Feed the Future Country Fact Sheet

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Virginia Tech Teams Up with U.S. Government and International Researchers to Fight Global Crop Pest

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Scientists learn about using pheromone traps in a Tuta-infested tomato field in Senegal.

Tomato leafminer, or *Tuta absoluta,* is an invasive insect pest native to South America that threatens to wreak havoc on tomato crops across West Africa.

One of the most important vegetable crops in the world, tomatoes are produced by smallholder farmers in Feed the Future focus countries including Ghana, Senegal and Mali.

The Feed the Future Innovation Lab for Collaborative Research on Integrated Pest Management is managed by Virginia Tech University and aims to reduce agricultural losses due to pests, damage to natural ecosystems, as well as pollution and contamination of food and water supplies. So when *Tuta absoluta* showed up in some tomato plants in West Africa in 2012, the Lab immediately began to develop a strategy to control the pest and slow its spread across the region.

Most recently, in May 2013, the Lab joined the West and Central African Council for Agricultural Research and Development in raising awareness and understanding of this threat through a workshop in Senegal co-organized by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service and funded by USAID.

The workshop was attended by scientists, extension workers and regulatory officials from 19 African countries, the United States and France, and discussed a range of methods to effectively manage *Tuta*. It also laid the foundation for a global monitoring framework that will track this pest and its impact on farmers around the world.

Sensitizing farmers and agricultural scientists to the presence of *Tuta* was especially important in light of the fact that West Africa had recently been given permission to export tomatoes to the United States.

Agricultural pests are estimated to cause crop losses between 25-35 percent in developing countries before and during harvest and storage. Integrated pest management is a systems approach to reducing damage caused by pests without harming the environment, and can save smallholder farmers money by reducing the use of pesticides.

Since this Innovation Lab at Virginia Tech was founded, it has proved highly effective—a **single intervention to control the papaya mealybug in India** has had such huge economic benefits that it has already paid for the entire Lab over its lifetime.