

**EFFECT OF CULTURE FILTRATES OF PHYLLOPLANE FUNGI ON  
CONIDIAL GERMINATION OF *ALTERNARIA ALTERNATA*  
AND *COLLETOTRICHUM CAPSICI***

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**Abstract:** *In vitro* antagonistic activity of culture filtrates of phylloplane fungi was tested against pathogens causing diseases of *Impatiens balsamina*. The conidia germination of *Alternaria alternata* was greatly inhibited by culture filtrate of *Trichoderma viride* followed by *Aspergillus flavus*, *A. niger*, *Chaetomium globosum* and *Curvularia lunata*. Germ tube growth was inhibited by all test fungi, maximum by *Trichoderma viride* followed by *Aspergillus niger*, *A. flavus* and *Chaetomium globosum*. Maximum inhibition of conidia germination of *Colletotrichum capsici* was caused by *Trichoderma viride* followed by *Aspergillus niger*, *Fusarium oxysporum*, *Aspergillus flavus* and *Chaetomium globosum*. Maximum inhibition of germ tube growth was also caused by *Trichoderma viride* followed by *Aspergillus niger*, *Fusarium oxysporum* and *Aspergillus flavus*.

**Keywords:** Fungi, Germination, *Alternaria alternata*, *Colletotrichum capsici*

**REFERENCES**

- Bastos, C. N., Evans, H. C. and Samson, R. A.** (1981). A new hyperparasitic fungus *Cladobotrym amazonense* with potential for control of fungal pathogens of cocoa. *Trans. Br. mycol. Soc.* **77** : 273-278.
- Bhatt, D. D. and Vaughan, E. K.** (1963). Inter-relationships among fungi associated with strawberries in Oregon. *Phytopathology* **53** : 217-220.
- Gupta, Y. K. and Gupta, M. N.** (1978). Effect of phyllosphere fungi on the spore germination of *Alternaria alternata* Fr. causing leaf blight on sunflower. *Cur. Sci.* **47** : 386.
- Gupta, Y. K., Gupta, M. N. and Singh, P. L.** (1981). Studies on leaf surface antagonists in controlling the blight of sunflower caused by *Alternaria alternata*. Abstr. 3 *Intl. Symp. Pl. Pathol.*, New Delhi, pp.115.
- Kumar, R. N. and Mishra, R. R.** (1994). Interaction studies *in vitro* between brown spot pathogen of paddy and certain epiphytic phylloplane fungi. *Plant Cell Incompatibility Newsletter* **26** : 40-47.
- Mathur, M. and Mukerji, K. G.** (1981). Antagonistic behaviour of *Cladosporium spongiosum* against *Phyllactinia dalbergiae* on *Dalbergia sissoo*. *Angew. Botanik* **55** : 75-77.
- Mishra, R. R. and Tewari, R. P.** (1976). Studies on biological control of *Puccinia graminis tritici*. In : *Microbiology of Aerial Plant Surfaces*. (Eds. C.H. Dickinson and T. F. Preece). pp 559-567, London: Academic Press.
- Norse, D.** (1972). Fungal populations of tobacco leaves and their effect on the growth of *Alternaria longipes*. *Trans. Br. Mycol. Soc.* **59** :261-271.
- Rai, B. and Singh, D.B.** (1980). Antagonistic activity of some leaf surface microfungi against *Alternaria brassicae* and *Drechslera graminea*. *Trans. Br. Mycol. Soc.* **75** : 363-369.
- Singh, R. S.** (1981). Use of *Epicoccum purpurascens* as an antagonist against *Macrophomina phaseolina* and *Colletotrichum capsici*. *Indian Phytopathol.* **38** : 258-262.