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Yields of the Field Experiments 1981

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81/W/CS/253 Late N - W. Wheat

Rothamsted Research

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81/W/CS/253

LATE N

Object: To study the residual effects on w. wheat of a range of fertilisers applied to potatoes in 1980 - Woburn Lansome III.

Sponsors: F.V. Widdowson, A. Penny, T.M. Addiscott.

The second year, w. wheat.

For previous year see 80/W/CS/253.

Design: 3 randomised blocks of 16 plots.

Whole plot dimensions: 4.27 x 9.1.

Treatments: All combinations of:-

1. N FORM (80) Forms of nitrogen fertiliser in 1980:
 - AQ U Aqueous urea, injected before planting
 - AQ U+CS2 Aqueous urea + carbon disulphide at 10 kg, injected before planting
 - AQ U+NIT Aqueous urea + nitrapyrin at 1 kg, injected before planting
 - NC E 'Nitro-Chalk', all to the seedbed
 - NC E+L 'Nitro-Chalk', half to the seedbed, half in June
 - IBDU Isobutylidene diurea, all to the seedbed
2. N RATE (80) Rates of nitrogen fertiliser in 1980 (kg N):
 - 200
 - 300

plus four extra treatments all given 'Nitro-Chalk' in 1980:

EXTRA

- NC E100 At 100 kg N, all to the seedbed
- NC E400 At 400 kg N, all to the seedbed
- NC EL100 At 100 kg N, half to the seedbed, half in June
- NC EL400 At 400 kg N, half to the seedbed, half in June

Basal applications: Manures: (0:20:20) at 310 kg. N at 120 kg as 'Nitro-Chalk'. Weedkillers: Isoproturon at 2.4 l in 280 l. Mecoprop with bromoxynil and ioxynil (as 'Brittox' at 2.5 l) in 280 l. Fungicides: Prochloraz at 0.4 l with maneb at 1.2 kg and zineb at 0.13 kg in 280 l. Growth regulator: Chlormequat at 1.4 l in 280 l.

Seed: Flanders, sown at 190 kg.

Cultivations, etc.: - Heavy spring-tine cultivated: 15 Oct, 1980, 25 Oct. PK applied: 29 Oct. Seed sown, spring-tine cultivated in: 30 Oct. N applied: 9 Apr, 1981. Growth regulator applied: 20 Apr. Weedkillers applied: 22 Apr. Fungicides applied: 18 June. Combine harvested: 24 Aug.

81/W/CS/253

GRAIN DRY MATTER TONNES/HECTARE

***** TABLES OF MEANS *****

N RATE(80) N FORM(80)	200	300	MEAN
AQ U	7.35	7.86	7.61
AQ U+CS2	7.79	7.86	7.83
AQ U+NIT	7.16	8.06	7.61
NC E	7.59	8.06	7.82
NC E+L	7.85	7.71	7.78
IBDU	7.56	7.51	7.54
MEAN	7.55	7.84	7.70

EXTRA	NC E100	NC E400	NC EL100	NC EL400	MEAN
	7.26	7.75	7.86	7.26	7.53

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	EXTRA	N FORM(80)	N RATE(80)	N FORM(80) N RATE(80) & EXTRA
-----	0.458	0.324	0.187	0.458

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	30	0.560	7.3
GRAIN MEAN DM%	82.5		
PLOT AREA HARVESTED	0.00279		