

Title: Health impacts of aflatoxin and control of aflatoxigenic fungi

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Abstract

Aflatoxins are a group of related fungal metabolites primarily produced by *Aspergillus flavus* and *A. parasiticus*. Aflatoxin is a global food safety concern with rural subsistence farming communities in developing countries being the populations most at risk of exposure. Aflatoxin contamination is the main food safety problem for field crops produced in tropical and subtropical climate regions where high temperature and humidity promote growth and proliferation of *Aspergillus* spp. Foods and feeds, especially cereal grains, are susceptible to invasion by molds during pre-harvest, processing, transportation, or storage. Aflatoxins impose effects in both economic and health sectors where the crisis leads to death of human beings and animals. The most well established health effect of chronic aflatoxin exposure are hepatocellular carcinoma impaired child growth and immune suppression. To minimize the risk of aflatoxicosis, there are several physical, chemical and biological methods available, but the biological strategies are safest and well effective. Therefore, this review was aimed to show the health impact of aflatoxins and the promising strategies against aflatoxin contamination.

Keywords: Aflatoxin, *Aspergillus*, Bio-control, Contamination, Fungal metabolites

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