IITA news
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New book showcases 50 years of IITA's plant health research

Over the past 50 years, IITA has been at the fore of research on plant health issues in Africa ranging from the safe handling and movement of germplasm and seed to identifying and managing threats to crops in the region.

These play a major role in the overall food production of the continent, affecting both quality and quantity of crop yields. These plant health issues are the focus of a new book from Burleigh Dodds Science Publishing titled "Critical issues in plant health: 50 years of research in African agriculture," which will be released on 31 January.

This collection focuses on plant health issues in sub-Saharan Africa which are key to improving yields and summarizes 50 years of research on plant health by IITA to improve the health of crops in Africa. The book also reviews ways of improving the health of key African crops such as cassava, maize, and grain legumes, and brings together leading experts on plant health in sub-Saharan Africa to review progress in dealing with the range of biotic threats faced by African farmers.

The book is edited by Benin-based IITA Emeritus Scientist Peter Neuenschwander, who is also the former Director of IITA's Plant Health Management Division, and Manuele Tamò, Insect Ecologist and IITA-Benin Country Representative.

The book is broadly divided into four parts, namely: Managing threats to plant health; Plant health in practice: Managing threats to key African crops; Integrated pest management: Putting it all together and exchange of knowledge with farmers; and Conclusions and future challenges.

Speaking in the lead-up to the book release, Francis Dodds, Editorial Director at Burleigh Dodds stated: "As you might know, IITA has been a particular pioneer in biological control, starting with programs against the cassava mealybug and the cassava green mite. IITA has been a world leader in the use of entomopathogenic fungi against locusts and grasshoppers and the use of entomopathogenic viruses to combat pests of cowpea, for example."

Front cover of the new title from Burleigh Dodds Science Publishing.

Dodds also quoted the International Association for the Plant Protection Sciences President, Prof Geoff Norton, who noted that "This book should be essential reading for those involved in all aspects of plant health in tropical agriculture, as well as elsewhere."

This new book aims to be a standard reference on improving the management of pests and diseases in developing countries. Several scientists and researchers from IITA and partner organizations have contributed to the book's contents.

IITA BoT Chairman visits Abuja Station

On 15 January, the IITA Board of Trustee (BoT) Chair, Dr Amos Namanga Ngongi, was hosted at the IITA-Abuja Station as part of his visit to the Nigerian capital. He was received by the Head of IITA-Abuja Station, Gbassey Tarawali and the Senior Management Team who gave a brief on the research and delivery activities being coordinated from the Station.

In his welcome address, Tarawali outlined the evolution of the Abuja Station from being a research/demonstration farm to a full-fledged experimental research station with 13 resident international scientists. He emphasized its strategic location within the Federal Capital Territory to showcase IITA's research and development products and the potential to attract support from government and the international community in Abuja. He also appealed for sustainable support to the ongoing infrastructural developments at the Station to enhance the Station's transformation into a center of excellence for agribusiness and youth development in Nigeria.

Tarawali, who is also the Coordinator of the ATASP-1 Outreach Program, highlighted the objectives of the Program and its key achievements noting that at the mid-term review in 2018, the Project had attained its key targets and was adjudged to have done exceedingly well.

In his presentation, ATASP-1 Rice Commodity Value Chain Specialist from AfricaRice, Philip Idinoba, highlighted ongoing AfricaRice activities anchored from the Station. He outlined progress made so far in the implementation of the various projects including the successful training of 39,451 farmers, and the distribution of about 65 tons of improved rice seed to rice farmers under the ATASP-1 Program.

BoT Chair (center, in blue) with staff of Abuja Station during the visit.

The work being done on Aflasafe was presented by the West Africa Commercialization and Agribusiness Manager, Peter Okomoh where he highlighted the goals and objectives of the aTTC project. Other presentations were made including from the N2Africa Senior Business Development Advisor, Edward Baars; the Africa Yam Project Leader, Patrick Adebola on the successes recorded so far by the Yam Breeding project; Yam Seed Systems Specialist, Beatrice Aighewi on the rapid multiplication of better quality seed yam under the YIIFSWA-II and CAY-Seed Projects; and Agripreneur Zacchaeus Isuwa who spoke on the IITA Youth Agripreneurs and ENABLE-TAAT project.

In his remarks, Namanga Ngongi commended the management of IITA on the rapid transformation that has taken place in Abuja Station. He stressed the importance of partnership and collaboration in achieving the Feed Africa objectives of African Development Bank (AfDB) President Akinwunmi Adesina and IITA Director General Nteranya Sanginga. The Board Chair challenged the Abuja scientists to continually innovate to remain competitive and relevant in the development community.

The BOT chair appreciated DG Sanginga for establishing the Youth in Agribusiness Program, which he said he once attempted while in AGRA but was not so successful. The initiative of IITA management in establishing the Partnership for Delivery Directorate was also lauded by the Board Chair, who insisted that technologies are meaningless until they reach the end users.

The Board Chair was accompanied on the visit by Toyin Oke, Head of Resource Mobilization, Protocol and External Liaison (RMPEL) Unit. The visit was capped by a tour of the Station and the planting of a king palm tree in front of the newly constructed Abuja Station Staff Canteen.

L-R: Beatrice Aighewi, Gbassey Tarawali, and BoT Chair on a tour of the Station facilities.

BoT Chairman plants a king palm in front of the newly constructed staff canteen.

MAIZE announces 2019 Youth Innovators Awards – Africa

The CGIAR Research Program on Maize (MAIZE) has announced the launch of the 2019 MAIZE Youth Innovators Awards – Africa. These awards recognize the contributions of young women and men below 35 years of age who are implementing innovations in African maize-based agri-food systems, including research-for-development, seed systems, agribusiness, and sustainable intensification. Nominations are now open, and eligible applicants are encouraged to apply.

Award recipients will be invited to attend the annual Stress Tolerant Maize for Africa (STMA) project meeting in Lusaka, Zambia, 7–9 May, where they will receive their awards and be given the opportunity to present their work. The project meeting and award ceremony will also allow these young innovators to network and exchange experiences with MAIZE researchers and partners. Award recipients may also get the opportunity to collaborate with MAIZE and its partner scientists in Africa on implementing or furthering their innovations.

These awards are part of the efforts that MAIZE is undertaking to promote youth participation in maize-based, agri-food systems. Young people are the key to ensuring a food-secure future and agricultural sustainability. However, rural youth face many challenges related to unemployment, underemployment, and poverty. According to the FAO, facilitating young people's participation in agriculture has the potential to drive widespread rural poverty reduction among young people and adults alike. In Africa, where over 300 million smallholder farming families grow and consume maize as a staple crop, the human population stands at 1.2 billion people, 60% whom are below the age of 25.

The MAIZE Youth Innovators Awards aim to identify young innovators who can serve to inspire other young people to get involved in maize-based agri-food systems. Part of the vision is to create a global network of young innovators in maize-based systems from around the world. The first instalment of the awards was held last year with the 2018 MAIZE-Asia Youth Innovators Awards. The winners of the awards were invited to the 13th Asian Maize Conference held in Ludhiana, India, to present their research.

The 2019 MAIZE Youth Innovators Awards are sponsored by MAIZE in collaboration with Young Professionals for Agricultural Development (YPARD). MAIZE invites young innovators to apply and CGIAR researchers and partners to nominate eligible applicants for any of the following three categories:

1. Researcher: Maize research-for-development (in any discipline)
2. Farmer: Maize farming systems in Africa
3. Change agent: Maize value chains (i.e., extension agents, input and service suppliers, transformation agents etc.)

The application form and application guidelines can be found here.

R4D Special

Priority-setting in Climate-smart Agricultural Research: A step further in ensuring food security in Africa

A team of scientists, including Philip K. Thornton, Anthony Whitbread, and Lieven Claessens, under the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), from several international research organizations including IITA, have identified the need to intensify agricultural research for development, so as to meet the Sustainable Development Goals associated with food production, human nutrition, climate change, and environmental protection in a world with 9.7 billion people by 2050. A key part of addressing this challenge will revolve around effective priority setting in Climate-smart Agriculture (CSA) that can provide information to help guide best-bet technology, policy, and investment action that leads to desired, long-term development outcomes while meeting local, immediate needs for food security.

A green cassava field in Ibadan, Nigeria.

Estimates of the needed increase vary between 25 and 70%, depending on the assumptions made about efficiency and consumption pattern changes. One response to these recognized needs is the climate-smart agriculture approach. This approach has brought recognition that there will be multiple alternative pathways to sustainable agricultural systems.

Climate-smart agriculture is widely promoted towards reorienting agricultural development under the realities of climate change; however, prioritizing its activities is crucial, given the need to use scarce resources as effectively as possible.

The scientists noted that prioritization in CSA involves six steps: (1) identifying system entry points and impact pathway; (2) defining spatial and temporal scale; (3) formulating research questions and how will they be addressed; (4) estimating production, adaptation, mitigation research impacts; (5) estimating other environmental and social impacts; (6) determining what is needed to go from research output to impact.

The article *A framework for priority-setting in climate smart agriculture research* by Philip K. Thornton, Anthony Whitbread, Tobias Baedeker, et al. can be accessed here: https://doi.org/10.1016/j.agsy.2018.09.009

IITA-CWMP develops mobile app for smallholder farmers

The IITA Cassava Weed Management Project (IITA-CWMP) has developed a mobile application that helps farmers to apply the correct dose of herbicides on cassava and other field crops.

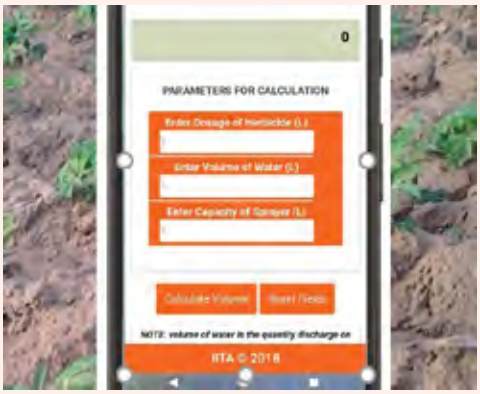
In most rural communities in Africa, the use of knapsack sprayers is common, and the challenge has been the difficulty of farmers knowing exactly what quantity of herbicides to add to their knapsack to avoid over- or underdosing.

IITA Director of the Development and Delivery Office and Project Leader of IITA-CWMP, Alfred Dixon, said the development of the first version of the app was a welcome development to help farmers to efficiently apply herbicides and control weeds.

"Besides, the beauty of this app is that it helps farmers to calibrate themselves and can also be used in other crops," he added.

Godwin Atser, Communication & Knowledge Exchange Expert at IITA, who led the development of the mobile app, said the app can help millions of farmers in Africa on how they make decisions about the application of herbicides.

"In several communities where I have trained farmers, the challenge has been how to get farmers to calibrate properly themselves, and more importantly what quantity to mix in the spray tanks. This app provides the solution," he added.



The herbicide mobile app.

Further validation and a launch of the app is being planned.