

ON THE APPLICATION OF FERTILIZERS FOR THE DRY-SOWN PADDY IN KERALA

Since no precise information was available on the application of fertilizers for the paddy grown under dry-sown conditions a field experiment was conducted during the "Viruppu" season (May to December) of 1966. The soil was of lateritic origin with a pH of 4.6 containing 0.093 per cent total nitrogen, 0.002 per cent available P_2O_5 and 0.001 per cent available K_2O . The variety used was Ptb 9. There were 32 treatment combinations viz. nitrogen at four levels of 0, 15, 30 and 45 kg per hectare; P_2O_5 and K_2O at two levels of 15 and 30 kg per hectare and farm yard manure at zero level and 3000 kg per hectare. Nitrogen, Phosphorus and Potash were applied as urea, super-phosphate and muriate of potash respectively, as basal dressing.

The trial was laid out in a 4 X 4 factorial experiment in R B D with partial confounding of PKC and PK interactions with two replications.

The results on the grain and straw yields are given in Tables 1 and 2. It may be observed that when potash increased the yield significantly nitrogen did not. The effect of Nitrogen however, increased the straw yield significantly. The best combination of nutrients was found to be 30 kg N, 30 kg P_2O_5 and 30 kg K_2O . Combining Urea with farmyard manure was better than using urea alone.

Table 1

Grain yield in plots receiving different doses of fertilizers

Nitrogen (Kg/ha)	Mean yield in kg/ha under different treatments						Mean
	P ₂ O ₅ (Kg/ha)		K ₂ O (Kg/ha)		FYM (Kg/ha)		
	15	30	15	30	0	3000	
0	1981	1993	1990	2034	1970	2085	2010
15	1929	2011	1930	2120	1918	2051	2043
30	2148	2178	2162	2288	2058	2159	2193
	2036	2035	2124	2126	2076	2123	2115
Mean	2025	2090	2049	2234	2007	2055	
CD (5%) for comparison between levels of N						252	
P, K or FYM						173	
Combination						356	

RESEARCH NOTES

Table 2

Straw yield in plots receiving different doses of fertilizers

Nitrogen (Kg/ha)	Mean yield in Kg/ha under treatments						Mean
	N ₀₋₅ (Kg/ha)		(Kg/ha)		FYM (Kg/ha)		
	15	30	15	30	0	3000	
0	2092	2222	2120	2210	1972	2346	2110
15	2708	2804	2815	3211	2615	3129	2890
30	3219	3201	3290	3790	3200	3440	3185
45	4004	4104	3840	4418	3994	4184	4112
Mean	2994	3085	3008	3444	2940	3314	
CD (5%) for comparison between levels of N						839	
»	»	P, K or FYM		567			
..	»	Combination		1234			

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