

Development and commercialization of biological control of aflatoxins in Kenya and Nigeria

Donor: the Bill & Melinda Gates Foundation

Timeframe: 2011 - 2012

Background: The Partnership for Aflatoxin Control in Africa (PACA) is an African Union-endorsed initiative focusing on a range of strategies needed to systematically address aflatoxin issues in sub-Saharan Africa. This project serves as a springboard to illustrate the necessity for aflatoxin mitigation and the potential of aflatoxin biocontrol to PACA stakeholders already committed and to those interested in playing a role. Reducing aflatoxin through biocontrol will improve income for smallholder farmers, as they will be able to better participate in both local and formal trade initiatives. By addressing a serious food safety issue, benefits will permeate throughout the entire value chain of affected crops, from smallholder producers, their families who eat their own produce, food and feed processors, to ultimately food consumers, especially groups with increased vulnerability to diseases.

Project summary: This short-term project is aimed at enabling the commercialization of an aflatoxin biocontrol product in Nigeria and identification of biocontrol strains for registration in Kenya. This is a learning grant to gain experiences on potential distribution channels and market development of a biocontrol input. This is a challenging task, because we seek to enable adoption of a product that solves a problem with low awareness, yet long-term health effect on people and animal productivity. Target countries are Nigeria and Kenya, which represent the largest economies in West and East Africa, respectively. Lessons learned from this project will guide similar biocontrol activities that are underway in other sub-Saharan African countries.



Farmers deploying aflasafe in a Nigerian groundnut field (photo by J. Atehnkeng)

Objectives

- to develop baseline data on the incidence of aflatoxin in Kenya and Nigeria
- to provide background information to assess impact of implementation of a larger grant on aflatoxin biocontrol
- to enable commercialization and availability of the aflatoxin biocontrol product aflasafe in Nigeria for use as a critical component in integrated aflatoxin management practices in maize and groundnut value chains
- to evaluate efficacy of Kenyan atoxigenic strains in aflatoxin-prone areas and collect other relevant information (e.g. safety, detection methods) needed for registration of the biocontrol product in Kenya
- to enhance capacity of Kenyan institutions to conduct biocontrol research
- to create awareness, train farmers and strengthen stakeholder capacity for aflatoxin management in Nigeria and Kenya
- to create a positive environment for full registration of the biocontrol product

Outputs

- incidence of aflatoxin in Kenya and Nigeria known
- commercialization and availability of aflasafe facilitated in Nigeria
- efficacy of Kenyan atoxigenic strains in aflatoxin-prone areas established
- capacity of Kenyan institutions to conduct biocontrol research
- farmers and other stakeholders made aware of health and trade effects of aflatoxin contamination, and aflatoxin mitigation strategies transferred in Nigeria and Kenya

Major partners: ACDI/VOCA, African Agricultural Technology Foundation (AATF), Doreo Partners, Kenya Agricultural Research Institute (KARI), International Institute of Tropical Agriculture (IITA), National Agency for Food and Drugs Administration and Control (NAFDAC), Rutgers University, United States Department of Agriculture - Agriculture Research Service (USDA-ARS)

Target countries: Kenya, Nigeria

Crops: groundnut, maize