Number of grains was almost unaffected but 1000 grain weight of the main as well as the side tillers was reduced significantly as compared to control (Table 1). Maximum reduction was seen in T_3 as compared to T_2 and T_4 due to full clipping of awns at an early stage. T_2 and T_4 retained their part of awns and this helped in more photosynthetic activity of the plant. Though there was significant reduction in yield in T_5 as compared to the control, the reduction in yield was not as much as in T_2 T_3 and T_4. The decline in 1000 grain weight and yield per plant may be due to removal of awns resulting in reduced photosynthesis. The earlier the deawning was performed, the greater was the reduction in kernel yield.

Table 1—Average number of grains, 1000 grain weight and yield of grain per plant.

Treatments	Average numbes of grain per plant		Average 1000 grain weight (in gms)		Average yield of grain per plant (in gms)	
	Main shoot	Side tiller	Main shoot	Side tiller	Main shoot	Side tiller
T_1	50	65	53	51	2.4	3.4
T_2	44	69	50	46	2.0	3.1
T_3	41	61	45	42	1.8	2.3
T_4	42	66	49	47	1.9	2.9
T_5	43	71	51	48	2.1	3.5
F.test	NS	N.S	S**	S**	S**	S**
L.S.D. at 5%	—	—	3.05	4.36	0.28	0.61
S. Em ±	—	—	0.9	1.4	0.09	0.18

S** Significant at 1 and 5% level of probability.

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PROTEIN CONTENT OF MEXICAN WHEAT VARIETIES AS INFLUENCED BY DIFFERENT METHODS OF NITROGEN APPLICATION

A trial was conducted during 1966-67 (Rabi season) on the Agricultural College Farm, Hyderabad with two varieties namely Sonora-64 and Lerma Rojo, and six methods of nitrogen application (Table 1). The trial was laid out in a randomised block design having 3 replications.

Protein content of grain :

The effects of different methods of application of nitrogen on the protein content of grain were significant. The treatment M_6 showed maximum protein content of 15.18 per cent as compared to that of M_2 which had 13.97 per cent. The treatment M_6 did not differ from M_5 and M_4 but significantly differed from M_3 and M_1. The treatments M_5, M_4 and M_2 did not differ within themselves but all were found to be superior to the control.

Table 1—Effect of different treatments on protein content of Wheat grain

Treatments		Protien content of grain	
		Sonora-64	Lerma Rojo
M_1—Control		11.00	10 01
M_2—Complete N (67.2 kg/ha) as soil application.		13.88	14.06
M_3—$\frac{3}{4}$ N s.a,	+ $\frac{1}{4}$ N f.a.	13.89	14.26
M_4—$\frac{1}{2}$ N ,,	+ $\frac{1}{2}$ N	14.19	14.73
M_5—$\frac{1}{4}$ N ,,	+ $\frac{3}{4}$ N	14.78	14.88
M_6—Complete N	f.a.	15.12	15.21
	'F' test :		
s.a.—soil application	Varieties :	N.S.	
f.a.—foliar application	Methods of application :	Sig.	
	Interaction :	N.S.	
	C. D. (0.05) :		
	Methods :	0.995	

The increase in protein content might be due to the foliar application of nitrogen after blooming, where the utilization of nitrogen may be more effiecient as compared to soil application. Similar results were also reported by Sadaphal and Das (1966).

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EFFECT OF DIFFERENT LEVELS OF NITROGEN AND PHOSPHORUS ON THE YIELD OF BARLEY

Experiments on the fertilizer needs of barley so far conducted in this country have been mainly restricted to the graded application of nitrogen, keeping the phosphorus level uniform. Information on the response of barley to different levels of nitrogen and phosphorus is meagre. An experiment was, therefore, conducted on the farm of the Division of Agronomy, Indian Agricultural Research Institute, New Delhi, during *rabi* 1968-69 to study the effect of nitrogen and phosphorus interaction on the yield of barley. Four levels of nitrogen (0, 30, 60, 90 kg N/ha) and three levels of phosphorus (0, 30, 60 kg P_2O_5/ha) were tried. The crop (variety B. G. 1) received uniform application of 40 kg K_2O per hectare. The entire dose of nitrogen and phosphorus, as per levels, was drilled in furrows at the