



Press Release

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Feed the Future Legume Innovation Lab Bean breeders Juan Carlos Rosas (l.) and James Beaver (rt.) examine a test field of improved bean lines.

Dr. James Beaver (right), of the University of Puerto Rico, and Dr. Juan Carlos Rosas (left), of the Zamorano Panamerican Agricultural University in Honduras, have been selected as winners of the Board for International Food and Agricultural Development (BIFAD) Award for Scientific Excellence in a Feed the Future Innovation Lab.

They are recognized for their contributions to breeding disease-resistant and drought/heat-tolerant varieties of common bean of diverse market classes under the Feed the Future Innovation Lab for Collaborative Research on Grain Legumes, led by Michigan State University.

The team is responsible for the breeding and release of more than 60 cultivars with increased yield, quality, and stability throughout Central America and the Caribbean. They developed more than 23 bean lines and germplasm resistant to Bean Golden Yellow Mosaic Virus, Bean Common Mosaic Virus, and Bean Common Mosaic Necrosis Virus—three

highly destructive bean diseases that affect vulnerable, smallholder farmers throughout Central America.

Drs. Beaver and Rosas are also recognized for combining other important traits into the virus-resistant bean cultivars, including resistance traits to fungal diseases, such as web blight and angular leaf spot,

and to bean weevil, a serious postharvest grain pest during household storage, plus higher symbiotic nitrogen fixation capacity. Additional research achievements have been genetic improvements in heat and drought tolerance in common bean, which has enabled production in the lowland tropics. This work has been augmented by recent support from the Feed the Future Innovation Lab for Climate-Resilient Beans, led by the Pennsylvania State University. Their research collaboration spans more than 30 years and has contributed directly to improved incomes and increased food security among smallholder farmers in a neglected region of the world.

Drs. Beaver and Rosas have provided innovative leadership in developing and promoting local seed multiplication systems to ensure that smallholders have access to quality bean seed of improved varieties. Using participatory plant breeding approaches, they include smallholder farmers' input in making varietal selections—an approach now used worldwide.

Always focused on the future of bean research, Beaver and Rosas are committed teachers and have trained and mentored a large cadre of students who are now working in leadership positions at universities, national/international agricultural research organizations and the private sector around the world.

The Board for International Food and Agricultural Development (BIFAD) is a presidentially appointed federal advisory committee established in 1975 under Title XII of the Foreign Assistance Act, as amended. Recognizing the critical role of US land-grant institutions in agricultural development, domestically and abroad, and the importance of their engagement in USAID development programs, the BIFAD's main purpose is to advise USAID on agriculture and higher education issues pertinent to global food security in developing countries. For questions, please contact the Designated Federal Officer for BIFAD, Dr. Clara Cohen, at ccohen@usaid.gov or 202-712-0119.

Photo credit: I. Widders, Michigan State University