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**RESEARCH PAPER**

# **Effect of Arbuscular Mycorrhizal (AM) fungi on growth enhancement of black pepper (*Piper nigrum* L.) at nursery stage**

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**Abstract :** An experiment was conducted to study the effect of different Arbuscular Mycorrhizal (AM) fungi on rooting and growth of black pepper and also to assess the symbiotic efficacy and the rhizosphere population of beneficial microflora in nursery stage at College of Horticulture, Sirsi for three years (2013-14 to 2015-16). The results of the investigation had clearly showed significant improvement in growth of black pepper when black pepper cuttings were inoculated with *Glomus fasciculatum* similar to that of cuttings treated with IBA (1000ppm) as compared to rest of the AM fungi and un-inoculated control. A matching trend was recorded with respect to per cent root colonization and spore counts, population of beneficial rhizosphere microflora viz., free living nitrogen fixers and phosphate solubilizers. The inoculation of AM fungi also enhanced the shoot phosphorus concentration in black pepper.

**Key Words :** AM fungi, *Glomus fasciculatum*, P concentration, Rhizosphere microflora

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