AflaSTOP: Storage and Drying for Aflatoxin Prevention

Aflatoxin

Aflatoxin is a naturally occurring, but highly toxic, substance caused by fungi. The toxin is linked to liver disease and cancer and associated with immune-system suppression, growth retardation, and death in both humans and domestic animals. Better crop handling and management practices are critical to reducing aflatoxin contamination. In particular, better drying and storage can help control aflatoxin contamination as well as reduce post harvest losses and will enable smallholders to increase nutritional value and volume available for consumption and sale.

AflaSTOP: Storage and Drying for Aflatoxin Prevention

AflaSTOP: Storage and Drying for Aflatoxin Prevention (AflaSTOP) will identify the most promising dryers and storage options that will impede the growth of fungi producing aflatoxin, and ensure that these dryers and storage options are accessible to smallholder farmers through African businesses.

Beginning in 2013, the project will select, test, and deploy low-cost storage and drying options for maize and other staple grains in Kenya.

In 2014 and 2015, the project will work with locally operating businesses to pilot ~~a~~ commercialization models and identify ways to stimulate full commercialization and adoption of effective, low-cost drying and storage options.

In 2014 and 2015, the project will also explore opportunities for scaling up the commercial pilot to other African countries. The project will also capture and distribute lessons learned on the business case and models for smallholder storage and drying.

Technologies

The project will start with a quick assessment to identify a range of new and existing drying and storage technologies that are both practical and potentially affordable for smallholder farmers and offer the potential to prevent further aflatoxin contamination and post-harvest losses. The storage technologies to be tested will focus on storage for household consumption and surplus solutions. The storage technologies may include:

- Plastic silo for food and feed storage
- Metal silo
- Adapted bags (e.g. hermetic)
- Large bulk bag

In conjunction with testing storage technologies, the project will test, adapt, and design cost effective and appropriate drying technologies for maize and other commodities, which will be developed through a human centric design approach informed by the assessments and private sector input.

Commercialization Pilot

AflaSTOP will engage potential commercialization partners and advisors early on to inform the technology development activities and field tests, and to identify the technologies that are most likely to be commercially viable and likely to be adopted by smallholder farmers. After testing both drying and on-farm storage technologies with smallholders farmers in Kenya, specific technologies will be identified to commercialize with selected manufacturing partners. AflaSTOP will develop a comprehensive commercialization strategy for each selected storage and drying technology. The commercialization strategy will include elements focused on rapid market development, including supply; training; awareness; and access to finance.

Project Partners

AflaSTOP will support objectives of the Partnership for Aflatoxin Control in Africa (PACA), which is establishing a comprehensive, Africa-wide approach to aflatoxin control. Co-funding for this project is provided by the Bill & Melinda Gates Foundation and the US Agency for International Development.

Meridian Institute serves as the lead implementing partner and will partner with ACDI/VOCA and Agribusiness Systems International (ASI). ACDI/VOCA is a private, nonprofit organization that promotes broad-based economic growth, higher living standards and vibrant communities in low-income countries and emerging democracies. ASI is an affiliate of ACDI/VOCA and supports their mission by helping farmers and agribusinesses develop the skills necessary to operate competitively in a market-driven global economy.

Meridian Institute, ACDI/VOCA and ASI will be partnering with many local partners, including:

- Farmers and user groups to test, select, and adjust low-cost technologies to meet local requirements;
- Technical partners to assist in designing and implementing the drying and storage tests;
- Private sector partners to test and market low-cost storage technology and dryers; and
- Finance partners to develop strategies to support expansion of manufacturing and distribution by private sector partners, and adoption of low-cost technologies by farmers, farm organizations, and others.

More Information

For more information, please contact Project lead:

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