

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 1997

[Full Table of Content](#)



97/R/CS/457 Set-aside, Cultivations and Crops - W. Wheat, W. Rape

Rothamsted Research

Rothamsted Research (1998) 97/R/CS/457 *Set-aside, Cultivations and Crops - W. Wheat, W. Rape* ;
Yields Of The Field Experiments 1997, pp 87 - 89 - DOI: <https://doi.org/10.23637/ERADOC-1-53>

97/R/CS/457

SET-ASIDE, CULTIVATIONS 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 soil nitrogen and weeds in the two crops and diseases in the wheat - Scout.

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

The second year, w. wheat and w. rape.

Design: 3 randomised blocks of 5 x 2 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:-

1. **SETDESTR** Method and time of destruction of set-aside in 1996:

(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 1997

R	Winter rape
W	Winter wheat

Sub-plots

3. **NITROGEN** Fertilizer nitrogen in 1997 (kg N):

-	None
N	160

Experimental diary:

14-May-96 : T : **SETDESTR** (PG), (PC), (MP), (P): Topped.
 15-May-96 : T : **SETDESTR** (MP): Heavy spring-tine cultivated to 10 cm.
 : T : **SETDESTR** (PG), (PC): Ploughed.
 30-May-96 : T : **SETDESTR** (MP): Roundup at 1.5 l with Vassgro Non-ionic
 at 200 ml in 200 l.
 27-Jun-96 : T : **SETDESTR** (PC): Heavy spring-tine cultivated.
 01-Jul-96 : T : **SETDESTR** (MP), (P): Topped.
 23-Jul-96 : B : Chalk at 5.0 t.
 25-Jul-96 : B : PK as (0:20:32) at 1384 kg.
 30-Jul-96 : T : **SETDESTR** (PC): Heavy spring-tine cultivated.
 : T : **SETDESTR** (MP), (HP), (-P): Topped, ploughed.
 15-Aug-96 : T : **SETDESTR** (PG): Roundup at 3.0 l in with Vassgro
 Non-ionic at 150 ml in 392 l.
 28-Aug-96 : B : Heavy spring-tine cultivated.

97/R/CS/457

Experimental diary:

28-Aug-96 : T : CROP R: Rotary harrowed, Apex, dressed Vitavax RS,
drilled at 120 seeds per m².
03-Oct-96 : T : CROP W: Rotary harrowed, Genesis, dressed Sibutol,
drilled at 380 seeds per m².
10-Oct-96 : T : CROP R: Butisan S at 1.5 l in 200 l.
28-Jan-97 : T : CROP W: Panther at 2.0 l in 200 l.
28-Feb-97 : T : CROP R, NITROGEN N: 34.5% N at 175 kg.
10-Mar-97 : T : CROP W, NITROGEN N: 34.5% N at 118 kg.
18-Mar-97 : T : CROP R, NITROGEN N: 34.5% N at 289 kg.
04-Apr-97 : T : CROP W, NITROGEN N: 34.5% N at 347 kg.
04-Jun-97 : T : CROP W: Folicur at 0.5 l with Mallard 750 EC at 0.3 l
and Pointer at 0.5 l in 300 l.
16-Jul-97 : T : CROP R: Reglone 360 at 3.0 l with Vassgro Non-ionic at
392 ml in 400 l.
23-Jul-97 : T : CROP R: Combine harvested and straw chopped.
11-Aug-97 : T : CROP W: Combine harvested and straw chopped.

Previous crops: Linseed 1994, w. wheat 1995.

NOTE: Wheat plants were sampled in April and July to assess root and stem
bases diseases.

GRAIN TONNES/HECTARE

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

CROP	R	W	Mean
SETDESTR			
(PG)	3.49	5.88	4.68
(PC)	3.18	7.19	5.18
(MP)	2.76	5.84	4.30
(HP)	2.93	5.76	4.35
(-P)	2.35	5.03	3.69
Mean	2.94	5.94	4.44
NITROGEN	-	N	Mean
SETDESTR			
(PG)	3.47	5.90	4.68
(PC)	3.84	6.53	5.18
(MP)	2.77	5.83	4.30
(HP)	3.29	5.40	4.35
(-P)	2.13	5.25	3.69
Mean	3.10	5.78	4.44
NITROGEN	-	N	Mean
CROP			
R	2.05	3.83	2.94
W	4.14	7.74	5.94
Mean	3.10	5.78	4.44

97/R/CS/457

GRAIN TONNES/HECTARE

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

	CROP	R		W	
SETDESTR	NITROGEN	-	N	-	N
(PG)		2.79	4.19	4.14	7.61
(PC)		2.14	4.22	5.54	8.84
(MP)		1.72	3.80	3.82	7.87
(HP)		2.17	3.70	4.41	7.11
(-P)		1.46	3.24	2.81	7.25

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

SETDESTR	CROP	NITROGEN	SETDESTR
			CROP
0.359	0.227	0.145	0.508
SETDESTR	CROP	SETDESTR	
NITROGEN	NITROGEN	CROP	
		NITROGEN	
0.426	0.269	0.602	
Except when comparing means with the same level(s) of			
SETDESTR	0.324		
CROP		0.205	
SETDESTR.CROP			0.458

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	18	0.622	14.0
BLOCK.WP.SP	20	0.561	12.6

GRAIN MEAN DM% 91.9

SUB-PLOT AREA HARVESTED 0.00240