

Prevalence of *Pseudomonas fluorescens* in Different Cropping Systems and Soil Types

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ABSTRACT

Twenty eight isolates of *Pseudomonas fluorescens* were isolated from rhizosphere of eleven cropping systems in Guntur district. All the isolates produced pigment on King's B medium and showed fluorescence under UV light. Highest number of isolates was obtained from cotton and turmeric rhizospheres. Population and frequency of obtaining *P. fluorescens* was much higher in black soils than in sandy soils. Frequency of *P. fluorescens* isolates was highest at pH 8.0 followed by pH 7.5 and the least number of isolates was obtained at pH 7.0. All the isolates showed antagonistic activity against *Sclerotium rolfsii* in dual culture with four of them showing >75% inhibition besides inhibiting sclerotial production. Cell free culture filtrates of the four *P. fluorescens* isolates also inhibited growth and the sclerotial germination of *S. rolfsii* at concentrations higher than 40%.

Key words : Cropping systems, Dual culture, Population dynamics, *Pseudomonas fluorescens*, *Sclerotium rolfsii*, Soil types.