



2013 AWARD Fellow
Mary Wanjiku Gateri

Position	Research Officer I
Institution	Kenya Agricultural Research Institute (KARI), Thika
Country	Kenya
BSc	Agriculture, University of Nairobi, 1986
Mentor	Dr. Anne Wanjiru Muriuki, Principal Research Officer, KARI

Research area: Develop technologies, innovations, and knowledge in agriculture for the improvement of livelihoods, food and nutrition security, and national development.

Mary Wanjiku Gateri is proud to work with one of the world's most nutritious and versatile crops—mushrooms. “Mushrooms are a perfect antioxidant in the body, and contain both non-essential and essential amino acids, including 78 percent linoleic acid. They are very high in protein—they have as much protein as an egg, at 25 to 45 percent,” she explains enthusiastically. “They are also very low in sugar and starch, and have virtually no cholesterol,” she reports.

Gateri grew up on a coffee farm in rural Kenya, and her mother was widowed young with seven children left to educate. Now a mother of five children herself, she recalls working on the farm as a child. “I was very active on the farm, and that’s where I developed a liking for agriculture. When I finished high school, it was the obvious choice for me.”

Today, as the principal investigator on a project focusing on researching Kenya’s indigenous mushroom species, Gateri and colleagues from KARI and the Museums of Kenya travel to areas where people consume mushrooms. They collect samples, identify them, and characterize them in the field, while distributing questionnaires to the local people to tap their knowledge. The project aims to produce spawn from the collected species that are popular with the communities, and to try to domesticate them.

“The local people are familiar with indigenous mushrooms, but they are largely unknown to science,” she notes. “We also identify, characterize, and preserve germoplasm by drying the mushrooms. This is particularly important because with global warming and destruction of their habitats, many species are becoming extinct, and Kenya is losing germoplasm.” Gateri suggests that future research will have to focus on trials to domesticate these species. “This will be especially important for the *Mycorrhiza* species, which are really precious but difficult to grow.” When she concludes this research, Gateri wants to write a book on Kenya’s indigenous mushrooms.

According to Gateri, communities appreciate the symbiotic relationship between mushrooms and trees or insects. “Certain species are found growing on trees such as *Cantharellas*, while others, such as

termitomycetes, are found on termite hills. But we need to find out if we can grow them on other media—what are they getting from the termites? Science is there to discover such answers.”

Gateri wants to organize farmers into a stakeholder’s forum with a national mushroom-production steering committee. “I can’t solve all of the problems on my own,” she admits. “So I want to involve many others to look into how to solve these problems together.” She has already held a one-day workshop funded by Agri-Profocus Kenya, a Netherlands-based organization. “I belong to an agri-hub online, which announced that they’d welcome any business idea put forward: producing the seed, making the compost for processing of mushrooms, and so forth. They invited us to defend our business idea. Mushrooms were voted the best business idea. After that, the Agri-Profocus people said they’d do market research to see if the demand is there, then they’ll connect or link us with an investor.”

Gateri says mushrooms are an emerging high-value crop with great potential for enterprise diversification and income generation. “It is promising for women and youth who don’t own any land since it requires so little space to grow.”

Developing her career in mushroom research, Gateri is joining the University of Nairobi for a master’s program. She recently joined the International Society of Mushroom Science (ISMS), and looks forward to liaising and networking with other specialists in her field. Last year, she attended a conference in Beijing on mushroom sciences, and met like-minded people from around the world.

“In Beijing I saw first-hand how well-developed the mushroom industry is there,” says Gateri. “I met other African scientists and we decided to launch an organization to promote mushroom production in Africa. We hope that we’ll achieve something in the near future, and we’re sourcing funding for this enterprise.”

Gateri sees the AWARD Fellowship as a valuable asset to her career as an agricultural researcher. “It’s a blessing that came at the right time,” she says earnestly. “I opted to take AWARD’s science-writing course, which will help me to write my thesis and get my papers published in refereed journals.” She looks forward to working with her AWARD Mentor, Dr. Anne Muriuki, who started mentoring her informally many years ago. “I can see now where I’m heading and I’m very excited about that.”

Gateri 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