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RESPONSE OF COWPEA GENOTYPES TO DATES OF SOWING

Cowpea is one of the most important pulse crops grown mainly during kharif seson. The excessive precipitation during this period causes considerable loss due to heavy incidence of pest and diseases. Nair (1984) reported that low yield of cowpea during kharif season is mainly because of collar rot disease. Results from the All India Co-ordinated Pulses Improvement Project revealed that the yield of pulses can be increased by adjusting the time of sowing (AICPIP, 1986). The present study was undertaken to find out the optimum time of sowing and best varieties suitable for kharif season.

The experiment consisted of 12 treatments laid out in split plot design with dates of sowing (June 30, July 15, July 30, August 15) as main plot treatment and varieties (RC 19, Ptb 1 and Ptb 2) as subplot treatments and was replicated thrice. The soil of the experimental site was sandy loam of medium fertility with pH 5.8. Cowpea genotypes were sown at a spacing of 25 cm x 15 cm. All the operations were carried out as per the recommendations of package of practices (KAU, 1985).

Cowpea sown on July 15th recorded the highest grain yield followed by June

Table 1. Grain yield (kg/ha) of cowpea as influenced by dates of sowing and genotypes

Treatments	Year			
	1986	1987	1988	Pooled
A. Main plot (dates of sowing)				
June 30	587	366	703	552
July 15	737	586	614	646
July 30	412	476	447	446
August 15	309	423	426	383
CD (0.05)	155.0	128.0	139.4	129.1
SEm±	44.80	36.9	40.3	37.3
B. Subplot (varieties)				
RC 19	580	576	514	559
Ptb 1	503	426	646	S29
Ptb 2	420	400	435	422
CD (0.05)	156.4	86.6	95.4	56.4
SEm±	52.2	28.9	31.8	18.3

Table 2. Effect of date of sowing and cowpea genotypes on growth and yield attributes of cowpea

Treatment	Plant height (cm)	Days to 50% flowering (days)	Pods/ plant	Seeds/ pod	100 seed weight (8)	Pod length (cm)
A. Main plot (date of sowing)						
June 30	65.6	41	4.9	10.9	8.7	13.6
July 15	61.3	44	5.2	11.4	9.0	13.2
July 30	47.8	42	4.7	10.6	8.6	12.8
August 15	49.2	43	3.9	10.2	7.4	12.3
CD (0.05)	6.91	NS	NS	NS	NS	0.438
SEm±	1.998	0.133	0.376	0.141	0.168	0.127
B. Subplot (varieties)						
RC 19	50.7	42	5.3	11.2	8.5	12.8
Ptb 1	56.4	45	2.5	13.1	10.1	15.8
Ptb 2	45.9	35	5.5	7.6	8.1	10.3
CD (0.05)	3.29	0.453	0.642	0.406	0.589	0.367
SEm±	1.068	0.417	0.208	0.294	0.181	0.118

NS = **Not significant**

30th and they were on par and significantly superior to other dates of sowing (Table 1). The increased grain yield in the former treatment may be due to the better climatic conditions over the period. Sowing cowpea after July 15 adversely affected the grain yield.

Data on growth and yield characters (Table 2) showed that plant height and length of pods were significantly influenced by different time of sowing. Cowpea sown on June 30th and July 15th recorded higher pod length and significantly superior to other treatments. The higher grain yield in these treatments may be due to better growth of the plant which resulted in the formation of more pods/plant and increased pod length which ultimately reflected in the final yield. Similar results were reported by Joy *et al.* (1991).

With regard to cowpea genotypes, the genotype RC-19 recorded the highest yield followed by Ptb 1 which were significantly superior to Ptb-2. The increased yield in the cowpea genotype RC-19 may be due to the better development of yield contributing characters such as more number of pods/plant, increased pod length and

more seed weight whereas in Ptb 1 increased pod length and more number of seeds/pod resulted in higher yield. The results showed that there was no significant interaction between time of sowing and genotypes.

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