

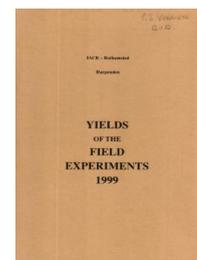
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Yields of the Field Experiments 1999

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99/W/CS/491 Efficiency of S Fertilizers - W. Rape

Rothamsted Research

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99/R/CS/488

Previous crops: W. rape 1997, w. wheat 1998.

GRAIN TONNES/HECTARE

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

| FUNGCIDE CULTIVAR | - | P | C | Z | D | Mean |
|----------------------|------|------|------|------|------|------|
| L | 7.01 | 6.32 | 7.12 | 5.99 | 6.57 | 6.60 |
| A | 6.50 | 6.00 | 6.61 | 6.49 | 7.20 | 6.56 |
| M | 5.61 | 6.31 | 6.68 | 6.67 | 7.02 | 6.46 |
| S | 6.11 | 6.67 | 5.51 | 7.26 | 5.05 | 6.12 |
| Mean | 6.31 | 6.32 | 6.48 | 6.60 | 6.46 | 6.43 |

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

| CULTIVAR | FUNGCIDE | CULTIVAR FUNGCIDE |
|----------|----------|----------------------|
| 0.284 | 0.318 | 0.636 |

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

| Stratum | d.f. | s.e. | cv% |
|----------|------|-------|------|
| BLOCK.WP | 57 | 0.899 | 14.0 |

GRAIN MEAN DM% 88.3

PLOT AREA HARVESTED 0.00228

99/W/CS/491

EFFICIENCY OF S FERTILIZERS

Object: To measure the effect of different forms of sulphur on yields of wheat and a subsequent rape crop with and without fresh sulphur - Woburn, Stackyard III.

Sponsors: F.J. Zhao, S.P. McGrath.

The second year, w. rape.

For previous year see 98/W/CS/491.

Design: 4 randomised blocks of 4 x 2 + 1 split into 2.

Whole plot dimensions: 4.0 x 12.0.

Sub-plot dimensions: 2.0 x 12.0.

Treatments: All combinations of:-

Whole plots:

| | |
|------------------|--------------------------------|
| 1. S FORM | Form of sulphur in 1998: |
| (T+A) | Tiger 90 and ammonium sulphate |
| (AS) | Ammonium sulphate |
| (T90) | Tiger 90 |
| (NAS) | Sodium thiosulphate |

| | |
|--------------------|------------------------------|
| 2. APP TIME | Time of application in 1998: |
| (SB) | To the seedbed |
| (MAR) | 17-Mar-98 |

Sub-plots:

| | |
|-------------------|---------------------------|
| 3. GYP SUM | Gypsum (17.5% S) in 1999: |
| SG | Sulphur at 30 kg |
| S- | None |

EXTRA

| | |
|---|-------------------|
| - | None (duplicated) |
|---|-------------------|

Experimental diary:

| | | |
|-----------|-------|--|
| 02-Sep-98 | : B : | : Ploughed and pressed. |
| 04-Sep-98 | : B : | : Rotary harrowed. Drilled Apex, tr. Lindex-Plus FS Seed Treatment, at 120 seeds/m ² with the Accord drill. |
| 16-Sep-98 | : B : | : 34.5% N at 101 kg. |
| 17-Sep-98 | : B : | : tm)Butisan S at 1.0 l in 200 l. |
| | : B : | : tm)Cyperkill 10 at 250 ml in 200 l. |
| 02-Dec-98 | : B : | : tm)Cyperkill 10 at 250 ml in 200 l. |
| | : B : | : tm)Punch C at 0.4 l in 200 l. |
| 22-Feb-99 | : B : | : 34.5% N at 290 kg. |

99/W/CS/491

Experimental diary:

23-Feb-99 : B : : Punch C at 0.4 l in 200 l.
 15-Apr-99 : T : SG : Gypsum at 171 kg.
 06-May-99 : B : : Bavistin DF at 1.0 kg in 200 l.
 : B : : Fastac at 200 ml.
 13-Jul-99 : B : : tm)Reglone at 3.0 l in 400 l.
 : B : : tm)Enhance at 400 ml in 400 l.
 22-Jul-99 : B : : Combine harvested.

NOTE: One sub-plot with treatment **EXTRA** - received the wrong treatment an estimated value was used in the analysis.

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

| APP TIME | (SB) | (MAR) | Mean |
|---------------|------|-------|------|
| S FORM | | | |
| (T+A) | 3.02 | 2.85 | 2.94 |
| (AS) | 2.59 | 2.90 | 2.75 |
| (T90) | 2.72 | 3.10 | 2.91 |
| (NAS) | 2.78 | 2.74 | 2.76 |
| Mean | 2.78 | 2.90 | 2.84 |

| GYPSUM | SG | S- | Mean |
|---------------|------|------|------|
| S FORM | | | |
| (T+A) | 3.41 | 2.47 | 2.94 |
| (AS) | 3.21 | 2.28 | 2.75 |
| (T90) | 3.51 | 2.32 | 2.91 |
| (NAS) | 3.36 | 2.16 | 2.76 |
| Mean | 3.37 | 2.31 | 2.84 |

| GYPSUM | SG | S- | Mean |
|-----------------|------|------|------|
| APP TIME | | | |
| (SB) | 3.28 | 2.27 | 2.78 |
| (MAR) | 3.46 | 2.34 | 2.90 |
| Mean | 3.37 | 2.31 | 2.84 |

| S FORM | GYPSUM | SG | S- |
|--------|--------|------|------|
| (T+A) | (SB) | 3.49 | 2.55 |
| | (MAR) | 3.32 | 2.39 |
| (AS) | (SB) | 3.20 | 1.98 |
| | (MAR) | 3.22 | 2.58 |
| (T90) | (SB) | 3.21 | 2.22 |
| | (MAR) | 3.80 | 2.41 |
| (NAS) | (SB) | 3.22 | 2.33 |
| | (MAR) | 3.50 | 1.98 |

EXTRA - 1.88

GRAND MEAN 2.73