



Article history :

Received : 21.06.2016

Revised : 14.11.2016

Accepted : 24.11.2016

Effect of GA₃ and *Azotobacter* on growth and flowering in African marigold (*Tagetes erecta* L.) cv. PUSA NARANGI GAINDA

■ NARESH KUMAR¹, JITENDRA KUMAR¹, J.P. SINGH, HIMANSHU KAUSHIK¹ AND R.K. SINGH²

Members of the Research Forum

Associated Authors:

¹Department of Horticulture, C.C.S. University, MEERUT (U.P.) INDIA

²Department of Horticulture, C.C.R. (P.G.) College, MUZAFFARNAGAR (U.P.) INDIA

ABSTRACT : The field experiment was conducted at Horticulture Research Farm of Choudhary Charan Singh University campus, Meerut U.P. during 2011-12. The nine treatments A₁ (*Azotobacter* by root treatment 0.20g/15 plants), A₂ (*Azotobacter* by soil treatment 0.40g/plot), G₁ (Gibberellic acid 100 ppm spray at 30 DAT), G₂ (Gibberellic acid 150 ppm spray at 30 DAT), A₁G₁ (*Azotobacter* by root treatment 0.20g/15 plants and gibberellic acid 100 ppm spray at 30 DAT), A₁G₂ (*Azotobacter* by root treatment 0.20g/15 plants and gibberellic acid 150 ppm spray at 30 DAT), A₂G₁ (*Azotobacter* by soil treatment 0.40g/plot and gibberellic acid 100 ppm spray at 30 DAT), A₂G₂ (*Azotobacter* by soil treatment 0.40g/plot and gibberellic acid 150 ppm spray at 30 DAT) and A₀G₀ (No *Azotobacter* and no gibberellic acid) were evaluated in Randomized Block Design with three replications. The experimental finding revealed that the treatment A₂G₂ (Soil treatment with *Azotobacter* + spray of GA₃ @ 150 ppm) gave the maximum plant height, maximum number of primary branches per plant, maximum number of secondary branches per plant, maximum plant spread, minimum number of days taken for flower bud appearance, maximum number of flowers per plant, maximum flower diameter, maximum fresh weight of flowers per plant and maximum yield of flower in comparison to individual application of GA₃ and *Azotobacter*.

KEY WORDS : Bio fertilizer, Plant growth regulator, Growth, Flowering, Yield, Marigold

Author for correspondence :

J.P. SINGH

Department of Horticulture, Gochar Mahavidhyalaya, Rampur Maniharan, SAHARANPUR (U.P.) INDIA

HOW TO CITE THIS ARTICLE : Kumar, Naresh, Kumar, Jitendra, Singh, J.P., Kaushik, Himanshu and Singh, R.K. (2016). Effect of GA₃ and *Azotobacter* on growth and flowering in African marigold (*Tagetes erecta* L.) cv. PUSA NARANGI GAINDA. *Asian J. Hort.*, 11(2) : 382-386, DOI : 10.15740/HAS/TAJH/11.2/382-386.