

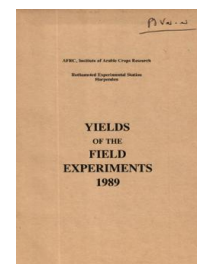
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## Yields of the Field Experiments 1989

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### 89/W/CS/339 Sulphur and Nitrogen - W. Wheat

#### Rothamsted Research

Rothamsted Research (1990) *89/W/CS/339 Sulphur and Nitrogen - W. Wheat* ; Yields Of The Field Experiments 1989, pp 110 - 111 - DOI: <https://doi.org/10.23637/ERADOC-1-40>

89/W/CS/339

**SULPHUR AND NITROGEN**

**Object:** To study the effects of differing amounts of sulphur on rates of sulphur uptake and on the yield of w. wheat and the extent to which responses are affected by amounts of nitrogen fertilizer - Woburn Butt Close II.

**Sponsor:** S.P. McGrath.

The first year, w. wheat.

**Design:** 3 randomised blocks of 12 plots.

**Whole plot dimensions:** 4.0 x 10.0.

**Treatments:** All combinations of:-

1. **S** Rates of sulphur (kg S) as calcium sulphate:

0  
10  
20  
40

2. **N** Rates of nitrogen (kg N) as 'Nitram':

0  
180  
230

**Basal applications:** Weedkillers: Paraquat at 0.80 kg ion in 220 l. Isoproturon at 1.5 kg in 220 l. Insecticide: Fonofos at 1.4 kg in 220 l. Fungicides: Carbendazim at 0.15 kg and prochloraz at 0.40 kg in 220 l. Propiconazole at 0.12 kg in 220 l.

**Seed:** Mercia, sown at 150 kg.

**Cultivations, etc.:-** Ploughed: 7 July, 1988. Paraquat applied: 19 Oct. Spring-tine cultivated, seed sown, harrowed: 21 Oct. Isoproturon applied: 8 Dec. Insecticide applied: 30 Jan, 1989. N and S treatments applied: 19 Apr. Carbendazim and prochloraz applied: 17 May. Propiconazole applied: 12 June. Combine harvested: 8 Aug. Previous crops: W. wheat 1987, fallow 1988.

89/W/CS/339

**GRAIN TONNES/HECTARE**

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

S N	0	10	20	40	Mean
0	2.94	2.20	2.29	1.87	2.32
180	4.64	4.51	4.77	3.84	4.44
230	4.47	5.26	4.13	4.45	4.58
Mean	4.02	3.99	3.73	3.38	3.78

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

S	N	S N
0.331	0.287	0.573

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	22	0.702	18.6
GRAIN MEAN DM%	88.6		

**STRAW TONNES/HECTARE**

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

S N	0	10	20	40	Mean
0	1.37	1.04	0.95	1.06	1.10
180	3.99	3.38	3.48	3.47	3.58
230	3.53	3.71	3.67	4.05	3.74
Mean	2.96	2.71	2.70	2.86	2.81

STRAW MEAN DM% 90.6

PLOT AREA HARVESTED 0.00165