

## **Effect of chemical fertilizers and bio-fertilizers on vegetative growth and flower production of Dahlia (*Dahlia variabilis* L.) cv. Kenya Orange**

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Received October 14, 2017 and Accepted January 18, 2018

**ABSTRACT :** The present investigation was undertaken in the Department of Horticulture, Naini Agricultural Institute, Sam Higginbottom University of Agriculture, Technology and Sciences, Allahabad during rabi season (2016-2017). The experiment was laid out in Randomized Block Design (RBD) with 13 treatments and each treatment replicated thrice. The treatments consisted of different combinations of chemical fertilizers (N and P) alongwith biofertilizers (*Azotobacter* and *Pseudomonas*) and control (No fertilizers and manures). The treatment T<sub>5</sub> (N<sub>75</sub>+P<sub>100</sub>+*Azotobacter* @2.6 kg/ha) was found statistically significant compared to other treatment combination, which recorded highest plant height (90.10cm), plant spread (59.68 cm), Number of leaves (34.92), Number of branches (5.85), Days to first flower bud initiation (49.73 days), flower diameter (25.80 cm), Vase life in normal tap water (6.93days), number of flowers/plant (9.19), flower yield per hectare (18.48 t/ha).

**Key Words :** Dahlia (*Dahlia variabilis* L.), nitrogen, phosphorus, *azotobacter* and *pseudomonas*.