

AFLATOXINS CONTAMINATION AND POTENTIAL IMPACT ON FOOD SECURITY AND HUMAN HEALTH

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Abstract: Aflatoxins are naturally occurring mycotoxins that are produced by *Aspergillus flavus* and *Aspergillus parasiticus*, species of fungi. Aflatoxin contamination of crops is a global issue affecting about 25% of agricultural product worldwide. Aflatoxins are the most important fungal secondary metabolites that affect maize and groundnuts. The tropical sub-Saharan African climate favors fungal growth and aflatoxin production. Over the years, Kenya has experienced multiple aflatoxicosis outbreaks with high case fatality rates. Our study aims at bringing to light the risks that exist and issues that challenge farmers from aflatoxin contamination; reviewing procedures in place that address aflatoxicosis; and highlighting the areas that require more action for improvement in Kenya. Reviews of relevant scientific studies, government protocols and initiatives, as well as contributions by other internal and external agencies were done. Literature review using Google Scholar was also central to the research. Our findings indicate that even after multiple severe outbreaks, and the occurrence of contamination with the highest levels of aflatoxin ever recorded in the world, proactive remedies in detection and prevention are still inadequate. Lack of knowledge by farmers, limited resources, and lack of commitment by the Kenyan government were the major huddles identified. Change of culture from reactive to proactive tendencies, educating the populace on the human health effects of aflatoxicosis, improving availability of financial and human resources as well adopting new technology could offer the needed solutions to address the problems of food security and human health issues associated with aflatoxin contamination.

Keywords: Aflatoxins, food contamination, food security, human health

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