

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 1992

[Full Table of Content](#)



92/W/CS/388 Sulphur and Nitrogen - W. Oilseed Rape

Rothamsted Research

Rothamsted Research (1993) *92/W/CS/388 Sulphur and Nitrogen - W. Oilseed Rape* ; Yields Of The Field Experiments 1992, pp 98 - 99 - DOI: <https://doi.org/10.23637/ERADOC-1-47>

92/W/CS/388

SULPHUR AND NITROGEN

Object: To test the crop response to sulphur and whether nitrogen affects this response - Woburn, Butt Close W.

Sponsors: S.P. McGrath, G.F.J. Milford, J. Fieldsend.

The first year, w. rape.

Design: 3 blocks of 3 x 4 plots.

Plot dimensions: 4.0 x 10.0.

Treatments: All combinations of:-

1. **S** Sulphur (kg S) in spring as calcium sulphate:

S0	0
S1	10
S2	20
S4	40

2. **N** Nitrogen (kg N) in spring as 27% N:

N0	0
N1	180
N2	230

- NOTES:** (1) Nitrogen treatments were applied in two split applications.
(2) Because of poor growth nitrogen was applied at 50 kg N to the N0 plots on 23 Apr, 1992.
(3) Sulphur was applied as gypsum (17.5% S).

Experimental diary:

- 27-Aug-91 : B : Ploughed,
04-Sep-91 : B : Rolled, rotary harrowed, Falcon drilled at 7.0 kg.
07-Sep-91 : B : Rolled.
29-Oct-91 : B : 27% N at 145 kg.
06-Jan-92 : B : PK as (0:16:36) at 740 kg.
15-Jan-92 : B : Benazalox at 1.25 kg in 200 l.
13-Feb-92 : **T** : **N** N1 and N2: 27% N at 185 kg.
 S S1, S2 and S4: Gypsum applied.
01-Apr-92 : **T** : **N** N1 and N2: 27% N at 481 kg and 667 kg
 respectively.
23-Apr-92 : **T** : **N** N0: 27% N at 185 kg.
20-Jul-92 : B : Reglone at 3.0 l with Agral at 0.40 l in 400 l.
26-Jul-92 : B : Combine harvested.

Previous crops: W. wheat 1990 and 1991.

NOTE: Soil samples were taken for chemical analysis in autumn, late winter and spring. Plant samples were taken in winter, spring and summer for chemical analysis of crop components.

92/W/CS/388

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

***** Tables of means *****

N S	N0	N1	N2	Mean
S0	0.56	0.89	1.03	0.83
S1	0.77	1.29	1.40	1.15
S2	0.52	1.52	1.45	1.17
S3	0.55	1.55	1.70	1.27
Mean	0.60	1.31	1.40	1.10

*** Standard errors of differences of means ***

S	N	S N
0.113	0.098	0.195

***** Stratum standard errors and coefficients of variation *****

Stratum	d.f.	s.e.	cv%
BLOCK.WP	22	0.239	21.6
GRAIN MEAN DM%	77.2		

STRAW (AT 90% DRY MATTER) TONNES/HECTARE

***** Tables of means *****

N S	N0	N1	N2	Mean
S0	1.16	1.46	1.46	1.36
S1	1.07	1.64	2.29	1.66
S2	2.06	2.32	1.93	2.10
S3	1.04	2.17	2.07	1.76
Mean	1.33	1.90	1.93	1.72

STRAW MEAN DM% 71.1

PLOT AREA HARVESTED 0.00132