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# Use of the yeast as an eco-friendly way to protect from contamination with Aflatoxins

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## Abstract:

Aflatoxins are a type of mycotoxin produced by *Aspergillus* species of fungi, such as *A. flavus* and *A. parasiticus*. The umbrella term aflatoxin refers to four different types of mycotoxins produced, which are B1, B2, G1, and G2. Aflatoxin B1, the most toxic, is a potent carcinogen and has been directly correlated to adverse health effects, such as liver cancer, in many animal species. Aflatoxins are largely associated with commodities produced in the tropics and subtropics, such as cotton, peanuts, spices, pistachios and maize. As green Chemistry seeks to reduce the impact of chemistry on the environment by preventing the pollution at its source and using fewer natural resources, the present study shows the inhibition incidence of *A. flavus* by up to 90 percent by spraying the nuts, wheat or corn with yeast. Besides inhibiting the *A. flavus* fungus, yeast is found to be effective in protecting against any of at least half a dozen other species of microbes that can ruin a food's taste, texture, yield, safety or other attributes. The concentration of Aflatoxin B1 was traced using higher performance liquid chromatography before and after treatment.

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