

More environmental friendly strategies to control the presence of mycotoxins in food and feed

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Mycotoxins are secondary metabolites toxic for humans and animals produced by some fungal species during their growth and, generally, released into the growing media. Mycotoxigenic fungi can colonize a wide spectrum of food and feedstuff and commodities like cereal seeds, fruits, meat and meat products. The toxic effects depend on a type of mycotoxin and vary from proven carcinogenic effects to cytotoxicity. Due to their high toxicity, only a dozen of mycotoxins are highly considered by legislators and scientist all over the world and their presence in food and feed is limited by legislations of almost all countries. In traditional agriculture chemicals, such as antifungals and antioxidants, are widely used to control mycotoxin contamination of food and feed. This strategy could present severe environmental problems as well as a selection of resistant strains. The research of strategies and methods in mycotoxin control with lower environmental impact has been ongoing for many years. Some more environmental friendly methods to control the presence of mycotoxins in food and feed, like the use of antagonistic strains or the use of plant and mushroom extracts, are reviewed in this work.

Key words: mycotoxins, food safety, environment