



2013 AWARD Fellow
Lydia Nakagiri

Position	Resident Tutor
Institution	Makerere University, Mary Stuart Hall
Country	Uganda
BSc	Food Science and Technology Makerere University, Uganda, 2009
Mentor	Dr. Archileo Kaaya, Head Food Technology and Nutrition Department Makerere University

*Research area: Participatory development of nutritionally enhanced food products from yam bean (*Pachyrhizus sp.*) roots in Luwero and Serere districts.*

Lydia Nakagiri grew up in a farming family, not far from Kampala, Uganda, where she learned to appreciate the importance of agriculture as a source of food and employment. “We cultivated a little coffee for cash, but mostly grew subsistence crops. When there was no money for school fees, my parents used the food we had grown as payment,” she recounts.

Recognizing their daughter as a gifted student, Nakagiri’s parents sent her to good schools. She was fortunate to obtain partial scholarship to attend secondary school, and was later admitted to university to study her topic of first choice, food science and nutrition.

“I learned how poor nutrition affects many women and children,” says Nakagiri, who felt a pressing need to get involved. Moving to the city and meeting women who were more empowered than those in her village motivated her even further to make a difference. “I know what rural women, like my mother, go through,” she says. “My heart goes out to them, and I feel strongly that something must change.”

Currently, Nakagiri is completing an MSc at Makerere University with support from the International Potato Center (CIP). Her research focuses on introducing new crops and processed products that have the potential to add greater nutritional benefit, food security, and economic value. With researchers from CIP and her university, she is introducing yam bean (*Pachyrhizus spp.*) to two districts in Uganda, Luwero and Serere. Originating in South America, yam bean is a leguminous root crop that can be eaten raw, cooked, or processed, or used as animal feed. It grows well in dry, marginal conditions without fertilizers or pesticides, making it well-suited to the needs of smallholder farmers. It is a good source of protein and iron to counter the high incidences of protein energy malnutrition and anemia among children and women of childbearing age.

“The most sustainable way to introduce a new crop is to offer it to farmers and see how they use it,” says Nakagiri. In both trial districts, she has found that farmers use yam bean and other foods to create composite products, such as porridge, with different recipes and combinations depending on the community.

As a food technologist, Nakagiri's primary concern is to ensure that the crop's mineral content is not lost during processing, and she looks at further enhancing the nutritive value by adding other nutrient-rich food crops. She is also interested in promoting crops such as star fruit, which is native to Uganda, and mango, which is abundant. As with yam bean, she sees these as crops that women could grow easily, with few inputs and without having to leave home.

"My dream is to see women improve their families' nutritional and financial status, in seasons of plenty and scarcity, by producing juice or selling their fruit directly to a juice factory at prices that will improve their economic status," says Nakagiri, noting that much of the food that is lost or wasted postharvest could be preserved as juice, pulp, or other processed products.

A strong advocate for rural women and children, Nakagiri recognizes that she can't do it alone. As an AWARD Fellow, she does not have to try single-handedly. "Through AWARD, I already have begun to meet people in the field, build linkages, and share my vision," she says. She also looks forward to developing her skills, confidence, and visibility. "I'm going to be so different after the two years of the fellowship," she concludes. "I don't know exactly how, but I know it will be very positive."

Nakagiri is one of a growing number of African women agricultural scientists who have won an AWARD Fellowship. 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, the Alliance for a Green Revolution in Africa, and Agropolis Fondation. For more information, visit www.awardfellowships.org