

Title Detection and identification of seed-borne fungi of pepper (*Capsicum annuum*).

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Abstract

Sixteen pepper (*Capsicum annuum* L.) seed samples were collected from Alexandria markets and examined for the presence of seedborne fungi using the standard blotter and agar plate methods (ISTA, 1981). We found that *Alternaria alternata*, *Aspergillus* spp., *Cladosporium herbarum*, *Colletotrichum capsici*, *Curvularia lunata*, *Fusarium oxysporum*, *F. semitectum*, *F. solani*, *Penicillium* spp., *Rhizopus* sp., *Rhizoctonia solani* and *Stemphylium* sp. were the predominant fungi associated with pepper seeds. The standard blotter method was better than the agar plate method as it detected 11 fungi compared to 8 fungi. Pathogenicity tests revealed that some of the pepper seedborne fungi could produce damping-off and wilt on the pepper cultivars tested. Seed infection levels of pepper with *F. oxysporum* had a significant effect on wilt incidence. Culture filtrate either of *F. oxysporum* or *F. solani* significantly reduced pepper seed germination as compared to *F. semitectum*. By means of specific primers, the *F. oxysporum* was identified as f. sp. *capsici*.