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FAS Sows Seeds of Agricultural Progress: The Borlaug Fellows Program

By Leanne Hogie

As part of its responsibility to promote food security and international development, in 2004 FAS launched the Norman E. Borlaug International Agricultural Science and Technology Fellows Program. Named in honor of Dr. Borlaug, a pioneer of the Green Revolution, the program is administered by FAS in cooperation with the U.S. Department of State and the U.S. Agency for International Development.

In 1970, Dr. Borlaug won the Nobel Peace Prize for his success in developing high-yielding wheat varieties and reversing severe food shortages that haunted India and Pakistan in the 1960's. His work helped to save millions of lives, virtually eliminated recurring famines in South Asia and assisted global food production in outpacing population growth.

The FAS Borlaug Fellows Program helps developing countries strengthen sustainable agricultural practices by providing short-term scientific training and research opportunities to entry-level researchers, policymakers and university staff.

The Borlaug Fellows Program helps countries strengthen sustainable agricultural practices by providing short- to medium-term scientific training and collaborative research opportunities to researchers, policymakers and faculty



Dr. Jim Butler, former Deputy Under Secretary for Farm and Foreign Agricultural Services, Dr. Norman E. Borlaug and Deputy Secretary of Agriculture Charles F. Conner (left-to-right, at center) welcome FAS Borlaug Fellows Program participants.

Photos courtesy of USDA/FAS International Cooperation and Development

Borlaug Fellows Are Coming From Countries the World Over



members in the early stages of their careers. Areas of training can be in any agriculture-related field, including traditional areas such as agronomy, plant pathology, entomology, veterinary science, microbiology and economics. Other areas include food safety, sanitary and phytosanitary

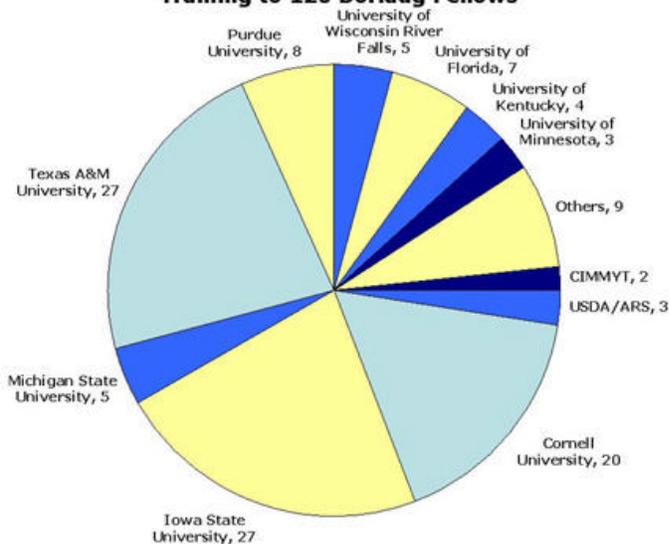
topics, environmental science, biotechnology, global climate change and water quality.

Fellows are paired with experts in their fields, with the expectation that these relationships between mentors and fellows will lead to long-term collaboration that will yield significant results in improving agricultural productivity.

The program is currently focusing its recruiting on applicants from developing countries in Africa, Asia and Latin America. Applicants from some middle-income countries in Eastern and Central Europe are also eligible. Training venues have included U.S. land-grant universities and USDA agricultural research laboratories, with the program placing its first fellows this winter at an international agricultural research center, CIMMYT, the International Maize and Wheat Improvement Center.

Fellows apply the knowledge obtained through the program in their own research and teaching activities, and share it with colleagues at their home institutions and throughout their countries. Within a year of completing the training, a follow-up

Since the Program Began, U.S. and Other Institutions Have Provided Training to 120 Borlaug Fellows



activity is conducted in the fellow's home country, bringing the mentor back to enhance and strengthen their link. Each fellow typically holds a seminar and presents research activities to his or her peers in the academic or agricultural research community. Borlaug fellows also must agree to work at their home institutions for at least two years after the training to foster international collaboration and the transfer of agricultural science and technology.

Program Highlights

While the program is barely over a year old (the first fellows were placed in August 2004), indications are that these new leaders in agriculture are making strides toward the goals of improving the transfer and application of science and technology, following in the footsteps of Dr. Borlaug.

The first group of 46 fellows in 2004 came from Bulgaria, Georgia, Ghana, Romania, Serbia-Montenegro and Uruguay. They were mainly central or regional government researchers and scientists, and university faculty, all of whom had master's degrees and many with doctorates. More than half were women, strengthening the role of women in science.

Here are some examples of the work they've done since returning to their home countries:

- A fellow from Romania has secured a substantial grant from the European Union to improve the dairy livestock extension program at his research institute. Another fellow is working to field-test a commercially viable biotech potato.
- Two fellows from Serbia-Montenegro have received grants to work on a technology to breed drought-tolerant varieties of corn.
- Also in Serbia-Montenegro, a fellow now heads the departmental biotechnology unit, working on desirable traits for new hybrid wheat varieties.
- In Bulgaria, another fellow is applying molecular methods to detecting food-borne pathogens.

Program Progress

From a small group of countries and host institutions in 2004, the program has expanded as new funding becomes available. For 2005-2006, 14 new universities and research centers are hosting fellows. Seventy-four fellows from Bangladesh, Belize, Bulgaria, Burkina Faso, Cameroon, Costa Rica, Egypt, El Salvador, Ethiopia, Ghana, Guatemala, Honduras, Morocco, Nicaragua, Nigeria, Panama, Romania, Senegal and Serbia-Montenegro were placed during 2005. We expect to add fellows from Afghanistan, Algeria, Armenia, China, Ecuador, Georgia, Guyana, India, Peru, the Philippines, Sri Lanka, Oman, Tunisia, Vietnam and Yemen in 2006. The list of eligible countries changes frequently, and it is best to refer to the FAS Borlaug Web site at the beginning of this article for the current list of countries and application deadlines.

In response to comments from both the fellows and mentors, we are developing longer placements that will allow the fellow and mentor to take on even more complex agricultural research problems – and work towards solutions.



Deputy Secretary Conner, former Deputy Under Secretary Butler and Dr. Borlaug address FAS Borlaug Fellows Program participants.

We are also providing the oversight to a new component of the Borlaug Fellows Program for individuals who are studying for advanced degrees. LEAP (the Leadership Enhancement in Agriculture Program) is being managed by the University of California at Davis and CIMMYT, and works on strengthening the ties of graduate students from African countries with their university professors and with an international research center. The first LEAP fellows will be selected early in 2006.

Finally, when additional funding becomes available, FAS will work to develop a leadership and policy component of the Borlaug Fellows Program to help ensure that the advances from agricultural research can be implemented in their home country, and real progress can take root. This component will target policymakers and researchers to expose them to complex issues in agriculture and food policy, and the interplay of scientific rules, regulations and new technology.

Dr. Borlaug continues to inspire young scientists with his insights and his commitment to improving agriculture around the world. We

were able to see this firsthand when he spoke to a large group of fellows in Washington, DC this past August. We hope that the Borlaug Fellows Program will help to foster the next generation of leaders in the agricultural sciences, who will carry on Dr. Borlaug's legacy and work to increase agricultural productivity and reduce hunger around the world. ■

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