AWARD
African Women in Agricultural Research and Development

Profile

Veronica Guwela
2015 AWARD Fellow

Position	Research Assistant
Institution	National University of Ireland
Country	Malawi
MSc	Agronomy, University of Malawi, 2013
Mentor	Dr. Moses Maliro, Associate Professor, Crop and Soil Sciences Lilongwe University of Agriculture and Natural Resources
Research Area	Agricultural research for sustainable maternal and child nutrition and climate proofing of smallholder farming in Malawi using zinc and iron biofortified common beans.

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Veronica Guwela was raised in Lilongwe, Malawi, where she and her four siblings worked on the family farm during school holidays. Her father encouraged her to join the medical profession, but she opted for agriculture. "I wanted to work in crop improvement and to solve problems in agriculture," she says. "I also had an extension mentality, and therefore decided that when I do something, someone must adopt it."

Guwela therefore enrolled for a BSc in Agronomy. She started an MSc immediately after graduating, sharpening her focus to plant breeding because she enjoys genetics, and the course was in line with her career goal of breeding crops that can withstand the effects of climate change.

She studied soybeans because at the time, the government was encouraging farmers to start growing more legumes and soybean rust was a constraint to a good crop yield. She assessed the severity and yield loss associated with soybean rust and how the disease could be controlled in Malawi. "Soybean rust was a relatively new disease and I felt I should study it before the crop was widely promoted to farmers in the country," she says.

Using 20 soybean varieties, she compared the severity and yield loss with and without fungicide at two locations: in the south where the rains come first and in the central region where the rains start a month later. None of the tested varieties was resistant, but some escaped disease because they were early maturing. The disease appears halfway through the season when these varieties have already matured.

"The message from this research was that breeders must produce early-maturing varieties, which tend to escape the disease," says Guwela. "Plus, farmers must plant early."

Guwela previously coordinated two projects while working as a scientific officer with ICRISAT after her post-graduate studies. The first project dealt with pathways to agricultural development and involved developing technologies to help women farmers reduce aflatoxin levels in groundnuts through agronomy practices and postharvest loss management. "We wanted to help women make a profit from groundnut farming, and this involved teaching them business skills and linking them to markets," she explains. "This would help them make farming a business, rather than just growing the crop for subsistence."

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The second was a consortium project where ICRISAT was the technical partner training other members of the consortium in agronomy, postharvest loss management, seed systems, and agroforestry.

After a year at ICRISAT, Guwela joined the National University of Ireland and worked on climate proofing maternal and child nutrition using agricultural tools. The project had three components—breeding common bean varieties with high iron and zinc; using fertilizers rich in micronutrients as trials on farms; and taking technologies to farmers—with the aim of making nutrition sustainable.

The trials were to assess the yield performance of different bean varieties under the various micronutrient fertilizer treatments. The project also collected plant tissue samples to assess the effect of the fertilizer on the levels of the micronutrients in the plant tissues, the bio-availability of zinc and iron, and effect of phytates on iron.

Guwela is excited to be a part of the AWARD Fellowship program and hopes the skills she gains from the courses will help improve her research and writing skills, as she is interested in research for development. "I am a researcher at heart, and want to publish my work and make sure it trickles down to farmers," she asserts. She is currently looking for a job that involves research and realizes she must do a PhD to achieve her career goal.

AWARD is a career-development program that equips top women agricultural scientists across sub-Saharan Africa to accelerate agricultural gains by strengthening their research and leadership skills through tailored fellowships. AWARD is a catalyst for innovations with high potential to contribute to the prosperity and well-being of African smallholder farmers, most of whom are women.

AWARD is generously supported by the Bill & Melinda Gates Foundation, the United States Agency for International Development and the Alliance for a Green Revolution in Africa. For more information, visit www.awardfellowships.org