

Identification of Mycotoxigenic Fungi Using an Oligonucleotide Microarray

52

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Abstract

Mycotoxins are secondary metabolites produced by fungi; they can play a role as food contaminants and have the ability to negatively influence human and animal health. To improve food safety and to protect consumers from harmful contaminants, numerous detection tools have been developed for the detection and analysis of various mycotoxigenic fungi. These include PCR-based assays and microarrays targeting different areas of the fungal genome depending on its application. This chapter describes the development of an oligonucleotide microarray specific for eleven mycotoxigenic fungi isolated from different food commodities in South Africa. This array is suitable for the detection and identification of cultures of potential mycotoxigenic fungi in both laboratory samples and commodity-derived food samples.

Keywords

Mycotoxins • Fungi • Oligonucleotide microarray • Food contaminants