



Regina Mumbua Tende
2015 AWARD Fellow

Position	Senior Research Officer
Institution	Kenya Agricultural and Livestock Research Organization (KALRO)
Country	Kenya
MSc	Crop Protection, University of Nairobi, 2007
Mentor	Dr. Sylvester Oikeh, WEMA Project Manager, African Agricultural Technology Foundation (AATF)
Research Area	Reduction of losses and costs incurred by smallholder maize farmers through developing insect pest-resistant maize varieties.

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Regina Tende believes she chose her career in agriculture as a child. She was raised in Mavindini, a dryland area in Kenya’s Makueni -County. When there was drought, the family would move to her grandmother’s place or an aunt’s home to ensure that they did not go hungry. Her parents were peasant farmers who depended on agriculture for food and income. “My mother did not have money to hire extra labor, so she depended on us,” she says. As her younger sister did not enjoy working on the farm, Tende would negotiate to swap duties when it was her turn in the kitchen.

After completing a BSc in Agriculture, Tende was employed by the Kenya Institute of Organic Farming (KIOF), as an internal evaluator, where she worked closely with organic farmers. “I would evaluate their field activities and make recommendations as to what they could improve on,” she says. Despite having a scholarship to further her studies, Tende took a 12-year career break after marriage. However, she felt she needed to return to her career in agriculture. She won a scholarship to pursue an MSc in Crop Protection, specializing in entomology at the University of Nairobi. Upon completion, she was employed by the Kenya Agricultural Research Institute (now Kenya Agricultural and Livestock Research Organization (KALRO) in the Maize Breeding program, and posted at Katumani Research Center. After three years, Tende enrolled in South Africa’s University of KwaZulu-Natal, located in Pietermaritzburg, for a PhD in Plant Breeding, and she is now in her final year.

Maize breeding is a male-dominated field. However, this did not deter Tende, who was determined to acquire the skills. She applied for, and was awarded a Visiting Scientist position at the International Maize and Wheat Improvement Center (CIMMYT). She spent six months under the

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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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supervision of Dr. Stephen Mugo, a CIMMYT breeder, and the CIMMYT Africa Regional Representative (CRR), who became her role model, encouraging her and helping her to learn breeding methods.

“My current PhD research entails developing maize varieties with combined resistance to field (stem borers) and storage (maize weevil) insect pests,” says Tende. Farmers need maize varieties with resistance to both types of pest, yet the hybrids developed so far have resistance to only one or the other. This increases the cost of maize production, because farmers have to apply different chemicals to fight the pests in the field and after harvest. “We expose maize hybrids to insects in the field and select the ones that withstand the insect pressure,” she explains. “In the lab, we deliberately introduce maize weevil storage pests and allow them to feed on the maize to identify and select the resistant ones that suffer less damage.” Tende works indirectly with smallholder women farmers in the course of participatory variety selections, when they are called to evaluate the maize developed in research stations. “Most of the demonstration farms are run by women,” she adds.

The researcher would like to be a leading maize breeder who is recognized globally. “I long to see my country realize food security,” says Tende, who is looking forward to the varieties she is developing reaching farmers’ fields.

“Out of 31 breeders in the eastern African Maize Working Group (MWG), a maize improvement network co-ordinated by CIMMYT, and involving Kenya, Uganda, Tanzania and Ethiopia, only two are women,” remarks Tende. She plans to encourage girls to pursue careers in agriculture to debunk the myth that plant breeding is a male domain.

Through AWARD, Tende hopes to expand her networks, improve her leadership skills, and learn from the sharing of experiences. “I have heard interesting stories that are opening my mind,” she says. She is looking forward to mentoring junior scientists at KALRO and elsewhere. “At KALRO, sometimes we shy away as women, but here, my confidence is being nurtured,” says Tende. “I will not just be a female plant breeder, I will be a vocal and visible plant breeder.”