

## IDENTIFICATION AND MORPHOLOGICAL CHARACTERIZATION OF PATHOGENS INFECTING *MELIA DUBIA* IN TAMIL NADU

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### ABSTRACT

*Melia dubia* in Tamil Nadu were surveyed for the association of foliar and root fungal pathogens were recovered from infected plants. Cultural and microscopic characterization of *Fusarium moniliformis*, *Phoma* sp., *Rhizoctonia solani* *Lasiodiplodia theobromae* and *Pythium* sp, were obtained. *Fusarium moniliformis* produced basal cells of macro conidia with prominent and the length ranged from 19.631  $\mu\text{m}$  to 20.624  $\mu\text{m}$ , foot shaped and elongated micro conidia length ranged from 6.648  $\mu\text{m}$  to 7.250  $\mu\text{m}$ . *Phoma* sp produced grey in colour mycelium, septate branched, pycnidia is colour black and it produced the spores in concentric circle. The length of the pycnidia was 68.906  $\mu\text{m}$  and breadth was 103.61  $\mu\text{m}$ . *Rhizoctonia solani* showed complete full growth in Petri dish, initially the mycelium aggregated and form ball like structure later it changed brown colour sclerotia. *Pythium* sp Showed hyaline, non-septate with granular cytoplasm and oospores like bodies much in number and sporangia pores length was 7.18  $\mu\text{m}$ . *Lasiodiplodia theobromae* showed a fast growth and attained full growth within five days after inoculation in 9cm diameter Petri plate. Aggregation of grey coloured mycelium and production of pycnidia in the centre of the colony were observed eight days after inoculation. Among the media tested, the potato dextrose agar medium supported the growth of all fungal pathogens in terms of mycelial extension, mycelial density and sporangia production compared to oat meal agar and malt extract agar medium.

**KEYWORDS:** Foliar Pathogens, *Melia Dubia*, Morphological Characterization, Root Pathogens