



RESEARCH ARTICLE :

Study of cellulolytic activity of fungi involved in decomposition of organic waste

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SUMMARY : Partially rotten leaves were collected from plantation of Dr. B. S. K. K. V., Dapoli. For isolation of fungi involved in decaying process. During repeated isolations seven fungal isolates viz., *Pestalotiopsis palmarum*, *Phoma* spp., *Aspergillus niger*, *Trichoderma harzianum*, *T. viride* and two sterile fungi were obtained. Maximum growth on filter paper was observed by *Pestalotiopsis palmarum* (87.3 mm) followed by *A. niger* (62.3 mm), followed by *T. harzianum* (58.0mm) after 7 days of incubation. Minimum growth was recorded by isolates *Phoma* spp. (4.6 mm), Sterile Fungus-1(4.3 mm) and Sterile Fungus-2 (6mm). The plate screening assay recommended by International Union of Pure and Applied Chemistry (IUPAC) were used in the investigation. Cellulolytic fungi were evaluated after 7 days for the production of cellulolytic enzymes by staining with 1% Iodine. The diameter of clear zone on fungal plates, gave an approximate indication of cellulase activities. In starch hydrolysis test, maximum clearing zone was produced by *Trichoderma harzianum* (68 mm), followed by SF1 (56 mm) and then by *T. viride* (52 mm).

KEY WORDS :

Cellulolytic activity, *Pestalotiopsis palmarum*, *Phoma* spp., *Aspergillus niger*, *Trichoderma harzianum*, *T. viride*

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