

IITA news

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AfricaYam leads adoption of YamBase Open Access platform

The AfricaYam project organized a seminar for the Yam The seminar highlighted the need to Community of Practice (YCoP) with the theme: "YamBase: Integrating breeding tools to speed up yam breeding activities and data management in West Africa... Where are we?" at IITA, Ibadan, on 18 August to create awareness, encourage interaction, and exchange ideas about the YamBase platform.



IITA scientists discussing about the YamBase platform.

improve the YamBase database as it is still in the development stage. In attendance at the gathering were researchers, scientists, and graduate fellows. Speaking at the opening event, Robert Asiedu, R4D Director, IITA-West Africa, commended the organizers for their hard work towards developing YamBase.

The development of a database to support breeders' data activities and manage the data and comprehensive interface will assist breeders to achieve the goal of harmonizing the data generated from four countries (Benin, Côte d'Ivoire, Ghana, and Nigeria) and seven breeding programs in the project.

YamBase facilitates the creation of trials, avoids duplication, helps with germplasm management—generating barcodes for accessions, plots, and trials, and merges phenotypic data along with the genomic data selection.

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IITA honored for supporting development of Tanzania's agric sector at "Nane nane" exhibition

The Tanzanian government recognized IITA's role in supporting the development of the agriculture sector in the country during the week-long national agricultural exhibition held in Lindi-Mtwara, Tanzania, 1–8 August.

The exhibition, dubbed "Nane Nane" or "eight eight", lasts for 8 days and its climax is on 8 August, which is a public holiday that recognizes the importance of agriculture and its actors in building the country's economy. The exhibitions bring together stakeholders from the government, research institutes, universities, the private sector, and NGOs to showcase agriculture-related technologies and activities.



Victor Manyong explains to the former first lady, Salma Kikwete, IITA's research on aflasafe, an effective biocontrol agent for reducing aflatoxin contamination.



The Institute's exhibition was ranked third under NGOs that supported the development of Tanzania's agriculture sector at the closing ceremony. The event was presided over by the Tanzanian Vice President, HE Hon. Samia Suluhu Hassan, who handed over the trophies to the winners. IITA Director for Eastern Africa, Victor Manyong, who was also among the key dignitaries at the event, received the trophy on behalf of IITA.

Some of the technologies and products that IITA showcased included inoculants (NoduMax and Legumefix) to boost legume production under the N2Africa project; aflasafe, the biocontrol

technology to control aflatoxin; and the collapsible drying case (CDC), <u>PICS</u> bags, shelling machine, and cassava waxing to reduce postharvest losses. The <u>Tanzania Youth Agripreneurs</u> (TYA) also were part of the exhibitions and displayed some products from their agribusinesses such as high quality cassava flour and other cassava snacks.

Other IITA staff at the event included Freddy Baijukya, N2Africa Country representative; George Mahuku, IITA Senior Plant Pathologist; Catherine Njuguna, Communication Officer for Eastern Africa; and staff from N2Africa, aflasafe research, and TYA.

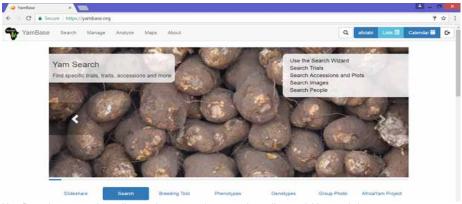


Manyong receiving IITA's trophy from the Tanzanian Vice president, Hon. Samia Suluhu Hassan. Looking on are the Hon. Ministers of Agriculture and Finance.

AfricaYam leads adoption of "YamBase" Continued from page 1

This tool establishes a breeders' community of practice for participating countries with a focus on upgrading skills in phenotyping, breeding, program management, and trial management; helps minimize data loss; facilitates breeders' activities by assisting them in their daily work; and aids integration of both phenotypic and genomic data for advanced data analysis such as genome wide association and QTL analysis.

Commenting on the need to integrate breeding tools to speed up yam breeding activities, Paterne Agre, IITA Molecular Breeding Analyst and data management, pointed out the importance of using YamBase to penetrate, coordinate, and integrate all the data that will be collected and generated over the years and also reach out to the community of yam practitioners.



YamBase integrates breeding tools to speed up yam breeding activities and data management.

Concurring, Afolabi Agbona, Database Curator/Data Analyst said, "I urge you all to continue to support the YamBase innovation so that that we can jointly take yam to a more competitive level." Yam plays a key role in food security, income generation, and the sociocultural life of at least 60 million people in the region. "There is need to develop YamBase for effective

data management and this can only be achieved through joint efforts," he added.

Discussions were then led by Paterne and Afolabi at the end of the seminar. More efforts are needed to make this tool succeed like in the case of sweet potato base and Breeding Management System (BMS).



YamBase seminar for Yam Community of Practice at IITA, Ibadan.

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Local government praises ATASP-1 for improved cassava intervention

A local government official lauds the Agricultural Transformation Agenda Support Programme Phase One (ATASP-1) project, describing it as the "first Federal Government program in their community."

Speaking at the first ever cassava field day, a one-day event held at Ezimo-Agu community of the Udenu Local Government Area (LGA), the elated chairman, Hon. Frank Ugwu, congratulated IITA for its just-concluded IITA50 celebration. "We are happy for your support in the provision of cassava stems (especially during stem scarcity), and extension services which is helping farmers to improve their yield," Ugwu said.

He solicited IITA's support in efforts to drive agricultural commercialization in the locality. In addition, he solicited IITA's support in the locality's efforts to drive agricultural commercialization. In addition, he expressed gratefulness to ATASP-1 for the access road to farms and other infrastructural development in their LGA. "Life is in the farm," the political leader said, while encouraging his people to take ATASP-1 seriously, as it offers practical solutions to their challenges.

The field day witnessed a large turnout of women, men, youth, clergy, traditional rulers, farmers, and government officials. The one-day event was organized by the cassava value chain under <u>ATASP-1</u> and attended by cassava farmers' groups and processors drawn from nine villages in two LGAs of Udenu and Isi-uzo: Obollo-Eke, Agu-Orba, Ezimo-Agu, Imilike-Agu, Mbu, Ikem, Isu-Ehamufu, Amede, and Neke. The LGA is the home base of Enugu State Governor, His Excellency <u>Ifeanyi Ugwuanyi</u>.



Dr Okechukwu explaining to farmers about planting cassava stems.

commenced. Before event Richardson Okechukwu. ATASP-1 cassava commodity specialist, led the lead farmers, the cassava team, outreach team, and the zonal program team to inspect some of the cassava fields where TME 419 and TMS 30572 varieties were planted. He certified them to be in good condition, indication that the training given to farmers under ATASP-1 were beneficial. "We want you to

make more money from cassava." Okechukwu said while he took the participants through а detailed presentation on the entire value chain and Good Agricultural Practice (GAP). In addition, the participants were provided training on how to make confectionary other value-added products from cassava Okechukwu also announced that ATASP-1 will build a processing center for them, which was well received.

The high point of the event was the distribution of cassava stems to farmer groups. A beneficiary, Christian, described the gesture as "the best gift of the year. I have looked for these stems with money but could not get them. Now, I have them free."

The Permanent Secretary, Ministry of Agriculture, Enugu State, Ogbonnaya Idika appreciated ATASP-1 for bringing new, agricultural innovations to farmers in Enugu State. He was grateful for the improved cassava stems provided by IITA. He advised the farmers to plant and multiply the stems given, and extend it to other farmers in Enugu State. "We are interested in improving the livelihood of cassava farmers through training in the right technologies to achieve high yields and link farmers to market. We have a strong linkage with agro-industry that will buy up your produce and we would give you the improved cassava varieties after the training that will achieve high yield and give good income," the Zonal Program Coordinator of ATASP-1 in Adani-Omor processing zone, Romanus Egba said.





Left: Farmers listening with keen interest to an explanation on postharvest processing of cassava. Right: A cassava farmer joyfully carrying her stems for planting.

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Looking back

The first achievement of the Biological Control Center for Africa

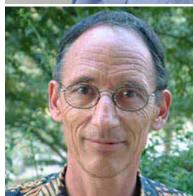
In the 1980s, the Biological Control Center for Africa was set up by IITA in Cotonou. Beforehand, in the late 1970s, resistance breeding was IITA's most frequently used method for combatting diseases and pests. Biological control research was started to combat the cassava mealybug.

Hans R. Herren, entomologist, and Peter Neuenschwander, insect ecologist, worked as leaders of the project. Their team was able to identify the cassava mealybug as a newly introduced pest in Africa. They were also able to locate the same species in its area of origin in South America.

To combat the cassava mealybug, the team looked at the parasitoid, *Apoanagyrus lopezi*, its natural enemy. They first reared cassava mealybugs and the *A. lopezi* in IITA's laboratory, and developed a simulation model showing plant/pest/predator-parasite interactions. The introduction of *A. lopezi* successfully dispersed and controlled the cassava mealybug wherever it was released.

The widespread control of the cassava mealybug was the first achievement among many of the Biological Control Center for Africa. The project yielded economic returns of 200:1, with minimum benefits of US\$ 2.2 billion from a total expenditure of US\$ 14.8 million. The 1990 CGIAR King Baudouin Award was given to the IITA and CIAT teams for Africa-wide cassava mealybug control. This was followed by the 1995 World Food Prize and other international awards to Herren.





Hans R. Herren (top) and Peter Neuenschwander (bottom) led the fight against the cassava mealybug in Africa.

Sources:

Rodomiro Ortiz. 2017. IITA: Transforming Africa's Agriculture and Nourishing Rural Development. 110 pages. Hans R. Herren, Twitter, https://twitter.com/greyherren
Neuenschwander, Peter, IITA, https://www.iita.org/iita-staff/neuenschwander-peter/

Announcements

- Africa RISING-NAFAKA scaling project planning meeting, Dar es Salaam, Tanzania, 28–29 August
- RTB-Independent Steering Committee (ISC) Annual Face to Face Meeting, Dar es Salaam, Tanzania, 6–8 September 2017
- Africa RISING going to scale in Eastern Province of Zambia Review and End-of-Project Meeting, Lusaka, Zambia, 7–9 September
- Hands-on Basic Molecular Biology Techniques, IITA, Ibadan, Oyo State, Nigeria, 11–15 September
- International Workshop on Measures to Control the Spread of Maize Lethal Necrosis in Africa, IITA, Ibadan, Oyo State, Nigeria, 25–28 September
- R4D Week, IITA, Ibadan, Nigeria, 20-24 November
- Basic Bioinformatics Workshop, IITA, Ibadan, Oyo State, Nigeria, 23–25 November

Got a story to share? Please email it with photos and captions every Wednesday to Katherine Lopez (k.lopez@cgiar.org), Jeffrey T. Oliver (j.oliver@cgiar.org), Catherine Njuguna (c.njuguna@cgiar.org), or David Ngome (d.ngome@cgiar.org).

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