



Feed the Future Country Fact Sheet

Online Version: <https://www.feedthefuture.gov/article/educating-next-generation-african-plant-breeders>

Educating the Next Generation of African Plant Breeders



Edward Efui K. Salakpi/WACCI

From left to right, candidates in the Master of Science program in Genetics and Plant Breeding: Godson Nyawudzo, Prince Buertey Kpentey, Dr. Eric Danquah (WACCI Director), Frederick Justice Awuku, Kassaye Hussen Belay, Collins Gameli Gborvi.

Scientific advances in plant breeding can dramatically increase farming productivity and food security. Already, new technologies and innovative approaches have led to improved soybean and legume varieties with higher nutrition and crop yields. Yet these improvements fail to reach smallholder farmers and make a significant impact on food security across Africa because the continent lacks enough scientists trained in such modern plant breeding technologies.

The Feed the Future Innovation Lab for Soybean Value Chain Research, led by the University of Illinois, Urbana-Champaign, with its partners at the West Africa Centre for Crop Improvement, is addressing this talent deficit with a master of science degree program in genetics and plant breeding. Based at the University of Ghana, Legon, this program is designed for African students looking to work in the seed industries and National Agriculture Research Systems throughout the continent. It emphasizes breeding education in soybean and other legumes to fill the void in talent in those value chains, compared with other crops.

The partnership between the Soybean Innovation Lab and West Africa Centre for Crop Improvement supports the Feed the Future strategy of reducing global poverty and hunger by accelerating growth in the agriculture sector through improvements in agricultural productivity among smallholder farmers. A foundational component of increased agricultural productivity includes plant breeding to improve crop yields as well as crop nutrition. Nowhere is the need to train the next generation of plant breeders more urgent than in Africa, where regional education must include training in modern technologies and approaches that can bring improved varieties to market.

Improving human capacity in plant breeding across Africa is critical to meet the food demands of a growing population, and the degree program develops African human capital at both the faculty and student levels.

The goal of the program is to provide faculty and students with the quality course curriculum, training and tools to enable effective and efficient management of national and private sector soybean seed development laboratories and allied programs. To ensure sustainability and continued quality, the program offers professional development and mentorship opportunities for local faculty. Students receive overseas internships that allow them to develop collaborative and professional networks with public and private sector labs. This innovative program offers the highest quality training in a regionally accessible environment to assure graduates emerge from the program with an unparalleled education.

The first cohort of students began enrollment in August 2015. With support from the United States Agency for International Development, the students will travel to the United States this summer on scholarships to complete their internships with U.S.-based public and private sector labs. In addition to regular courses, students will also enroll in six newly-developed courses, including Statistics and Experimental Design and Molecular Genetics, among others, delivered in-person by U.S. faculty and via distance-exchange.

To learn more about the program, visit the Soybean Innovation Lab website at www.soybeaninnovationlab.illinois.edu.