Learning Area 1:	Harnessing Cereals Value Chain profitability through promoting Phytosanitary measures using Aflasafe Technology
Source Material: aBi Development Quarter 3, Quarter 4 reports,2021	

Purpose of the brief

This brief highlights lessons learned from implementing use of Uganda-01(UG01) and Kenya-01 (KE01) Aflasafe technologies in the cereal growing regions in Uganda.

Intervention Overview

Aflatoxins are a known "class 1" carcinogen (IARC 2012), mainly found as a contaminant in human staple foods (like maize, sorghum and Groundnuts). An estimated 3,700 liver cancer cases reported in the country annually are attributable to aflatoxin contamination. This translates to between US$144.3 and 577.2 million, or 0.53–2.14% of Uganda's total GDP[1]. Early in 2021 the Government of Kenya through the Agriculture and Food Authority (AFA) on 5th March 2021, banned the importation of maize from Uganda and Tanzania with immediate effect. According to AFA, the ban was introduced based on the findings of a survey conducted by AFA which showed that maize from the two countries is unfit for human consumption due to levels of mycotoxins that were consistently beyond safety limits (East African Grain Council (EAGC) March 2021 Bulletin). The region has a 10 Parts Per Billion (PPB) limits for aflatoxins in EAC countries (2020 Ankwasa EM, et al.).

aBi Development through its project "Developing and deploying aflatoxin biological control products for integrated aflatoxin management in Uganda and making it accessible through private sector engagement" in partnership with International Institute of Tropical Agriculture (IITA) is supporting research on use of UG01 and KE01 Aflasafe technologies and dissemination to help address the control of aflatoxins in the cereals value chain. The project is targeting to

[1] Godfrey Wokorach, Sofie Landschoot, Juliet Anena, Kris Audenaert, Richard Echodu, Geert Haesaert, Mycotoxin profile of staple grains in northern Uganda: Understanding the level of human exposure and potential risks, Food Control, 10.1016/j.foodcont.2020.107813, **122**, (107813), (2021).

reach 50,000 million direct beneficiaries. In 2021 efficacy trials on the two Aflasafe technologies were launched in over 50 districts with focus on the grain growing regions.

Lessons Learned

1. Despite the health risks associated with frequent exposure to aflatoxin, awareness among farmers and the general public remains low[2].
2. Commercializing use of Aflase technology in cereal (Maize, Sorghum, groundnuts) crops can attract premium prices for cereals farmers at both international and national markets. Using Aflasafe could open lucrative export markets for farmers in sub-Saharan Africa, farmers have been slow to adopt without sufficient incentive[3].

Recommendations

1. There is need to fast truck promotion and use of the Aflasafe technology for aBi cereals interventions in maize implementing in the western Savana grass land areas specifically Mubende as its noted that the district has a 65% Positive samples with aflatoxin levels above the ML of 10 PPB (%).

2. More effort should be put in carrying out far-reaching awareness campaigns to sensitize stakeholders (famers and processors, traders and consumers) about the aflatoxin challenge and opportunities which come with selling of maize grain with at most 10 PPB (%) of aflatoxins.

3. All interventions under cereals promoted by aBi should intentionally integrate promotion and use of Aflasafe as an innovation to enhance safe maize produce on the market.

4. Projects under cereals can also use production contracts with clauses that require farmers use Aflasafe in their crops before they can supply grain to the implementing SME's for processing.

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2 *https://blogs.worldbank.org/impactevaluations/cracking-open-new-markets-contract-helps-farmers-senegal-meet-export-quality*

3 *https://www.atai-research.org/project/credit-uncertainty-and-monitoring-for-technology-adoption-the-case-of-aflasafe-in-senegal/*