



## Effect of nitrogen levels and gibberellic acid on quality and vase life of gerbera under polyhouse condition

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### ● ABSTRACT ●

In gerbera under polyhouse condition, the quality parameter like flower stalk length, flower stalk thickness, flower diameter, flowers of grade I were mostly influenced by the application of higher level of nitrogen *i.e.*  $N_3$  (30g/m<sup>2</sup>/month) and flowers of grade II was found superior in the treatment  $N_1$  (10g/m<sup>2</sup>/month). Application of  $G_2$  (100ppm at monthly interval) resulted in maximum flower stalk thickness and in respect of flower stalk length and flower diameter  $G_3$  (150ppm at monthly interval) was found superior.

**KEY WORDS** : Gerbera, Polyhouse, Nitrogen,  $GA_3$ , Vase life

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### ● INTRODUCTION ●

Gerbera (*Gerbera jamesonii* H.Bolus) is one of the nature's beautiful creation having excellent flowers of exquisite shape, size and attractive colour. It is grown for various purposes such as beds, borders, rock gardens, pot cultures and cut flowers. There is a great demand for gerbera throughout the year in big cities and also have export value. Therefore, gerbera growing under polyhouse could be helpful to meet city requirements adequately. Gerbera being a perennial plant, require plenty of organic matter and adequate nutrient *i.e.* nitrogen, phosphorus, and potassium for profuse growth and good flower quality. The number of marketable flowers of gerbera increased as both N and K rates increased up to 110kg/ha (Dufault

*et al.* 1990). Use of PGR are being increased to manipulated the growth, flowering and yield of ornamental plants (Saini and Arora, 1974).

Thus, keeping in view the potentialities of nutrition and gibberellic acid in gerbera flower production, the experiment was carried out with the objective, to study the effect of different levels of nitrogen and gibberellic acid on flower quality and vase life of gerbera under polyhouse condition.

### ● MATERIALS AND METHODS ●

A pot experiment was carried out at Floriculture unit, University Department of Horticulture, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola (M.S.) during June to November 2005. Experiment was laid out in semicontrol modified quonset type polyhouse. Green shade net (50%) was provided inside polyhouse. Sterilized cocopeat media was filled in the pot of equal sized. Three months hardened tissue culture plants of variety Sangria were planted in pot of 30cm x 30cm size. The experiment which was embedded in a FRBD with three replications and sixteen treatment combinations comprising of four levels of nitrogen (0, 10, 20, and 30g /m<sup>2</sup> /month) and gibberellic acid (0, 50, 100, 150ppm at monthly interval).

Nitrogen was applied as per the treatments however, phosphorus, and potassium were applied @ 12.5g and 15g /m<sup>2</sup> / month, respectively at 15 days interval. Straight fertilizers *viz.*, Urea, SSP, and MOP were applied. Proper

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