

***In Vitro* Evaluation of Bacterial Bioagents Against Sorghum Turcicum Leaf Blight Caused by *Exserohilum turcicum* (Pass.) K. J. Leonard & Suggs**

B Jyothi Prasanthi, V Prasanna Kumari, P Anil Kumar and D V Sairam Kumar

Department of Plant Pathology, Agricultural College, Bapatla, A. P.

ABSTRACT

Efficacy of different bacterial isolates *viz.*, endophytes, phylloplane and methylotrophs against *Exserohilum turcicum* was evaluated by employing dual culture technique. Six bacterial isolates SLSE-05 (60.73%), SLSE-04 (54.97%), HMP A 1902 (54.45%), PPFM-5 (30.89%), HMP *Bc* 1903 (27.27%) and PPFM-8 (22.51%) were found most effective in suppressing the pathogen's radial growth *in vitro*. Antagonist interactions resulted in hyphal morphological alterations in *E. turcicum* which included hyphal thinning, shortening of hyphal septa, swelling, wrinkling, protoplasm disintegration, clustering of hyphae and hyphal tip shearing in fungal hyphae that expanded towards bacterial colonies. Growth inhibition associated with hyphal morphological changes indicated antagonistic activity against *E. turcicum*.

Keywords: *Bacterial bio-control agents and Exserohilum turcicum.*