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Effect of Time of Planting on Growth and Yield of Red Chillies*

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Effect of time of planting on growth and yield attributes of three chilli cultivars was studied with six dates of planting. Growth parameters, yield components and yield were favourably influenced by August planting. October planting was not benificial. The results also indicated that the performance of different chilli cultivars markadly varied when planted at different periods of the year.

TABLE I Effects of different dates of planting on vegetative characters of three chilli cultivars.

Dates of planting (Main plot)	Plant height at 50% flowering (cm)	No. of branches at 50% flowering
Second week of July, 1977	23.88b @	11.37b
Second week of August, 1977	30.52a	13.63a
Second week of September, 1977	26.25b	11.97b
Second week of October, 1977	20.00c	9.45c
Second week of November, 1977	24.85b	11.77b
Second week of December, 1977	26.00b	10.77bc
Significance	**	**
C.D. at P = 0.05	3.23	1.48
C.D. at P = 0.01	4.46	2.05
B. Cultivars (Sub-plot)		
P. 46—A	25.98a	12.68a
Pusa Jwala	23.38b	9.83c
Pant C—1	26.39a	11.92b
Significance	**	**
C.D. at P = 0.05	1.86	0.72
C.D. at P = 0.01	2.48	0.95

Note : @ = Means followed by a common letter do not differ significantly at P = 0.05
** = Significant at P = 0.01

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TABLE II Effects of different dates of planting on total yield of three chilli cultivars.

Dates of planting Main plot	First yield (q/ha)
Second week of July, 1977	45.57 @
Second week of August, 1977	48.37a
Second week of September, 1977	40.92a
Second week of October, 1977	41.38a
Second week of November, 1977	22.20b
Second week of December, 1977	24.93b
Significance	**
C.D. at P = 0.05	9.33
C.D. at P = 0.01	12.92
B. Cultivars (Sub-plot)	
N.P. 46—A	41.95a
Pusa Jwala	37.08b
Pant C—1	32.67c
Significance	**
C.D. at P = 0.05	3.77
C.D. at P = 0.01	5.03

Note : @ = Means followed by a common letter do not differ significantly at P = 0.05
** = Significant at P = 0.01

Red chilli is commonly used as a spice in various culinary preparations, especially in South East Asian countries. Chilli cultivars were reported to vary considerably in growth and yield attributes (Pedde *et al.*, 1970 Suthanthirapandian *et al.*, 1973) When raised in different seasons, chilli cultivars responded differently in terms of growth and yield of vegetative characteris i s (Deli and Tiessen, 1969). Therefore performance of some of the important

chilli cultivars planted in different seasons was investigated in this study.

MATERIAL AND METHODS

The experiment was carried out at the Horticultural Research Station, Gandhi Krishi Vignana Kendra of the University of Agricultural Sciences, Bangalore, during the period from June 1977 to May, 1978, adopting split-plot design with four replications. Six dates of planting, at monthly intervals, (July, 1977 to December, 1977) were taken in the main plots and three popular chilli cultivars *viz.*, N.P. 46—A, Pusa Jwala and Pant C-1 in sub-plots. Thirtyfive-day old seedlings were planted at a distance of 40 cm in rows spaced at 60 cm. Observations on height of plants at 50 per cent flowering, number of branches at 50 per cent flowering and the total yield were recorded and satistically scrutinized.

RESULTS AND DISCUSSION

When planted in August, the plants grew taller than those planted in other months, while those planted in October were the shortest (Table I). Climatic conditions that prevailed during August appeared to be beneficial to chilli plants which might have helped them to putforth more vigorous growth Pant C—1 was the tallest, followed by N.P. 46—A and Pusa Jwala.

The number of branches per plant was the maximum when the plants were set out in August and was the minimum if planted in October (9.45). The period of rapid growth of plants synchronised with a more congenial climatic situation for growth of plants which might have resulted in the development of higher number of branches in plants planted in August. The number of branches per plant differed significantly among the cultivars. N P. 46—A recorded the highest number of branches followed by Pant C—1 and Pusa Jwala.

Time of planting affected the yield of red chillies considerably (Table II) The cultivars planted in August recorded the highest yield closely followed by those planted in July, but those set out in November and December recorded very low yields. The yield of red chillies differed significantly among the cultivars. While N.P. 46—A recorded the highest total yield, Pant C—1 recorded the least. It was evident from the studies that different chilli cultivars varied markedly in their yields when planted during different seasons of growing.

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