

Impact of date of planting on growth, flowering and spike yield of *Gladiolus* cv. WHITE PROSPERITY

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Planting of gladiolus bulbs on 15th of October was found best in respect to profuse growth, early flowering, spike length, Number of florets per spike and spike yield per plant under agro-climate conditions of Jammu.

Gladiolus is an important commercial flower crop grown for cut flower trade. It is popular for its attractive spikes having dazzling colours and long vase life. In Jammu also, its demand is increasing day by day. Performance of gladiolus depends upon size of corms and planting time. Climatic factors like temperature, humidity, rainfall and photoperiod significantly affect its vegetative growth as well as flowering and corm production.

The present investigation was undertaken on grower's field under aegis of SKUAST – Jammu in the year 2006 in a randomized block design. The treatments comprised of three planting dates *viz.*, 15th September, 1st October and 15th October and replicated seven times. The corms of cv. White prosperity were planted at a distance of 30×20cm in plot size of 1.2m×1.2m. The soil was sandy loam and all the recommended agro-techniques were applied. Observations on growth and flowering parameters were observed and data analyzed as per method suggested by Panse and Sukhamte (1985).

The data presented in Table 1 revealed that for

sprouting of corms the minimum number of days (16.75) were observed in corms planted on 15th October and maximum number of days (24.86) in corms planted on 15th September. More or less similar results were recorded by Banker and Mukhopadhyay (1980). Maximum plant height (102.31) and maximum number of leaves (10.58) were also observed with 15th October planting while minimum plant height (93.36) and number of leaves (8.60) were found with 15th September planting. Leaf length (59.10) and leaf breadth (2.50) were also found maximum with 15th October planting as compared to other planting dates but difference was non-significant. Different planting dates significantly effected various flowering attributes (Table 2).

Minimum days to flowering (80.08) when planted on 15th October as compared to other planting dates. Maximum spike length (96.08), number of florets per spike (14.28), spike yield per plant (1.14) were recorded with 15th October planting as compared to other planting dates. The floret size (9.62) was also found maximum with 15th October planting though the difference was non-significant. The results are in conformity with findings of Bankar and Mukhopadhyay (1980).

Table 1: Effect of date of planting on growth of gladiolus cv. WHITE PROSPERITY

Sr. No.	Date of planting	Days to sprouting of corms	Plant height (cm)	Number of leaves	Leaf length (cm)	Leaf breadth (cm)
1.	15 th September	24.86	93.36	8.60	58.70	2.39
2.	1 st October	24.64	98.93	9.36	58.80	2.45
3.	15 th October	16.75	102.31	10.58	59.10	2.50
4.	C.D. (P=0.05)	0.94	1.08	0.20	NS	NS

NS-Non significant

Table 2 : Effect of date of planting on flowering and spike yield of gladiolus cv. WHITE PROSPERITY

Sr. No.	Date of planting	Days to flowering	Spike length (cm)	Number of florets/ spike	Floret length (cm)	Spike yield per plant
1.	15 th September	89.78	86.66	13.15	11.46	1.03
2.	1 st October	87.00	91.57	14.02	12.00	1.08
3.	15 th October	80.08	96.08	14.28	12.30	1.14
4.	C.D. (P=0.05)	0.80	0.79	0.26	NS	0.05

NS-Non significant