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RESEARCH ARTICLE

# Impact of various edaphic factors on AMF spore population and diversity in *Catharanthus roseus* at Gwalior

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## SUMMARY

Several edaphic factors like soil type, pH, Electrical conductivity, organic carbon, nitrogen, phosphorus and potassium brings impact on arbuscular mycorrhiza fungi (AMF). Maximum number of AMF species and population were isolated from the soils of natural site with moderate pH, electrical conductivity, high soil organic carbon, nitrogen and potassium, least available phosphorus content as compared to artificial site. Study of the effect of edaphic factors on AMF spore density and diversity by correlation analysis revealed a negative correlation of AMF spore density with pH and phosphorus and significant positive correlation with EC, Organic carbon, nitrogen and potassium. The present study would help to determine to what extent and which soil environment variables affects the density and abundance of AMF associations in *Catharanthus roseus* in the semi-arid environment encountered on the north east of Madhya Pradesh.

**Key Words :** AMF, *Catharanthus roseus*, Edaphic factors, Correlation

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