

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

# Yields of the Field Experiments 2011

[Full Table of Content](#)



Results of the  
Classical and other  
Long-term Experiments  
2011

---

## R/CS/326 & W/CS/326 Amounts of Straw

### Rothamsted Research

Rothamsted Research (2012) *R/CS/326 & W/CS/326 Amounts of Straw* ; Yields Of The Field Experiments 2011, pp 51 - 54 - DOI: <https://doi.org/10.23637/ERADOC-1-221>

## 11/R/CS/326 and 11/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:** A Macdonald and M. J. Glendining,

The 25<sup>th</sup> year, w. wheat

For previous years see Yield Books for 87-10/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 (t/ha), cumulative to previous annual dressings:

		R	W
NONE	None	-	-
NORMAL	Normal	3.50	3.12
2 NORMAL	Twice normal	7.00	6.24
4 NORMAL	Four times normal	14.00	12.48

### Experimental Diary

#### Great Knott III (R)

			Rate	Unit
04-Sept-10	a	Load straw		
13-Sep-10	a	Lime - Applied by contractors	4	t/ha
20-Sep-10	a	Reaper	3	l/ha
21-Sep-10	a	Ploughing started		
22-Sep-10	a	Ploughing completed		
11-Oct-10	a	Cultipressed		
15-Oct-10	a	Drilled Hereward trt Redigo Deter - 350 seeds/m <sup>2</sup>	158	kg/ha
16-Oct-10	a	Rolled		
17-Oct-10	p	Sprayed Regatta - water volume = 200 l/ha	0.6	l/ha
13-Dec-10	p	Spread Avadex Excel 15 G	15	kg/ha
09-Mar-11	f	Applied Double Top Fertilizer -	133	kg/ha
29-Mar-11	p	Sprayed Cherokee in 118 l water	1.25	l/ha
08-Apr-11	f	Applied Nitram Fertiliser	262	kg/ha
13-Apr-11	p	Sprayed Pacifica and Bio-Power - wheat only	0.5 1.0	kg/ha l/ha

21-Apr-11	p	Sprayed Opus, Bravo 500 and Agriguard Chlormequat - Wheat only. In 200 l water	0.8 1.0 2.25	l/ha l/ha l/ha
06-May-11	p	Sprayed Bravo 500, Tracker, Agriguard Chlormequat 720 and Justice in 200 l water. Wheat only	1.0 1.0 2.25 0.25	l/ha l/ha l/ha l/ha
10-May-11	f	Applied Nitram	261	kg/ha
11-May-11	a	Cut paths		
20-May-11	p	Sprayed Opus Comet 200 and Bravo 500	0.8 0.6 1.0	l/ha l/ha l/ha
23-May-11	a	Cut paths		
08-Jun-11	a	Cut paths		
27-Jun-11	a	Cut paths		
26-Jul-11	a	Cut paths		
16-Aug-11	a	Combined for yields		

#### Far Field I (W)

			Rate	Unit
10-Oct-10	a	Straw treatment applied, chopped and spread, rate 1 = 15.3 kg.		
16-Oct-10	a	Ploughed with 3 furrow Ransome at 14".		
18-Oct-10	s	Combination Drilled Hereward, dressed Beret Gold. Cambridge Rolled- 350 seeds/m <sup>2</sup> .		
03-Mar-11	f	Broadcast Double Top	185	kg/ha
26-Mar-11	p	Sprayed Atlantis WG + Bio Power. Atlantis with Biopower in 200 l water.	0.4 1.0	kg/ha l/ha
28-Mar-11	p	Sprayed wheat with Cherokee and Manganese in 200 l water.	1.25 1.5	l/ha l/ha
18-Apr-11	f	Broadcast 34.5 %N Nitram.	262	kg/ha
11-May-11	p	Sprayed Ally Max SX with Gala with Opus and Bravo 500 in 200 l water	42 0.75 1.0	g/ha l/ha l/ha
16-May-11	f	Broadcast Nitram, 34.5%N.	116	kg/ha
20-May-11	p	Sprayed Comet with Opus and Bravo 500 in 200 l water.	0.6 0.8 1.0	l/ha l/ha l/ha
01-Sep-11	a	Combined for yield		
02-Sep-11	a	Straw weights		

11/R/CS/326

**GRAIN TONNES/HECTARE**

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

Treatment	
-	7.47
1	7.66
2	7.73
4	7.82
Mean	7.67

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

Table	Treatment
s.e.d.	0.141

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

Stratum	d.f.	s.e.	cv%
Blocks.Plots	9	0.200	2.6

Grain mean dm% 81.8

**STRAW TONNES/HECTARE**

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

Treatment	
-	2.67
1	3.05
2	2.76
4	3.36
Mean	2.96

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

Table	Treatment
s.e.d.	0.279

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

Straw (at 85% dry matter) tonnes/hectare

Stratum	d.f.	s.e.	cv%
Blocks.Plots	9	0.394	13.3

Straw mean dm% 80.2

Plot area harvested 0.00284

11/W/CS/326

**GRAIN TONNES/HECTARE**

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

Treatment	
-	3.40
1	4.05
2	3.25
4	3.24
Mean	3.49

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

Table	Treatment
s.e.d.	0.656

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

Stratum	d.f.	s.e.	cv%
Blocks.Plots	6	0.803	23.0

GRAIN MEAN DM% 86.8

**STRAW TONNES/HECTARE**

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

Treatment	
-	1.56
1	1.92
2	1.60
4	1.53
Mean	1.65

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

Table	Treatment
s.e.d.	0.347

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

Stratum	d.f.	s.e.	cv%
Blocks.Plots	6	0.4.25	25.7

STRAW MEAN DM% 90.8

Plot area harvested 0.00305