



RESEARCH ARTICLE :

Effect of inoculation with VAM fungi at different P levels on flower yield, petal meal yield, mycorrhizal spore count in the root- zone soil and percentage root colonization (PRC) of *Tagetes erecta* L.

■ G. SWATHI AND B. HEMLA NAIK

ARTICLE CHRONICLE :

Received :

11.07.2017;

Accepted :

26.07.2017

KEY WORDS:

Marigold, VAM, Phosphorus, *Glomus fasciculatum*, *G. mosseae*, *G. Intraradices*, Yield, Petal meal, Mycorrhiza, Spore count

SUMMARY : In this experiment the VAM fungi viz., *Glomus fasciculatum* (Thaxter) Gerd. and Trappe, *Glomus mosseae* (Nicol. and Gerd.) Gerd. and Trappe, *Glomus intraradices* Schenck and Smith. with an un-inoculated control was maintained and three P levels viz., 60, 90, 120 kg ha⁻¹ were tried. The results brought out that the plants inoculated with *G. fasciculatum* and given P at 90 kg/ ha recorded significantly highest number of flowers per plant (117.80) and least was observed in uninoculated control plants with given P at 60kg/ ha (80.53). Similarly, the plants inoculated with *G. fasciculatum* and given P at 90 kg/ ha recorded significantly maximum flower yield (626.73 g/ plant, 17.83 t/ ha) and it was statistically on par with *G. mosseae* (618.73 g/ plant, 17.73 t/ ha) at the same level of P and least was observed in uninoculated control plants with given P at 60kg/ ha (446.73 g/ plant, 11.61 t/ ha). Petal meal yield per kilogram of fresh flower (87.83 g), petal meal yield per hectare (15.66 q), were significantly higher with the inoculation of *G. fasciculatum* and given P at 90 kg/ ha followed by *G. mosseae* (83.83g and 14.85 q, respectively) at the same level of P than the other species of *Glomus* fungi and uninoculated control. The plants inoculated with *G. fasciculatum* and given P at 90 kg/ ha recorded significantly highest spore count (279.67 and 407.67, respectively) and highest PRC (85.33 and 93.67, respectively) which was found to be superior as compared to other species of *Glomus* fungi.

How to cite this article : Swathi, G. and Naik, B. Hemla (2017).Effect of inoculation with VAM fungi at different P levels on flower yield, petal meal yield, mycorrhizal spore count in the root- zone soil and percentage root colonization (PRC) of *Tagetes erecta* L. *Agric. Update*, 12 (TECHSEAR-4): 903-911; DOI: 10.15740/HAS/AU/12.TECHSEAR (4)2017/903-911.

Author for correspondence :

G. SWATHI

Department of Floriculture and Landscape Architecture, College of Horticulture, Mudigere, CHIKMAGALUR (KARNATAKA) INDIA
Email: kiraswathi@gmail.com

See end of the article for authors' affiliations