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FEED THE FUTURE INNOVATION LAB FOR LEGUME SYSTEMS RESEARCH

August 2021



The Feed the Future Innovation Lab for Legume Systems Research fosters dynamic, profitable, and environmentally sustainable approaches that contribute to resilience, productivity, and better nutrition and economic opportunities. The lab is managed by Michigan State University.

From the Management Office

Researchers Launch New App in Nigeria to Help Farmers and Wholesalers

Every year many Nigerian farmers spend time, money, and effort to produce cowpeas, corn, sorghum, and millet but struggle to find a buyer who is willing to purchase these crops at a fair price. Similarly, wholesale purchasers are often unable to find farmers with the produce they need and of the quality they want to sell it to farm stands, grocery stores, and other outlets.

This disconnect, between farmers and buyers, suppresses economic activity and increases the degree of food insecurity. To help farmers and wholesale buyers in Nigeria find each other, the Feed the Future Innovation Lab for Legume Systems Research project, "[Promoting Trade Integration in Regional Legume Markets with Mobile Technology](#)," led by researchers at Michigan State University has created and launched a new mobile app titled, KasuwaGo.

KasuwaGo has the potential to be a game changer for farmers and buyers.

“Not only will this app help farmers, and buyers but it will help consumers too. By improving the trading process, we can reduce food waste and ultimately allow buyers to purchase at greater volumes which will lead to lower prices. I think the potential is there for this app to help millions of people throughout the region,” says Michael Olabisi, project lead researcher and Michigan State University professor.

Kadijat Obaolowo, a Nigerian farmer who has started using the app, is already seeing the benefits. Obaolowo says, “since the inception of KasuwaGo business has been easy for us. [Now we don't] need to risk traveling long distances [over bad roads] to do business. Because of KasuwaGo app, our mind is at rest.”



KasuwaGo was showcased recently during launch events in Ilorin and Kano where participants learned how to download and use the app.

[Read more on KasuwaGo](#)

Legume Advancing Agriculture in Ghana: Francis Kusi Appointed Acting Deputy Director of CSIR-SARI



During the 80th meeting of the Executive Committee of the Council for Scientific and Industrial Research (CSIR) Ghana held on 27th May, 2021, Dr. Francis Kusi was appointed Acting Deputy Director of Savannah Agricultural Research Institute of the Council for Scientific and Industrial Research (CSIR-SARI).

From 2016-2018, Dr. Francis Kusi was the Officer In-Charge of the Institute's Manga Station in the Upper

East Region and most recently he has been a member of the Interim Management Committee of CSIR-SARI.

Supporting innovation in Legume Systems Research

Dr. Kusi also serves as a Co-Principal Investigator for the Feed the Future Innovation Lab for Legume Systems Research project titled, "[Development of Market-Driven Improved Cowpea Varieties for West Africa Using Mature-Markers](#)". The project is led by Dr. Philip Roberts, University of California – Riverside, and collaborates with CSIR-SARI in Ghana.

Cowpea, is a highly nutritious legume crop vitally important to food security in the savannah of West Africa, especially for women and children. However, typical smallholder farmer yields are 10-20% of yield potential, mainly due to insect pests, pathogens, parasites, and drought.

The project is looking to improve current popular cowpea varieties through breeding of improved traits. Target traits include tolerance/resistance of environmental threats and consumer preferred grain quality characteristics such as large seed, rough seed-coat for quicker cooking time, and seed color preferences.

"Dr. Kusi has been an integral part of our project team," says Dr. Roberts. "This appointment is a reflection of the high-quality research he leads and it is very well deserved. We are fortunate to have him as a member of our team and wish him much success."

A Research Champion for Ghana

As a host plant resistance scientist, Dr. Francis Kusi's research interests include screening of germplasm for resistance to major insect pests and other biotic and abiotic constraints of the major crops of the dry savanna zone of Ghana.

Through support from the [Kirkhouse Trust](#) and the University of California – Riverside, he has expanded his skills and knowledge in molecular breeding, as well as phenotyping for sources of resistance to major biotic and abiotic constraints of field crops.

Francis also is dedicated to educating Ghana's future researchers. He collaborates extensively with Universities in Ghana by providing opportunities to young post graduate students to study under his projects.

In 2016 Dr. Kusi was adjudged as the [National Best Agricultural Research Scientist](#) during the National Farmers' Day.

From the Field

Project Final Reports

To kick start activities the Legume Systems Innovation Lab awarded six initial project grants. These short-term non-competitive awards were selected based on their research concepts and alignment with overarching innovation lab research goals. All six of these projects have concluded and submitted final reports which we will share over the next several months.



Dr. McClean from North Dakota State University (third from right) and his project team in Guatemala.

Selection and Release of Climate Resilient Common Bean Germplasm for the Highlands and Dry Corridor of Central America

Led by Dr. Phil McClean, North Dakota State University

This project, *Selection and Release of Climate Resilient Common Bean Germplasm for the Highlands and Dry Corridor of Central America*, was a short continuation of the USAID Feed the Future Innovation Lab for Collaborative Research on Grain Legumes Legume Innovation Lab project that focused on the expansion of the Instituto de Ciencia y Tecnología Agrícolas (ICTA) bean breeding program. The advanced generation lines that led to the two varieties were developed during the Legume Innovation Lab and were released during this project.

Release Event

The release event of the ICTA Patriarca varieties was held at the ICTA Experimental Center in San Geronimo. This center is located in the “Dry Corridor” region of Guatemala, the target region for which the variety was bred. A total of 250 five-pound bags of seed were distributed to attendees. Over subsequent months, seed was distributed individual to growers on demand.

Selection of Advanced Bruchid Resistant Lines

A total of 23 advanced lines with previously determined high levels of bruchid resistant damage were field tested along with two control lines. Three

advanced lines were selected for advanced generation trials that have continued since the termination of this project.

[Read More](#)

In the News

Stories, blogs, papers & publications by legume lab researchers and their colleagues

[Olabisi, Michael; Obekpa, Hephzibah Onyeje; Liverpool-Tasie, Lenis Saweda. "Is Growing Your Own Food Necessary for Dietary Diversity? Evidence from Nigeria." *Food Policy*, Pergamon, 14 Aug. 2021](#)

Featured Legume of the Month

BLACK BEANS



Looking for an inexpensive and satisfying way to add protein to your diet? Try black beans.

According to the USDA one cup of black beans provides 15 grams of fiber with less than one gram of fat. This one cup serving of black beans is just 227 calories and is

also a great source of iron, providing 20% of your recommended daily value.

Cooking with Black Beans...

BLACK BEAN SOUP

Black beans are very popular staple in Guatemalan households and often a part of every meal. One way Guatemalans like to enjoy black beans is as a soup.

This recipe from [pluses.org](https://www.pluses.org) contains just five ingredients and is garnished with diced avocado and fresh cilantro. For more traditional Guatemalan toppings add in Queso de Zacapa or crema.



[Get recipe here](#)

For More Information on the Feed the Future Innovation Lab for Legume Systems Research

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