

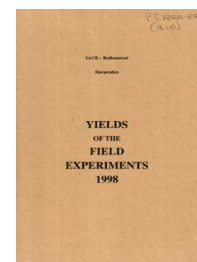
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## Yields of the Field Experiments 1998

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### 98/W/CS/482 Diagnosis of S Deficiency - W. Wheat

#### Rothamsted Research

Rothamsted Research (1999) *98/W/CS/482 Diagnosis of S Deficiency - W. Wheat* ; Yields Of The Field Experiments 1998, pp 106 - 107 - DOI: <https://doi.org/10.23637/ERADOC-1-52>

98/W/CS/482

### DIAGNOSIS OF S DEFICIENCY

**Object:** To develop reliable diagnostic methods for the prediction of sulphur deficiency - Woburn, Butt Close I.

**Sponsors:** F.J. Zhao, M.M.A. Blake-Kalff, S.P. McGrath.

The first year, w. wheat.

**Design:** 4 randomised blocks of 6 plots.

**Plot dimensions:** 3.0 x 12.0.

**Treatments:-**

| SULPHUR | Kg of sulphur: |
|---------|----------------|
| S0      | None           |
| S1      | 5              |
| S2      | 10             |
| S3      | 20             |
| S4      | 40             |
| S5      | 80             |

**Experimental diary:**

16-Sep-97 : B : Ploughed. Rolled.  
14-Oct-97 : T : **SULPHUR** S1, S2, S3, S4, S5: Gypsum applied at 29, 57, 114, 229 and 457 kg respectively.  
: B : Rotary harrowed. Riband, dressed Sibutol, drilled at 385 seeds m<sup>2</sup>.  
29-Jan-98 : B : Panther at 1.0 l with Atlas IPU at 1.0 l in 200 l.  
12-Feb-98 : B : 34.5% N at 145 kg.  
31-Mar-98 : B : 34.5% N at 377 kg.  
04-May-98 : B : Alto 100 SL at 0.6 l in 200 l.  
31-May-98 : B : Opus at 0.8 l in 200 l.  
12-Jun-98 : B : Folicur at 0.3 l with Bavistin DF at 0.3 kg in 200 l.  
02-Aug-98 : B : Roundup Biactive at 3.0 l in 200 l.  
13-Aug-98 : B : Combine harvested.

**NOTES:** (1) Plant samples were taken in April, May and June and analysed for glutathione and sulphur content. At harvest grain and straw were analysed for sulphur content.  
(2) Because of rabbit damage the yield of one plot with **SULPHUR** S2 was lost. An estimated value was used in the analysis.

98/W/CS/482

**GRAIN TONNES/HECTARE**

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

**SULPHUR**

|    |      |
|----|------|
| S0 | 5.32 |
| S1 | 6.75 |
| S2 | 6.13 |
| S3 | 5.47 |
| S4 | 6.13 |
| S5 | 6.32 |

Mean 6.02

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

**SULPHUR**

0.541

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

| Stratum | d.f. | s.e. | cv% |
|---------|------|------|-----|
|---------|------|------|-----|

|          |    |       |      |
|----------|----|-------|------|
| BLOCK.WP | 14 | 0.766 | 12.7 |
|----------|----|-------|------|

GRAIN MEAN DM% 87.8

PLOT AREA HARVESTED 0.00276