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DG receives prestigious award for championing youth in agriculture programs

The Association of Deans of Agriculture in Nigeria Universities (ADAN) has honored IITA Director General Dr Nteranya Sanginga with an Award of Excellence for successfully pioneering the IITA Youth in Agribusiness program. The award was presented during the 64th annual general meeting of ADAN held recently in Nasarawa State, north-central Nigeria.

Dr Alfred Dixon receiving the award on behalf of DG Sanginga.

"We are proud of the impact of the work that IITA has been doing, particularly among the youth, and it is worthy of recognition," said the Chair of the Local Organizing Committee of ADAN, Prof. Olumuyiwa James Jayeoba.

Initially, the IITA youth program started with less than 50 youth on IITA Campus in Ibadan, Nigeria. It has blossomed, with hundreds of young people across Africa benefiting from the program. Many of the program's beneficiaries now manage their farms, while others have chosen other vocations within the agriculture space.

to page 5

IITA GHU staff awarded Crop Trust's outstanding Genebank Team category 2021

Crop Trust and the CGIAR Genebank Platform have recognized four staff from the IITA Germplasm Health Unit (GHU) and Virology Unit with the "Outstanding Genebank Team" award for 2021. This accolade acknowledges the overall achievements and contributions of GHU and, specifically, the "Legume Seed Health Testing and Phytosanitation" Team that ensured the genebank operations were uninhibited during the COVID-19 pandemic lockdown period in 2020.

The award recipients: (L-R) Oluwabunmi Deborah Ajamu, Odunayo Elizabeth Akinfala, Olateju Oyelami, and Samuel Alaohuo.

The CGIAR Genebank Platform and Crop Trust announced plans to honor staff working in genebanks and GHUs across CGIAR centers to acknowledge the noteworthy contributions of staff during the lockdown in 2020. Qualifying technicians, researchers, and scientists have shown exemplary commitment, going "above and beyond the call of duty to ensure critical genebank operations have continued during these difficult times," said Nelissa Jamora of Crop Trust and Genebank Platform Coordination Team (Bonn, Germany), who convened the awarding process.

The award recipients, Olateju Oyelami, Oluwabunmi Deborah Ajamu, Odunayo Elizabeth Akinfala, and Samuel Alaohuo, showed commendable resilience and commitment to deliver excellent results despite the challenging work conditions caused by the coronavirus pandemic. They received high commendation from Lava Kumar, the Head of IITA GHU and Virology Unit, who nominated them for the award.

"These four GHU staff made exemplary contributions to the legume seed health testing and phytosanitation work during the COVID-19 lockdown." He highlighted their work as Research Assistants responsible for implementing legume (cowpea and wild *Vigna* spp.) seed health indexing. They showed leadership to complete testing of many legume samples (13,542 diagnostic assays) in one week, just before restrictions were imposed from 1 April 2020. "They represent a tireless GHU team that ensures successful service support to genebanks and safe germplasm exchange from IITA," he continued.

The team expressed gratitude for the recognition as it meant that their work was appreciated. Oyelami said: "I feel great for the privilege of receiving this award, which makes me feel important and opens up doors to achieve even more." Akinfala echoed those sentiments, stating: "This award proves that my role in the exchange of disease-free germplasm is well appreciated, and it motivates me to work harder to keep impacting lives positively."

The award acknowledges the excellent work done by IITA to ensure safe germplasm exchange and efficient phytosanitary operations across CGIAR GHUs. "Phytosanitation is key to healthy germplasm, and I am delighted to be recognized for helping to prevent the spread of pests and diseases to pest-free areas. Ensuring compliance with phytosanitary measures, assisting in the production of healthy planting material, and certifying genebank crops for both national and international needs through germplasm exchange has been a great privilege," said Ajamu.

"This prestigious award from Crop Trust has rekindled my passion for doing even more in plant health research. From this experience, I encourage other young and hardworking colleagues to be steadfast in their good work, and fortune will smile on them someday," said Alaohuo, IITA-GHU/ Virology Unit.

GHUs provide phytosanitary services to genebanks and breeding programs, ensuring that their products are free of quarantine-risk pests and diseases. They have a crucial role in supplying disease-free material directly to seed systems for multiplication and distribution to farmers. For more information about GHUs, visit https://www.genebanks.org/the-platform/germplasm-health/.

NARITA hybrids cross borders for farmers' evaluation in Kenya

In improving banana production in East African countries, researchers are multiplying and testing the adoption of NARITA hybrid varieties that are high yielding and resistant to Black Sigatoka disease in Kenya. Banana is the third most important food after maize and rice, with an annual production of 1.5 million tons, lower than the 4.4 million in Uganda and 4 million in Tanzania.

The 25 NARITA hybrids that have been evaluated for agronomic performance in Uganda are going through similar studies in Kenya under the Climate Smart Banana project. Part of the project is assessing the potential of the hybrids for adoption by farmers, consumers, and traders. Banana farmers in Kirinyaga, Embu, and Murang'a counties will receive disease-resistant and high-yielding varieties to grow through a partnership with researchers at Kenyatta University.

High-yielding NARITA compared to its parents.

"NARITA hybrids are high-yielding and disease-resistant hybrids, which are the result of over 20 years of joint breeding efforts between NARO and IITA hence the name," said Mary Mwangi, a researcher at Kenyatta University-Department of Biochemistry, Microbiology and Biotechnology.

Mary noted that the poor productivity is attributed to the continued cultivation of low-yielding varieties, deteriorating climatic conditions, soil degradation, pests, and diseases. Past interventions have mainly focused on disseminating disease-free tissue culture seedlings of commercial dessert bananas, with little adoption of cooking banana and plantain that can address the rampant food insecurity in the country.

As an implementing partner, IITA provides technical advice and oversight on the new varieties and their development and evaluation and how best to proceed with experimental aspects, including testing sites.

"Our expectations are for at least one or two NARITA hybrids to be selected as superior and preferred by farmers for adoption due to various characteristics such as production, better disease resistance, taste, cooking quality. We wish to establish that they will perform well under Kenya conditions and provide greater returns to farmers through higher yields, but that they are also liked and selected by farmers and consumers. Ultimately this will lead to the improved well-being of farmers and improved supply of quality bananas to markets that benefit consumers," said Danny Coyne, IITA Soil Health Scientist based in Kenya.

Coyne noted that the varieties are the same as in Uganda and Tanzania, but the overall improvements through this project will be to extend the growth of improved, better yielding bananas to a greater number of people in the region. The project will expand the growing area of the improved bananas, increasing farmers' access to better varieties.

Past interventions have mainly focused on the dissemination of disease-free tissue culture seedlings of commercial dessert bananas. Coyne noted that IITA is also looking to introduce new, improved dessert banana resistant to Fusarium wilt (Race 1), a very damaging disease to some of the main dessert bananas grown in Kenya. The work would help farmers and ultimately consumers through improving yields and reduce losses to this major disease.

The Climate Smart Banana Project is funded by the LEAP-Agri: EU-Africa Research and Innovation grant and implemented under a consortium of researchers from Kenya, Uganda, Spain, and Belgium. The project aims to exploit the existing genetic resources and diversity of banana to select varieties resilient to climate change-induced constraints. The project will use a participatory gender-responsive approach that involves all stakeholders in the banana and plantain value chains in Kirinyaga, Embu, and Murang'a counties.

The NARITAs were developed in Uganda at the National Agricultural Research Laboratories Kawanda and the IITA Sendusu research station. They were later released for commercialization and adoption to Ugandan farmers. In March 2021, the Tanzania Ministry of Agriculture officially released four NARITA hybrids called TARIBAN 1-4.

IITA and partners improve vitamin A status of Nigerians

The Modified Relative Dose Response (MRDR) test is being conducted as part of the ongoing national nutritional survey organized by the Federal Government of Nigeria with IITA and other partners. The MRDR test assesses the vitamin A status of people. Participants from Nigeria's six geopolitical zones were trained to carry out the test on the field during a one-week training workshop facilitated by Principal Investigator Mercy Lung'aho at Rockview Classic Hotel, Abuja, on 2–8 August. Lead Investigator Busie Maziya-Dixon of IITA jointly coordinated the training with Lung'aho and co-Principal Investigator Prof. Rasaki Sanusi.

Participants demonstrating how to measure the dose during the practical session anchored by Dr Sherry.

Olapeju Phorbee, Dietary Intake Lead for the National Food Consumption and Micronutrient Survey (NFCMS), appreciated the participants for successful data collection in the first, second, and third phases of NFCMS. Lung'aho explained the reason for data verification and highlighted the three exclusion criteria to be observed in MRDR: severe anemia, severe malnutrition, and fever on the day of dosing. The participants sorted and reviewed samples collected from the NFCMS according to the different Enumeration Areas (EA) and updated their movement plans.

The results of the MRDR test will help in planning nutritional interventions and formulate policies for the country.

Field teams giving a dose of vitamin A to the respondent (WRA) in the pilot.

Participants sorting and reviewing the data collected in the previous survey.

DG receives prestigious award for championing youth in agriculture programs Continued from page 1

"ADAN intends to emulate the IITA Youth program and replicate the model across Nigerian universities," Prof. Jayeoba disclosed.

Receiving the award on behalf of DG Sanginga, the Director of the IITA Development and Delivery Office, Alfred Dixon, said the recognition encouraged IITA and the DG to do more for the growth of youth in Africa. "The youth program in IITA has demonstrated that the rising youth population is a huge capital that we need to harness for wealth creation and the prosperity of Africa," Dixon added.

Widely referred to as the "father of youth in agripreneurship", DG Sanginga successfully pioneered the youth-in-agriculture initiative that has been adopted in many African countries.

Before his tenure as IITA Director General, Dr Sanginga served as the Director of the Nairobi-based Tropical Soil Biology and Fertility Institute (TBSF) of the Centro Internacional de Agricultura Tropical (CIAT-TBSF).

Dr Sanginga has more than 30 years of experience with the University of Zimbabwe, International Atomic Energy Agency (IAEA) in Austria, CIAT-TSBF, and IITA in agricultural research and development, particularly in the fields of applied microbial ecology, plant nutrition, and integrated natural resources management in Africa, Latin America, and Southeast Asia.

Born in the Democratic Republic of Congo (DRC), Dr Sanginga did most of his postgraduate training at IITA and his PhD in Agronomy/ Soil Microbiology under a joint program between IITA and the Institut Facultaire des Sciences Agronomiques, Yangambi, DRC.

He has extensive skills in research management, developing partnerships and institutional linkages, and institution building. Under his leadership, the CIAT-TSBF portfolio rose from $1.2 million in 2003 to over $14.5 million in 2010. Its research-for-development agenda expanded from focusing on Western Kenya to covering the major agroecosystems of East, Central, and Southern Africa. In IITA, he has more than tripled the Institute's budget since assuming the DG's office.

Dr Sanginga played a significant role in creating the Consortium for Improving Agriculture-based Livelihood in Central Africa (CIALCA) that included three international research centers (IITA, CIAT-TSBF, and Bioversity), university partners in Belgium, national research and development partners in DRC, Burundi, and Rwanda.

Dr Sanginga

Throughout his career, Dr Sanginga has also focused on building the capacity of young scientists in Africa. He has trained more than 30 PhD candidates at the National University of Congo, School of Agriculture, and the University of Zimbabwe, who now hold leadership positions in their countries.

Take responsibility! Stop the spread of COVID-19!

Always clean your hands; practice physical and social distancing; wear face masks properly; avoid crowds and public places; keep a 2-meter distance from the next person; and practice general sanitation and hygiene.

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