

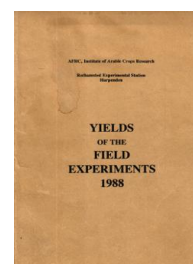
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1988

[Full Table of Content](#)



88/R/RA/6 Straw Treatments Before Sowing - W. Oilseed Rape

Rothamsted Research

Rothamsted Research (1989) *88/R/RA/6 Straw Treatments Before Sowing - W. Oilseed Rape* ; Yields Of The Field Experiments 1988, pp 229 - 232 - DOI: <https://doi.org/10.23637/ERADOC-1-43>

88/R/RA/6

WINTER OILSEED RAPE

STRAW TREATMENTS BEFORE SOWING

Object: To study the effects of a range of methods of treating cereal straw on the establishment and yield of w. oilseed rape sown on two dates, with and without seedbed N - Whittlocks.

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

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

Whole plot dimensions: 6.0 x 31.0.

Treatments: All combinations of:-

Whole plots

- | | |
|--------------------|------------------------------------|
| 1. STR DISP | Disposal of straw: |
| BURN | Burnt 14 Aug, 1987 |
| CHOP | Chopped 18 Aug |
| BALE | Baled 14 Aug and bales removed |
| 2. CULTIVTN | Method of primary cultivation: |
| TINE CULT | Tine cultivated, without inversion |
| PLOUGH | Ploughed 18 Aug, 1987 |

Sub plots

- | | |
|--------------------|------------------|
| 3. SOW DATE | Dates of sowing: |
| 20 AUG | 20 Aug, 1987 |
| 11 SEPT | 11 Sept |

Sub sub plots

- | | |
|-------------------|--|
| 4. SDBED N | Seedbed nitrogen (kg N) as 'Nitram' on 19 Aug, 1987: |
| 0 | |
| 50 | |

NOTES: (1) All plots were rotary harrowed on 19 Aug, 1987.
(2) **STR DISP** BURN plots were disced on 15 Aug.
(3) **CULTIVTN** TINE CULT plots were cultivated by rotary grubber and **CULTIVTN** PLOUGH plots were disced on 19 Aug.
(4) All plots were harrowed before drilling. **SOW DATE** 11 SEPT plots were also rotary harrowed before drilling. All plots were harrowed in and rolled after drilling.
(5) **SOW DATE** 20 AUG plots were sprayed with metazachlor at 0.75 kg in 380 l on 21 Aug, 1987 and at 0.50 kg in 200 l on 1 Oct. **SOW DATE** 11 SEPT plots received metazachlor at 1.2 kg in 200 l on 1 Oct.

88/R/RA/6

Basal applications: Manures: 'Nitram' at 580 kg. Weedkiller:
TCA at 16 kg in 200 l. Desiccant: Diquat at 0.60 kg ion with a
wetting agent ('Enhance' at 0.50 l) in 520 l.

Seed: Bienvenu, dressed gamma HCH, thiram and fenpropimorph, sown at
8.0 kg.

Cultivations, etc.:- Weedkiller applied: 20 Aug, 1987. N applied:
18 Feb, 1988. Desiccant with wetting agent applied: 20 July.
Combine harvested: 26 July. Previous crops: W. wheat 1986, w. barley
1987.

NOTE: Emergence counts were made in autumn and plant counts in mid-
March. Percentages of oil in the grain were measured.

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

CULTIVTN	TINE CULT	PLOUGH	Mean
STR DISP			
BURN	3.05	3.20	3.12
CHOP	3.35	3.16	3.25
BALE	3.19	3.33	3.26
Mean	3.20	3.23	3.21
SOW DATE	20 AUG	11 SEPT	Mean
STR DISP			
BURN	2.79	3.45	3.12
CHOP	2.77	3.74	3.25
BALE	2.77	3.76	3.26
Mean	2.78	3.65	3.21
SOW DATE	20 AUG	11 SEPT	Mean
CULTIVTN			
TINE CULT	2.74	3.65	3.20
PLOUGH	2.82	3.64	3.23
Mean	2.78	3.65	3.21
SDBED N	0	50	Mean
STR DISP			
BURN	3.19	3.06	3.12
CHOP	3.35	3.16	3.25
BALE	3.25	3.28	3.26
Mean	3.26	3.16	3.21
SDBED N	0	50	Mean
CULTIVTN			
TINE CULT	3.21	3.18	3.20
PLOUGH	3.31	3.14	3.23
Mean	3.26	3.16	3.21

88/R/RA/6

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

SDBED N	0	50	Mean
SOW DATE			
20 AUG	2.84	2.72	2.78
11 SEPT	3.69	3.61	3.65
Mean	3.26	3.16	3.21

		CULTIVTN	TINE	CULT	PLOUGH	
STR	DISP	SOW DATE	20 AUG	11 SEPT	20 AUG	11 SEPT
	BURN		3.03	3.06	2.55	3.84
	CHOP		2.53	4.17	3.01	3.31
	BALE		2.66	3.73	2.88	3.78

CULTIVTN		TINE	CULT	PLOUGH	
STR	DISP	SDBED	N	0	50
	BURN		3.13	2.96	3.25
	CHOP		3.52	3.18	3.18
	BALE		2.99	3.40	3.51
					3.15

SOW DATE		20 AUG	11 SEPT		
STR DISP	SDBED N	0	50	0	50
BURN		2.70	2.89	3.68	3.22
CHOP		2.95	2.59	3.75	3.73
BALE		2.86	2.68	3.64	3.87

SOW DATE		20 AUG	11 SEPT		
CULTIVTN	SDBED N	0	50	0	50
TINE CULT		2.79	2.70	3.64	3.67
PLOUGH		2.89	2.74	3.74	3.55

		SOW DATE	20 AUG	11 SEPT		
STR DISP	CULTIVTN	SDBED N	0	50	0	50
BURN	TINE CULT		2.86	3.20	3.39	2.73
	PLOUGH		2.54	2.57	3.96	3.72
CHOP	TINE CULT		2.87	2.20	4.17	4.17
	PLOUGH		3.04	2.98	3.33	3.28
BALE	TINE CULT		2.63	2.69	3.34	4.12
	PLOUGH		3.09	2.67	3.93	3.63

88/R/RA/6

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

STR DISP	CULTIVTN	SOW DATE	SDBED N
0.044	0.036	0.252	0.093
STR DISP	STR DISP	CULTIVTN	STR DISP
CULTIVTN	SOW DATE	SOW DATE	SDBED N
0.062	0.312	0.254	0.122
Except when comparing means with the same level(s) of			
STR DISP	0.436		0.160
CULTIVTN		0.356	
CULTIVTN	SOW DATE	STR DISP	STR DISP
SDBED N	SDBED N	CULTIVTN	CULTIVTN
		SOW DATE	SDBED N
0.099	0.268	0.441	0.172
Except when comparing means with the same level(s) of			
CULTIVTN	0.131		
SOW DATE	0.131		
STR DISP.CULTIVTN		0.617	0.227
STR DISP	CULTIVTN	STR DISP	
SOW DATE	SOW DATE	CULTIVTN	
SDBED N	SDBED N	SOW DATE	
		SDBED N	
0.351	0.286	0.496	
Except when comparing means with the same level(s) of			
STR DISP	0.465		
CULTIVTN	0.380		
STR DISP.CULTIVTN		0.658	
STR DISP.SOW DATE			
0.227			
CULTIVTN.SOW DATE	0.185		
STR DISP.SDBED N			
0.465			
CULTIVTN.SDBED N	0.380		
STR DISP.CULTIVTN.SOW DATE		0.321	
STR DISP.CULTIVTN.SDBED N		0.658	

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	5	0.062	1.9
BLOCK.WP.SP1	6	0.617	19.2
BLOCK.WP.SP1.SP2	12	0.321	10.0

GRAIN MEAN DM% 79.7

PLOT AREA HARVESTED 0.00345