

FACT SHEET

ADDRESSING POSTHARVEST CROP LOSS AND FOOD SAFETY IN HAITI

Feed the Future Haiti Appui à la Recherche et au Développement Agricole (AREA) Support to Agricultural Research and Development

Food insecurity is a long-standing challenge in Haiti, where an alarming percentage of people suffer from hunger and malnutrition. While it has made progress, Haiti's agricultural sector has suffered from natural disasters, low farm productivity, a lack of resources and a myriad of other issues. One of these issues is a high rate of food loss after crops are harvested — between the field and the market.

Postharvest crop losses in Haiti

Haiti's agricultural sector is dominated by smallholder farms with an average area of 1.5 hectares and suffers from many inefficiencies, including limited investment in mechanization, storage and processing. As a result, postharvest crop losses are high, with losses of up to one-third for cereal crops to nearly 50 percent for fruits and vegetables, depending on the product and storage situation. Additionally, foodborne illnesses are widespread because of inadequate agriculture practices and poor personal hygiene, which raises a risk to human health and impacts the marketability of food products. Recent investigations have shown that crops that are important for food security and nutrition in Haiti such as corn, rice, sorghum and peanuts contain high levels of aflatoxin, a toxin produced by fungi that can contaminate food supplies and pose serious health hazards.



Products sold at a public food market in Kenscoff, Haiti. Photo credit: Charles Boisseau/AREA

Strategy and activities

While there is no single root cause — nor one solution — to Haiti's postharvest loss challenges, AREA researchers identified a lack of training, poor storage practices and limited research data among key issues to address. Team members surveyed farmers and agricultural professionals to help develop its Postharvest Loss Management and Food Safety Research program. The program has two key objectives: 1) Develop training programs to decrease postharvest losses, improve food safety and inform potential exporters about U.S. regulations related to food exports; 2) Contribute to food safety research in Haiti with a focus on aflatoxin contamination.

AREA has launched a series of workshops to train representatives of farmers' associations, educators and professionals from Haiti's agricultural sector on appropriate postharvest practices. Scientists trained Haitian food and agricultural professionals, including faculty members from agricultural colleges that have partnered with the project, on the use of technologies to reduce deterioration, minimize loss and maintain nutritional qualities of fruits and vegetables. AREA researchers also trained representatives of agricultural businesses and food

processors about developing comprehensive plans — or hazard analysis critical control point (HACCP) plans — to reduce foodborne illnesses.

Working closely with the State University of Haiti's College of Agriculture (FAMV), AREA researchers also have begun a large-scale study to investigate storage conditions and to reduce aflatoxin contamination in cereal grains (corn, rice and sorghum) and peanuts. In the first phase, researchers captured baseline data of aflatoxin content in the crops under existing conditions in multiple public markets in Haiti's West Department. In the next phase, the AREA team will study how aflatoxin levels change over time if the conditions change, namely, if the crops are stored in specialized bags that are designed to limit postharvest losses and food contamination.

For more information

AREA's director of research, Lemâne Delva, Ph.D., can be reached at lemanedelva@ufl.edu.

AREA project

In May 2015, the U.S. Agency for International Development awarded a five-year contract to a consortium of three U.S. land grant institutions led by the University of Florida's Institute of Food and Agricultural Sciences to support its Feed the Future initiative in Haiti to reduce the country's chronic food insecurity. The project — known in French as Appui à la Recherche et au Développement Agricole (AREA) and in English as Support to Agricultural Research and Development — assists Haitian agricultural researchers, professionals and institutions to modernize the country's agricultural sector. AREA's target geographic area includes Kenscoff, Cul-de-Sac, and Matheux corridors, a region that serves as a breadbasket for the Haitian population. The project is funded by USAID as part of Feed the Future, the U.S. Government's global food and security initiative. Visit the AREA project's website at <http://global.ifas.ufl.edu/area-project>.

Feed the Future

Feed the Future is the U.S. Government's global hunger and food security initiative. With a focus on smallholder farmers, particularly women, Feed the Future supports partner countries in developing their agriculture sectors to spur economic growth and trade that increase incomes and reduce hunger, poverty and undernutrition. For more information, visit www.feedthefuture.gov.