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Awareness and Perception about the Occurrence, Causes and Consequences of Aflatoxin Contamination and the Willingness to Pay of Aflatoxin Control in Burundi and Eastern Democratic Republic of Congo

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Abstract

Despite efforts to reduce aflatoxin contamination and associated mycotoxin poisoning, the phenomenon continues to pose public health threat in food and feed commodity chains. To support effective development and deployment of technologies and strategies, this study examines awareness and perception of the occurrence, causes, and consequences of aflatoxin contamination among a cross section of 310 farmers in Burundi (160) and eastern Democratic Republic of Congo (DRC) (150). The results show about 53% aware rate within the sampled. Farmer-to-farmer information flow serves as important source of information about aflatoxins. While farmers in Burundi access their information from government extension services, those in eastern DRC obtain information through their own observation. Kendal's concordance rank correlation analysis shown agreement in the perception of the farmers across the two locations. The results showed that the use of contaminated seeds potentially increases the prevalence of aflatoxin contamination. Severity on the other hand is associated with delayed harvesting and the extent of spread of the contamination. Biological factors such as pest and disease attacks also increases the prevalence and severity of aflatoxin contamination. Drought stress and high temperatures followed by high humidity towards harvesting periods increased the prevalence, severity and spread of aflatoxin contamination. The farmers also identified changes in taste, smell, and colour of agricultural produce as signs of contamination. They associated contamination with reported cases of liver infections and low resistance to diseases. This is further compounded by their inability to sell crop at true market values. The results suggest the need to increase awareness among farmers about aflatoxin contamination and associated effects. This require partnerships with actors in the food value chains. There is also the need to examine the extent to which technologies are suitable and affordable for farmers. The willingness to pay was positively influenced by farmers income and knowledge. In order to intervene successfully the aflatoxin control package needed to be a low-cost differentiation in the market that was also credible with farmers. Development of markets that reward growers of aflatoxin free maize with premium prices for their product will further increase adoption of aflatoxin combating technologies

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