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BIOLOGY AND ECOLOGY OF MYCOTOXIGENIC ASPERGILLUS SPECIES RELATED TO SPICES

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Spices can be different parts of plants like the fruit, seed, bark or roots and are used mainly as flavoring agents as well as coloring agents and antioxidants. Spices are also used for antimicrobial purposes. Although some of them inhibit or retard the growth of microorganisms, moulds can infect spices during harvesting, drying, processing and storage and some of them are capable of producing mycotoxins under favorable conditions. Several mycotoxins such as aflatoxin, fumonisin, ochratoxin A, mycophenolic acid, penitrem A, zearalenone and trichothecenes were detected in spices. Among them the most frequently encountered mycotoxins are aflatoxin and ochratoxin A. They are also important for their significant impact on human health. In essence aflatoxins are known hepatocarcinogens, OTA is nephrotoxic and teratogenic, therefore their presence in foods should be eliminated. This study covers the biological and ecological aspects of genus *Aspergillus* such as *Aspergillus* section *flavi*, which produce aflatoxin and *Aspergillus* section *nigri*, which produce ochratoxin A in spices specially in red pepper and discuss the dimension of the hazard.

Key words: Mycotoxin, aflatoxin, spices, *Aspergillus*