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Yields of the Field Experiments 1989



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89/R/RA/5 Oversowing in Wheat - W. Oilseed Rape

Rothamsted Research

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89/R/RA/5

WINTER OILSEED RAPE

OVERSOWING IN WHEAT

Object: To study the establishment of rape after s. wheat by oversowing
into the wheat - Summerdells II.

Sponsors: R.J. Darby, D.P. Yeoman.

Design: 3 randomised blocks of 6 whole plots split into 2 sub plots.

Whole plot dimensions: 8.0 x 15.0.

Treatments: All combinations of:-

Whole plots

SOWING Methods of sowing and straw disposal:

OVERS BA Oversown on 7 Sept, 1988, straw baled on 9 Sept and

bales removed

OVERS CH Oversown on 7 Sept, straw chopped and spread on

9 Sept

CONVEN S Straw baled on 9 Sept and bales removed, conventionally

sown into conventionally prepared seedbed

2. SEEDRATE Seed rate (kg):

8

Sub plots

N RATE Nitrogen fertilizer as 'Nitram':

0 None

50 kg N to seedbed (post-sowing to OVERS BA and OVERS CH) on 13 Sept, 1988

NOTES: (1) Oversowing was done into standing s. wheat. The wheat was harvested the next day.

(2) SOWING CONVEN S plots were cultivated by rotary grubber on 12 Sept, 1988, rotary harrowed and the seed sown on 14 Sept.

Basal applications: Manures: 'Nitram' at 580 kg. Weedkillers:

Metazachlor at 1.2 kg with fluazifop-p-butyl at 0.19 kg in 260 l.

Desiccant: Diquat at 0.60 kg ion with a wetting agent ('Agral' at 0.50 l) in 520 l.

Seed: Ariana, dressed gamma HCH, thiram and fenpropimorph.

Cultivations, etc.:- Weedkillers applied: 17 Oct, 1988. Basal N
 applied: 14 Feb, 1989. Desiccant with wetting agent applied:
 11 July. Combine harvested: 20 July. Previous crops: W. barley
 1987, s. wheat 1988.

NOTE: Plant counts were made in autumn and in early March. Percentages of oil in the grain were measured.

89/R/RA/5

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

SEEDRATE	8	16	Mean
SOWING			
OVERS BA	1.83	1.79	1.81
OVERS CH	0.91	1.41	1.16
CONVEN S	1.04	1.33	1.18
Mean	1.26	1.51	1.38
N RATE	0	50	Mean
SOWING			
OVERS BA	1.53	2.09	1.81
OVERS CH	0.68	1.64	1.16
CONVEN S	0.92	1.45	1.18
Mean	1.04	1.73	1.38
N RATE	0	50	Mean
SEEDRATE			
8	1.06	1.46	1.26
16	1.02	1.99	1.51
Mean	1.04	1.73	1.38
	N RATE	0	50
SOWING	SEEDRATE		
OVERS BA	8	1.64	2.02
	16	1.43	2.16
OVERS CH	8	0.72	1.09
	16	0.63	2.19
CONVEN S	8	0.82	1.27
	16	1.01	1.64
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*** Standard errors of differences of means ***

	SOWING	SEEDRATE	N RATE	SOWING
				SEEDRATE
	0.220	0.179	0.200	0.310
	SOWING	SEEDRATE	SOWING	
	N RATE	N RATE	SEEDRATE	
			N RATE	
	0.329	0.268	0.465	
Except when SOWING	comparing means 0.346	with the same	level(s)	of
SEEDRATE		0.283		
SOWING. SEED	PRATE		0.489	

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

Stratum	d.f.	s.e.	CV%
BLOCK.WP	10	0.380	27.5
BLOCK.WP.SP	12	0.599	43.3

GRAIN MEAN DM% 90.8 SUB PLOT AREA HARVESTED 0.00345

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