

PCR-DGGE applied to microbial ecology that influence the production of OTA

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In tropical zones, OTA is mainly produced in coffee beans by three *Aspergillus* species: *A. carbonarius*, *A. niger* section *Nigri* and *A. ochraceus* section *Circumdati*. Among them, the most important OTA producer and the most frequently isolated is *A. carbonarius*. In temperate zones *Penicillium verrucosum* and *P. nordicum* are known to synthesize OTA in food commodities.

Ochratoxin is a secondary metabolite produced by various filamentous fungi contaminating in a wide range of food and animal feedstuffs. OTA has been shown to possess nephrotoxic, carcinogenic, immunodepressive and teratogenic properties.

In order to understand the OTA contamination process in foodstuffs, PCR-DGGE (Polymerase Chain Reaction - Denaturing Gradient Gel Electrophoresis) assays were carried out on coffee microflora. PCR-DGGE is used to characterize the microbial flora of food products.