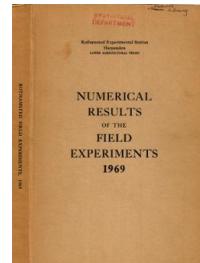


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# Numerical Results of the Field Experiments 1969

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## Annual Experiments - Spring Wheat -

### Rothamsted Research

Rothamsted Research (1970) *Annual Experiments - Spring Wheat - ; Numerical Results Of The Field Experiments 1969*, pp 251 - 273 - DOI: <https://doi.org/10.23637/ERADOC-1-96>

SPRING WHEAT

(69/R/W/11)

Effect of gaps - Great Harpenden II 1969.

Design: 4 randomised blocks of 6 plots.

Area of each plot: 0.0121. Area harvested: 0.0121.

Treatments: No rows missing, 30 rows harvested (G0) and gapping of full plant equivalent to 8 rows removed per plot at growth stages shown below (each plot 17' 6" wide, i.e. nominally 30 rows at 7" spacing, paths 1 ft. wide between plots. The full width was harvested for yield).

At seedling stage:

3 inch gaps evenly spaced	(G1)
6 inch gaps evenly spaced	(G2)
12 inch gaps evenly spaced	(G4)
Pairs of rows removed	(R)

At start of stem elongation:

Pairs of rows removed	(RL)
-----------------------	------

Basal applications: 340 lb (25:10:10) combine drilled.

Weedkillers: Paraquat at 0.5 lb ion in 20 gals. 2,4-D at 8 oz and dichlorprop at 32 oz in 20 gals.

Cultivations, etc.: Paraquat applied: 2 Apr, 1969.

Ploughed: 10 Apr. Seed drilled at 160 lb: 16 Apr.

Gapped: 7-14 May. 2,4-D/dichlorprop applied: 21 May.

Gapped: 2 June. Combine harvested: 2 Sept. Variety: Kolibri. Previous crops: Grass since 1959, Potatoes 1968.

Standard error per plot.

Grain, cwt: 0.57 or 1.2% (15 d.f.)

SUMMARY OF RESULTS

GRAIN: CWT

G0	G1	G2	G4	R	RL	Mean
(±0.28)						
48.7	45.1	45.3	44.9	43.7	32.6	45.2

Mean D.M. %: 81.8

SPRING WHEAT

(69/R/W/12)

Varieties, N and ethirimol ('Milstem' or 'PP149'), Whittlocks 1969.

Design: 4 randomised blocks of 10 plots, split into 3.

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

Treatments: All combinations of:-

Whole plots: 1. Varieties: Kloka (KL), Kolibri (KO), Maris Ensign (ME), Rothwell Sprite (RS), Troll (T).

2. Fungicide: None (0) ethirimol as seed dressing at 1 lb (F).

Sub plots: 3. Nitrogen: 0.5 (N1), 1.0 (N2), 1.5 (N3) cwt (0.5 cwt N in basal compound, remainder as 'Nitro-Chalk').

NOTE: A sixth variety was included but the germination of the seed was poor and the results have been omitted.

Basal applications: 370 lb (15:15:15) combine drilled.

Weedkillers: 2,4-D at 8 oz and dichlorprop at 32 oz in 20 gals.

Cultivations, etc.: Ploughed: 21 Nov, 1968. Seed drilled at 185 lb\*: 3 Apr, 1969. 'Nitro-Chalk' applied: 11 Apr.

Weedkiller applied: 22 May. Combine harvested: 3 Sept.

Previous crops: Spring beans 1967, winter wheat 1968.

\* Rothwell Sprite at 165 lb because its germination was better than the other varieties.

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

Standard errors per plot.

Grain, cwt: Whole plot: 1.64 or 4.5% (27 d.f.)  
Sub plot: 2.16 or 5.9% (60 d.f.)

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SUMMARY OF RESULTS

GRAIN:CWT

	KL	KD	ME	RS	T	Mean
	(±0.82)					
O	33.5	42.2	38.4	32.9	36.5	36.7
F	33.0	40.9	37.4	32.9	36.3	36.1
	(1) and (2)					
N1	31.4	37.3	35.9	30.7	35.3	34.1
N2	34.9	43.2	39.6	33.8	38.3	38.0
N3	33.5	44.1	38.1	34.1	35.6	37.1
Mean (±0.58)	33.2	41.5	37.9	32.9	36.4	36.4

Mean D.M.%: 82.6

(1) (±0.85) For use in horizontal and diagonal comparisons only  
(2) (±0.76) For use in vertical and interaction comparisons only

SPRING WHEAT

(69/R/W/13)

Effects of paths and blank rows - Whittlocks 1969.

Design: 4 blocks of 8 plots, randomisation restricted.

Area of each plot: 0.0161. Area harvested: 0.0107.

Treatments: All combinations of:-

- |                |  |       |
|----------------|--|-------|
| 1. Blank rows: | None, 16 middle rows harvested                               | (R0)  |
|                | 2 blank rows, 3 (1) 16 (1) 3 sown                            | (R1)  |
|                | 4 blank rows, 2 (2) 16 (2) 2 sown                            | (R2)  |
|                | 6 blank rows, 1 (3) 16 (3) 1 sown                            | (R3). |
| 2. N:          | 0.6 (N1), 1.2 (N2) cwt as 'Nitro-Chalk', broadcast by drill. |       |

All plots were 24 row-spaces wide, 16 being harvested. (1) etc. indicate number and position of blank (unsown) rows.

Basal applications: 280 lb (0:20:20) combine drilled. Weedkiller: 2,4-D at 8 oz and dichlorprop at 32 oz in 20 gals.

Cultivations, etc.: Ploughed: 21 Nov, 1968. Seed drilled at 180 lb per sown acre: 2 Apr, 1969. 'Nitro-Chalk' applied: 10 Apr. Weedkiller applied: 22 May. Combine harvested: 3 Sept. Variety: Kolibri. Previous crops: Spring beans 1967, winter wheat 1968.

Standard error per plot.

Grain, cwt: 1.92 or 4.4% (21 d.f.)

SUMMARY OF RESULTS

GRAIN: CWT

	R0	R1	R2	R3	Mean
		(±0.96)			(±0.48)
N1	38.4	39.6	43.4	43.3	41.2
N2	43.7	45.0	46.2	46.2	45.3
Mean (±0.68)	41.0	42.3	44.8	44.7	43.2

Mean D.M.%: 84.2

BARLEY

(69/R/B/1 and 69/W/B/1)

Varieties, N and ethirimol, ('Milstem' or 'PP149') Rothamsted (R)  
Pastures and Woburn (W) Lansome II 1969.

Design (each experiment): 4 blocks of 8 plots (randomisation  
restricted), split into three for N.

Area of each sub plot: 0.0080. Area harvested: 0.0054.

Treatments: All combinations of:-

- Whole plots: 1. Varieties: Julia (J), Maris Badger (MB),  
Sultan (S), Zephyr (Z).  
2. Fungicide: None (O), ethirimol as seed  
dressing at 1 lb (F).  
Sub plots: 3. Nitrogen: 0.3 (N1), 0.6 (N2), 0.9 (N3)  
cwt as 'Nitro-Chalk'.

Basal applications: 220 lb (0:20:20) combine drilled.

Weedkillers: Pastures (R):- Paraquat at 0.5 lb ion in 25  
gals. 2,4-D at 8 oz and dichlorprop at 32 oz in 20 gals.  
Lansome II (W):- Ioxynil octanoate, bromoxynil octanoate  
and the iso-octyl ester of dichlorprop ('Oxytril P' at 1 pint  
in 25 gals).

Cultivations, etc.:

Pastures (R): Paraquat applied: 11 Oct, 1968. Ploughed:  
13 Nov. Seed drilled at 140 lb: 27 Mar, 1969. 'Nitro-Chalk'  
applied: 10 Apr. 2,4-D/dichlorprop applied: 13 May. Combine  
harvested: 14 Aug. Previous crops: Potatoes 1967, barley, 1968.  
Lansome II (W): Ploughed: 18 Nov, 1968. Seed drilled at  
140 lb: 28 Mar, 1969. 'Nitro-Chalk' applied: 8 Apr. Weedkiller  
applied: 14 May. Combine harvested: 14 Aug. Previous crops:  
Spring beans 1967 Winter wheat 1968.

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

Standard errors per plot.

Grain, cwt: Pastures (R): Whole plot: 1.74 or 3.6% (21 d.f.)  
Sub plot: 2.04 or 4.2% (48 d.f.)  
Lansome II (W): Whole plot: 1.14 or 2.8% (21 d.f.)  
Sub plot: 1.87 or 4.5% (48 d.f.)

SUMMARY OF RESULTS

GRAIN:CWT

PASTURES (R)

	J	MB	S	Z	Mean
	(±0.87)				
O	49.6	41.4	49.5	48.6	47.3
F	51.5	43.6	48.4	51.2	48.7
	(1) and (2)				
N1	45.9	38.4	43.2	47.5	43.7
N2	52.5	45.5	52.3	51.7	50.5
N3	53.3	43.6	51.4	50.7	49.7
Mean (±0.61)	50.6	42.5	48.9	49.9	48.0

Mean D.M.%: 83.6

(1) (±0.85) For use in horizontal and diagonal comparisons only

(2) (±0.72) For use in vertical and interaction comparisons only

SUMMARY OF RESULTS

GRAIN: CWT

LANSOME II (W)

	J	MB	S	Z	Mean
	(±0.57)				
O	42.7	34.4	43.2	43.2	40.9
F	43.6	35.6	43.7	44.3	41.8
	(1) and (2)				
N1	33.3	27.1	35.9	35.5	33.0
N2	45.2	37.6	45.7	46.6	43.8
N3	50.9	40.2	48.7	49.0	47.2
Mean (±0.40)	43.1	35.0	43.4	43.7	41.3

Mean D.M. %: 84.2

(1) (±0.67) For use in horizontal and diagonal comparisons only

(2) (±0.66) For use in vertical and interaction comparisons only

BARLEY

(69/R/B/2 and 69/W/B/2)

Deep-drilled fertiliser - Rothamsted (R) Pastures and  
Woburn (W) Great Hill II 1969.

Design: 4 randomised blocks of 14 plots.

Area of each plot: 0.0080. Area harvested: 0.0058.

Treatments: All combinations of:-

1. Fertiliser rates\*: 0.5 cwt N, 0.25 cwt P<sub>2</sub>O<sub>5</sub>, 0.25 cwt K<sub>2</sub>O (1), 1.0 cwt N, 0.5 cwt P<sub>2</sub>O<sub>5</sub>, 0.5 cwt K<sub>2</sub>O (2).

NBI plots: as 'Nitro-Chalk' 21 and (0:20:20).

Other plots: as (20:10:10).

2. Methods of fertiliser application: NPK injected 3-4 in. deep in rows 5.5 in. apart, by 'Tume' drill (I)  
NPK broadcast (B), N broadcast, PK injected (NBI).

3. Space between rows of seed: 5 inches (C), 7 inches (W).  
Additional treatments: NPK combine drilled at rate 1 (D1W), rate 2 (D2W), row spacing 7 inches.

\*Rates on Great Hill II (W) were:

NBI plots: 0.5 cwt N, 0.22 cwt P<sub>2</sub>O<sub>5</sub>, 0.22 cwt K<sub>2</sub>O (1) and 1.0 cwt N, 0.45 cwt P<sub>2</sub>O<sub>5</sub>, 0.45 cwt K<sub>2</sub>O (2).

D plots: 0.46 cwt N, 0.23 cwt P<sub>2</sub>O<sub>5</sub>, 0.23 cwt K<sub>2</sub>O (1) 0.96 cwt N, 0.48 cwt P<sub>2</sub>O<sub>5</sub>, 0.48 cwt K<sub>2</sub>O (2).

Other plots: 0.47 cwt N, 0.24 cwt P<sub>2</sub>O<sub>5</sub>, 0.24 cwt K<sub>2</sub>O (1) 1.0 cwt N, 0.5 cwt P<sub>2</sub>O<sub>5</sub>, 0.5 cwt K<sub>2</sub>O (2).

NOTE: The 'Tume' drill was used once on every plot, with tines in the ground and 'crumblers' on. On 'B' plots the fertiliser was broadcast by the 'Tume' drill with spouts out.

Basal applications:- Manures none: Weedkillers: Pastures (R):

Paraquat at 0.5 lb ion in 25 gals. 2,4-D at 8 oz and dichlorprop at 32 oz in 20 gals.

Great Hill II (W): Paraquat at 1.5 lb ion in 25 gals. Ioxynil octanoate, bromoxynil octanoate and the iso-octyl ester of dichlorprop ('Oxytril P' at 1 pint in 25 gals).

Cultivations, etc.:

Pastures (R): Paraquat applied: 11 Oct, 1968. Ploughed: 13 Nov. Fertilisers applied (except 'Nitro-Chalk'), seed drilled at 140 lb: 28 Mar, 1969. 'Nitro-Chalk'

applied: 11 Apr. 2,4-D/dichlorprop applied: 13 May. Combine harvested: 13 Aug. Variety: Zephyr. Previous crops: Potatoes 1967, barley 1968.

Great Hill II (W): Paraquat applied: 19 Sept, 1968. Ploughed: 4 - 27 Jan, 1969. Fertilisers applied (except 'Nitro-Chalk'), seed drilled at 140 lb: 2 Apr. 'Nitro-Chalk' applied: 3 Apr. 'Oxytril P' applied: 14 May. Combine harvested: 8 Aug. Variety: Zephyr. Previous crops: Fallow 1967, winter wheat 1968.

Standard errors per plot. Grain, cwt:

Pastures (R): 2.03 or 4.3% (38 d.f.)  
Great Hill II (W): 3.06 or 9.2% (39 d.f.)

NOTE: On Pastures (R) owing to a blockage grain was lost on one plot (IC L2). An estimated value was used in the analysis.

SUMMARY OF RESULTS

PASTURES (R)

GRAIN

	IC	IW	BC	BW	DW	NBIC	NBIW	Mean
(±1.01)							(±0.38)	
1	48.1	48.5	48.0	48.0	49.2	46.3	45.8	47.7
2	43.4	45.0	49.4	49.0	46.9	47.9	45.7	46.8
Mean (±0.72)		45.7	46.7	48.7	48.5	48.1	47.1	45.8
47.2								

Mean D.M. %: 83.2

GREAT HILL II (W)

GRAIN

	(±1.53)							(±0.58)
1	32.4	34.2	30.2	33.0	32.6	32.2	33.4	32.6
2	35.7	35.1	34.7	34.6	32.6	33.0	31.6	33.9
Mean (±1.08)		34.1	34.7	32.5	33.8	32.6	32.6	32.5
33.2								

Mean D.M. %: 87.8

**BARLEY**

(69/R/B/3 and 69/W/B/3)

Deeply drilled urea and 'Nitro-Chalk' Rothamsted (R) Pastures and Woburn (W) Stackyard Al, 1969.

Design: 4 blocks of 8 plots (randomisation restricted) plus 1 nil plot per block.

Area of each plot: 0.0161. Area harvested: 0.0107.

Treatments: No nitrogen (NO) and all combinations of:

1. Form of nitrogen: 'Nitro-Chalk' (C), urea (U).
2. Method of application: Injected by 'Tume' drill 3-4 inches deep in rows 5.5 inches apart (I), broadcast (B).
3. Nitrogen: 0.5 (N1), 1.0 (N2) cwt N.

Basal applications: 265 lb (0:20:20) combine drilled.

Weedkillers:-

Pastures (R): Paraquat at 0.5 lb ion in 25 gals 2,4-D at 8 oz and dichlorprop at 32 oz in 20 gals.

Stackyard Al (W): Ioxynil octanoate, bromoxynil octanoate and the iso-octyl ester of dichlorprop ('Oxytril P' at 1 pint in 25 gals).

Cultivations, etc.:

Pastures (R): Paraquat applied: 11 Oct, 1968. Ploughed: 13 Nov. Urea and 'Nitro-Chalk' injected by 'Tume' drill: 28 Mar, 1969. Seed drilled at 145 lb, urea and 'Nitro-Chalk' broadcast: 29 Mar. 2,4-D/dichlorprop applied: 13 May. Combine harvested: 18 Aug. Variety: Zephyr. Previous crops: Potatoes 1967, barley 1968.

Stackyard Al (W): Ploughed: 14 Aug, 1968. Ploughed second time: 15 Nov. Treatments applied, seed drilled at 145 lb: 3 Apr, 1969. Weedkiller applied: 16 May. Combine harvested: 8 Aug. Variety: Zephyr. Previous crops: Fallow 1967, 1968.

NOTES: (1) The 'Tume' drill was used on all plots to prepare the seedbed, it being drawn idle through the B and NO plots.  
(2) Percentage of N in grain was determined.

Standard errors per plot: Grain, cwt:

Pastures (R): 2.04 or 4.3% (21 d.f.)

Stackyard Al (W): 4.53 or 13.7% (21 d.f.)

SUMMARY OF RESULTS

GRAIN, CWT

	I	B	N1	N2	Mean
PASTURES (R)					
	(±0.72)				(±0.51)
C	48.0	46.3	47.5	46.8	47.1
U	47.9	47.4	48.8	46.6	47.7
(±0.72)					
	I	48.6	47.3	48.0	
	B	47.6	46.1	46.8	
Mean (±0.51)		48.1	46.7	47.4	

NO 36.4  
General mean: 46.2

STACKYARD A1 (W)

	(±1.60)				(±1.13)
C	34.0	32.4	30.6	35.9	33.2
U	32.7	32.8	31.9	33.6	32.7
(±1.60)					
	I	32.4	34.3	33.4	
	B	30.1	35.1	32.6	
Mean (±1.13)		31.3	34.7	33.0	

NO 10.0  
General mean: 30.9

Mean D.M. %: Pastures (R): 79.6  
Stackyard A1 (W): 88.3

BARLEY

(69/R/B/4)

Early and late mildew (*Erysiphe graminis*), Long Hoos I and II  
1969.

Design: 4 randomised blocks of 4 plots.

Area of each plot: 0.0321. Area harvested: 0.0129.

Treatments: Fungicide ethirimol ('PP149' or 'Milstem'):-

None	(0)
0.25 lb as seed dressing	(1D)
2 lb as seed dressing, crop sprayed on 2 occasions, the first at 1 lb and the second at 1.5 lb in 30 gals.	(8D)
Crop sprayed on 2 occasions as above	(4S)

Basal applications: 340 lb (20:10:10) combine drilled.

Weedkiller: Mecoprop at 36 oz and 2,4-D at 9 oz in 20 gals.

Cultivations, etc.: Deep-tine cultivated 3 times: 13 Nov, 1968.  
Seed drilled at 140 lb: 27 Mar, 1969. Weedkiller applied:  
15 May. Ethirimol spray applied: 25 June and 10 July. Combine  
harvested: 14 Aug. Variety: Zephyr. Previous crops:  
Fallow 1967, potatoes 1968.

NOTE: Samples were taken for assessment of mildew (*Erysiphe graminis*) and other foliar diseases and for assessment of tiller number, tiller length and ear sizes.

Standard error per plot.

Grain, cwt: 2.09 or 4.2% (9 d.f.)

SUMMARY OF RESULTS

O	1D	8D	4S	Mean
GRAIN: CWT				
(±1.05)				
48.4	48.6	52.6	49.1	49.7
STRAW: CWT				
32.5	31.3	36.1	34.0	33.5

Mean D.M.%: Grain: 80.5  
Straw: 82.7

BARLEY

(69/R/B/5)

Effects of paths and blank rows - Pastures 1969.

Design: 4 randomised blocks of 8 plots, randomisation restricted.

Area of each plot: 0.0161. Area harvested: 0.0107.

Treatments: All combinations of:-

- |                |                                |      |
|----------------|--------------------------------|------|
| 1. Blank rows: | None, 16 middle rows harvested | (R0) |
| 2 blank rows:  | 3 (1) 16 (1) 3 sown            | (R1) |
| 4 blank rows:  | 2 (2) 16 (2) 2 sown            | (R2) |
| 6 blank rows:  | 1 (3) 16 (3) 1 sown            | (R3) |
2. N: 0.5 (N1), 1.0 (N2) cwt as 'Nitro-Chalk'.

Plots were of 24 row-spaces each, 16 being harvested. (1) etc.  
indicate number and position of blank (unsown) rows.

Basal applications: 280 lb (0:20:20) combine drilled. Weedkillers:  
Paraquat at 0.5 lb ion in 25 gals, 2,4-D at 8 oz and dichlorprop  
at 32 oz in 20 gals.

Cultivations, etc.: Paraquat applied: 11 Oct, 1968. Ploughed:  
13 Nov. Seed drilled at 140 lb per sown acre: 28 Mar, 1969. 'Nitro-  
Chalk' applied: 10 Apr. 2,4-D/dichlorprop applied: 13 May. Combine  
harvested: 14 Aug. Variety: Zephyr. Previous crops: Potatoes  
1967, barley 1968.

Standard error per plot.

Grain, cwt: 1.19 or 2.6% (21 d.f.)

SUMMARY OF RESULTS

GRAIN:CWT

	R0	R1	R2	R3	Mean
	(±0.59)				
N1	45.3	47.6	48.7	50.2	48.0
N2	41.6	45.2	46.7	47.6	45.3
Mean (±0.42)	43.5	46.4	47.7	48.9	46.6

Mean D.M.%: 82.9

BARLEY

(69/S/B/1)

Varieties, N and ethirimol ('Milstem' or 'PP 149'), Saxmundham, Grove Plot 1969.

Design: Two randomised blocks of 10 plots, split into 2 for fungicidal seed dressing.

Area of each sub-plot: 0.0041. Area harvested: 0.0012.

Treatments: None (2 plots per block, one for each variety split as above) and all combinations of:-

Whole plots: 1. Variety: Deba Abed (DA), Maris Badger (MB).

2. Levels of N: 0.6 (N1), 1.2 (N2) cwt as 'Nitro-Chalk'.

3. Times of application of N: In the seedbed (E), as a top-dressing in May (L).

Sub-plots: 4. Ethirimol as a seed-dressing: None (0), seed dressed (P).

Basal applications: 5 cwt (0:20:20) broadcast. Weedkiller: Ioxynil at 6 oz and mecoprop at 18 oz in 40 gals.

Cultivations, etc.: Ploughed: 28 Oct, 1968. Basal PK and 'Nitro-Chalk' applied, seed drilled: 9 Apr, 1969. 'Nitro-Chalk' top-dressing applied, weedkiller applied: 14 May. Harvested: 18 Aug. Previous crops: Sugar beet 1967 and 1968.

Standard errors per plot.

Grain, cwt: Whole plot: 2.53 or 7.5% (7 d.f.)

Sub-plot: 1.76 or 5.2% (8 d.f.)

SUMMARY OF RESULTS

GRAIN:CWT

	E	L	DA	MB	O	P	Mean
	(±1.26)		(±1.26)		(1) and (2)		(±0.89)
N1	29.6	37.0	34.2	32.4	31.6	34.9	33.3
N2	35.0	33.8	39.8	28.9	35.0	33.8	34.4
			(±1.26)		(1) and (2)		(±0.89)
	E	33.7	30.9	31.9	32.7	32.3	
	L	40.3	30.4	34.7	36.0	35.4	
					(1) and (2)		(±0.89)
			DA	35.7	38.4	37.0	
			MB	30.9	30.3	30.6	
Mean	(±0.44)				33.3	34.4	33.8

NO Plots

DA O 19.9  
DA P 18.7  
MB O 15.5  
MB P 17.8

Mean D.M.%: 80.3

STRAW:CWT

	E	L	DA	MB	O	P	Mean
N1	32.9	42.7	33.8	41.9	36.0	39.6	37.8
N2	44.9	50.7	44.0	51.6	46.4	49.2	47.8
	E	34.7	43.1		37.0	40.8	38.9
	L	43.1	50.3		45.3	48.1	46.7
			DA	MB	37.7	40.1	38.9
					44.7	48.7	46.7
Mean					41.2	44.4	42.8

NO Plots

DA O 17.8

DA P 15.6

MB O 16.5

MB P 19.6

Mean D.M.%: 53.9

**BARLEY**

(69/S/B/2)

IBDU (Iso-butylidene di-urea) as a nitrogenous fertiliser for barley,  
Saxmundham, Rotation I sidelands, 1969.

Design: 3 randomised blocks of 10 plots.

Area of each plot: 0.0023. Area harvested: 0.0009.

Treatments: None (0) (2 plots per block) and all combinations of:-

1. Nitrogen: 'Nitro-Chalk' applied either in seedbed (NS), or half in seedbed, half top-dressed (ND). IBDU in seedbed, either as powder (BP) or as granules (BG).
2. Levels of N: 50 lb (N1), 100 lb (N2).

Basal applications: 512 lb (0:20:20) broadcast. Weedkiller: Mecoprop at 36 oz and 2,4-D at 9 oz in 25 gals.

Cultivations, etc.: Ploughed: 23 Oct, 1968. Basal PK and seedbed nitrogen applied, seed drilled: 26 Mar, 1969. 'Nitro-Chalk' top-dressing applied: 23 May. Weedkiller applied: 23 May. Harvested: 20 Aug. Variety: Sultan.

Standard error per plot.

Grain, cwt: 3.63 or 16.0% (17 d.f.)

SUMMARY OF RESULTS

	O	NS	ND	BP	BG	Mean
GRAIN, CWT						
			(±2.10)			(±1.05)
N1		28.4	26.3	13.9	20.9	22.4
N2		26.3	29.4	27.0	25.8	27.1
Mean (±1.48)	14.8	27.4	27.8	20.5	23.4	22.8*
STRAW, CWT						
N1		28.9	24.7	16.6	20.8	22.7
N2		37.7	36.3	29.5	25.1	32.1
Mean	13.9	33.3	30.5	23.0	22.9	24.7*

\* General mean

Mean D.M. %: Grain: 81.7  
Straw: 76.5