

# MYCORRHIZAL STUDIES ON SOME ORCHIDS OF DEHRADUN

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**Abstract:** Present paper deals with the mycorrhizal studies on four orchids of Dehradun region namely *Aerides multiflorum*, *Oberonia falconeri*, *Rhynchostylis retusa* and *Vanda testacea*, all of which are epiphytic and widely known for their medicinal importance. Mycorrhizal study reveals the presence of pelotons which are widely distributed.

**Keywords:** Mycorrhizal, Medicinal, Pelotons, Dehradun

## REFERENCES

- Arditti, J.; Clements, M. A.; Fast, G.; Hadley, G.; Nishimura, G. and Earnest, R.** (1982). Orchid seed germination and seedling culture- a manual. In: *Orchid Biology: reviews and perspectives, II*, (Ed. J. Arditti). Cornell University Press Ithaca, New York. pp. 243-270
- Batty, A.L.; Dixon, K.W.; Brundrett, M. and Sivasithamparam, K.** (2002). Orchid conservation and mycorrhizal association. In: *Microorganisms in Plant Conservation and Biodiversity*. (Eds. K. Sivasithamparam, K.W. Dixon and R.L. Barret). Kluwer Academic Publishers. pp. 205-235.
- Caius, J.F.** (1936). The medicinal and poisonous orchids of India. *J. Bombay Nat. Hist. Soc.*, **38**: 791-799.
- Chopra, I.C., Handa, K.L. and Sobti, S.N.** (1956). Need for the cultivation of vegetable drugs in unani medicines. *Indian Journal Pharmacy*, **18**: 364-376.
- Cribb, P.J.; Kell, S.P.; Dixon, K.W. and Barrett, R.L.** (2003). Orchid Conservation: a global perspective. In: *Orchid Conservation*. (Eds. K.W. Dixon, S.P. Kell, R.L. Barrett and P.J. Cribb). Natural History Publications (Borneo), Kota Kinabalu, Sabah. pp. 1-24.
- Hadley, G. and Williamson, B.** (1972). Features of mycorrhizal infection in some Malaysian orchids. *New Phytol*, **71**: 1111-1118.
- Hawkes, A.D.** (1944). Orchid Tea. *Orchid Digest*, **8**: 146-147.
- John Britto, Senthilkumar, S. and Balaguru, B.** (2003). Medicinal orchids in the Eastern Ghats (Tamil Nadu, India). *Orchid News*, December 2003, pp 13-16.
- Kaushik, P.** (1983). Ecological and anatomical marvels of the Himalayan orchids. Today and Tomorrow's Printers and Publishers, New Delhi. pp: 1-123 + plates 71.
- Pandey, Prakash, H.B., Verma, B.K. and Narain, S.** (1999). Ethno-veterinary plants of Gonda region, U.P. *J. Econ. Taxon. Bot.*, **23**: 199-204.
- Rasmussen, H.N.** (2002). Recent developments in the study of orchid mycorrhiza. *Plant and soil*, **244**: 149-163.
- Rasmussen, H.N.** (1995). Terrestrial orchids from seeds to mycotrophic plant. Cambridge University press, Cambridge.
- Smith, S.E and Read, D.J.** (1997). Mycorrhizal Symbiosis 2<sup>nd</sup> ed. Academic Press London.
- Vij, S.P. and Sharma, M.** (1983). Mycorrhizal associations in North Indian Orchidaceae- A morphological study. *Bibliotheca Mycologica*, **91**: 467-503.
- Withner, C.L.** (1974). Developments in orchid physiology. In: *The Orchids. Scientific*

*Studies*. (Ed. C.L. Withner). John Wiley and Sons, New York, USA. pp. 129-168.

**Zelmer, C.D.; Cuthbertson, L. and Currah, R.S.**  
(1996). Fungi associated with terrestrial

orchid mycorrhiza seeds and protocorms.  
*Mycoscience*, **37**: 439-448.