Aflatoxin Policy and Program for the East Africa Region (APPEAR)

Donor: USAID East Africa Regional Mission

Timeframe: 2013 - 2016

Background: Aflatoxin, commonly produced by *Aspergillus flavus* fungi, is a carcinogen that leads to death when consumed in high doses, or cancer, immune suppression or stunting as a result of chronic exposure. According to the United Nations Food and Agriculture Organization, 25% of the world's food crops are affected and countries situated between the 40ºN and 40ºS are most at risk. This includes all the countries in the East African Community (EAC). Aflatoxin contamination is not appropriately controlled or regulated within these countries unless the product is exported into global markets. As a result, millions of people in EAC consume high, unsafe levels of aflatoxin through their daily diets. With aflatoxin prone staple foods such as corn and peanut comprising significant proportions of food and feed, humans and livestock across the region are at significant risk of adverse health effects from aflatoxin. The frequency of consumption of high risk foods, coupled with poor pre- and post-harvest management practices place smallholder households at high risk. Aflatoxin in feed also negatively impacts the production of healthy livestock, causing a decrease in milk and egg yields, and resulting in toxic residues in dairy, meat and poultry products.

Project Summary: The project aims at developing technical papers that can inform policy around critical subject areas of aflatoxin. These technical papers will be in the areas of biocontrol, human health and nutrition, animal health, food and feed standards, post-harvest handling, alternative uses, economic impacts and communication strategies. To address the need to develop and disseminate aflatoxin abatement policies, a combination of both global and regional experts will be involved. The project will also identify regional fungal genotypes that can be used for developing a biocontrol product to be used in aflatoxin abatement in key staples in the region. A regional approach towards developing such a product will ensure that product registration costs and technology up-scaling and out-scaling are significantly reduced to ensure affordability by the small holder farmer. The project will also undertake to develop local capacity to ensure sustainability of aflatoxin mitigation efforts

Objectives:

1. Develop technical papers that will be used for the formulation, dissemination and adoption of policies across the health, agriculture and trade sectors among member states of EAC to address aflatoxin.
2. Identify non-toxic strains of *A. flavus* from samples collected from Burundi, Uganda, Rwanda, South Sudan and Ethiopia, to develop regional biocontrol products for aflatoxin prevention.
3. Develop human capacity in the region to sustain efforts towards aflatoxin mitigation.
4. Support the expansion of intra-regional trade of agricultural products within East Africa through the establishment of regionally harmonized and regionally appropriate food and feed safety standards.
5. Provide ongoing support and follow up to the EAC, other regional economic organizations (REC), PACA, and member states to oversee and ensure the successful implementation, evaluation and incorporation of lessons learned into 1, 2, 3 & 4 above.

Outputs

1. Ten technical papers to inform policy on aflatoxin related issues for EAC produced.
2. At least two members from each EAC country trained on various facets of aflatoxin
3. At least 10 promising regional strains for use in biocontrol products for managing aflatoxin identified.
4. A monitoring and evaluation system put in place for timely and effective information dissemination.

Major partners: EAC secretariat, National Agricultural Research Systems, International Institute of Tropical Agriculture (IITA), Agriculture Research Service of the United States Department of Agriculture (USDA-ARS).

Target Countries: Burundi, Ethiopia, Kenya, Rwanda, South Sudan, Tanzania and Uganda.

Crops: groundnut, maize