Ohcratoxin producing Aspergillus spp. isolated from tropical soils in Sarawak, Malaysia

Abstrak

Aspergillus spp. has been widely studied for mycotoxin analysis. Mycotoxin is considered one of the chemical groups that causes serious side effects in humans and animals. Although Aspergillus spp. contains bioactive compounds, there is a need to screen for mycotoxin metabolites since mycotoxin is hazardous to human health. Ochratoxin is a mycotoxin with nephrotoxic, nephrocarcinogenic, teratogenic and immunosuppressive properties, and has received growing interest in the scientific community and food committees in the last few years (Battaglia et al. 1996; Abarca et al. 2003). Only species belonging to the genera Aspergillus and Penicillium have been reported as capable of producing ochratoxins. They were initially described by Scott (1965) in Aspergillus ochraceus but have also been found in other species of the section Circumdati: A. alliaceus, A. melleus, A. ostianus, A. petrakii, A. sclerotiorum, A. sulphureus (Hesseltine et al. 1972), A. albertensis, A. auricomus (Varga et al. 1996); as well as in the black aspergilli of section Nigri: A. niger var. niger, A. carbonarius (Samson et al. 2004). In this study, eighteen species of Aspergillus isolated from different habitats were selected to screen for ochratoxin producing strains.