

Use of entomopathogenic fungi for control of the Egyptian cotton leaf worm, *Spodoptera littoralis*

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In the present study, entomopathogenic fungi have been studied for use as biological control agent against *Spodoptera littoralis*, a preliminary virulence test on three concentrations (1×10^6 , 1×10^7 and 1×10^8 conidial spore ml⁻¹) of the aqueous conidial suspension of the four entomopathogenic fungi isolates, *Penicillium falicum*, *Aspergillus terreus*, *Aspergillus parasiticus* and *Aspergillus flavus* Link was carried out against eggs, larval and pupal stages of *Spodoptera littoralis* within 5 days post-treatment. All the tested four entomopathogenic fungi lead to significant decrease in percent of hatchability of eggs of *Spodoptera littoralis*. *A. parasiticus* T24 showed 80% larval mortality only when applied at its highest conidial concentration (1×10^8 conidial spore ml⁻¹), while *A. flavus* showed 100% pupal mortality only at all of its conidial concentrations. However, *P. falicum* showed relatively high dose- dependant larval and pupal mortalities. While, *A. terreus* showed a very weak mortality against pupae at its higher concentrations but no virulence against larvae was recorded. The results showed that two fungal isolates used in the current study were *A. flavus* Link and *A. parasiticus*, both can be used as an important biological control agent against *S. littoralis*. Therefore, this study may recommend these two fungal isolates as mycoinsecticides in the battle against cotton leaf worm in Egypt as it have no bad effect on all the environment.

Biography

Salama Zedan Ahmed has completed his Ph.D. at the age of 30 years from Mansora University and postdoctoral studies from Stanford University School of Medicine. He is assistant professors at biology department faculty of sciences KSA, He has published more than 5 papers in reputed journals and serving as an editorial board member of reputed.