

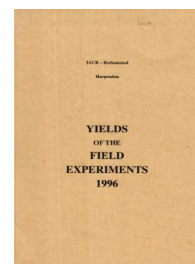
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96/R/CS/437 Set-aside, Cultivations and Crops - W. Wheat, W. Rape

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96/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.

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

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:

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

Sub-plots

2. **CROP** Crop in 1996:

 R Winter rape
 W Winter wheat
3. **NITROGEN** Fertilizer nitrogen in 1996 (kg N):

 - None
 N 160

Experimental diary:

- 15-May-95 : T : SETDESTR (MP), (-P): Topped.
16-May-95 : T : SETDESTR (PG), (PC), (HP): Roundup Biactive at 4.0 l in 200 l.
25-May-95 : T : SETDESTR (PG), (PC): Ploughed.
26-May-95 : T : SETDESTR (MP): Heavy spring-tine cultivated to 10 cm.
03-Jul-95 : T : SETDESTR (PC): Heavy spring-tine cultivated to 10 cm.
03-Jul-95 : T : SETDESTR (MP): Topped, heavy spring-tine cultivated twice.
31-Jul-95 : T : SETDESTR (MP), (HP), (-P): Roundup Biactive at 4.0 l in 200 l.
16-Aug-95 : B : PK as (0:20:32) at 1407 kg.
22-Aug-95 : T : SETDESTR (MP), (HP), (-P): Ploughed.

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Experimental diary:

- 06-Sep-95 : T : CROP R: Rotary harrowed, Apex, dressed Lindex-Plus FS, drilled at 120 seeds per m².
- 26-Sep-95 : T : CROP W: Rotary harrowed, Genesis, dressed Sibutol, drilled at 380 seeds per m².
- 27-Sep-95 : B : Draza at 5.5 kg.
- 05-Oct-95 : T : CROP R: Butisan S at 1.5 l with Cyperkill 10 at 250 ml and Agral at 200 ml in 200 l.
- 20-Nov-95 : T : CROP W: Panther at 2.0 l in 200 l.
- 02-Feb-96 : T : CROP R: Benazalox at 2.3 kg in 200 l.
: T : CROP W: Birlane 24 at 2.8 l in 200 l.
- 28-Feb-96 : T : CROP R, NITROGEN N: 34.5% N at 174 kg.
- 08-Mar-96 : T : CROP W, NITROGEN N: 34.5% N at 116 kg.
- 09-Apr-96 : T : CROP R, NITROGEN N: 34.5% N at 290 kg.
- 11-Apr-96 : T : CROP W, NITROGEN N: 34.5% N at 348 kg.
: T : CROP R: Folicur at 0.5 l in 300 l.
- 25-Apr-96 : T : CROP R: Decis at 0.5 l in 200 l.
- 30-Apr-96 : T : CROP W: Starane 2 at 1.0 l with Barclay Holdup at 2.3 l in 200 l.
- 13-Jun-96 : T : CROP W: Alto 100 SL at 0.6 l with Mallard 750 EC at 0.4 l in 300 l.
- 19-Jul-96 : T : CROP R: Standon Diquat at 3.0 l with Vassgro Spreader at 390 ml in 390 l.
- 31-Jul-96 : T : CROP R: Combine harvested.
- 06-Aug-96 : T : CROP W: Combine harvested.

NOTE: Soil and plant samples were taken in November and March for nitrogen content. Weed counts were made in November and March. Wheat was sampled in April and July to assess root and stem base diseases. Grain quality was assessed at harvest.

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WINTER RAPE

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

NITROGEN SETDESTR	-	N	Mean
(PG)	1.38	2.29	1.84
(PC)	2.77	3.42	3.10
(MP)	2.41	3.75	3.08
(HP)	1.51	2.88	2.20
(-P)	1.43	2.52	1.97
Mean	1.90	2.97	2.44

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

SETDESTR	NITROGEN	SETDESTR NITROGEN
0.477	0.179	0.555
Except when comparing means with the same level(s) of SETDESTR		
		0.401

GRAIN MEAN DM% 92.3

SUB-PLOT AREA HARVESTED 0.00230

WINTER WHEAT

GRAIN TONNES/HECTARE

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

NITROGEN SETDESTR	-	N	Mean
(PG)	5.59	8.29	6.94
(PC)	4.53	8.08	6.31
(MP)	4.36	7.60	5.98
(HP)	5.10	7.50	6.30
(-P)	4.10	7.72	5.91
Mean	4.74	7.84	6.29

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

SETDESTR	NITROGEN	SETDESTR NITROGEN
0.524	0.232	0.640
Except when comparing means with the same level(s) of SETDESTR		
		0.519

GRAIN MEAN DM% 87.7

SUB-PLOT AREA HARVESTED 0.00230