planting.

On the prison farm, the technology recorded over 20% more yield than the conventional system.

Seed Yam Project Officer, Nsude Anthony, said he initially did not believe that such small yam sets could produce big-sized yam.

Trials of the same technology on a



(Left photo) Archibong Ibup (in patterned shirt) and Nsude Anthony (in sleeveless shirt) with some prison staff and inmates and some recently harvested yam; (right photo) Nsude showing harvested yam (in his right hand) and the yam minisett that was planted (in his left hand).

nearby drought-hit farm recorded about 400% more seed yam using the improved method compared to untreated farms.

Archibong Ibup, Assistant Controller of Prisons at Elele Prison Farm, described the results as 'impressive,' and urged farmers to step up the production of seed yam as its availability is limited and often of poor quality.

According to him, the Prison Farm will adopt the methods introduced by IITA to increase seed production, adding that the project provided inmates with useful

knowledge and skills that they can use when they return to their communities. He stressed that these skills will continue to be useful to inmates in their lifetime.

Researchers say that the success of the project at the Prison Farm Centre in Elele will pave the way for similar projects across the country along the yam-growing belt.

IITA and the DDS also intend to give participating inmates healthy seed yam to start yam production when they finally leave prison.

IITA HR Service holds HR4U training

The Human Resources Service of IITA has been working for some time on the installation of new software, HR4U, designed to automate, streamline, and improve the efficiency of HR processes, as well as integrate them with other systems.

Work began earlier this year when hSenid trainer Wajira from Sri Lanka visited IITA-Ibadan to introduce the software to the institute. Since then, master data has been provided to hSenid and modifications were made to both existing IT systems and to the HR4U software to ensure it is fully customised for the institute.

From 9 to 18 November, hSenid trainers Dhanushka and Niroskana made a further visit to Ibadan to train HR staff, IT personnel and payroll staff on the use of the software prior to its full installation. It is hoped that the software (which includes an employee self service element) will be rolled out across the institute in early 2012.

IITA-icipe to formalize collaboration

Next week, IITA and the International Centre of Insect Physiology and Ecology (icipe) will formalize collaboration with the signing of a Memorandum of Understanding (MoU) between the heads of the two organizations. DG Nteranya Sanginga of IITA and DG Christian Borgmeister of icipe will be signing the MoU at icipe's headquarters in Nairobi during Sanginga's visit to the center.

As part of the MoU, IITA will be hosting an icipe office in the Ibadan campus. The center will be represented in IITA-Ibadan by Mrs Charlotte Sanginga in her capacity as Secretariat Manager of the International Journal of Tropical Insect Science that icipe oversees.

Specifically, under the MoU, IITA and icipe will work closely in the areas of integrated pest management, biological control, and natural resource management with a particular emphasis on soil health.

Established in Kenya in 1970 and headquartered in Nairobi, icipe's



mission is to help alleviate poverty, ensure food security and improve the overall health status of peoples of the tropics by developing and extending management tools and strategies for harmful and useful arthropods, while preserving the natural resource base through research and capacity building. The center currently has a staff of 288 of mainly African scientists, collaborating with over 200 national systems, research institutes and universities around the world.

icipe's office in IITA-Ibadan is located in the Training/AfricaRice building. The office can be contacted at extension 4903 or email address c.sanginga@cgiar.org.

The IITA-Ibadan community welcomes icipe to its fold!