



2010 AWARD Fellow Fetien Abay Abera

Position:	Associate professor
Institution:	Mekelle University
Country:	Ethiopia
PhD:	Plant breeding, Norwegian University of Life Sciences, 2007
Mentored by:	Dr. Stefania Grando, Head, Barley Unit International Center for Agricultural Research in the Dry Areas (ICARDA)

Research area: Technology development of barley production and farmers' empowerment in Tigray, northern Ethiopia.

Fetien Abay Abera is focused on breeding barley, an important highland crop that is used in making *injera*, the fermented flat-bread that most of Ethiopia's 80 million people consume daily, as well as porridge and *kollo* (roasted grains). Her aim is to produce varieties with improved drought and waterlogging tolerance, including increased amylose, betaglucan, iron, and zinc content.

"I use different tools, including molecular mapping of quantitative trait loci (QTLs) combined with improved field experimental designs and analyses, participatory methods, and conventional breeding," explains Abera. "We are investigating a promising cross between the early-maturing, drought-tolerant Saesa and the later, high-quality Himblil variety, which is tolerant against waterlogging." Abera says this cross has many promising progenies with characteristics that attract farmers, and it allows investigations of basic adaptive traits in the regional germplasm.

"We are screening more than 200 progenies and some 1,000 accessions of Ethiopian barley collections, and more than 500 lines from ICARDA," reports Abera. "About 50 to 60 go into regional trials every year, and two to five genotypes are presented to the national variety release committee annually."

Abera's project, supported by the Norwegian Programme for Development, Research, and Education, provides improved barley varieties to farmers and to new women's cooperatives that she helped to establish. The women roast the grain, producing nutritious, organic snacks. The Women's Association of Tigray, a local non-governmental organization, is teaching them how to package and market the product. "We are trying to promote this to Fair Trade for export to Europe and the U.S.," says Abera. She is also building the capacity of six seed producer cooperatives as a profitable business. Currently, the government provides most improved seeds to farmers.

Abera won a 2008-2009 Africa-wide Women in Science award, sponsored by CTA/FARA/AGRA/RUFORUM/NEPAD, and the 2009 presidential women in development award in Ethiopia. "This honor brought me

great recognition and many journalists interviewed me,” says Abera, who was the first woman lecturer at Mekelle University. “However, being a woman in leadership remains a strong challenge in my country. Few women make it to the top, even if they are well-qualified.”

Abera is a strong advocate for fellow women scientists and a gifted fundraiser for her institution. As a result of her network, Mekelle University offers a new BSc in Food Science to women; 40 students have enrolled since the program began in 2009.

Abera has definite career goals as an AWARD Fellow. “My breeding skills need improvement regarding appropriate experimental design and analytical skills in order to work with molecular markers for drought tolerance selection and to characterize the diversity of barley,” notes Abera. She looks forward to technical support from her mentor, Dr. Stefania Grando, Head of ICARDA’s Barley Unit.

Abera also plans to develop her leadership and time management skills so she can direct her many diverse projects more effectively. And she wants to become more assertive. “When I speak about myself, I fear that I may be exaggerating. Ethiopian women researchers are far less visible than other African scientists, perhaps because we are not self-promoting enough. We can learn a lot from our colleagues and I’m looking forward to getting to know women in AWARD.”

Abera is one of 180 African woman scientists who have won an AWARD Fellowship. AWARD is a professional development program that strengthens the research and leadership skills of African women in agricultural science, empowering them to contribute more effectively to poverty alleviation and food security in sub-Saharan Africa. For more information, please visit www.awardfellowships.org
