

COMPARATIVE PERFORMANCE OF BLACKGRAM VARIETIES IN CHALAKUDY COMMAND AREA

Blackgram is one of the most important pulse crops grown in Kerala. The present study was undertaken in one farmer's field at Chalakudy command area to evaluate the performance of 10 varieties of blackgram for both kharif season and summer rice fallows so as to recommend the best suited varieties for each season.

The field experiment was conducted during kharif 1982 and summer 1983. The experiment was laid out in randomised block design with three replications. The varieties used were UG 152, Ajanur, Co 4, Co 3, M 3, Co 2, Pant U 19, KMU 3, BP 3 and KM 1. Uniform cultural and manurial practices as per the recommendations of Kerala Agricultural University was followed (Anon, 1980).

Observations were recorded on growth characters like plant height and number of branches per plant at harvest, days to 50 per cent flowering and on the yield components like number of pods per plant at harvest, days to 50 per cent flowering and on the yield components like number of pods per plant and length of pods in addition to yield of grains. During summer season only the yield data were recorded.

It can be seen from Table 1 that during kharif season, there was significant difference between the varieties in all the growth observations recorded. The variety BP 3 recorded the maximum height (48.6cm) at harvest and was on par with Co3 but superior to all other varieties. The highest number of branches (3.4) was recorded by Co2 which was on par with Co3 and KMU 3 but superior to

Total 1
Growth characters of blackgram varieties (kharif 1982)

Varieties	Height of plant at harvest (cm)	Number of branches per plant at harvest	Days to 50% flowering
UG 152	42.5	2.6	44.3
Ajanur	40.1	1.8	41.5
Co 4	37.1	2.5	44.6
Co 3	46.9	3.1	42.8
M 3	40.7	2.7	45.5
Co 2	39.6	3.4	43.1
Pant U 19	35.1	2.1	44.5
KMU 3	40.6	3.1	41.7
BP 3	48.6	2.8	45.3
KM 1	42.2	1.7	44.8
SEm+	1.73	0.14	0.46
CD (0.05)	5.16	0.42	1.38

Table 2
Yield and yield components of blackgram varieties

Varieties	Number of pods per plant	Length of pod (cm)	Mean yield (kg/ha)		
			Kharif	Summer	Pooled
UG 152	37.9	6.15	1125	550	838
Ajanur	39.1	6.08	1133	615	874
Co 4	47.1	6.32	1700	485	1093
Co 3	37.7	6.04	1267	685	976
M 3	34.5	6.20	1308	460	884
Co 2	38.4	6.07	1333	495	914
Pant U 19	40.1	6.09	1533	600	1067
KMU 3	47.5	6.28	1500	615	1058
BP 3	36.6	6.13	1467	570	1017
KM 1	41.9	6.21	1367	635	1001
SEm+	2.51	0.43	107.70	46.50	95.31
CD(0.05)	7.37	NS	315.50	NS	NS

all other varieties. With regard to the number of days taken for 50 per cent flowering Ajanur, KMU 3 and Co 3 took lesser time compared to other varieties. Significant difference was noted between the varieties during kharif with respect to yield and yield components (Table 2). KMU 3 produced maximum number of pods per plant (47.5) followed by Co 4, KM 1, and Co 3 were on par but superior to all other varieties tried. In the case of length of pod even though no statistical difference was noted between varieties longer pods were produced by Co 4 followed by KMU 3. It can be also seen from Table 2 that Co 4 produced the maximum yield (1700 kg/ha) which was on par with Pant U 19, KMU 3 and BP 3 but superior to all other varieties tried. It may be noted that the higher yields produced by Co 4 and KMU 3 might have been contributed by the higher number of pods and length of pods noted in these varieties.

From the Table 2, it can be seen that during summer season, there was no significant difference in yield between the varieties. However, the highest yield was recorded by Co 3 (685 kg/ha) followed by KMU 3 and Ajanur. Soundrapandian [1983] also reported that Co 3 recorded the highest average yield of 690 kg/ha in a varietal trial involving 10 varieties. Pooled analysis also showed that the varieties did not differ significantly. But the highest yields were recorded by Co 4, Pant U 19, KMU 3 and BP 3.

From this study, it can be concluded that Co 4, KMU 3, Pant U 19, and BP 3 are best suited for cultivation during kharif season and Co 3, KM 1 and Ajanur for summer rice fallows in Chalakudy command area.

സംഗ്രഹം

മഴക്കാലത്തും വേനൽക്കാലത്തും കൃഷി ചെയ്യുന്നതിന് യോജിച്ച ഉഴുനീനങ്ങളെ സംബന്ധിച്ച ചാലക്കൂടി പ്രദേശത്ത് നടത്തിയ പരീക്ഷണങ്ങളിൽ നിന്ന് Co 4, KMU 3, Pant U 19, BP3, എന്നീ ഇനങ്ങൾ മഴക്കാലത്തും Co 3, KM 1, Ajanur എന്നിവ വേനൽക്കാലത്തും താരതമ്യേന കൂടുതൽ വിളവു നൽകുന്നതായി കണ്ടു.

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References

- Anonymous 1980 *Package of Practices Recommendations*. Directorate of Extension, Kerala Agricultural University, Vellanikkara, P 42
- Soundrapandian, G. 1983. High yielding pulses for rainfed cultivation in the Southern districts of Tamil Nadu. *Madras agric J.* **70**(2):121-122.