

## IITA showcases technologies in the first International Plantain Festival in South Cameroon

The first International Plantain Festival, organized by the National Association for Actors of the Plantain Sector in Cameroon (FBPC), was held on 30 November-2 December in Ebolowa and Mvangan in the South Cameroon Region.

The ceremony was chaired by the Minister of Agriculture and Rural Development (MINADER), Gabriel Mbairobe, in the presence of the Governor and all four Senior divisional officers of the South Region. Stakeholders in the sector synergized for the sustainable transformation of the plantain sector in Cameroon. [IITA-CGIAR](#) joined the actors to share its experience and the solutions it offers in this field.



Mayor of Mvangan addressing the first International Plantain Festival in South Cameroon.

The festival's first edition constituted a valuable pool of know-how and expertise to contribute to the modernization of plantain farming, processing, and marketing. The initiative to promote the plantain sector is not random, as plantain is the third most consumed food in Cameroon and is one of the crops in which Cameroonian agriculture has made significant progress. Moreover, Cameroon's National Development Strategy (NDS30) intends to increase the production of this crop and has set its production target at 10 million tons by 2030.

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## Bambara groundnut: Key to Africa's food and nutrition security

Food and nutrition insecurity is a major challenge facing the global community. To fill the food and nutrition security gap in a world with a population predicted

to exceed 9 billion by 2050, IITA-CGIAR is focused on generating agricultural innovations that contribute to food and nutrition security.



Bambara groundnut seeds from IITA's Genetic Resource Center.

Nutrition insecurity in the developing world has been linked to the high cost of protein foods and the low nutritional quality of some of the traditional foods that provide daily meals for millions in Africa. Fortified foods are not readily available for most families due to the high poverty level.

One of the crops that fit the bill for adequate nutrient and mineral composition and can help eradicate food and nutritional insecurity if adopted into the major food systems is the bambara groundnut (BGN).

There is a significant variation in nutrient and antinutrient factors among bambara groundnut accessions. A [study](#) was carried out by scientists from IITA and North-West University, South Africa, to show the degree of variability of nutrient and antinutrient components such as percentage ash, moisture, protein, fat, tryptophan, tannin, and phytate content in seeds of 95 accessions.

Due to its high protein and fiber content and a good balance of essential amino acids, the bambara groundnut is considered a complete food, an excellent alternative to meat, and an ideal component for animal feed.

The study showed that the two traits—carbohydrates and tryptophan—are high in more than half of the accessions, while the others have high amounts of the remaining traits, including the antinutrient factors.

According to the study, tryptophan is a precursor of auxin—an essential growth hormone in plants—and bioactive compounds such as nicotinamide, melatonin, and kynurenine in humans.

The level of tryptophan recorded in the study shows that bambara groundnut can help get the quantity of tryptophan recommended by the World Health Organization (WHO), which is 1.70, 0.85, and 0.66 for infants, children, and adolescents, respectively.

During the research, clustering was done to show the relatedness between the accessions in response to the various

traits. While cluster analysis grouped accessions into four main clusters, high heterogeneity was observed among the accessions for the various traits studied.

This study confirmed the high diversity in the components of nutrients and antinutrients previously reported in BGN.

Results from the study will aid in identifying parent lines for improved breeding programs and offer opportunities for selecting and breeding the crop for beneficial nutrient compositions.

While legumes have become immensely important as alternative sources to nutrient fortified foods, BGN can successfully improve food and nutritional security even more than some major crops in Africa.

Contributed by Timilehin Osunde

## IITA Zero Hunger Project empowers women and youth in nutrition and agripreneurship in Ogun State

Fifteen extension agents, food processors, and food entrepreneurs in Ogun State, Nigeria, have been trained as trainers on nutrition and agripreneurship, with particular emphasis on the vitamin A cassava variety. IITA's Zero Hunger Initiative (IITA-ZHI) project conducted the 5-day intensive training in partnership with the Department of Food Science and Technology, Federal University of Agriculture (FUNAAB) and the International Fund for Agricultural Development Value Chain Development Programme (IFAD-VCDP) on 5-9 December at the FUNAAB Cassava Processing Center in Abeokuta, the Ogun State capital.

Resource persons for the training included IITA-ZHI Project Training Manager Bolanle Olorode, IITA Food and Nutrition Research Associate Greg Nwaoliwe, and four staff of FUNAAB's Department of Food Science and Technology.

The cassava value-addition course included:



*IITA Nutrition Research Associate Greg Nwaoliwe speaking with the trainees at FUNAAB Ogun State.*

- An overview of cassava as a multipurpose crop
- The role of value addition in diversifying products from cassava
- Production techniques for making high-quality cassava flour (HQCF), yellow cassava garri, yellow

cassava *fufu*, Casstard™, moi-moi, puff-puff, Combo bits, and peanut burger

IITA-ZHI Monitoring, Evaluation, and Learning Manager, Oyewale Abioye, facilitated an Agripreneurship

session in which he emphasized: Understanding leadership, Gender balancing in leadership, Required skills in leadership, Organizational and community leadership, and Mentorship,

He emphasized developing viable business plans through market research. The role of packaging and branding, which is the core in promoting the business enterprise to attract the desired audience, was also highlighted. Some participants also shared their experiences, particularly regarding branding and packaging.

The workshop highlight was the presentation of certificates to participants at the end of the training by Professor Abdul-Rasaq Adebawale from FUNAAB and the handover of starter packs for the trainees to practice what they had learned and cascade the training to other women and youth.

During post-event interviews, participants commended the workshop organizers for the training, expressing optimism that it would go a long way to ensure nutrition and food security in Ogun State in addition to providing women with sources of income when the knowledge is eventually cascaded by the participants to members of their various cooperatives and communities.

Contributed by Oyewale Abioye



*Top: Trainees learning to make vitamin A fufu during the nutrition and agripreneurship training. Bottom: Presentation of certificate to a trainee by FUNAAB Prof. Abdul-Rasaq Adebawale.*

## Postharvest project donates equipment for mycotoxin testing hubs in Nigeria

In a ceremony held on 29 November at [IITA-Abuja](#), IITA Associate Scientist [Titilayo Falade](#) and Acting Head of Abuja Station Prakash Kant Silwal handed over mycotoxin testing equipment (Neogen® Raptor) and accessories worth \$13,000 to private and public sector partners: Coopetition Forum for Aflatoxin Reduced Agricultural Products (CFARAP) and the National Agency for Food and Drug Administration and Control (NAFDAC). The equipment donation was facilitated with funding from the Global Alliance for Improved Nutrition (GAIN) and HarvestPlus as part of the project Reducing Post

harvest Loss Across Vitamin A Maize and Cassava Value Chains in Nigeria.

While receiving the delegation, Silwal spoke about the innovative work on aflatoxin management by IITA's team and congratulated Falade for the project's contribution to addressing food safety needs, especially aflatoxin management in Nigeria. He mentioned that this equipment would complement the activities of CFARAP and NAFDAC and thanked the organizations for their partnership in aflatoxin mitigation. Silwal further appreciated the donors for making funds available to donate

the mycotoxin testing equipment to NAFDAC and CFARAP.

In response, CFARAP Chairman Ali Ali, while receiving the testing equipment, expressed delight over the donations and assured the commitment of CFARAP to maximize the use of the testing equipment. He insisted that the equipment would strengthen their capacity as private sector partners for mobile and in-situ testing aflatoxins in multiple food crops. Ali further mentioned that their organization, comprising over 40 private companies nationwide, has been strengthened in



*IITA's Titilayo Falade (second from right) and Prakash Kant Silwal (fourth from right) handing over the mycotoxin testing equipment and accessories to the NAFDAC and CFARAP teams.*

meeting aflatoxin regulatory demands since Aflasafe's introduction under the AgResults project. The new testing equipment would increase their capacity to contribute to aflatoxin management nationwide.

The NAFDAC DG, represented by Food Safety and Applied Nutrition Assistant Director, Adenike Adegbenro, appreciated the timely and laudable initiative by IITA in collaboration with GAIN and HarvestPlus. She stated that, as part of NAFDAC's regulatory activities, the Agency is committed to "ensuring the availability of safe, quality, and wholesome food products to the populace." She pledged that the testing equipment would be put to good use nationwide by the well-trained mycotoxin experts in NAFDAC and looked forward to continued collaboration with IITA.

In his remarks, GAIN Country Commercialization Project Manager

Tavershima Torhemen lauded IITA for developing different strategies for aflatoxin management, including establishing mobile testing hubs. He commended the project team led by Lateef Sanni and applauded Falade's impactful work toward managing aflatoxin in the eight project states. "IITA has far exceeded expectations on this project, and we are indeed happy with the progress thus far," said Torhemen. He also appreciated NAFDAC and CFARAP for attending the ceremony.

Falade thanked GAIN and HarvestPlus for their partnership and funding to provide the testing equipment to partners. She highlighted the Neogen® testing equipment's ability to test multiple mycotoxins, including aflatoxins, stating that it would contribute to continued food safety efforts in Nigeria. She expressed confidence

that, as strong partners, CFARAP and NAFDAC are well placed as private and public sector partners that can contribute towards aflatoxin management and that the testing equipment adds to their capacity to do so. She thanked them for their national contributions and welcomed their continued partnership in strengthening food safety in Nigeria.

As part of the project's objectives, IITA trained stakeholders on mycotoxin management strategies in eight states from June to July and established a stakeholders' platform via the Food Convergence Innovation—Nigeria Stakeholders' Convention—in October for collaborative engagement. The Institute also handed over equipment to establish testing hubs for rapid mycotoxin in-situ analysis.

Contributed by Terngu Abur and Titilayo Falade

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Some actions have been proposed to achieve these objectives, including upgrading Cameroonian actors in the plantain sector within the FBPC, constructing five incubators, training 500 farmers, and safeguarding 100,000 hectares of land in the production basins. Four agreements were signed during side events of the festival to support the implementation of these initiatives.

The International Plantain Festival was an excellent opportunity for IITA-CGIAR to showcase its solutions and facilities within the Research for Development (R4D) framework, notably the Vitro Plant lab and related services, and the Partnerships for Delivery (P4D) interventions. This is in line with the

IITA Business Incubation platform (BIP) model, which links research, development, marketing, and capacity building in agriculture. IITA will thus build the capacity of farmers and establish five incubators.

The South Region is one of the main plantain production areas. Logically, the first edition of this festival in honor of plantain was held in the regional capital, Ebolowa, and Mvangan, located on the border with Gabon, which is a real granary of massive plantain production.

The South Regional Council, in particular, has taken a step in line with the will and determination of the State of Cameroon to improve the agricultural value chains.

The festival highlighted the agricultural potential of the Southern Region, especially in terms of potential jobs and opportunities.

“The festival is a great illustration of the modernization of our agriculture,” said Minister Mbairrobe. It is, therefore, a question of transforming our production, and it is only in this way that we will consolidate our position as the agricultural granary of Central Africa.

At the close of the festival, the Regional Council of the South handed over the torch to the South West for the organization of the next edition.

Contributed by Marielle Annick Diyani

## Strengthening private sector-led agri-food value chains in Ogun State, Nigeria

The Value Chain Development Firm (VCDF) of [IITA-CGIAR](#) hosted the Ogun State Economic Transformation Project's (OGSTEP) inception workshop on 15 November at the Ijebu Ode Local Government Area Secretariat in Nigeria's Ogun State.

The workshop aimed to strengthen private sector-led agri-food value chains by ensuring farmers in production clusters have off-taker agreements with agribusiness that are gender and youth-disaggregated, particularly in the six local government areas of Ogun State's Ijebu zone.

The organizers set out to promote, strengthen, mentor, and sustain an LGA-level value chain innovation platform comprising producers, input suppliers, service providers, off-takers, and other actors engaged in active climate-smart low-emission production practices to improve resilience and mitigation efforts



IITA's Prof. Lateef addressing farmers at OGSTEP Inception Workshop.

### Got a story to share?

Please send your story with photos and captions every Tuesday to [iita-news@cgiar.org](mailto:iita-news@cgiar.org) or Katherine Lopez ([k.lopez@cgiar.org](mailto:k.lopez@cgiar.org)) and Uzoma Agha ([u.gha@cgiar.org](mailto:u.gha@cgiar.org)) for headquarters and Western Africa, Catherine Njuguna ([c.njuguna@cgiar.org](mailto:c.njuguna@cgiar.org)) for Eastern and Southern Africa, and David Ngome ([d.ngome@cgiar.org](mailto:d.ngome@cgiar.org)) for Central Africa.





*Top: The OGSTEP team with farmers and other stakeholders at the workshop.  
Center: Farmers at the workshop.  
Bottom: Focus group discussions with farmers and OGSTEP team.*

during the pre-investment and investment phases.

IITA-VCDF seeks to enable effective monitoring, learning, and evaluation of project implementation while safeguarding environmental and safety issues in the project location.

The project is the largest World Bank project in Ogun State; the second state to benefit from such a project after Kaduna State. The project covers education, agriculture, public sector reforms, and ease of doing business.

OGSTEP is funded by a World Bank loan to the Ogun State Government, and as a state government grant to farmers, farmers will be trained to develop a business plan for individual projects.

Ogun State has been categorized into four agricultural zones—Ijebu, Ikenne, Abeokuta, and Ilaro. At least 1,500 farmers from each zone will be selected and supported financially through a grant from the state government. The project will not hand cash to the farmers but supply inputs through government-accredited vendors.

Contributed by the IITA-VCDF Team

## **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.