

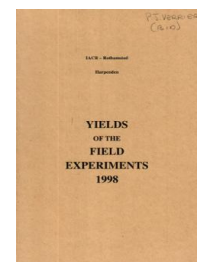
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98/R/CS/326 and 98/W/CS/326 Amounts of Straw - W. Wheat

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98/R/CS/326 and 98/W/CS/326

AMOUNTS OF STRAW

Object: To study the effects of different amounts of straw, incorporated into the soil, on w. wheat - Rothamsted (R) Great Knott III, Woburn (W) Far Field I.

Sponsors: M.J. Glendining, J.F. Jenkyn.

The 12th year, w. wheat.

For previous years see 87-97/R & W/CS/326.

Design: 4 randomised blocks of 4 plots (R).
3 randomised blocks of 4 plots (W).

Whole plot dimensions: 3.0 x 13.5 (R).
3.0 x 14.5 (W).

Treatments:

STRAW Amounts of straw incorporated into the seedbed (t per ha 85% DM), cumulative to previous annual dressings:

| | | R | W |
|----------|-------------------|------|------|
| NONE | None | - | - |
| NORMAL | Normal | 5.2 | 4.4 |
| 2 NORMAL | Twice normal | 10.4 | 8.8 |
| 4 NORMAL | Four times normal | 20.8 | 17.6 |

Experimental diary:

Great Knott III (R):

- 02-Sep-97 : T : **STRAW** NORMAL, 2 NORMAL, 4 NORMAL: Straw applied and chopped.
: T : **STRAW** NONE: Straw removed.
- 09-Sep-97 : B : PK as (0:20:32) at 1250 kg.
- 11-Sep-97 : B : Scythe LC at 3.0 l in 300 l.
- 08-Oct-97 : B : Ploughed.
- 22-Oct-97 : B : Rotary harrowed, Hereward, dressed Anchor, drilled at 380 seeds per m².
- 13-Jan-98 : B : Hawk at 2.5 l with Sprayprover at 1.0 l in 200 l.
- 13-Feb-98 : B : 34.5% N at 116 kg.
- 17-Mar-98 : B : Ally at 20 g with Alpha Briotril 24/16 at 0.5 l in 200 l.
- 27-Apr-98 : B : 34.5% N at 460 kg.
- 09-May-98 : B : Standon Tebuconazole at 0.7 l with Starane 2 at 0.5 l in 200 l.
- 28-May-98 : B : Opus at 0.7 l in 200 l.
- 12-Jun-98 : B : Bavistin DF at 0.5 kg with Folicur at 0.5 l in 100 l.
- 17-Aug-98 : B : Combine harvested.

98/R/CS/326 and 98/W/CS/326

Far Field I (W):

02-Sep-97 : T : **STRAW** NORMAL, 2 NORMAL, 4 NORMAL: Straw applied.
 : T : **STRAW** NONE: Straw removed.
19-Sep-97 : B : Ploughed.
01-Oct-97 : B : Rolled, rotary harrowed, Hereward, dressed Sibutol,
 drilled, at 325 seeds per m².
22-Oct-97 : B : Avadex BW Granular at 22.5 kg.
29-Jan-98 : B : Panther at 1.0 l with Atlas IPU at 1.0 l in 200 l.
11-Feb-98 : B : 34.5% N at 145 kg.
19-Mar-98 : B : Mn and Cu as Phosyn Manganese at 2.0 l with Profol
 Copper at 0.25 l in 200 l.
30-Mar-98 : B : 34.5% N at 377 kg.
04-May-98 : B : Alto 100 SL at 0.6 l with Tripart Brevis at 2.0 l in
 200 l.
21-May-98 : B : Ally at 20 g 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.
12-Aug-98 : B : Combine harvested.

NOTE: Samples of grain were analysed for thousand grain weight, hectolitre weight, Hagberg falling numbers and nitrogen content. Straw was sampled for nitrogen content.

98/R/CS/326 GREAT KNOTT III (R)

GRAIN TONNES/HECTARE

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

| STRAW | |
|--------------|------|
| NONE | 8.61 |
| NORMAL | 8.71 |
| 2 NORMAL | 8.75 |
| 4 NORMAL | 9.13 |
| Mean | 8.80 |

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

| STRAW | |
|--------------|-------|
| | 0.191 |

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

| Stratum | d.f. | s.e. | cv% |
|----------------|------|-------|-----|
| BLOCK.WP | 9 | 0.271 | 3.1 |
| GRAIN MEAN DM% | 86.6 | | |

STRAW TONNES/HECTARE

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

| STRAW | |
|--------------|------|
| NONE | 5.81 |
| NORMAL | 6.01 |
| 2 NORMAL | 6.12 |
| 4 NORMAL | 6.68 |
| Mean | 6.15 |

STRAW MEAN DM% 89.4

PLOT AREA HARVESTED 0.00310

98/W/CS/326 FAR FIELD I (W)

GRAIN TONNES/HECTARE

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

| STRAW | |
|--------------|------|
| NONE | 7.70 |
| NORMAL | 7.65 |
| 2 NORMAL | 7.88 |
| 4 NORMAL | 7.73 |
| Mean | 7.74 |

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

STRAW
0.403

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

| Stratum | d.f. | s.e. | cv% |
|----------|------|-------|-----|
| BLOCK.WP | 6 | 0.494 | 6.4 |

GRAIN MEAN DM% 89.0

STRAW TONNES/HECTARE

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

| STRAW | |
|--------------|------|
| NONE | 5.61 |
| NORMAL | 5.11 |
| 2 NORMAL | 6.13 |
| 4 NORMAL | 5.28 |
| Mean | 5.53 |

STRAW MEAN DM% 90.5

PLOT AREA HARVESTED 0.00333