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SUCCESS STORY

IPM Innovation Lab awards more than \$11 million to help feed people in developing countries

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—Muni Muniappan,
IPM IL Director



Because conventional agriculture cannot feed the world’s billions, the Feed the Future Integrated Pest Management Innovation Lab at Virginia Tech has awarded more than \$11.5 million to eight projects that will help farmers in seven countries.

The grants underwrite integrated pest management practices, which offer a holistic approach to reducing pest-created and disease-induced damage to crops while minimizing harm to the environment.

The grant money flows through the IPM Innovation Lab, in force at Virginia Tech since 1993, a USAID-funded initiative that implements multiyear projects in dozens of countries. Three projects are funded in Africa and four in Asia.

Muni Muniappan, director of the IPM Innovation Lab, said, “By implementing these projects, we expect to make a marked difference in the methods adopted in crop protection and production. These new practices will reduce environmental hazards, improve public health, and improve overall quality of life.”

The current round of projects are funded by the \$18 million awarded to the Virginia Tech-led program in 2014, and the work is expected to last through 2019.

The eight projects are led by universities and organizations around the world:

- > Biological Control of the Invasive Weed Parthenium hysterophorus in East Africa, led by Virginia State University, develops and implements biological control of Parthenium. Parthenium is an invasive weed that displaces native plants, causes rashes on human skin, and taints meat and dairy products when consumed by animals. The \$800,000 project takes place in Ethiopia, Tanzania, and Kenya and aims to increase the amount of two previously approved bioagents vital to the control of this weed as well as to evaluate a third bioagent, a beetle.

- > Vegetable Crops for East Africa, also carried out in Ethiopia, Kenya, and Tanzania, is led by Ohio State University. Funded at \$2 million, it uses integrated pest management strategies to increase production of important vegetable crops such as onions, cabbage, and eggplant.

- > Grains IPM for East Africa, in the same setting, focuses on chickpea,



maize, and rice. The project is led by the International Centre of Insect Physiology and Ecology in Ethiopia and is funded at \$2 million.

> A \$2.2 million project in Cambodia, awarded to the Philippines-based International Rice Research Institute, works to decrease use of pesticides in rice production and minimize losses to pests and disease.

> The Southern Horticultural Research Institute received \$800,000 to develop and spread integrated pest management tools to fight the pest problems of the four most important crops in Vietnam: dragonfruit, mango, longan, and lychee.

> A \$2 million project led by Virginia Tech's College of Agriculture and Life Sciences, Vegetable Crops and Mango IPM in Asia, is centered in three Bangladesh, Nepal, and Cambodia. The program uses integrated pest management techniques, such as biopesticides and composting, to curb the damage from insect pests, pathogens, and weeds to tomato, eggplant, cabbage, cauliflower, beans, and other food crops. In Bangladesh, the mango is targeted as well.

> In Nepal, a project led by the City University of New York's City College received \$800,000. The project assesses the effect of climate change on biodiversity and sustainable pest control in central Nepal.

> Virginia Tech's Biocomplexity Institute was awarded \$1 million to lead a project in Asia, Africa, and South America. The effort develops detailed models and simulations to study the spread of invasive species (tomato and groundnut leafminers), using human movement as the main variable.

Funding

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