

CASE STUDY

Promoting Aflatoxin Management Technology to Boost Cereals Productivity

aBi

CHALLENGE: Aflatoxins are a known “class 1” carcinogen, mainly found as a contaminant in human staple foods (like maize, sorghum, and groundnuts). An estimated 3,700 liver cancer cases reported in Uganda annually are attributable to aflatoxin contamination. In addition, Uganda loses an estimated US\$38 million annually in lost export opportunities because of aflatoxin. In 2018, Kenya rejected 600,000 tons of maize from Uganda, and in 2021, it banned the importation of maize from Uganda and Tanzania, all due to poor quality and aflatoxin contamination.

INITIATIVE: aBi Development Limited, in partnership with the International Institute of Tropical Agriculture, is supporting research on using UG01 and KE01 Aflasafe technologies and rollout to help address the control of aflatoxins in the cereals value chain. The project aims to develop and deploy aflatoxin biological control products for integrated aflatoxin management in Uganda and make them accessible through private-sector engagement. It is targeting to reach 50,000 million direct beneficiaries. In 2021 efficacy trials on the two Aflasafe technologies were launched in over 50 districts with a focus on the grain-growing regions.

RESULTS: From the first phase of the project implementation, aBi supported seven local agribusiness partners to pilot the novel aflatoxin control biotechnology. Radio programs were also used to relay information, especially on agro-input distribution and pest and disease management. So far, out of the overall target, 30,000 smallholder farmers have been reached directly and indirectly with aflatoxins management advisory services in 28 districts across Uganda. In addition, IITA undertook a microbiological analysis to ascertain different levels of aflatoxins in grain and soil samples collected from 779 farms, covering 3,600 smallholder farmers (37 per cent female). From the research, there is a need to fast-track promotion and use of the Aflasafe technology in the savanna grassland areas, especially in Mubende district, Central Uganda, which registered 65 per cent positive samples with aflatoxin levels above the expected levels (10 per cent). Also, more mass awareness campaigns are required to sensitise stakeholders (farmers, processors, traders, and consumers) about the aflatoxin challenge and opportunities that come with improved quality maize grain. Lastly, for increased adoption and use, small and medium enterprises need to integrate production contracts with clauses requiring farmers to use Aflasafe in their crops before supplying grain to the market.



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