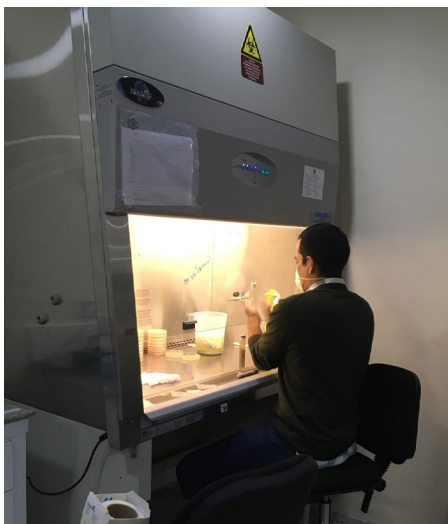


IITA signs Aflasafe manufacturing and distribution agreement in Mozambique

Food safety took a step forward in Mozambique as [IITA](#) signed a Technology Transfer and Licensing Agreement (TTLA) with AflaLivre Moçambique S.A. (AflaLivre) to manufacture and distribute [Aflasafe](#) in the country. The renewable agreement, signed on 7 May, defines the framework of operations and responsibilities of each party.

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Left: IITA Plant Pathologist Dr Alejandro Ortega-Beltran working on the inoculum to manufacture Aflasafe MZ02 in the Arusha factory. Right: Manufacturing Aflasafe MZ02 in Arusha for Mozambican farmers' use during the 2021 cropping season.

IITA and partners combat poor nutrition in women and children

Malnutrition in young children and pregnant women is known to have adverse consequences on their survival and long-term well-being. It also has far-reaching effects on human capital, economic productivity, and national development; changes in diet can help improve mental health, prevent or control many health problems, including diabetes, obesity, and certain risk factors for cancer and heart diseases.



Sam Ofodile walking the trainees through registration on INDEX24 mobile app.

The Federal Government of Nigeria, in collaboration with [IITA](#) and other partner organizations, carried out a National Food Consumption and Micronutrient Survey (NFCMS) to assess the micronutrient status and dietary intake of women within the reproductive age of 15–49 years, including pregnant and lactating women, and children aged 6–59 months.

The last NFCMS was undertaken 20 years ago, in 2001. The findings of this study no longer represent the current micronutrient status or dietary consumption patterns of the Nigerian population. Updated information on the

population's micronutrient status and dietary intakes is required for informed, evidenced-based decisions about current and future food and nutrition programming and policy making in Nigeria.

The current survey also focused on the micronutrient status of non-pregnant adolescent girls aged 10–14 years while identifying key factors associated with poor nutrition in this population. In addition, scientists from the six geopolitical zones in Nigeria participated in the survey to develop strategies for preventing and treating diseases like anemia.

In a one-week training held at IITA, jointly coordinated by the lead investigator [Mercy Lungaho](#) and principal investigators, [Busie Maziya-Dixon](#) and [Rasaki A. Sanusi](#), participants learned how to put actions in place to effectively carry out a survey on food consumption and the micronutrient status of Nigerians. Experts in medicine, laboratory science, and data management, among others, facilitated the sessions, exposing participants to field and dietary survey tools such as the INDDX24 application.

The NFCMS Dietary Intake Lead, Olapeju Phorbee, highlighted some of the challenges encountered during the survey. She identified aspects of the questionnaire and INDDX24 tool that needed re-training after the pilot.

Other major issues observed include mobilization, line listing, and poor communication between the biomarkers' team and the dietary group. "I have followed the training and fieldwork in several locations, and these problems would not be allowed to come up during the main survey," said Sanusi.

One of the participants, Victor Ajieroh, appreciated the training organizers for their high level of dedication. However, he encouraged an even higher level of commitment as the country and the rest of the world depend on the survey's outcome. "It is an extreme opportunity to build one's career due to the huge experience in this project," he added.



Dietary Interview during the Pilot.

Got a story to share?

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



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.

IITA's Aflasafe team is already providing technical assistance with the design of the Aflasafe factory and procurement of the equipment. This Aflasafe manufacturing facility in Nampula, the fifth in sub-Saharan Africa, should be operational by June 2022.

Mozambique has the potential to contribute significantly to food security in Africa. However, only about 15% of its arable land is cultivated, mainly with staple food crops such as maize, cassava, and groundnut. Also, only about 20% of maize and groundnut produced in Mozambique enter markets; the rest is consumed at the household level. Moreover, high aflatoxin levels in these crops undermine their nutritional value and reduce access to lucrative export markets in the event of surplus production.

The country's huge production potential and aflatoxin challenge led IITA and partners to develop and adapt the aflatoxin biocontrol technology for local use with funding from USAID. After several years, two Aflasafe products—Aflasafe MZMW01 and Aflasafe MZ02—that were developed with atoxigenic strains of *Aspergillus flavus* native to Mozambique and tested across the country were registered in February 2019 for commercial use by the Division of Registration and Control of Agrochemicals, in the Department of Plant Health under the National Directorate of Agriculture and Forestry in the Ministry of Agriculture and Food Safety. As a result, farmers in Mozambique now have an effective technology to address the aflatoxin menace.

Groundnut growers, who had participated in the effectiveness trials of Aflasafe in Northern Mozambique, showed considerable interest in the product after seeing its tangible



IITA Plant Pathologist and Mozambique Aflasafe Coordinator Dr Joao Augusto (second from right) with farmers in Mozambique before treating a groundnut field with Aflasafe MZ02.

benefits in reducing aflatoxin accumulation. Therefore, to meet growing demand, IITA facilitated a short-term manufacturing arrangement for Aflasafe MZ02 at one of the operational licensed factories in the region.

Fifteen tons of the product were manufactured by A to Z Textiles Ltd, in Arusha (Tanzania), transported by road, and distributed by the Associação Moçambicana Para Promoção do Cooperativismo Moderno (AMPCM), a cooperative, facilitated by the Royal Norwegian Society for Development also known as Norges Vel, an international NGO.

Concurrently, discussions began with the groundnut working group to facilitate Aflasafe production in Mozambique and reduce the cost for local farmers, who have to pay more because of the import-related transactional costs, limiting widespread use. AMPCM and Norges Vel teamed

up with a private company Miruku Agro Indústria (Miruku), to set up AflaLivre, a private limited liability company registered with the Legal Entities Conservatory of the Republic of Mozambique.

With Norges Vel as the majority shareholder, the core business of AflaLivre is to produce, distribute, and add value to groundnut, maize, cassava, and other agricultural products, process and manage agricultural inputs, including Aflasafe, and other agricultural-related matters.

Unlike other Aflasafe factories, this one will combine Aflasafe manufacturing and aflatoxin-safe groundnut processing in one facility. As a result, Mozambican farmers are now a step closer to having a reliable source of an aflatoxin biocontrol product at a significantly lower price than what it cost to import it from Tanzania.

IITA donates elite planting materials to boost FCT farmers' productivity



Farmers in Nigeria's capital, Abuja, received a boost as the [IITA-Abuja](#) team donated 330 kg of improved, disease- and drought-tolerant seedlings to the Federal Capital Territory Authority (FCTA).

Head of IITA-Abuja, Dr Gbassey Tarawali (right) presenting the planting materials to Director of Agricultural Services, Dr Nkem Akanegbu.

The Head IITA-Abuja Station, [Gbassey Tarawali](#), presented elite planting materials comprising maize, cowpea, and soybean to the FCTA Management at the ministry's head office in Abuja.

In his address to the Management of FCTA at the event, Tarawali appreciated the Minister, who had recently visited IITA-Abuja, Station in Kubwa, and despite competing demands on resources, he had provided two critical assets to the Station.

Tarawali said, "In appreciation of FCTA's continued support, we are donating 330 kg of elite planting materials...to be multiplied and distributed to farmers in FCT."

Receiving the seeds, the Director of Agricultural Services, Dr Nkem Akanegbu, thanked IITA for the kind gesture. She reiterated that IITA and FCTA have an agreement, which serves as a common ground for achieving results. "The seeds donated by IITA will be multiplied and distributed to our farmers," she said.

FCTA hosts the IITA Abuja Station, located on about 62 hectares of land. In 1991, IITA and FCTA signed an agreement for the takeover of the farms' operation. The agreement signed years ago is currently under review.



The elite planting materials included packs of improved maize and soybean seeds.

Educating youth to bridge the protein gap in livestock feed

One of the key requirements for healthy livestock is the availability of a protein diet. However, protein for livestock is often in limited supply, as it is in high demand by humans. Hence, many youth-led livestock enterprises often do not rely on a single means to get protein for their animals.

One innovative solution provided by the ENABLE-TAAT program to youth-led enterprises is the production of black soldier fly larvae, known to be rich in protein and essential elements for poultry and fish feeding. From 29 March to 9 April, ENABLE-TAAT trained 15 young agribusiness enterprise owners in the Republic of Benin to produce black soldier fly larvae, specially intended for poultry and fish farming.

The youth attested to a limited supply of adequate protein in livestock

feed, which has led to the search for alternatives. The training beneficiaries learned how to raise soldier flies from livestock waste such as droppings and human food waste. The crop substrates of soldier flies can also serve as a soil fertilizer.

The high demand and low supply of protein in livestock feed make it expensive, thus affecting profit margins and general business growth. So far, fish is the primary source of protein for both humans and livestock; it is

consumed in various forms by humans and as fishmeal or feed material for livestock.

ENABLE-TAAT is committed to boosting youth-led agribusinesses by introducing helpful new technologies. For example, disseminating the 'black soldier fly larvae' feed technology brings relief to young livestock farmers. They will now be able to feed their livestock with the waste products of this same livestock, thus reducing production costs and increasing profit.

This circular bioeconomy technology increases sustainability in livestock production while easing the competition for protein between humans and livestock and provides better-quality protein to livestock.



Some ENABLE-TAAT beneficiaries are now culturing Black soldier fly larvae.