

Evaluation of almond contamination to *Aspergillus flavus* and aflatoxin in Semnan province

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Abstract

In order to evaluate Almond contamination to *Aspergillus flavus* and aflatoxin in Semnan province samples of almond kernels were collected from different parts of Semnan province (Shahrood, Damghan and Semnan cities) in 2010. They were examined for the presence of *A. flavus* group fungi. The samples were cultured on AFPA media (completely randomized design in 3 replications). All plates were incubated for 3 to 7 days. At the end of the incubation period, the plates were examined and isolates of *A. flavus* were identified and relative density of them was recorded. Then almond samples were examined for presence of aflatoxins. Aflatoxin content of samples was determined by HPLC method. The results of this research indicated a significant difference in population density of *A. flavus* among kernels of almond samples, but the results indicated that none of the almond samples were contaminated to aflatoxins.