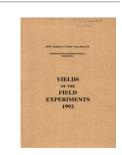
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Yields of the Field Experiments 1992



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Rothamsted Research

Rothamsted Research (1993) 92/W/CS/346 Set-aside Study - W. Wheat, Fallow; Yields Of The Field Experiments 1992, pp 74 - 75 - DOI: https://doi.org/10.23637/ERADOC-1-47

92/W/CS/346

SET-ASIDE STUDY

Object: To compare different treatments of land temporarily withdrawn from arable cropping and to study their effects on nitrate leaching and on subsequent wheat crops - Woburn, White Horse.

Sponsors: R.D. Prew, E.T.G. Bacon, M.V. Hewitt, D.P. Yeoman, J.F. Jenkyn, R.J. Gutteridge, W. Powell, J. Ashby.

Associate sponsors: D.L.O. Smith, I. Shield, M.D. Helps.

The third year, w. wheat.

For previous years see 90-91/W/CS/346.

Design: 3 randomised blocks of 7 plots split into 7.

Whole plot dimensions: 10.0 x 24.0.

Treatments: All combinations of:-

Whole plots

1. LAND TRT[90]	Land treatment in 1990, after w. wheat 1989 (all treatments ploughed autumn 1990 before w. wheat):
CA WW	Cultivated in autumn, sown to w. wheat
CA RA	Cultivated in autumn, sown to ryegrass in autumn, topped in spring
SA CA FA	Straw chopped and spread in autumn, cultivated in autumn, sown to forage rape in autumn, topped in spring
CA CS	Cultivated in autumn, cultivated in spring
SA CS	Straw chopped and spread in autumn, cultivated in spring
WT	Weeds topped
WT CS TS	Weeds topped, cultivated in spring, trefoil sown in spring, topped
Cub plata	

Sub plots

2.	N	RES	Residues	of	nitrogen	fertilizer	(kg	N)	to	w.	wheat	in
			1991:									

(0) (80)

(120)

(160) (200)

(200)

(280)

NOTE: An additional fallow sub plot was present, systematically arranged on one side of each whole plot.

92/W/CS/346

Experimental diary:

21-Sep-91 : B : Ploughed.

25-Sep-91 : B : Rolled.

02-Oct-91 : B : Rotary cultivated.

02-Oct-91 : T : On wheat plots Mercia drilled at 140 kg.

09-Mar-92 : T : 34.5% N at 116 kg to wheat plots.

01-Apr-92 : B : Duplosan New System CMPP at 2.0 1 and Asset at 2.0 1 in 200 1.

23-Apr-92 : T : 34.5% N at 464 kg to wheat plots.

15-May-92 : T : Dorin at 1.0 1 and Ally at 30 g in 300 1 to wheat plots.

08-Jun-92 : T : Halo at 2.0 1 in 200 1 to wheat plots.

29-Aug-92 : T : Combine harvested.

NOTE: Soil N was measured in autumn and spring. Foliar diseases and foot and root rots were assessed in spring and summer.

GRAIN TONNES/HECTARE

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

N	RES	(0)	(80)	(120)	(160)	(200)	(240)	(280)	Mean
LAND TRT[90]								
CA	WW	6.75	6.23	5.78	6.35	6.05	5.51	6.26	6.13
CA	RA	7.25	6.92	6.09	6.36	5.06	6.34	5.56	6.23
SA CA	FA	6.60	6.61	5.87	5.84	5.22	5.66	6.26	6.01
	CS	6.19	6.37	6.45	5.64	5.46	6.11	5.38	5.94
SA	CS	5.72	4.98	5.10	4.75	5.73	5.21	5.04	5.22
	WT	6.18	4.97	5.84	5.37	4.89	5.15	4.67	5.29
WT CS	TS	6.10	5.32	5.83	4.49	5.34	4.67	5.01	5.25
	lean	6.40	5.91	5.85	5.54	5.39	5.52	5.45	5.72

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

LAND TRT[90]	N RES	LAND TRT[90]
		N RES
0.526	0.259	0.823
Except when comparing means with	n the same	level(s) of
LAND TRT[90]		0.684

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

Stratum	d.f.	s.e.	cv%	
BLOCK.WP	12	0.644	11.3	
BLOCK.WP.SP	84	0.838	14.6	

GRAIN MEAN DM% 79.9

SUB PLOT AREA HARVESTED 0.00199