

Measurements of Chitin by Ochratoxigenic Fungi and Its Relationship to Ochratoxin a Production

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Abstract : Production of OTA was detected after 24hr by *Aspergillus ochraceus* isolate whereas at 36hr for *A. carbonarius* isolate and *Penicillium verrucosum* IMI 285522 and 60hr for *A. ochraceus* CBS 588.68. Highest OTA level was produced by *A. carbonarius* isolate followed by *A. ochraceus* CBS 588.68, *Penicillium verrucosum* IMI 285522 and finally *A. ochraceus* isolate. Glucosamine content of barley sample before fermentation was found to be negligible and remained almost constant during the incubation time. Glucosamine content started to increase at 12 hours after incubation with *A. ochraceus* isolate, *A. carbonarius* isolate and *A. ochraceus* CBS 588.68, and after 12 hours with *P. verrucosum* IMI 285522. Highest glucosamine content, as a result of increase in fungal biomass, was produced by *A. ochraceus* CBS 588.68 followed by *A. ochraceus* isolate, *A. carbonarius* isolate, and finally by *P. verrucosum* IMI 285522. It appears that there is a correlation between OTA synthesis and glucosamine content with *A. ochraceus* isolate, *A. carbonarius* isolate and *A. ochraceus* CBS 588.68 but not with *P. verrucosum* IMI 285522.

Keywords : chitin, barley, Ochratoxin A, *Aspergillus ochraceus*, *A. carbonarius*, *Penicillium verrucosum*

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