

Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Results of the Classical and Other Long-term Experiments 2005

Results of the
Classical
and other
Long-term Experiments
2005

Rothamsted Research

[Full Table of Content](#)

05/R/CS/326 and 05/W/CS/326 - Amount of Straw

Rothamsted Research

Rothamsted Research (2006) *05/R/CS/326 and 05/W/CS/326 - Amount of Straw* ; Results Of The Classical And Other Long-Term Experiments 2005, pp 27 - 30 - **DOI:**

<https://doi.org/10.23637/ERADOC-1-262>

05/R/CS/326 and 05/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, P.C. Brookes.

The 18th year, w. wheat.

For previous years see 87-04/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). 0.004 ha
3.0 x 14.5 (W).

Treatments:

STRAW Amounts of straw incorporated into the seedbed, cumulative to previous annual dressings:

		R	W
NONE	None	-	-
NORMAL	Normal	4.31	1.68
2 NORMAL	Twice normal	8.62	3.36
4 NORMAL	Four times normal	17.24	6.72

Experimental diary:

Great Knott III (R):

02-Sep-04 : T : : Straw treatments applied.
07-Sep-04 : T : : Chopped straw.
21-Sep-04 : B : : Ploughed 35 cm furrows.
22-Sep-04 : B : : Cultipress
27-Sep-04 : B : : Combination drilled, Hereward, tr. Sibutol Secur, at 350 seeds/m² with the Accord drill, rolled.
05-Nov-04 : B : : tm)Claymore at 3.3 l in 200 l.
: B : : tm)Alpha IPU 500 at 2.5 l in 200 l.
: B : : tm)Hallmark with Zeon Technology at 50 ml in 200 l.
19-Mar-05 : B : : tm)Duplosan KV at 1.5 l in 200 l.
: B : : tm)Atlantis at 0.4 l in 200 l.
: B : : tm)Biopower at 1.0 l in 200 l.
03-Apr-05 : B : : Sulphur Gold at 167 kg. (50 kg N).
30-Apr-05 : B : : 34.5% N at 406 kg. (140 kg N).
27-May-05 : B : : tm)Opus at 0.75 l in 200 l.
: B : : tm)Twist at 0.8 l in 200 l.
: B : : tm)Starane 2 at 0.75 l in 200 l.
17-Aug-05 : B : : Combine harvested plots for yield, combined discards, swathed straw and weighed.

05/R/CS/326 and 05/W/CS/326

Experimental diary:

Far Field I (W):

07-Sep-04 : T : : Straw treatments applied.
26-Sep-04 : B : : Glyphosate 360 at 4.0 l in 200 l.
02-Oct-04 : B : : Ploughed 35 cm furrows.
 : B : : Power harrowed, drilled, Hereward, tr. Sibutol Secur
 at 350 seeds/m² with the Accord drill.
14-Nov-04 : B : : tm)Claymore at 2.5 l in 200 l.
 : B : : tm)Alpha IPU 500 at 2.5 l in 200 l.
 : B : : tm)Hallmark with Zeon Technology at 50 ml in 200 l.
09-Apr-05 : B : : Sulphur Gold 30% N, 7.6% S at 167 kg.
14-May-05 : B : : Sulphur Gold 30% N, 7.6% S at 467 kg.
15-May-05 : B : : tm)Opus at 0.75 l in 200 l.
 : B : : tm)Amistar Opti at 1.5 l in 200 l.
 : B : : tm)Starane 2 at 0.5 l in 200 l.
09-Jun-05 : B : : tm)Amistar at 0.3 l in 200 l.
 : B : : tm)Opus at 0.5 l in 200 l.
02-Sep-05 : T : : Combine harvested plots for yield, combined
 discards, swathed straw, sampled, baled and weighed
 straw.

NOTE: Grain and straw samples were taken for N analysis.

05/R/CS/326

GRAIN TONNES/HECTARE

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

STRAW	
NONE	8.37
NORMAL	7.98
2 NORMAL	8.17
4 NORMAL	7.87
Mean	8.10

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

STRAW
0.224

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

Stratum	d.f.	s.e.	cv%
Blocks.Plots	9	0.317	3.9
GRAIN MEAN DM%	85.2		

STRAW TONNES/HECTARE

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

STRAW	
NONE	5.81
NORMAL	5.39
2 NORMAL	5.74
4 NORMAL	5.54
Mean	5.62

STRAW MEAN DM% 93.6

PLOT AREA HARVESTED 0.00284

05/W/CS/326

GRAIN TONNES/HECTARE

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

STRAW	
NONE	5.88
NORMAL	5.15
2 NORMAL	5.62
4 NORMAL	5.95
Mean	5.65

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

STRAW
0.290

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

Stratum	d.f.	s.e.	cv%
Blocks.Plots	6	0.355	6.3

GRAIN MEAN DM% 89.0

STRAW TONNES/HECTARE

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

STRAW	
NONE	2.51
NORMAL	3.27
2 NORMAL	2.94
4 NORMAL	2.50
Mean	2.80

STRAW MEAN DM% 92.3

PLOT AREA HARVESTED 0.00305