

RESEARCH NOTE

Studies on variability in the growth of twenty isolates of *Fusarium oxysporum* f.sp. *ciceri* causing vascular wilt of chickpea in different liquid media

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ABSTRACT

Field survey was undertaken and Seventy one samples of chickpea wilted plants were collected from twenty three locations in different districts namely Bhopal, Raisen, Rajgarh, Sagar, Sehore and Vidisha of Vindhyan Plateau Zone of Madhya Pradesh. Out of Seventy one isolates, only twenty were found pathogenic to chickpea. These isolates were categorized into six different groups on the basis of mycelia dry weight, growth pattern and the number of micro and macro conidia. The physiological studies of the representative isolates of these six groups were made on six liquid media. All the media differed significantly from each other. The minimum mean mycelia dry weight (66.19 mg) was recorded in groups five of isolates Ri4, Ri5 and V2 and maximum (73.16 mg) in group one consisting of B2, B3, Se6 and Se8. The maximum mean mycelia dry weight (79.00 mg) was obtained on Potato dextrose broth (PDB) and minimum (60.70 mg) on Richard solution. These isolates were exhibited three types of growth pattern namely fluffy, partially submerged and submerged. The maximum numbers of micro conidia were produced on PDB (6.64 million/ml) and minimum (3.42million/ml) on Elliot's Solution. Similarly, the maximum numbers of macro conidia were produced on PDB (2.48 million/ml) and minimum (0.73 million/ml) on Houston's solution. Chickpea (*Cicer arietinum* L) is an important pulse crop of India and suffers with various diseases caused by fungi, bacteria and virus of which vascular wilt caused by *Fusarium oxysporum* f.sp. *ciceri* is much dangerous than other diseases Singh *et al.* (1973). The incidence of the disease varies from 10-100 per cent depending on the locality.

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