Short Communications

Note on Changes in Morphological Characters of 'Dwarf Mutant' Variety of Groundnut*

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A mutant form of groundnut (*Arachis hypogaea L.*) called 'Gujarat Dwarf Mutant' was reported and described by Gopani and Vaishnani (1969). A further study on this mutant was undertaken to find out the changes occuring in morphological characters under staggered planting during 1968-69.

The mutant was sown at fortnightly intervals under irrigation from Nov. 30, 1968 to April 16, 1969 and was compared with the normal rainfed planting to July. Average minimum and maximum temperatures for 15 days were recorded. Yield contributing characters were recorded on ten randomly selected plants and studied.

The normal plant height of the mutant was 8 cm but got reduced during winter season and tended towards normal in March planting (Table 1), while in April planting, the height was increased upto 27.2 cm. This indicated a positive association between temperature and plant height.

Planting during off-season increased the number of nodes. The maximum number of 20.6 nodes was recorded in March planting when plant height was 9.8 cm. It, therefore, seems that the number of nodes showed increasing tendency irrespective of changing plant height.

Number of pegs per plant decreased during off-season planting irrespective of temperature differences.

The number of total pods per plant were greatly reduced in November to January plantings but increased during February-March and again decreased during April as compared to normal planting. Thus, a very cold or hot period lead to reducing the number of pods. The number of developed pods in off-season were always less than during the normal season, maximum being produced in March first week plantings. The number of immature pods were higher in late plantings, Fabruary-April.

November to January and April plantings increased the pre-flowering period and delayed maturity.. January end to

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TABLE—1

Effect of different dates of planting on some morphological characters of Gujarat Dwarf Mutant groundnut.

PD	PH	NN	PN	Number of pods			Fl	Ma	Temperature C°	
				Tot	Dev	Undev			Min. (Average 15 days)	Max.
30-11-68	3.38	NA	7.9	5.4	4.1	1.3	45	123	NA	33.1
15-12-68	1.39	NA	3.2	2.8	1.0	1.8	51	130	25.1	27.9
31-12-68	2.65	12.4	2.8	7.4	6.2	1.2	57	121	25.5	28.1
16-1-69	2.10	9.7	8.4	4.8	2.8	2.0	47	125	26.1	29.4
31-1-69	3.06	NA	7.8	4.6	2.2	2.4	38	109	27.4	30.3
15-2-69	4.60	14.0	3.3	11.5	3.9	7.6	33	101	33.4	37.8
2-3-69	6.05	NA	2.1	16.8	10.8	6.0	29	116	29.4	33.9
16-3-69	9.80	20.6	2.5	14.5	4.7	9.8	24	107	34.6	38.2
1-4-69	13.90	16.0	6.4	8.3	3.3	5.0	33	153	37.4	41.2
16-4-69	27.20	16.7	2.0	5.9	1.9	4.0	29	171	37.9	43.0
(July Normal)	8.0	6.7	20.3	7.9	13.0	4.9	22	95	36.7	38.4

PD Planting date;

PH : Plant height (cm); NN: Node number; PN: Peg number; Tot: Total;

Dev : Developed; Undev: Undeveloped; Fl: Flowering (days); Ma: Maturity (days);

NA : Not available.

March plantings although delayed pre-flowering period, matured relatively earlier. Considering the above information, March first week appears to be the best date for the dwarf mutant in Gujarat inspite of its slight lateness.

REFERENCE

Gopani, D. D. and N. L. Vaishnani, 1970. Two mutant forms of groundnut (*Arachis hypogaea* L.) *Indian J. Agric. Sci.* **40** (5): 431-7.