



2018 AWARD Fellow  
**Doris Kanvenaa Puozaa**

<b>Position</b>	Research Scientist
<b>Institution</b>	Council for Scientific and Industrial Research-Savanna Agricultural Research Institute (CSIR-SARI)
<b>Country</b>	Ghana
<b>PhD</b>	Agriculture, Tshwane University of Technology, 2015
<b>Mentor</b>	Dr. Marian D. Quain, Senior Principal Scientist, CSIR-Crops Research Institute
<b>Research Area</b>	Seed science and technology, and enhancing seed systems for farmers' productivity.

“At CSIR-SARI, Puozaa’s research is focused on seed science and technology, and seed systems development. She is trying to develop technologies that maintain, if not enhance, the quality of seed. She is doing this by trying to select groundnut genotypes for storability and longevity, in addition to developing a storage and seed quality enhancement system for sorghum.

Doris Kanvenaa Puozaa’s first job after completing her bachelor’s degree in Crop Science was with the Ghana Seed Inspection Division, under the Plant Protection and Regulatory Services Directorate in Ghana’s Ministry of Food and Agriculture. This work exposed her to the intricacies of seed, enabling her to understand its pivotal role in crop productivity. “Our farmers are not aware of the importance of high-quality seed—they think it is expensive and not worth their trouble,” she laments. Puozaa explains that when farmers do not get the promised outcome from seed, they typically revert to using saved seed.

“Seed producers are not aggressive about selling seed based on quality, but I hope that will change,” says Puozaa. However, it is not only the seed traders’ work that is directly affected by seed quality. “Our research systems are handicapped in the provision of high-quality early generation seed because of inadequate storage facilities, which sometimes affect the quality of stored seed,” says Puozaa.

At CSIR-SARI, Puozaa’s research is focused on seed science and technology, and seed systems development. She is trying to select groundnut genotypes for storability and longevity, in addition to developing a storage and seed quality enhancement system for sorghum. “Sorghum is considered a poor man’s crop, but we currently have large farms coming up,” she says. However, these farms encounter problems obtaining high-quality seed, so they either change their crop or look for quality seed outside the country. Soybean is a relatively new crop in Ghana, and Puozaa is currently mapping areas where the crop is grown. “We have collected samples from farms—with a pool of 250 germplasm,

“I want to be a director in an important agricultural development program—at a level where I can make changes and decide where the investment goes.”



Puozaa is one of a growing number of women agricultural scientists who have won an AWARD Fellowship. AWARD works toward inclusive, agriculture-driven prosperity for the African continent by strengthening the production and dissemination of more gender-responsive agricultural research and innovation. We invest in scientists, research institutions, and agribusinesses to deliver sustainable, gender-responsive agricultural research and innovation.

The AWARD Fellowship is a career-development program that invests in top women agricultural scientists to ensure that confident, capable, and influential women are available to lead critical advances and innovations in the agricultural sector.

For more information, visit [www.awardfellowships.org](http://www.awardfellowships.org)

we are characterizing for common soybean diseases that each of them is likely to be susceptible to,” she elaborates.

In previous years, CSIR-SARI did not have a scientist dedicated to seed work. Puozaa sees her role as complementing that of breeders and agronomists at the institute. “At various development stages, we try to characterize them for germination and their ability to be stored over a long period,” she says. Her team has already identified varieties that are high-yielding but do not store well. They are exploring ways to improve the storability of promising lines.

“I want to be a director in an important agricultural development program—at a level where I can make changes and decide where the investment goes,” asserts Puozaa, sharing her career goals. In the interim, she would like to develop technologies and protocols for producing and storing some of Ghana’s important food crops, such as groundnut, soybean, rice, maize, millet, cowpea and sorghum. “These crops are produced in very hot areas, so we need to identify ways to preserve the seed,” she states. “When I get the science right, I would like to move to technology transfer.”

Limited research funding is one of the setbacks Puozaa has encountered. “With money, you can do a lot—you can hire assistants and get the equipment you need,” she states. Working in a male-dominated field has also been challenging. “In a population of about 450 (permanent and temporary staff) at CSIR-SARI, we have only 54 women, and only eight are research scientists,” notes Puozaa. “The few women have to work twice as hard to remain competent in the eyes of men, and still get the job done.” She celebrates women in leadership, citing the example of Dr. Stella Ama Ennin, a director and chief research scientist at CSIR’s Crops Research Institute. Ennin is an inaugural AWARD Fellow who is currently serving as a mentor.

“Knowing how competitive the AWARD Fellowship is, I feel great that I am one of the few,” says Puozaa. “AWARD has helped me to focus.” She says the fellowship has helped her identify what interventions would have the most impact and has taught her how to handle conflict. “AWARD may not be able to give me the money I need to establish a specialized seed laboratory, but through networking with AWARD colleagues from other institutions, I may be able to get the funding I am looking for.”

“AWARD will be instrumental in helping me advance my scientific skills,” asserts Puozaa, who would like to acquire advanced laboratory skills. “In seed science, very advanced laboratories are available. People are using nanotechnology, biotechnology, X-rays, and electrical conductivity,” she says. “To develop as a scientist and to be able to publish in high-impact journals, I need to embrace these techniques.” Puozaa hopes to tap into AWARD networks to establish Africa-wide research collaborations with other institutions.