



2014 AWARD Fellow  
**Prisila Andrea Mkenda**

Position	MSc Student
Institution	Nelson Mandela African Institute of Science and Technology (NMAIST)
Country	Tanzania
BSc	Education, University of Dar es Salaam, 2008
Mentor	Professor Allen Lewis Malisa, Head, Biological Sciences Department, Sokoine University of Agriculture
Research Area	Control of field insect pests in common bean, and bruchids in stored cowpea using an inexpensive, effective, and environmentally friendly botanical pesticide.

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Prisila Andrea Mkenda was born and raised in Kilimanjaro, where her hard-working parents, who encouraged everyone in their large family to study hard, continue to make their living as smallholder farmers. Today, Mkenda, a mother of young twin boys herself, relishes the opportunity to help improve the livelihoods of farmers like her parents.

“I was always involved in agriculture even as a young girl,” she recalls. “It was our main activity at home.” As a master’s student at NMAIST—who expects to finish her degree in December 2014—Mkenda is concentrating her research on the use of botanicals to counter insect pests that destroy common bean crops in the field and in stored cowpea. Specifically, she is working with *Tephrosia vogelii*, *Tithonia diversifolia*, *Lippia javanica* and *Vernonia amygdalina*, pesticidal plants traditionally used for different purposes such as removing ticks lodged in animals. She wants to use these plants as alternatives to synthetic pesticides.

“Synthetic pesticides are not environmentally friendly, and are too expensive for low-income farmers,” Mkenda explains. “Even when government subsidies do make them affordable, farmers often apply them inappropriately due to illiteracy and poor labeling, or they use old, expired products, leading to very low yields.”

Mkenda is testing how effective the botanicals are in controlling the insect pests before crops are harvested and during storage. “These pests can cause the loss of more than 80 percent of crops,” she

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**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.**

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laments. “I want to provide farmers with a simple soap and water solution method for the preparation of the botanicals that they can use to kill insect pests in the field. The ultimate result will be an extension of bean production and storage processes, and thereby increased food security.”

Mkenda’s research is especially significant since common beans and legumes are the main source of protein for many rural Tanzanians who can seldom afford to buy meat.

When she finishes her master’s degree, Mkenda intends to resume teaching at Sokoine University of Agriculture for several years before beginning a PhD program in agricultural research. “I consider it a real privilege to be engaged in this type of work,” she notes. “My hope is that the search for naturally occurring biologicals will lead to the discovery of various compounds that will improve agricultural processes, as well as those in other sectors such as health and industry.”

As an AWARD Fellow, Mkenda looks forward to being mentored by a senior scientist for one year. “Attending conferences and workshops will also be a valuable benefit,” she says. “I believe the skills I will develop as an AWARD Fellow will equip me to train smallholder farmers on techniques that they can apply in their day-to-day agricultural activities to improve their livelihoods, such as intercropping and good storage practices.”