



2013 AWARD Fellow
Pauline Mounjouenpou

Position	Senior Researcher
Institution	<i>Institut de Recherche Agricole pour le Developpement (IRAD)</i>
Country	Cameroon
PhD	Biotechnology and Microbiology, Montpellier University, France, 2008
Mentor	Dr. Noé Woin, Director General, IRAD

Research area: Value addition and processing of cocoa and coffee beans with women and men farmers, including prevention of ochratoxin A infection.

As a child, Pauline Mounjouenpou wondered why her parents always had plenty of food for their nine children during harvest, but went hungry at other times of the year. “My parents were poor, illiterate peasant farmers, and I used to help them on the farm, especially during harvest,” she recalls. Mounjouenpou decided to become a scientist to help ensure that her family would have food all year round. In secondary school, she specialized in sciences, and later majored in food sciences during her first university degree, graduating as a food technology engineer.

During her first job at IRAD in Cameroon, Mounjouenpou wanted to work on the processing of and value addition to agricultural products, but she was not entirely happy with the available opportunities. The French embassy provided a scholarship for both her MSc and PhD training in microbiology/biotechnology, specializing in food technology. She graduated from Université Montpellier 2 (known as *Université des Sciences & Techniques*) while working at the *Centre de coopération internationale en recherche agronomique pour le développement (CIRAD)*.

Among the first women at IRAD to hold a PhD, Mounjouenpou was promoted to *chargé d'études* (senior researcher). She started working with women cocoa farmers in a producers' association, which attracted funding from the World Cocoa Foundation. The association has its own cocoa farm, and the women share the farming and marketing tasks.

“I train individual women farmers to develop their own small businesses,” Mounjouenpou explains. “They produce cocoa butter, cocoa powder, and a popular soy-based chocolate drink. The challenge is that once the cocoa is harvested, it belongs to the men, who rarely share the profits or give beans to their wives. In fact, in times of plenty, some take a second wife. However, they really like this chocolate drink and cocoa butter, which is an incentive to provide their wives with the raw material.”

As a mother of six young children (her own four and her late brother's two), Mounjouenpou delights in seeing real changes in the lives of women farmers. She credits her successful work with about 150 women

farmers to the awareness meetings that they attend with their husbands. Men now act as partners and supporters of the project, realizing that when they share the cocoa beans with women, everyone benefits. Mounjouenpou is monitoring the women who initially joined the group and finds that they are still producing. However, finding more interested women and convincing the pilot women farmers to train others is a challenge.

In the main cocoa and coffee-producing regions of Cameroon, Mounjouenpou is working with cocoa and coffee producers to develop useful products for local consumption and potentially to export, using byproducts that are normally discarded. "What is considered waste, such as the husks of cocoa and coffee, can be processed into fertilizer, while extracting potassium for soap production," she explains.

Following her post-graduate research on ochratoxin A, a mycotoxin produced by *Aspergillus carbonarius* or *A. niger* that spoils cocoa and coffee beans, Mounjouenpou is interested in finding the point of contamination of the harvested product. The European Union has set tight thresholds for ochratoxin A, so economically important agricultural products from Cameroon cannot be exported, or are destroyed at the point of entry. Mycotoxin production seems to thrive especially under humid conditions so appropriate postharvest handling of cocoa and coffee is critical. Traditionally, farmers help each other harvest the cocoa beans, but this leads to delays in opening the pods because each farmer tries to collect as many as possible before it is his or her turn to have all the others help. During harvesting, the pods are often slashed by farmers' machetes, providing entry points for the ochratoxin A-producing fungi while the beans are stored. Results of the research on Ochratoxin A in Cameroon cocoa and coffee contributed towards Mounjouenpou being elected best junior researcher of the 2013 by the Cameroon Ministry of Scientific Research and Innovation.

A skilled scientist and strong advocate for women, Mounjouenpou hopes to encourage others in her field. "My AWARD Fellowship will give me the opportunity to become a role model for other francophone African women scientists and for girls in secondary schools," she states. "I look forward to networking and collaborating internationally, and I am hoping to improve my leadership and science skills. Eventually, by influencing policy, I will break the glass ceiling that still exists for many women in my country."

Mounjouenpou 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