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93/R/CS/326 and 93/W/CS/326 Amounts of Straw - W. Wheat

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93/R/CS/326 and 93/W/CS/326

AMOUNTS OF STRAW

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

Sponsors: R.D. Prew, D.G. Christian, J.F. Jenkyn, E.T.G. Bacon.

The seventh year, w. wheat.

For previous years see 87-92/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 (rape straw in autumn 1992) incorporated into seedbed (t per ha 85% DM), cumulative to previous annual dressings:

		R	W
NONE	None	-	-
NORMAL	Normal	2.7	2.7
2 NORMAL	Twice normal	5.4	5.4
4 NORMAL	Four times normal	10.8	10.8

Experimental diary:

Great Knott III (R)

- 06-Aug-92 : T : **STRAW** NORMAL, 2 NORMAL, 4 NORMAL: Straw applied.
- 07-Aug-92 : B : Straw and stubble chopped..
- 18-Aug-92 : B : Gramoxone 100 at 2.0 l with Farmon Blue at 0.1 l in 200 l.
- 14-Oct-92 : B : Ploughed.
- 16-Oct-92 : B : Rotary harrowed, Soissons, dressed Cerevax, drilled at 400 seeds per square metre.
- 22-Oct-92 : B : Draza at 5.5 kg.
- 13-Nov-92 : B : Avadex BW Granular at 22.5 kg.
- 24-Nov-92 : B : Draza at 5.5 kg.
- 24-Feb-93 : B : Panther at 2.0 l in 200 l.
- 08-Mar-93 : B : 34.5% N at 120 kg.
- 15-Apr-93 : B : Halo at 2.0 l with Tripart Brevis at 2.2 l in 200 l.
- 16-Apr-93 : B : 34.5% N at 460 kg.
- 22-Jun-93 : B : Corbel at 0.50 l and Radar at 0.50 l in 200 l.
- 19-Aug-93 : B : Combine harvested.

93/R/CS/326 and 93/W/CS/326

Experimental diary:

Far Field I (W)

10-Aug-92 : T : STRAW NORMAL, 2 NORMAL, 4 NORMAL: Straw applied.
 : B : Straw and stubble chopped.
11-Aug-92 : B : Subsoiled to 45 cm with tines 1.5 m apart.
29-Sep-92 : B : Roundup at 4.0 l in 200 l.
05-Oct-92 : B : Heavy spring-tine cultivated to 20 cm.
07-Oct-92 : B : Discd twice to 10 cm.
09-Oct-92 : B : Rotary harrowed, Soissons, dressed Cerevax, drilled at
 350 seeds per square metre.
 : B : Avadex BW Granular at 4.2 l in 200 l.
12-Oct-92 : B : Pre-Empt at 5.0 l with Scythe at 3.0 l in 200 l.
16-Oct-92 : B : Draza at 5.5 kg.
16-Mar-93 : B : 34.5% N at 120 kg.
15-Apr-93 : B : Starane 2 at 1.0 l with New 5C Cycocel at 2.5 l in
 200 l.
30-Apr-93 : B : 34.5% N at 460 kg.
18-May-93 : B : Halo at 2.0 l and Mistral at 0.25 l in 200 l.
22-Jun-93 : B : Ashlade Mancozeb FL at 3.0 l and Corbel at 0.50 l in
 200 l.
14-Aug-93 : B : Combine harvested.

- NOTES:** (1) Establishment counts were made in autumn. Shoot numbers and dry weights in spring, fertile ear numbers at anthesis and harvest index were measured.
(2) Foot and root rots were assessed in summer.

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

GRAIN TONNES/HECTARE

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

STRAW	
NONE	10.01
NORMAL	9.94
2 NORMAL	10.09
4 NORMAL	10.20
Mean	10.06

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

STRAW
0.186

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	9	0.263	2.6

GRAIN MEAN DM% 84.8

PLOT AREA HARVESTED 0.00306

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

GRAIN TONNES/HECTARE

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

STRAW	
NONE	8.99
NORMAL	8.46
2 NORMAL	8.36
4 NORMAL	8.65
Mean	8.61

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

STRAW
0.685

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	6	0.839	9.7

GRAIN MEAN DM% 82.7

PLOT AREA HARVESTED 0.00316