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## Yields of the Field Experiments 1997

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### 97/R/CS/437 Set-aside, Cultivations and Crops - W. Wheat

#### Rothamsted Research

Rothamsted Research (1998) *97/R/CS/437 Set-aside, Cultivations and Crops - W. Wheat* ; Yields Of The Field Experiments 1997, pp 79 - 81 - DOI: <https://doi.org/10.23637/ERADOC-1-53>

97/R/CS/437

### SET-ASIDE, CULTIVATION AND CROPS

**Object:** To measure the establishment, growth and yield of w. wheat and w. rape following a range of cultivations and herbicide applications after natural regeneration set-aside. To assess levels of soil nitrogen and weeds in the two crops and diseases in the wheat - Bylands.

**Sponsors:** J.F. Jenkyn and R.J. Gutteridge.

The third year, w. wheat.

For previous year see 96/R/CS/437

**Design:** 3 randomised blocks of 5 x 2 plots split into 2 sub-plots.

**Whole plot dimensions:** 12.0 x 26.0.

**Sub-plot dimensions:** 10.0 x 12.0.

**Treatments:** All combinations of:-

Whole plots

1. **SETDESTR** Method and time of destruction of set-aside in 1995:

(PG)	Ploughed in May, glyphosate pre-drilling
(PC)	Ploughed in May, cultivated in June and July
(MP)	Minimally cultivated in May, ploughed in August
(HP)	Herbicide in May, ploughed in August
(-P)	Ploughed in August

2. **CROP** Crop in 1996:

(R)	Winter rape
(W)	Winter wheat

Sub-plots

3. **NITROGEN** Fertilizer nitrogen in 1996 (kg N):

(-)	None
(N)	160

**Experimental diary:**

23-Aug-96 : B : Ploughed and furrow pressed.  
10-Oct-96 : B : Roundup at 4.0 l in 200 l.  
16-Oct-96 : B : Spring-tine cultivated. Rotary harrowed, Genesis dressed Sibutol, drilled at 380 seeds per m<sup>2</sup>. Rolled.  
27-Jan-97 : B : Panther at 2.0 l in 200 l.  
10-Mar-97 : B : 34.5% N at 118 kg.  
01-Apr-97 : B : 34.5% N at 320 kg.  
26-May-97 : B : Folicur at 0.5 l with Pointer at 0.5 l in 300 l.  
11-Aug-97 : B : Combine harvested.

97/R/CS/437

NOTE: Plant samples were taken in July to assess root and stem base diseases.

**GRAIN TONNES/HECTARE**

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

CROP	(R)	(W)	Mean
<b>SETDESTR</b>			
(PG)	7.32	7.06	7.19
(PC)	7.48	6.76	7.12
(MP)	7.28	6.55	6.91
(HP)	7.72	6.72	7.22
(-P)	7.09	6.66	6.87
Mean	7.38	6.75	7.06

NITROGEN	(-)	(N)	Mean
<b>SETDESTR</b>			
(PG)	7.16	7.21	7.19
(PC)	7.07	7.17	7.12
(MP)	6.64	7.18	6.91
(HP)	7.12	7.32	7.22
(-P)	6.74	7.01	6.87
Mean	6.95	7.18	7.06

NITROGEN	(-)	(N)	Mean
<b>CROP</b>			
(R)	7.15	7.60	7.38
(W)	6.74	6.75	6.75
Mean	6.95	7.18	7.06

SETDESTR	NITROGEN		
	(-)	(N)	
(PG)	(R)	7.27	7.37
	(W)	7.05	7.06
(PC)	(R)	7.43	7.54
	(W)	6.71	6.80
(MP)	(R)	6.87	7.69
	(W)	6.41	6.68
(HP)	(R)	7.42	8.02
	(W)	6.82	6.62
(-P)	(R)	6.76	7.42
	(W)	6.71	6.60

97/R/CS/437

GRAIN TONNES/HECTARE

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

	SETDESTR	CROP	NITROGEN	SETDESTR CROP
	0.177	0.112	0.093	0.251
	SETDESTR NITROGEN	CROP NITROGEN	SETDESTR CROP NITROGEN	
	0.230	0.146	0.326	
Except when comparing means with the same level(s) of	SETDESTR			
	0.208			
	CROP	0.132		
	SETDESTR.CROP		0.294	

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	18	0.307	4.4
BLOCK.WP.SP	20	0.360	5.1

GRAIN MEAN DM% 90.0

SUB-PLOT AREA HARVESTED 0.00240