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## Isolation of indigenous arbuscular mycorrhizal fungi and selection of host plant for inoculum production

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**Key words:** Indigenous AMF, *Glomus mossea*, *Glomus geosporum*, *Glomus etunicatum*, host plant.

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### Abstract

The objective of this study was to select a suitable host plant for mass production of indigenous arbuscular mycorrhizal (AM) fungi. Lemongrass and onion were compared for mass multiplication of *Glomus* species viz; *Gl. mossea*, *Gl. geosporum* and *Gl. etunicatum*. Spore count ranges from 17.67 (*Gl. etunicatum*) to 26.33 (*Gl. mossea*) g<sup>-1</sup> soil under onion and lemongrass respectively. There was no significant difference (0.05) between *Gl. Mossea* and *Gl. Geosporum* in onion. Similarly, no significant difference was observed between *Gl. Geosporum* and *Gl. etunicatum* in lemongrass. *Gl. mossea* recorded the highest spore number followed by *Gl. geosporum* in both plant species. Root colonization % ranges from 67.33% (*Gl. mossea*) in onion to 80% (*Gl. geosporum*) in lemongrass. Colonization % of *Gl. mossea* and *Gl. geosporum* were statistically similar under individual plant species. Despite the lowest spore counts recorded by *Gl. etunicatum*, % root colonization was significantly (0.05) higher compared to *Gl. mossea* and *Gl. geosporum* in onion. Lemongrass recorded the highest average mean (77.33%) of root colonization % and spore counts (23.44) compared to onion (68.44%, 19.67). The study showed that AMF-plant interaction was host preference. Lemongrass favored the mass multiplication of *Gl. mossea*, *Gl. geosporum* and *Gl. etunicatum* thus, was the most suitable host plant compared to onion for inoculum production.

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