

Performance of spacing on gladiolus (*Gladiolus grandiflorus* L.) cv. 'HAPPY END'

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ABSTRACT

A field experiment was conducted to evaluate the efficiency of different levels of spacing on gladiolus. Among the different treatments, the spacing of 30cm x 25cm recorded the maximum value of growth characters, flowering characters and corm yield characters. The same treatment was considered as superior treatment.

Key words: Spacing, Gladiolus, Happy End, Flowering,
Corm yield.

Gladiolus, the queen of bulbous flower is considered to be a high value flower crop. Its elegant flower spikes, which have rich variation of colour are the main reason for its ever-increasing demand. Gladiolus is a potential money spinner for the aesthetic world. It is cultivated right from the hilly region to all over the plains of the country to meet out the increasing demand. Though, the crop has a wide scope but still the contribution is meager in international market. This may be due to the lack of authentic information on proper plant spacing. Therefore, there is a strong need to boost the production of this important flower crop. The increased productivity of flower crop can appreciably be achieved through adoption of improved cultural practices. It has been established that spacing play an important part in over all improvement of growth, yield and flower quality in many flower crops.

An interruption in plant spacing even for a short period has a negative effect on yield. Therefore, spacing is important for obtaining higher yield of quality flowers in gladiolus. Hence, a study was undertaken to investigate the role of spacing and to find out optimum level of spacing for better growth, flowering and yield in gladiolus.

MATERIALS AND METHODS

The present investigation was carried out at Horticulture experimental field C.C.R (P.G.) College Muzaffarnagar during 2002-2003. The treatment comprised of three levels of spacing viz., S₁ - 20cm x 25cm,

S₂ - 25cm x 25cm and S₃ - 30cm x 25cm, replicated thrice in an F.R.B.D. The soil of the experimental field was loam in texture, deficient in phosphorus and organic matter with soil pH 7.7. Uniform sized corms were planted 5cm deep after treating corms with 0.2% Bavistin solution. Uniform package of cultural practices were followed through out the experimental period to grow a successful crop. Data on five randomly selected plants were taken on various parameters of growth, flowering and corm yield. Results thus obtained were subjected to statistical analysis and are shown in table 1.

RESULTS AND DISCUSSION

Spacing is an important factor for proper development of any plant. In this experiment it was found that minimum number of days for sprouting of corms was observed under wider spacing i.e. S₃ treatment (30cm x 25cm). The results of sprouting in minimum days under wider spacing was also found by Gowda (1987). It is clear from Table 1 that there was continuous increase in the height of plant at all successive stages of plant growth and maximum height (50.28cm) after 90 days was recorded for S₃ treatment. Number of florets (14.27), number of spikes (1.44), weight of corm (50.58gm) and number of cormels per plant were observed maximum for S₃ treatment. Similar results were recorded by Borreli (1984) and Muckhopadyay *et al* (1984). However, length of spike (65.76cm), number of corms per plant (2.49), diameter of corm (4.02cm) and weight of cormels per plant (36.70gm) were recorded for S₂ treatment (25cm x 25cm). Also days requirement for opening of first floret (110.64 days) and last floret (121.02 days) were found minimum for S₂ treatment