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

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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

1. **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	
16	

Sub plots

- | | |
|---------------|--|
| N RATE | Nitrogen fertilizer as 'Nitram': |
| 0 | None |
| 50 | 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
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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
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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
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	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

*** 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 comparing means with the same level(s) of				
SOWING	0.346			
SEEDRATE		0.283		
SOWING. SEEDRATE			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