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## April-June 2019 Newsletter

Dear NextGen Cassava community,



*Employees from IITA Ibadan, Nigeria pose with tools used for making fufu from cassava roots. Photo provided by Ismail Rabbi, pictured kneeling.*

We hope you are doing well during this cassava harvest time!

Collaboration is a core value of our work at NextGen Cassava: Everything that we do, we do with the support and technical knowledge of experts from all over the world. As we move into the second year of our five-year project, that spirit of collaboration is driving new breakthroughs as we work toward our shared goal of reducing hunger and poverty.

One of the most exciting outcomes of this past year's work is that clones from NextGen Cassava varieties from IITA and NRCRI in Nigeria are currently being tested in a National Collaborative Performance Trial. This is a key step toward official release of our varieties in Nigeria. IITA has also been conducting food product performance trials, testing the quality of gari and fufu made from the varieties--one of the many ways in which we ensure that the varieties we produce will meet the needs of those who will consume them.

We are constantly grateful for the willingness of our partners to share their skills with us. In this issue, we reflect on several partnerships, both old and new, and the impact we are having in

Africa and around the world. As always, I encourage you to share your thoughts and suggestions as we continue to make a lasting difference for all.

All best,  
**Chiedozie Egesi**  
NextGen Project Manager

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## Renowned biological resource center officially joins NextGen Cassava team

We have expanded our project to a new continent! The Liebniz Institute DSMZ in Brunswick, Germany, has recently become an official NextGen Cassava partner institute. Prominent plant virologist Dr. Stephan Winter has been collaborating with us for several years, and now that the DSMZ is a partner, we will transition to have a more integrated and seamless working relationship. In the past, the DSMZ worked with us as a consulting group and virology lab services provider; now, his group will now be more integrated with the breeding program, where they will develop more robust phenotyping procedures.

In June, project director Chiedozie Egesi traveled to Brunswick to visit the institute with Heneriko Kulembeka and Robert Kawuki, our lead cassava breeders from Tanzania and Uganda respectively, and Leah Nandudu, Cornell PhD student from Uganda. Leah will stay at the DSMZ for a few more weeks to work with Dr. Winter and his team on resistance to cassava brown streak disease, and to conduct collaborative experiments on virus screening and detection methods to identify and quantify resistance in cassava germplasm.

DSMZ is a world-renowned biological resource center. Dr. Winter will work with NextGen partners to provide diagnostic services, and help advance selection and screening for cassava brown streak disease resistance. The work done in his lab is an important piece of our fight against this devastating disease, and we are very excited to have him and his team on board!





*From left: Leah Nandudu, Heneriko Kulembeka, Robert Kawuki, Prof. Johannes Hallmann, Chiedozie Egesi, Stephan Winter. Photo provided by Stephan Winter.*

Read more about the visit in [this article](#) that appeared in the German press!

## **Partner Spotlight: International Center for Tropical Agriculture (CIAT), Colombia**



*Marcela Pineda leads a training on cassava flowering and pruning at NRCRI, Nigeria. Photo provided by Hernán Ceballos.*

The International Center for Tropical Agriculture (CIAT) works in collaboration with hundreds of partners to help developing countries make farming more competitive, profitable, and resilient through smarter, more sustainable natural resource management. Experts at CIAT help

policymakers, scientists, and farmers respond to some of the most pressing challenges of our time, including food insecurity and malnutrition, climate change, and environmental degradation.

We spoke to Hernán Ceballos, Cassava Program Breeder at CIAT who has been researching cassava for over 20 years. He spoke about how CIAT came to participate in the NextGen Cassava project, what we have accomplished together, and what he sees ahead for this important collaboration.

[Read the interview on the NextGen Cassava website.](#)

## **Technology training helps prepare NextGen Cassava and RTBfoods researchers for new breakthroughs**

Eighteen team members from across Africa learned how to incorporate near infrared spectrometer (NIRS) devices into their work during a training session June 24-July 5 at IITA in Ibadan, Nigeria. The joint training co-sponsored by NextGen Cassava and RTBfoods highlighted ways the technology can test root qualities such as protein, fat, starch, dry matter content, and more.

Led by RTBfoods project members Fabrice Davrieux, Thomas zum Felde, and Emmanuel Alamu, the two-week course demonstrated NIRS experimental methods, sample preparation, and calibration of the device. The technology allows researchers to analyze cassava root samples more quickly than traditional methods, with results that can predict the roots' suitability for different food products.



*Team members from NextGen Cassava and RTBfoods at the NIRS training in Ibadan, Nigeria. Photo courtesy of Chinedozi Amaefule.*



In other NIRS news, NextGen Cassava/Cornell PhD graduate Ugochukwu Ikeogu gave a webinar in June about how the handheld NIRS device can rapidly assess cassava root traits described above. You can watch the webinar recording by [registering for an account here.](#)



## Cassava food product trials at IITA



Ismail Rabbi, cassava breeder at IITA (pictured here), recently documented some cassava food product trials that took place in Nigeria. Two cassava food products were made from NextGen cassava varieties: gari, a rough meal made of fermented, grated cassava, and fufu, a flour made from pounded cassava. Gari and fufu are prepared in a variety of ways, and provide the starch portion of a meal of soup or meat in several countries in West Africa. Because these are popular ways to eat cassava, it's important that breeders test the quality of the gari and fufu that their varieties produce.

Read the [full story here](#) to see photos of the process.

## Ghana Plant Breeding Conference Registration Now Open



A conference from the African Plant Breeders Association exploring the current state and future prospects of plant breeding research in Africa will be held Oct. 23-25 at the University of Ghana. The conference - with a theme of "Advances in Classical Breeding and Application of Modern Breeding Tools for Food and Nutrition Security in Africa" - will bring together plant breeders, researchers, students, private companies and national agriculture policy makers to share research findings, discuss developments, and forge collaborations.

Visit the [APBA site](#) for more information and registration details.

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The Next Generation Cassava Breeding project is led by International Programs in the College of Agriculture and Life Sciences at Cornell University, in collaboration with International Institute of Tropical Agriculture and National Root Crops Research Institute breeding centers in Nigeria, National Crops Resources Research Institute in Uganda,

Tanzania Agricultural Research Institute, West African Centre for Crop Improvement in Ghana, Makerere University in Uganda, and the Boyce Thompson Institute and US Department of Agricultural Research Services in the United States. Supported by the Bill & Melinda Gates Foundation and UK aid from the UK government.