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Effect of integrated system of plant nutrition management on growth, yield and flower quality of African marigold (*Tagetes erecta* L.) cv. PUSA NARANGI

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ABSTRACT : A field experiment was conducted on the ffect of integrated nutrient management on African marigold (*Tagetes erecta* L.) cv. PUSA NARANGI was conducted at Lal baug farm, Department of Horticulture, Junagadh Agricultural University, Junagadh during winter season of two consecutive years *i.e.* 2011 and 2012. In which 70% RDF + 2 t ha^{-1} vermicompost + *Azotobacter* + *Azospirillium* + PSB significantly improved growth parameters *viz*., plant height at full bloom stage (115.45 cm), number of primary branches per plant at full bloom stage (28.06). 60% RDF + 3 t ha^{-1} vermicompost + *Azotobacter* + *Azospirillium* + PSB significantly improved flowering parameters *viz*., the shortest number of days taken to first flower open (53.72 days) and number of picking (9.12) and the shortest number of days taken for 50% flowering (59.50 days). The maximum diameter of flower (7.30 cm) recorded with treatment 70% RDF + 2 t ha^{-1} vermicompost + *Azotobacter* + *Azospirillium* + PSB. The longest duration of flowering (61.14 days), was recorded in 70% RDF + 2 t ha^{-1} vermicompost + *Azospirillium* + PSB. The treatment 70% RDF + 2 t ha^{-1} vermicompost + *Azotobacter* + *Azospirillium* + PSB significantly gave higher yield parameters *viz*., flower yield per plant (376.57) and flower yield per hectare (185.65 qha^{-1}). Quality parameters *viz*., shelf life of flower was significantly highest (4.95 days) in treatment 200kg N/ha + 100kg P_2O_5/ha + 100kg K_2O/ha + 15 t ha^{-1} FYM (RDF).

KEY WORDS : Marigold, Bio fertilizer, Growth, Quality, Yield

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