

RESEARCH PAPER

Antifungal activity of some selected medicinal plants against *Fusarium solani* causing wilt and rot in Pearl millet

Ganesh Prasad, Vinay Kumar and S.K. Dwivedi

Department of Environmental Science, Babasaheb Bhimrao Ambedkar (A Central) University, Vidya Vihar, Raebareli Road, Lucknow (U.P.) India

Email : *skdwivedibbau@gmail.com, ganeshat86@gmail.com, vinaysahubbau@gmail.com

Article Info : Received : 24.01.2018; Revised : 07.03.2018; Accepted : 22.03.2018

Fusarium solani is a soil-borne fungus which causes wilt and rot disease in pearl millet. Pearl millet belongs to family Poaceae, contains carbohydrates, vitamins, protein and high amount in minerals *i.e.* iron, zinc, calcium and other minerals. It maintains human health. To control the soil-borne diseases in Pearl millet with the use of chemicals under in field condition is hazardous, loss of soil fertility and causes serious environmental pollution, thus use of plant extract as an ecofriendly means is needed. *Fusarium solani* treated with *Allium sativum*, *Zingiber officinale*, *Momordica charantina*, *Mentha arvensis*, *Allium cepa* and *Capsicum annum* using poisoned food technique at 10%, 25%, 50% and 75% concentration on 3rd, 5th, 7th day incubation period under *in vitro* condition. The selected plant extracts were significantly ($P \leq 0.05$) effective against *F. solani* but *Allium sativum* was most effective compared to others. *Allium sativum* inhibited 100% mycelial growth of *F. solani* at 10% concentration on 3rd day of incubation period. *Zingiber officinale* and *Capsicum annum* inhibited 71.2% and 75.7% mycelial growth of *F. solani* under *in vitro* condition respectively.

Key words : Pearl millet, *Fusarium solani*, Soil-borne, Wilt and rot, Plants extract

How to cite this paper : Prasad, Ganesh, Kumar, Vinay and Dwivedi, S.K. (2018). Antifungal activity of some selected medicinal plants against *Fusarium solani* causing wilt and rot in Pearl millet. *Asian J. Bio. Sci.*, 13 (1) : 21-27. DOI : 10.15740/HAS/AJBS/13.1/21-27.