

Response of pigeonpea varieites to different planting patterns

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ABSTRACT

The study on response of pigeonpea varieties to different planting pattern was carried out during 2001-2002 in *Kharif* season with an object to find out suitable planting pattern for pigeonpea. The two different varieties were used for study. The treatments consists of two different planting pattern (*i.e.* normal and paired) as a main plot treatments. Four combinations were laid out in sub plots. As regards the planting pattern the pigeon pea yield did not differ when planted either in paired row or normal row planting *i.e.* it is to be grown as sole crop in uniform planting pattern, while as intercrop in paired will be of use.

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Key words : Pigeonpea, Varieties, Planting pattern

Pigeonpea [*Cajanus cajan* (L.) Millsp] is one of the most important pulse crop cultivated in the semiarid areas of tropics and subtropics. The ability of pigeonpea to produce economic yields in moisture deficit soil make it an important crop of dryland agriculture. The farmers grow it in various production systems as a mixed crop,

intercrop or as a perenial crop using long established traditional practices. The knowledge of planting pattern of these newly developed pigeonpea varieties will help to increase the productivity and stabilize the yield of pigeonpea crop. Therefore, the present investigation was undertaken.

Table 1 : The growth attributes influenced by different planting pattern at various growth stages

Growth attributes	Treatments (planting pattern)	Days after sowing (DAS)					at harvest
		30	60	90	120	150	
Height of plant (cm)	P ₁ -Normal	32.80	71.30	113.23	156.93	189.58	191.98
	P ₂ - Paired	32.30	70.76	113.97	152.40	189.10	191.48
	S.E. _±	0.30	0.62	1.34	0.62	0.90	0.79
	C.D. (P=0.05)	N.S.	N.S.	N.S.	1.97	N.S.	N.S.
Number of functional leaves	P ₁ -Normal	8.00	42.46	192.08	187.60	122.01	76.53
	P ₂ - Paired	7.90	40.92	192.17	186.60	121.40	76.45
	S.E. _±	0.10	0.41	0.39	0.32	0.34	0.65
	C.D. (P=0.05)	N.S.	1.30	N.S.	N.S.	N.S.	N.S.
Number of branches	P ₁ -Normal	3.15	4.40	10.82	12.72	14.67	15.83
	P ₂ - Paired	3.14	4.33	10.83	12.75	14.62	15.86
	S.E. _±	0.08	0.07	0.05	0.06	0.09	0.10
	C.D. (P=0.05)	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
Number of root nodules	P ₁ -Normal	13.27	29.59	13.71	---	---	---
	P ₂ - Paired	13.58	29.97	13.80	---	---	---
	S.E. _±	0.34	0.74	0.45	---	---	---
	C.D. (P=0.05)	N.S.	N.S.	N.S.	---	---	---
Total dry matter accumulation (g/plant)	P ₁ -Normal	1.94	11.13	37.87	48.80	71.11	74.88
	P ₂ - Paired	1.91	11.01	37.57	59.11	70.10	74.22
	S.E. _±	0.06	0.12	0.23	0.17	0.20	0.19
	C.D. (P=0.05)	N.S.	N.S.	N.S.	N.S.	0.62	0.58

NS=Non-significant

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