

IN VITRO EVALUATION OF LEAF EXTRACT OF SOME PLANTS AGAINST PATHOGENIC FUNGI OF *IMPATIENS BALSAMINA* L.

Gunjan Joshi, D.K. Jain and P.N. Singh

Department of Botany, Meerut College, Meerut (U.P.)

Abstract: Leaf extracts of eight plants (*Azadirachta indica*, *Aegle marmelos*, *Bougainvillea spectabilis*, *Catharanthus roseus*, *Datura stramonium*, *Lantana camara*, *Ocimum sanctum* and *Parthenium hysterophorus*) were evaluated for their fungitoxic activity against *Alternaria alternata* and *Colletotrichum capsici* isolated from the leaves of *Impatiens balsamina* L. by using surface sterilization method. Poisoned food technique was used to study the *in vitro* effect of leaf extracts (10% conc.). Maximum inhibition of radial mycelial growth of *Alternaria alternata* and *Colletotrichum capsici* were observed by the leaf extract of *Aegle marmelos* (60.59% and 54.59% respectively). Leaf extracts of *Azadirachta indica*, *Lantana camara* and *Parthenium hysterophorus* also showed considerable amount of inhibition.

Keywords:

REFERENCES

- Bajwa, R., Shafique, S., Anjum, T. and Shafique, S.** (2004). Antifungal activity of allelopathic plant extracts. IV. growth response of *Drechslera hawaiiensis*, *Alternaria alternata* and *Fusarium moniliforme* to aqueous extract of *Parthenium hysterophorus*. *Int. J. Agri. Biol.* **6**: 511-516.
- Balakumar, S., Rajan, S., Thirunalasundari, T. and Jeeva, S.** (2011). Antifungal activity of *Aegle marmelos* (L.) Correa (Rutaceae) leaf extract on dermatophytes. *Asian Pac. J. Trop. Biomed.* **1**: 309-312.
- Gottlieb, O.R., Borin, M.R. and Brito, N.R.** (2002). Integration of ethnobotany and phytochemistry: dream or reality? *Phytochemistry* **60**: 145-152.
- Harborne, J.B.** (1998). *Phytochemical methods: A Guide to Modern Techniques of Plant Analysis*. 3rd ed., Chapman & Hall Pub., London, UK.
- Kurucheva, V., Gerard, E.J. and Jayaraj, J.** (1997). Screening of higher plants for fungitoxicity against *Rhizoctonia solani* *in vitro*. *Indian Phytopathology* **50**: 235-241.
- Nene, Y.L. and Thapliyal, P. N.** (1982). *Fungicide in Plant Disease Control*, III Edition: Oxford and IBH publishing Co. Pvt. Ltd., New Delhi.
- Saksena, N. and Tripathi, H.H.S.** (1985). Plant volatiles in relation to fungistati. *Fitotherapis*, **56**: 243-244.
- Saraf, A., Quereshi, S., Sharma, K. and Khan, N.A.** (2011). Antimicrobial activity of *Lantana camara* L. *J. Exp. Sci.* **2**: 50-54
- Senthilnathan, V. and Narasimhan, V.** (1994). Effect of plant extracts on mycelial growth and spore germination of *Alternaria tenuissima* inciting the blight of onion and the nature of the antifungal components, In: (Eds. Sivaprakasam, K. and Seetharaman, K.) *Crop Diseases Innovative Techniques and Management* pp.307-313, Kalyani Publisher, New Delhi.
- Shivapuri, A., Sharma, O.P. and Jhamaria, S.L.** (1997). Fungitoxic properties of plant extracts against pathogenic fungi. *J. Mycol. Pl. Path.* **27**: 29-31.
- Singh, J. and Majumdar, V.L.** (2001). Efficacy of plant extracts against *Alternaria alternata*, the incitant of fruit rot of pomegranate (*Punica granatum* L.). *Indian J. Mycol. and Pl. Path.* **31**: 346-349.
- Varma, J. and Dubey, N.K.** (1999). Prospectives of botanical and microbial products as pesticides of tomorrow. *Curr. Sci.* **76**: 172-179.
- Vincent, J. M.** (1947). Distortion of fungal hyphae in presence of certain inhibitors. *Nature* **159**: 850.