Effect of mustard cake extract on Sclerotium rolfsii causing stem rot of groundnut and Trichoderma, a common biocontrol agent

ABSTRACT: Sclerotium rolfsii is soil-borne saprophytic fungus which causes different types of diseases like collar-rot, sclerotium wilt, stem-rot, charcoal rot, seedling blight, damping-off, foot-rot, stem blight and root-rot in more than 500 plants species including tomato, chilli, sunflower, cucumber, brinjal, soybean, maize, groundnut, bean, watermelon etc. S. rolfsii may be controlled through biological agents (Trichoderma harzianum, T .viride T. asperellum, Penicillium sp, Curvularia sp, Aspergillus niger, Bacillus subtilis, Pseudomonas fluorescens, Pseudomonas cf.montelii, P. aeruginosa; most significant), chemical agents (potassium salt, salicylic acid, sorbic acid, carbendazim, carboxin, benomyl, sancozeb, thiovit, dithane M-45, K2HPO4, potassium sorbate, captan 50% WP, thiophanate-methyl 70% WP, propiconazole 25% EC and thiram 75% SD, fluazinam, vitavax powder and topsin-M); plant extracts (garlic, clove, allamonda leaf, ginger rhizome, neem leaf, neem seed oil, turmeric rhizome, bel leaf, and onion bulb) and soil solarization. Among all these control measures, biological, soil solarization and medicinal plant extract were the more significant than chemical control.

KEY WORDS: Sclerotium rolfsii, biological, chemical, plant-extract and soil solarization.