

SPRING WHEAT

(70/R/WS/5)

Varieties x N and mildew control (*Erysiphe graminis*) Long Hoos I and II 1970.

Design: 4 randomised blocks of 12 plots, split into 4.

Area of each sub-plot: 0.0080. Area harvested: 0.0053.

Treatments: All combinations of:-

Whole plots: 1. Varieties and seed rate: Inia (semi-dwarf) at 170 lb (I), Kolibri at 200 lb (K), Maris Ensign at 200 lb (M), Rothwell Sprite at 200 lb (R), Sirius at 170 lb (S), Troll at 170 lb (T).

2. Fungicide: None (O), 1 lb ethirimol as a seed dressing (F).

Sub-plots: 3. Nitrogen (in cwt N): 0.5 (N1), 1.0 (N2), 1.5 (N3) in seedbed, 1.0 in seedbed plus 0.5 at flowering (N2+1). N1 applied in basal compound, remaining N as 'Nitro-Chalk'.

Basal applications: 370 lb (15:15:15) combine drilled. Weedkillers: Paraquat at 0.5 lb ion in 20 gals. 2,4-D at 0.5 lb and dichlorprop at 2 lb in 20 gals.

Cultivations, etc.: Paraquat applied: 3 Oct, 1969. Ploughed: 14 Nov. Seed combine drilled: 22 Apr, 1970. 'Nitro-Chalk' applied: 27 Apr. 2,4-D/dichlorprop applied: 19 May. Late N applied: 16 June. Combine harvested: 28 Aug. Previous crops: Potatoes 1968, winter wheat and barley 1969.

NOTE: Samples were taken for assessment of mildew (*Erysiphe graminis*) and other foliar diseases.

Standard errors per plot. Grain, cwt:

Whole plot: 1.25 or 5.5% (33 d.f.)

Sub plot: 1.87 or 8.2% (108 d.f.)

70/R/WS/5

SUMMARY OF RESULTS

GRAIN: CWT

	I	K	M	R	S	T	Mean
	(±0.63)						(±0.26)
O	13.9	26.1	24.4	25.6	22.2	20.1	22.0
F	15.3	25.9	25.0	28.2	24.9	22.2	23.6
	(1) and (2)						(±0.27)
N1	12.9	23.8	22.5	26.4	22.7	20.7	21.5
N2	16.3	26.0	25.1	27.1	23.3	21.7	23.2
N3	14.0	28.1	25.3	26.7	24.7	21.4	23.3
N2+1	15.3	26.0	25.9	27.5	23.5	20.8	23.2
Mean (±0.44)	14.6	26.0	24.7	26.9	23.5	21.2	22.8
	N1	N2	N3	N2+1			
	(3) and (4)						
O	20.8	22.7	22.7	22.0			
F	22.2	23.8	24.0	24.3			

Mean D.M. %: 84.8

- (1) (±0.72) For use in horizontal and diagonal comparisons only
- (2) (±0.66) For use in vertical and interaction comparisons only
- (3) (±0.42) For use in vertical and diagonal comparisons only
- (4) (±0.38) For use in horizontal and interaction comparisons only