

## Ecology of arbuscular mycorrhizal fungi associated with some medicinal plants in Western Ghats of Karnataka region, India

Seema H. S

University of Mysore, India

The arbuscular mycorrhizal (AMF) status of 46 medicinal plant species of herbs and shrubs in the Western Ghats of Karnataka region were surveyed. Sampling was done during the month of September and November 2010-2011. Percent colonization, spore density and diversity of AM fungi associated with the Rhizospheric soil and roots of medicinal plants growing wild as well as under cultivated conditions in this area were investigated. It was found that 48- 100% of the surveyed species were mycorrhizal. The spore density of AMF ranged from 15- 520 spores per 100 g of soil. Percent root colonization, Spore density and Soil Chemical parameter was comparatively higher in the Kodagu region than in Chickmagalur, Hassan, Udupi, and Dashina Kannada sampling sites. Kodagu region showed high spore density of 520 and high species richness may be due to physico-chemicals parameters like soil pH (7.64), phosphorus (66.19 kg/ha) and potassium 538 (kg/ha). A total of 40 AMF morphotypes were recovered. Among identified AMF taxa *Glomus* sps. were found to be very dominant in the rhizosphere of medicinal plants followed by *Acaulospora* sps., *Gigaspora* sps., *Scutellospora* sps., *Paraglomus* sps and *Pacispora* sps. Variation in the spore density and percent colonization among different sampling sites could be attributed to host species and climatic conditions.

### Biography

Seema. H S completed her master in Botany in University of Mysore, Mysore. Now she is doing her Research topic on Mycorrhizae in the department of studies in botany under the guidance of Dr. Rajkumar H. Garampalli. She has published two papers in World Journal of Science and Technology.

[seema.2429@gmail.com](mailto:seema.2429@gmail.com)