

## **Effect of different levels of nitrogen, phosphorus, potassium and spacing on growth and flowering of *Gladiolus (Gladiolus hybridus L.)* cv. Candyman**

**Premanshu Agrawal, Devi Singh, Santosh Kumar Beck and U. Naik**

Received April 2, 2017 and Accepted July 5, 2017

**ABSTRACT :** An experiment was carried out to assess the effect of different levels of nitrogen, phosphorus, potassium and spacing on growth and flowering of *Gladiolus (Gladiolus hybridus L.)* cv. Candyman in Factorial Randomized Block Design (FRBD) with three replications and twelve treatments. The corms were planted at the Department of Horticulture, Sam Higginbottom Institute of Agriculture, Technology & Sciences, Allahabad (U.P.) during Rabi Season 2015. The treatments consisted of three various spacing i.e., 30x30cm<sup>2</sup>, 40x40cm<sup>2</sup> and 50x50cm<sup>2</sup> and four combination of fertilizers-120:150:150 Kg/ha, 140:170:170 kg/ha, 160:190:190 kg/ha and 180:210:210 kg/ha NPK. The treatment T<sub>12</sub> with 50X50cm<sup>2</sup>+ 180:210:210 kg/h NPK performed better in plant height (84.37cm), spike per plant(1.89), leaves per plant (10.32), width of leaf (4.01cm), spike length (103.67cm), florets per spike(15.44), diameter of florets (11.37cm) and vase life of spike (11.41 day) whereas the days to sprouting (10.47), sprout per corm (1.53), day of spike initiation(65.19), day for opening of first florets(80.36), first floret durability(6.36), was recorded highest in Treatment T<sub>5</sub> with 40X40cm<sup>2</sup>+ 120:150:150 kg/h .

**Key Words:** *Gladiolus (Gladiolus hybridus L.)*, growth, flowering, spacing, N, P, K.