

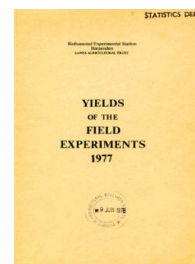
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED  
RESEARCH

## Yields of the Field Experiments 1977

[Full Table of Content](#)



---

### 77/R/CS/185 Late N - Wheat

#### Rothamsted Research

Rothamsted Research (1978) *77/R/CS/185 Late N - Wheat* ; Yields Of The Field Experiments 1977, pp 247 - 248 - DOI: <https://doi.org/10.23637/ERADOC-1-29>

77/R/CS/185

LATE N

Object: To study the residual effects on wheat of a range of fertilisers applied to potatoes in 1976 - Gt. Knott III.

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

The second year, wheat.

For previous year see 76/R/CS/185.

Design: 3 randomised blocks of 18 plots.

Whole plot dimensions: 4.27 x 12.19.

Treatments applied in 1976: All combinations of:-

1. N FORM(76) Forms of nitrogen fertiliser:

AA	Aqueous ammonia injected before planting
AA+NITRA	Aqueous ammonia + nitrapyrin ('N-Serve') at 1.1 kg injected before planting
AA+ATC	Aqueous ammonia + ammonium trithiocarbonate at 18 kg injected before planting
IB SMALL	IBDU (isobutylidene diurea), small granules to seedbed
IB LARGE	IBDU, large granules to seedbed
AN E+L	Ammonium nitrate half in seedbed, half in mid-June
AN E	Ammonium nitrate all in seedbed

2. N RATE(1) Rates of nitrogen fertiliser (kg N):

200  
300

plus four extra treatments given ammonium nitrate, all in the seedbed (kg N):

N RATE(2)

AN E 150  
AN E 250  
AN E 350  
AN E 400

Basal applications: Manures: (0:20:20) at 250 kg, combine drilled. 'Nitro-Chalk' at 280 kg. Weedkillers: Ioxynil at 0.53 kg with mecoprop at 1.6 kg in 220 l. Insecticide: Pirimicarb at 0.14 kg in 270 l. Growth regulator: Chlormequat at 1.7 l in 220 l.

Seed: Atou, sown at 200 kg.

Cultivations, etc.: - Deep-tine cultivated twice: 10 Dec, 1976. Rotary harrowed and seed sown: 16 Dec. N applied: 19 Apr, 1977. Weedkillers applied: 10 May. Growth regulator applied: 2 June. Insecticide applied: 13 July. Combine harvested: 9 Sept.

NOTE: An adjustment has been made by covariance for differences between rows of plots, which run in the direction of a valley across the site.

77/R/CS/185

GRAIN TONNES/HECTARE

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

N RATE(1)	200	300	MEAN
N FORM			
AA	6.26	6.12	6.19
AA+NITRA	6.50	6.78	6.64
AA+ATC	6.06	6.29	6.18
IB SMALL	6.61	7.16	6.88
IB LARGE	6.56	7.12	6.84
AN E+L	6.11	6.57	6.34
AN E	6.06	6.29	6.18
MEAN	6.31	6.62	6.46

N RATE(2)	AN E 150	AN E 250	AN E 350	AN E 400	MEAN
	6.25	6.37	6.31	6.42	6.34

GRAND MEAN 6.44

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

TABLE	N RATE(2)	N FORM	N RATE(1)	N FORM N RATE(1) & N RATE(2)
-----				
SED	0.361	0.250	0.127	0.348

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

STRATUM	DF	SE	CV%
BLOCK.WP	29	0.390	6.1

GRAIN MEAN DM% 78.7

PLOT AREA HARVESTED 0.00347