AWARD
African Women in Agricultural Research and Development

Profile

2011 AWARD Fellow

Akua Konadu Antwi-Agyakwa

Position	Master's student, Crop protection (Entomology)
Institution	Faculty of Agriculture Kwame Nkrumah University of Science and Technology (KNUST)
Country	Ghana
BSc	Agriculture, KNUST, 2010
Mentor	Dr. Jakpasu Victor Kofi Afun, Rector, Ho Polytechnic

Research area: Developing a safer and more sustainable means of controlling cowpea insect pests through the creation of resistant cowpea varieties.

Akua Konadu Antwi-Agyakwa wants to find a non-chemical way to control insects that attack cowpeas, the most commonly used legume food crop in Ghana. She says cowpeas are an economically important and versatile crop, since nearly every part of the plant is consumed by both humans and animals. "Unfortunately, however, cowpeas are attacked by a myriad of pests, from the seedling stage through to storage. If not controlled, one or more of these insect species can cause the total loss of the plants or beans."

According to Antwi-Agyakwa, cowpea growers tend to rely on synthetic pesticides, which they use indiscriminately, causing pollution and its attendant effects. "My research will focus on producing insect-resistant cowpea varieties," she says. "In the interim, I intend to use plant extracts (botanicals) to control these pests. In an earlier study, I found that the extract from false yam, *Icacina senegalensis*, controlled the legume bud thrips, *Megalurothrips sjostedti*, which affects cowpeas."

Antwi-Agyakwa's project aims to create a sustainable way to reduce poverty and environmental pollution by using insect-tolerant cowpea varieties in Ghana and throughout West Africa. "This will improve the livelihoods of rural people and promote food security," she says. "The new variety will become the choice of farmers and consumers, since it will withstand insect attack and be palatable. My goal is to bring relief to cowpea farmers and to advise them on better techniques that will be less expensive, readily available, and environmentally friendly."

Antwi-Agyakwa will work more closely with cowpea farmers during her MSc field work. "My vision is to become a researcher and lecturer in crop protection (entomology). I want to find out the 'whys' in agriculture so I can help answer farmers' questions," says Antwi-Agyakwa, who plans to pursue a doctoral degree.

As an AWARD Fellow, Antwi-Agyakwa looks forward to meeting other women agricultural scientists, especially those in entomology—once a male-dominated area. "Gone are the days when male colleagues remarked that field research, particularly in entomology, is a job for guys," she notes. "I believe this fellowship will help me build my self-confidence and achieve my goals, so that I can grow into the person I want to be."

Antwi-Agyakwa is one of a growing number of African women agricultural scientists who have won an AWARD Fellowship. AWARD is a professional development program that strengthens the research and leadership skills of African women in agricultural science, empowering them to contribute more effectively to poverty alleviation and food security in sub-Saharan Africa. AWARD is generously supported by the Bill & Melinda Gates Foundation and the United States Agency for International Development. For more information, visit www.awardfellowships.org