

## Performance of Indian varieties of gladiolus for flower and corm production under Dhule conditions of Maharashtra

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### ABSTRACT

Amongst the flower, Gladiolus is one of the important flowers. Used for used for cut flower, bouquet and adornments at different places. Identification of suitable variety for successful cultivation under a particular state or region is most essential. Considering these points, present investigation was planned in Randomized block design. In view of qualitative and quantitative characteristics, spike length (90 cm), number and diameter of floret (17.7 cm), colour (snow white) and placement of floret on spike (formal), as well as vase life (8.59 days). The variety Sancerre followed by Hunting Song, Bindiya was seems to be better for commercial cultivation gladiolus in arid and dry regions like Dhule districts of Maharashtra.

**Key words:** Gladiolus, Spike, Floret, Corm, Placement, Colour, Vase life.

Gladiolus (*Gladiolus spp.*) is a most important bulbous flower grown in India as a cut flower and for garden display purposes by virtue of blessing of nature, Maharashtra is gifted with a mild climate that favours to grow gladiolus all around the year. Its cultivation is rapidly spreading around Pune, Mahabaleshwar and Nasik cities. Number of varieties suitable for cultivation in India are reported (Anon, 1990) and specific standards for export quality gladiolus are summarized by Mishra and Singh (1998). Gladiolus has great potential in Maharashtra state, but due to lack of better cultivars is main constraints in cultivation and spread in Maharashtra. In view to assess the performance of gladiolus cultivars for cut flower and corm production the present studies were initiated.

### MATERIALS AND METHODS

The present investigation was carried out at Department of Horticulture, College of Agriculture, Dhule (M.S.) during *Kharif* season of 2001, to find out the efficacy of different varieties of gladiolus for obtaining the export quality flowers. The experimental soil was medium black having pH of 7.8. The cultural operations and plant protection measures were adopted as and when required. The experiment was laid out in Randomized block Design with three replications and seven different varieties in plot size of 3 x 2 meter. The disease free corms were selected with uniform size and weight. The corms were dipped for 30 minutes in fungicide solution before planting and planted in the field at spacing of 30 cm x 20 cm. manures and fertilizers were applied @ 10 kg F.Y.M. + 40 g N + 20g P +20 g K square meter<sup>-1</sup>. The

observations were recorded for different growth, flowering and corm production (table 1.) on five randomly selected plants. Data recorded for the said characteristics was analyzed statistically as per the procedure given by Panse and Sukhatme (1954)

### RESULTS AND DISCUSSION

Data presented in Table 1, recorded a great amount of variability in respect to morphological and flowering characteristics.

#### *Length of spike (cm):*

The cultivar Hunting Song recorded maximum height of plant (144 cm) followed by Sancerre (123.30 cm). It was also noted that Hunting Song also recorded significantly longer spikes (120 cm) followed Sancerre (90.7 cm) as compare to the rest of the varieties under testing. The length of spike is very important for qualitative characters in view of export and these two varieties recorded export quality spikes of 120 cm and 90.70 cm respectively. These finding are in confirmatory with those of Patil *et al*, (1994) under Pune condition and Patil (2003) under Mahabaleshwar conditions of Maharashtra.

#### *Number of florets/spike:*

Number of florets spike<sup>-1</sup> and diameter of florets are another important qualitative traits. The variety Sancerre recorded significantly highest number of florets spike<sup>-1</sup> (17.7) followed by Suryakiran (16.3) as compare to other varieties, while Hunting Song recorded 15.3 florets spike<sup>-1</sup>. Regarding diameter of floret, Hunting Song also recorded significantly bigger size florets having diameter of 15.8 cm as compare to the rest of the varieties. Where as smaller size florets were noted in variety Selection 1