

## RESEARCH PAPER

# *In vitro* and *vivo* evaluation of some fungicides and organic amendments to control of *Fusarium solani* causing Indian Aloe (*Aloe barbadensis*) root

■ MUKESH KUMAR JAT AND R.R. AHIR

### SUMMARY

Investigation on root rot (*Fusarium solani*) of Indian aloe (*Aloe barbadensis* Mill.) under jobner conditions was carried out in Department of Plant Pathology Lab., S.K.N. College of Agriculture Jobner to find out suitable management strategies. Trials on the use of some fungicides and organic amendments to control the pathogen. Among five fungicides viz., Benomyl, Thiophanate methyl, Captan, Carbendazim and Thiram and in case organic amendments neem cake, Vermicompost, Goat and Sheep manure, Mustard Cake and Wool Waste tested in different concentrations against *Fusarium solani* by following Poisoned Food Technique. Benomyl was found best with complete inhibition of the mycelial growth at 200 and 300 ppm concentrations, followed by Thiophanate methyl and *Neem* cake (79.0%) was found most effective in reducing mycelial growth of the fungus followed by Vermicompost (74.8%) effective against *Fusarium solani*. The effect of combinations of different fungicides and organic amendments against *Fusarium solani* were tested *in vivo* (pot house) condition Benomyl + *Neem* cake combination (0.3% + 1.25 g/kg soil) was found best with minimum per cent disease incidence (12.00%) followed by Thiophanate methyl + *Neem* cake (16.00%), Benomyl + Vermicompost (20.00%) which were observed to be less effective as compared to other fungicides and organic amendments.

**Key Words :** Indian Aloe, *Fusarium solani*, Fungicides, Organic amendment, *Neem* cake, Vermicompost

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