

IITA and regional grains body to work towards producing aflatoxin-free grain for health and trade

[CGIAR-IITA](#) and the Eastern Africa Grain Council (EAGC) have signed a memorandum of understanding (MoU) agreeing to work together to tackle aflatoxin contamination of grain in the region. Achieving this will ensure that grains are safe for human and livestock consumption and meet export standards.

Aflatoxin, a highly poisonous chemical produced by a naturally occurring fungus known as *Aspergillus flavus*, poses a severe health threat to both humans and animals. Acute poisoning from consuming foods with very high levels of aflatoxin can lead to instant death. Chronic long-term exposure from consuming foods with above-the-allowable safe levels can result in lowered immunity, low birth weight, and irreversible stunting in children. People exposed to aflatoxin can also develop liver cancer.

Because of the health risks, aflatoxin also causes loss in trade revenues when products fail to meet the required



Aflasafe™ substantially reduces aflatoxin contamination in maize and groundnut.

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Visit of ECOWAS Directorate of Agriculture to IITA-Abuja reignites partnership

The Director of Agriculture and Rural Development of ECOWAS, Alain S.Y. Traore, and other members of staff visited [IITA-Abuja](#) to familiarize themselves with the activities of the Institute in the Nigerian capital. The visit is the first for both offices.



Dr Beatrice Aighewi explaining the yam vine technology during a tour of IITA-Abuja facilities.



Head of Abuja Station (left) and the ECOWAS Director of Agriculture and Rural Development.

The Head of IITA-Abuja, [Gbassey Tarawali](#), and the scientists at the station organized an interactive session for the ECOWAS delegation to showcase the different projects operating there.

In his welcome remarks, Tarawali expressed delight about the visit, the first since the inception of IITA Abuja Station in 1991. He said he hoped the visit would facilitate increased collaboration between IITA and the ECOWAS Directorate of Agriculture.

Tarawali, who also coordinates the ATASP-1 Outreach Program, highlighted

the objectives of the project and its key achievements. ATASP-1 has developed critical infrastructures such as the construction of three Youth Training and Crop Processing Centers in Abuja, Kano, and Onne, as well as built three world-class modern tissue culture laboratories in Ibadan, Abuja, and Onne.

The AfricaYam Project leader, [Patrick Adebola](#), spoke about enhancing yam breeding in West Africa to increase productivity and improve quality. He also emphasized some of the support required to strengthen the IITA yam breeding program. IITA Yam Seed Systems Specialist, [Beatrice Aighewi](#), also gave a presentation on the development of yam seed systems in Nigeria and Ghana.

The West Africa Commercialization and Agribusiness Manager, Peter Okomoh, spoke on aflatoxin and its impact, and the work on [Aflasafe™](#) that is fighting this scourge. He highlighted the strategic direction and progress of the Aflasafe Technology Transfer and Commercialization (ATTC) project and underscored the project goals, objectives, and implementation approach.

Zacchaeus Isuwa, an Agripreneur, gave the final presentation on IITA Youth in Agribusiness initiatives, emphasizing the importance of the program as a potent vehicle for youth empowerment and employment in Africa.

In his response, the ECOWAS Director of Agriculture thanked the Head of Station and the scientists for the warm welcome and detailed presentations. He commended the Institute for its achievements, noting that the next hurdle is how to take these results from the research labs to the end-users.

Director Traore also noted that the existing MoU between the two organizations should serve as common ground for achieving impact. The Director encouraged IITA, as a center of knowledge, to take advantage of the many opportunities that abound in ECOWAS. Tarawali assured him that IITA would look for opportunities of working on collaborative initiatives.

The delegation embarked on an extensive tour of the station, stopping over at the yam screenhouse, the yam, maize, cassava, soybean, and cowpea demonstration plots, and the IYA fish ponds.



The visiting ECOWAS delegation with IITA Staff.

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standards. According to the [Partnership for Aflatoxin Control in Africa](#) (PACA), Africa loses an estimated US\$670 million in rejected export trade annually due to contamination by aflatoxin.

In the MoU, IITA and EAGC, a membership organization that brings together key players across the grain value chain in Eastern and Southern Africa, will promote best practices and proven technologies to manage aflatoxin. This integrated aflatoxin management strategy includes promoting the use of [Aflasafe™](#), an innovative, safe, and natural product that substantially reduces aflatoxin contamination in maize and groundnut.

The technology, initially developed by the [United States Department of Agriculture - Agricultural Research Service](#) (USDA-ARS), is used widely in the US. IITA, in partnership with the USDA, has successfully adapted this technology for use in many countries in Africa.

“Aflatoxin contamination is a serious food safety issue in sub-Saharan Africa and also a major impediment to trade. We are therefore excited about this partnership with EACG that will, among others, support efforts to create awareness on aflatoxin and mitigation strategies,” said Kenton Dashiell, IITA Deputy Director General, Partnerships for Delivery at the virtual signing of the MoU. Dashiell stated that the collaboration would help towards the

realization of our vision for an aflatoxin-free, food-secure Africa.

EAGC is identifying best practices in food safety and quality control among grain value chain actors to increase their potential grain trade within and between African countries. The EAGC Executive Director, Gerald Masila, remarked: “By reducing aflatoxin contamination in grains to safe levels, Africa could meet international food safety standards, thereby creating a huge opportunity for an increase in grain export potential.”

The MoU will leverage each organization's strengths to promote cooperation in the areas of advocacy, research, capacity

development, and awareness creation. This collaboration would also promote the implementation of EAC staple food standards and mobilize resources to attain and manage aflatoxin standards. The partnership intends to increase knowledge and experience sharing to maximize the desired outcomes.

IITA has registered 14 Aflasafe™ products for commercial use in 10 countries (Burkina Faso, Ghana, Kenya, Malawi, Mozambique, Nigeria, Senegal, Tanzania, The Gambia, and Zambia). The Institute has transferred these products to private sector partners for scale-up and is continuing to develop products in 12 other countries.



IITA's Aflasafe™ factory in Ibadan, Nigeria.

Digital Dynamism for Adaptive Food Systems

The CGIAR Platform for Big Data in Agriculture invites you to the Big Data Global 2020 Conference on 19-23 October.

This year's event theme, Digital Dynamism for Adaptive Food Systems, will examine food system resilience and highlight how digital tools and technologies can help us sense, respond, and (re)build better systems in times of global food security crises.

Register for the free #BDPGLOBAL2020 at <https://bigdata.cgiar.org/virtual-convention-2020/>.

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.



The mobile cassava processing plant: A solution to cassava business challenges



The mobile cassava processing plant.

The [Technologies for African Agricultural Transformation](#) (TAAT) Cassava compact team of [IITA](#) hosted the Ogun State farmers' group from the [Abeokuta Chamber of Commerce Industry, Mines, and Agriculture](#) (ABEOCCIMA) at the Institute's headquarters in Ibadan on 25 August. The group came on a tour of IITA's facilities and the mobile cassava processing plant. The visit also aimed to explore possible partnerships with IITA in accessing agricultural technologies for improved agribusiness.

The mobile cassava processing plant was fabricated by IITA in collaboration with the [Federal Institute of Industrial Research Oshodi](#) (FIIRO) to improve agribusinesses by assisting processors in the rural areas to conveniently gain access to improved processing methods and equipment at a reduced cost. The issue of postharvest losses experienced by rural farmers is a serious challenge. One of the problems is transporting cassava roots from the farm to the factory "as 80% of the cassava root is purely water," said [Peter Kolawole](#), Postharvest Specialist at IITA.

The mobile processing plant will enable farmers to process their cassava roots right inside the field. This will save the cost of transporting

the roots to the factory, allow farmers to make use of all the by-products, and increase production of the end-products, which will result in increased profit for farmers and processors.

Business for the Ogun State farmers' group has been challenging because of the high cost of transporting cassava from the farm to factories, as attested to by the President, Sir Jare

Oyesola, during an interview with the IITA Communication team. Oyesola mentioned how business has been discouraging, so much so that the organization began to think of it as a failure. "As a business management organization, we came up with ways to improve the efficiency of the business, while searching for solutions, and the IITA mobile processing plant was recommended," he said.

Impressed by the Institute's facilities, the farmers' group is looking at partnering with IITA in getting the mobile processing equipment for the six Local Government Areas of Ogun State, starting with one cassava processor and starch producer to boost the group's cooperative business.

The Matron, Chief Mrs Alaba Lawson and Mauruff Popoola, Youth Entrepreneurship Coordinator of the group, also talked about plans to get Ogun State youth trained on machine fabrication and agribusiness in IITA, for financial independence and improved livelihood. "Any youth that is interested in agriculture can find expertise and capacity building in IITA," Popoola said.



TAAT team taking the farmers' group on a tour of IITA facilities.

Science of scaling: What have we learned so far?

The CGIAR Communities of Practice on Data-Driven Agronomy and Scaling held a second webinar on the Science of Scaling, as part of its webinar series on Ingredients for Scaling on 25 August.

The webinar tackled the multiple questions

- What is the science of scaling and what have we learned so far?
- What critical knowledge gaps remain unfilled?
- What are the roles and responsibilities of researchers and R4D centers?
- How can development and research organizations learn from each other for sustainable change at scale?

Lennart Woltering, Scaling Catalyst at the International Maize and Wheat Improvement Center (CIMMYT) in Mexico and Chair of the Community of Practice for Agricultural Working Group on Scaling, and Daniel Jimenez, Leader of the Community of Practice on Data-Driven Agronomy, chaired the discussions.

Science of scaling: Scaling readiness

In his presentation, [IITA](#) Senior Innovation and Scaling Scientist, [Marc Schut](#), talked about the Science of Scaling and said that “If we are serious about achieving the Sustainable Development Goals, we need to think about impact at scale, and the use of agricultural innovation at scale.”

He also added that most of the development projects do not achieve impact at scale because they start thinking of scaling towards the end of the project, do not design projects with scaling in mind, and have unrealistic ideas of impact. Some of the projects also think that what works in one context can work similarly in another context (one size fits all) and give similar outcomes. This model is commonly known as Scaling the Old Way.

Furthermore, Schut shared lessons learned over the two years since the Scaling Readiness kicked off:

- Scaling innovations should be seen as part of packages. This means that

innovations have different levels of readiness and use, and do not scale alone. They are context-specific, so all the context of innovation scaling should be considered while scaling and ensure all the conditions for scaling are in place.

- Innovations should not only focus on numbers (trying to achieve as many as possible), as many other elements ascertain impact at scale besides numbers.
- Short-term and long-term projects develop differently. The accurate way of scaling innovations is through a long-term project because achieving impact takes time.
- New competencies such as scaling champions should facilitate innovation use, which is not the same as innovation design testing and validation. These new competencies in the scaling process should understand policies and the need for the innovation by next users. The process should also include new partnership models.
- Achieving scale goes hand in hand with having limited control over the way your innovation is used or abused at scale. Relinquishing control requires a different mindset, which also helps in sustainability and ownership of the innovation by the end-users.
- Success requires developing fit-for-purpose partnerships and engagement with partners who will

play a key role in overcoming the bottlenecks of scaling the innovation.

- Project leaders must develop a new paradigm that focuses on scaling proven, tested, and validated innovations to improve the desired outcome.

Achieving scaling impact

In her presentation, Program Officer at the International Development Research Centre (IDRC), Hayley Price-Kelly, discussed insights gained from the IDRC experience of scaling different innovations since 2016.

Price-Kelly emphasized that they had put a flexible scaling process in place, targeting specific knowledge in one context, and had to involve a range of actors that could enable the impact of the innovations. “What we learned is that there is no blueprint for scaling in research for development innovations,” she noted.

Price-Kelly also shared some challenges to address in future scaling work, such as the affordability of the process. In the case study, production equipment was quite expensive. She also indicated that scaling takes place regularly over multiple projects, and the idea is to adjust along the way to address all the components in the scaling process.

The next webinar is scheduled for 29 September 2020 on The art of scaling: Tools for scaling in a project in a better way and how to build partnerships about scaling.

The image shows a promotional graphic for a webinar series. At the top, it says "WEBINAR SERIES: INGREDIENTS FOR SCALING". Below that, it says "WEBINAR TWO: The Science of Scaling". The graphic is presented by the "Communities of Practice on Data-Driven Agronomy and Scaling" and is part of the "Platform for Big Data in Agriculture" by CGIAR. Two speakers are featured: Hayley Price-Kelly, Evaluation Program Officer at IDRC, and Marc Schut, Senior Innovation and Scaling Scientist at IITA. The background is dark with a circular logo of a person holding a fork and a wireless signal icon.

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Wash your hands regularly with soap and water; practice physical and social distancing; wear face masks; avoid crowds and public places; keep a 2-meter distance from the next person; practice general sanitation and hygiene.