

## Determination of Seedborne Fungi and Detection of Aflatoxins in Sudanese Fenugreek Seeds

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Following incubation of fenugreek (*Trigonella foenum-graecum* L.) seeds on potato dextrose agar and moist filter papers at  $28\pm 2^{\circ}\text{C}$ , 59 species and 11 varieties belonging to 21 genera of fungi were determined as seedborne in fenugreek crops. Among these isolates, 45 species and 9 varieties are new records for this crop; and two species are new to the mycoflora of Sudan: *Aspergillus stellifer* and *Emericella varicolor*. The genus *Aspergillus* (15 species and 8 varieties) is the most prevalent, followed by *Drechslera* (3 species), *Rhizopus* (3 species), *Alternaria* and *Fusarium* (6 species each), *Emericella* (4 species and 2 varieties), *Cladosporium* and *Penicillium* (4 species each), *Chaetomium* (3 species) and *Curvularia* (3 species and one variety). The remaining 11 genera displayed low level of infection. Of the common pathogens of fenugreek plants, *Fusarium oxysporum* (2.13%) was recovered from the seeds of this crop. Thin layer chromatographic analysis of chloroform extracts of 13 seed samples showed that two samples were naturally contaminated with aflatoxins B<sub>1</sub>, B<sub>2</sub>, G<sub>1</sub> and G<sub>2</sub> (7.5–35.2  $\mu\text{g}/\text{kg}$ ).

KEY WORDS: Aflatoxins; fenugreek; *Trigonella foenum-graecum*; seedborne fungi; Sudan.

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