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## Influence of AM fungi and *Trichoderma viride* on growth and active principles in micropropagated *Bacopa monnieri* (L.) Pennell, a medicinal plant

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*Bacopa monnieri* (L.) Pennell is commonly known as “Brahmi” belongs to the family Scrophulariaceae. It is one of the most important medicinal plants, which has fascinated the fields of traditional and modern system of medicine as memory enhancer and nervine tonic. To understand the influence of AM fungi alone and with a phosphate solubilizing organism on micropropagated plant in comparison with normal plants, an attempt has been made in the present study. Micropropagated plants were raised on MS medium supplemented with Kin and BAP from leaf explants. Both normal and micropropagated plants were inoculated with *Glomus mosseae* and *G. fasciculatum* alone and in combination with *Trichoderma viride* in pots. Percent colonization and spore count were recorded in both normal and micropropagated treated and control plants. Micropropagated plants showed early and better colonization with AMF association compared to normal plants. Plant growth and biomass were recorded for treated and control of normal and micropropagated plants. AMF enhanced the growth of micropropagated plants considerably with *G. mosseae* in combination with *T. viride* compared to control plants. Micropropagated inoculated plants showed increased level of chlorophylls, total proteins and total phenolics but reducing sugars and total carbohydrates content showed decreased level compared to control plants. The increased level in the Bacoside A-content was recorded in plants treated with *G. mosseae* along with *T. viride*. The micropropagated *B. monnieri* plants responded excellently to the AMF inoculation with *T. viride* and showed better establishment in the pots by availing good growth and improved physiological condition.

### Biography

R Sowmya is currently an Assistant Professor, Department of Botany of Yuvaraja's College, University of Mysore, India. She has obtained her MSc from the Bangalore University in the year 1994 and MPhil in 1996. She has completed her PhD with the thesis entitled “Utilization of VAM fungi for improving the establishment of micropropagated plants” in 2002 under the guidance of Prof. D. H. Tejavathi. She continued her research as a Research Associate in the CSIR Project “Commercial exploitation of regenerates of Agave”. She has published research papers in national and international journals and presented her research work in national and international conferences.

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