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Czech J. Food Sci.

**Dovičičová M.,
Tančinová D., Labuda**

R., Sulyok M.:

***Aspergillus parasiticus*
from wheat grain of
Slovak origin and its
toxigenic potency**

Czech J. Food Sci., 30 (2012): 483-487

During the mycological investigation of the wheat grain originating in Poltár (Central Slovakia), an endogenous aspergillus producing aflatoxins was encountered. Morphology, physiology and extrolites indicated the species *Aspergillus parasiticus* Speare. The amounts of aflatoxins detected by Liquid Chromatography/Tandem Mass Spectrometry on a synthetic medium were: B1 15.7, G1 23.4, B2 0.52, G2 0.68, and M1 0.18 mg/l. Compared to other screened strains, the amount of B1 produced was 5.6 mg/l lower than in *A. parvisclerotigenus* NRRL 3251 and 0.5 and 3.15 mg/l higher than in *A. nomius* I and *A. nomius* II, respectively. The production of G1 was 22.25 and 18.65 mg/l lower than in *A. nomius* I and II, respectively. The yields of other aflatoxins

were lower and the yield of kojic acid, 227.0 mg/l, was higher. It is the first finding of both an aflatoxin producer and of *A. parasiticus* on a food commodity of Slovak origin within the last 20 years. The yields produced indicate rather a high toxigenic potency.

Keywords:

Aspergillus section Flavi; toxigenicity; mycotoxins; food safety; wheat grain

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