

Iffat Siddiqui*, Najat A. Bokhari, Kahkashan Perveen and Mona S. Alwahibi

Department of Botany and Microbiology, King Saud University, Riyadh, Kingdom of Saudi Arabia.

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ABSTRACT

Black scurf is one of the oldest and common diseases of potato stems and stolons below the soil surface caused by *Rhizoctonia solani*. The present study was carried out to investigate the antifungal potential of *Melia azedarach* against this soil-borne fungal pathogen. Different concentrations (1, 2, 5%) of aqueous, methanol, n-hexane and chloroform extracts of leaves, stems and fruits of *M. azedarach* were prepared and were evaluated for their in vitro antifungal activity. Data were analyzed by Tukey HSD test at 5% level of significance. All the extracts showed variable antifungal activity. In general, leaf extracts exhibited the highest inhibitory effect against growth of the fungal pathogen followed by stem-bark and fruit extracts, respectively. Among the various extracts, leaf chloroform extract, stem-bark methanolic extract and fruit aqueous extract showed the best antifungal activity resulting in 20.89%, 4.85% and 28.70% reduction in fungal biomass over corresponding control treatments, respectively.

Keywords : *Rhizoctonia solani*; *Melia azedarach*; Antifungal activity; Fungal biomass.