Title Antifungal potential of some natural products against *Aspergillus flavus* in soybean seeds during storage

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Abstract

The inhibitory effect of cow-dung fumes, captan, leaf powder of *Withania somnifera, Hyptis suaveolens*, *Eucalyptus citriodora*, peel powder of *Citrus sinensis*, *Citrus medica* and *Punica granatum*, neem cake and pongamia cake on the growth of *Aspergillus flavus* in soybean seeds during storage was investigated. Soybean seed was treated with different natural products and the fungicide captan and was stored at ambient conditions for 6 months. Seed samples were withdrawn at monthly intervals and the incidence of seed-borne *A. flavus* and percentage germination of the seed was determined. Captan, neem cake, pongamia cake and peel powder of *C. sinensis* reduced the incidence of *A. flavus*. Leaf powder of *W. somnifera, H. suaveolens*, *E. citriodora* and peel powder of *P. granatum* also checked the frequency of *A. flavus*. All treatments maintained a high germination percentage of the soybean seeds over a storage period of 6 months. These natural products may be alternatives to chemical fungicides and provide an easy method to protect soybean and other agricultural commodities from *A. flavus* in storage.