



Effect of spacing on flowering and vase-life of gladiolus

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ABSTRACT

An experiment was carried out during the year 2007-08 on gladiolus at Demonstration farm, Marathwada Agricultural University, Parbhani. Gladiolus (var.H.B. Pitt) having spacing 30x15 cm, 30x20 cm, 30x25 cm and 30x30 cm were taken. The result revealed that flowering parameters like length of spike (cm), length of floret (cm), weight of spike were significant higher in treatment S₄ (30x30 cm). The vase life was also seen significantly more in treatment S₄ (30x30 cm). Girth of floret (cm) and number of floret per spike were higher in treatment S₃ (30x25 cm) and S₂ (30x20cm), respectively. Days of emergence of first spike was less in the treatment S₁ (30x15 cm). The effect of spacing did not show significant effect on days of emergence of first floret.

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Horticulture is an intensive branch of horticulture deals with cultivation of various flowers, ornamental trees, shrubs, climbers, seed production and post harvest management. In India commercial cultivation of cut flowers such as rose, orchids, gladiolus, carnation, gerbera etc has also found becoming very popular. In our country gladiolus occupying an area of 500 ha in U.P., Himachal Pradesh, Maharashtra, Karnataka etc. gladiolus has attained considerable importance as cut flower in our country. Gladiolus is having commercial importance in world market due to magnificent inflorescence with slowly blooming florets, different varieties and good keeping quality. In Maharashtra cultivation is done in rainy and winter season for obtaining good quality cut flowers and corm yield. However, the quality of flower produced and vase life were less which needs to be increased by adopting improved horticultural techniques. Besides the climatic conditions, the plant spacing also plays important role in vase life and quality flower production. Hence, the present investigation was undertaken to study the effect of spacing on flowering and vase life of gladiolus.

MATERIALS AND METHODS

The experiment was conducted at Demonstration farm, Marathwada Agricultural University, Parbhani during the year 2007-08 on gladiolus. The experimental soil was medium black with uniform texture and well drained. The topography of the land was fairly leveled.

The experiment was laid out in Randomised Block Design with four different treatments and five replications in *Kharif* season. The treatments consisted of four plant spacing 30x15 cm, 30x20 cm, 30x25 cm and 30x30 cm. Flat bed was having gross plot size 3.75 x 2.05 m and corm was planted at 5 cm depth. The recommended doses of FYM and fertilizer (*i.e.* 8 kg FYM/m² and 40g N, 20gP₂O₅ and 20g K₂O/m²) were applied. Random sampling technique was adopted and five plants were selected from each treatment and mean was taken. Observations on days were recorded emergence of first spike, days required for emergence of first floret, length of spike (cm), number of florets per spike, girth of spike (cm), weight of spike (g), vase life of flower (days) were recorded.

RESULTS AND DISCUSSION

The results obtained from the present investigation are summarized below :

Flowering parameters.:

Days required for emergence of first spike:

It is clear from the Table 1 that treatment S₁ (30x15cm) required less number of days (60.06) for emergence of first spike followed by treatment S₃ (30x25 cm). The plant spacing was less (30x15 cm) hence competition for moisture, nutrients and sunlight was more. It might have minimized days for vegetative growth stage