



2010 AWARD Fellow Nkumbu Mutwale Mutale

Position:	Agricultural research officer
Institution:	Mansa Research Station Zambia Agriculture Research Institute
Country:	Zambia
BSc:	Bachelor of Science, University of Zambia, 2007
Mentored by:	Professor Sanni Lateef Oladimeji University of Agriculture and Project Coordinator Common Fund for Commodities International Institute of Tropical Agriculture

Research area: Analysis of hydrogen cyanide and identification of aflatoxin contamination sources and defective stages in cassava processing methods to advise cassava farmers appropriately on production improvements.

Nkumbu Mutwale Mutale is currently working on the analysis of hydrogen cyanide and aflatoxins in cassava, a staple crop in Zambia. "My institute has brand new equipment that no one was using, so I offered to set up the lab," says Mutale. "I intend to determine the sources of contamination and the defective stages in the farmers' processing methods in order to help improve their produce and increase their incomes."

Passionate about helping the poor, as a student Mutale volunteered for a six-month training course at the University Teaching Hospital in Lusaka, with hopes of getting into medical school.

"Soon after I started, I was asked to draw blood from a two-year-old child who had advanced skin cancer," she recalls. "When I found myself crying with the patient, I thought, 'Is there another way I can help people other than medicine?' I discovered I was good in the lab where the samples were brought to me, so I decided to focus on food microbiology. After all, health is important, and we are what we eat."

As an agricultural researcher, Mutale worked in a soil microbiology laboratory at the Zambia Agriculture Research Institute's Mt. Makulu Central Research Station, where she produced bio fertilizer (inoculants) for soya beans. The bio fertilizer contains bacteria, *Rhizobium japonica*, which increases nitrogen availability in the respective host plant. The inoculants can be used as an alternative for urea, a chemical top-dressing fertilizer with high nitrogen content. Bio fertilizer greatly reduces input costs, especially for rural, small-scale soya bean farmers.

As an AWARD Fellow, Mutale has high expectations about what she will achieve during the two-year fellowship. "The fellowship will help me to improve my scientific and leadership skills, and I want to pursue a master's and even a PhD. The AWARD Mentoring Orientation Workshop helped me to focus

on my career. Before, I was all over—plant pathology, entomology, crop science, and soil science. I don't want to be a jack of all trades and a master of none. My dream is to develop a technology or methodology that will benefit small-scale farmers in rural areas to improve their livelihoods."

Mutwale is one of 180 African woman 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. For more information, visit www.awardfellowships.org
