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Yields of the Field Experiments 1987

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Printed: Rothamsted, 1988.
Rothamsted 1988

87/R/RA/3 Varieties and Fungicides - W. Oilseed Rape

Rothamsted Research

Rothamsted Research (1988) *87/R/RA/3 Varieties and Fungicides - W. Oilseed Rape* ; Yields Of The Field Experiments 1987, pp 215 - 219 - DOI: <https://doi.org/10.23637/ERADOC-1-37>

87/R/RA/3

WINTER OILSEED RAPE

VARIETIES AND FUNGICIDES

Object: To study the effects of times of applying fungicides on the incidence of diseases and on the yield of six varieties of w. oilseed rape - Black Horse I.

Sponsor: C.J. Rawlinson.

Design: 2 randomised blocks of 8 plots split into 6.

Whole plot dimensions: 21.0 x 15.0.

Treatments: All combinations of:-

Whole plots

- | | |
|-------------|--|
| 1. AUT FUNG | Fungicide in autumn: |
| NONE | None |
| PROCHLOR | Prochloraz at 0.50 kg in 500 l on 12 Nov, 1986 |
| 2. SPR FUNG | Fungicide in spring: |
| NONE | None |
| PROCHLOR | Prochloraz at 0.50 kg in 200 l on 21 Apr, 1987 |
| 3. SUM FUNG | Fungicide in summer: |
| NONE | None |
| IPRODION | Iprodione at 0.50 kg in 200 l on 15 June, 1987 |

Sub plots

- | | |
|------------|------------|
| 4. VARIETY | Varieties: |
| ARIANA | Ariana |
| BIENVENU | Bienvenu |
| JET NEUF | Jet Neuf |
| LIRADONN | Liradonna |
| MIKADO | Mikado |
| RAFAL | Rafal |

Basal applications: Manures: (0:18:36) at 690 kg. 'Nitram' at 140 kg and later at 800 kg. Weedkillers: Sodium trichloroacetate at 16 kg in 200 l. Metazachlor at 1.2 kg with fluazifop-P-butyl at 0.19 kg and a wetting agent ('Agral' at 0.20 l) in 200 l. Insecticides: Deltamethrin at 0.0062 kg in 200 l. Azinphos methyl at 0.40 kg and demeton-S-methyl sulphone at 0.12 kg in 300 l. Bird repellent: 'Hoppit' at 3.0 l in 220 l. Desiccant: Diquat at 0.60 kg ion with a wetting agent ('Enhance' at 0.50 l) in 500 l.

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Seed : Varieties, sown at 8.0 kg.

Cultivations, etc.:— Spring-tine cultivated: 8 Aug, 1986. PK applied: 11 Aug. Sodium trichloroacetate applied, N applied: 13 Aug. Seed sown: 2 Sept. Remaining weedkillers applied: 4 Oct. Deltamethrin applied: 11 Oct. Bird repellent applied: 12 Dec. Second N applied: 17 Feb, 1987. Remaining insecticides applied: 28 Apr. Desiccant with wetting agent applied: 28 July. Combine harvested: 3 Aug. Previous crops: W. wheat 1985, w. barley 1986.

NOTE: Diseases were assessed between November and July. Growth stage, height and plant development were recorded from May to harvest. Ripening and lodging were assessed before harvest and stubble stem population counts made immediately after harvest.

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

SPR FUNG	NONE	PROCHLOR	Mean
AUT FUNG			
NONE	3.16	3.43	3.29
PROCHLOR	3.53	3.32	3.43
Mean	3.35	3.38	3.36

SUM FUNG	NONE	IPRODION	Mean
AUT FUNG			
NONE	3.18	3.41	3.29
PROCHLOR	3.28	3.58	3.43
Mean	3.23	3.49	3.36

SUM FUNG	NONE	IPRODION	Mean
SPR FUNG			
NONE	3.22	3.48	3.35
PROCHLOR	3.24	3.51	3.38
Mean	3.23	3.49	3.36

VARIETY	ARIANA	BIENVENU	JET	NEUF	LIRADONN	MIKADO	RAFAL	Mean
AUT FUNG								
NONE	3.28	3.88	2.56	2.89	3.91	3.23		3.29
PROCHLOR	3.25	3.83	2.73	3.16	4.27	3.32		3.43
Mean	3.27	3.86	2.65	3.03	4.09	3.27		3.36

VARIETY	ARIANA	BIENVENU	JET	NEUF	LIRADONN	MIKADO	RAFAL	Mean
SPR FUNG								
NONE	3.23	3.79	2.70	2.96	4.03	3.37		3.35
PROCHLOR	3.31	3.93	2.59	3.10	4.14	3.18		3.38
Mean	3.27	3.86	2.65	3.03	4.09	3.27		3.36

87/R/RA/3

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

VARIETY	ARIANA	BIENVENU	JET NEUF	LIRADONN	MIKADO	RAFAL	Mean
SUM FUNG							
NONE	3.14	3.76	2.54	2.88	3.93	3.14	3.23
IPRODION	3.40	3.96	2.76	3.17	4.25	3.41	3.49
Mean	3.27	3.86	2.65	3.03	4.09	3.27	3.36

	SUM FUNG	NONE	IPRODION
AUT FUNG	SPR FUNG		
NONE	NONE	3.00	3.32
	PROCHLOR	3.36	3.49
PROCHLOR	NONE	3.44	3.63
	PROCHLOR	3.12	3.53

	VARIETY	ARIANA	BIENVENU	JET NEUF	LIRADONN	MIKADO	RAFAL
AUT FUNG	SPR FUNG						
NONE	NONE	3.15	3.66	2.43	2.83	3.79	3.11
	PROCHLOR	3.41	4.10	2.70	2.96	4.03	3.36
PROCHLOR	NONE	3.31	3.91	2.98	3.08	4.28	3.62
	PROCHLOR	3.20	3.76	2.49	3.23	4.25	3.01

	VARIETY	ARIANA	BIENVENU	JET NEUF	LIRADONN	MIKADO	RAFAL
AUT FUNG	SUM FUNG						
NONE	NONE	3.02	3.79	2.56	2.68	3.78	3.26
	IPRODION	3.54	3.98	2.57	3.11	4.04	3.20
PROCHLOR	NONE	3.25	3.73	2.51	3.09	4.08	3.01
	IPRODION	3.26	3.94	2.95	3.23	4.45	3.62

	VARIETY	ARIANA	BIENVENU	JET NEUF	LIRADONN	MIKADO	RAFAL
SPR FUNG	SUM FUNG						
NONE	NONE	3.12	3.64	2.62	2.76	3.86	3.30
	IPRODION	3.33	3.94	2.79	3.15	4.21	3.43
PROCHLOR	NONE	3.15	3.88	2.45	3.01	4.00	2.97
	IPRODION	3.46	3.98	2.73	3.18	4.29	3.40

87/R/RA/3

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

VARIETY	AUT FUNG	SUM FUNG	NONE IPRODION	
ARIANA	NONE	SPR FUNG		
		NONE	2.86	3.44
		PROCHLOR	3.19	3.64
	PROCHLOR	NONE	3.39	3.23
		PROCHLOR	3.11	3.29
		NONE	3.57	3.75
BIENVENU	NONE	PROCHLOR	4.00	4.21
		NONE	3.70	4.12
		PROCHLOR	3.76	3.76
JET NEUF	NONE	NONE	2.33	2.52
		PROCHLOR	2.78	2.61
		NONE	2.91	3.05
	PROCHLOR	PROCHLOR	2.12	2.85
		NONE	2.55	3.10
		PROCHLOR	2.80	3.11
LIRADONN	NONE	NONE	2.96	3.21
		PROCHLOR	3.21	3.26
		NONE	3.56	4.02
MIKADO	NONE	PROCHLOR	4.00	4.07
		NONE	4.17	4.39
		PROCHLOR	3.99	4.51
RAFAL	NONE	NONE	3.10	3.11
		PROCHLOR	3.42	3.30
		NONE	3.50	3.75
	PROCHLOR	PROCHLOR	2.53	3.50

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

Table	AUT FUNG	SPR FUNG	SUM FUNG	VARIETY
s.e.d.	0.136	0.136	0.136	0.104
Table	AUT FUNG	AUT FUNG	SPR FUNG	AUT FUNG
s.e.d.	SPR FUNG	SUM FUNG	SUM FUNG	VARIETY
	0.193	0.193	0.193	0.191
Except when comparing means with the same level(s) of				0.147
AUT FUNG				
Table	SPR FUNG	SUM FUNG	AUT FUNG	AUT FUNG
	VARIETY	VARIETY	SPR FUNG	SPR FUNG
s.e.d.	0.191	0.191	SUM FUNG	VARIETY
			0.273	0.271
Except when comparing means with the same level(s) of				
	SPR FUNG			
	0.147			
	SUM FUNG	0.147		
	AUT FUNG.SPR FUNG			0.208

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

Table	AUT FUNG SUM FUNG VARIETY	SPR FUNG SUM FUNG VARIETY	AUT FUNG SPR FUNG SUM FUNG VARIETY
s.e.d.	0.271	0.271	0.383
Except when comparing means with the same level(s) of			
AUT FUNG.SUM FUNG	0.208		
SPR FUNG.SUM FUNG		0.208	
AUT FUNG.SPR FUNG.SUM FUNG			0.294

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	7	0.273	8.1
BLOCK.WP.SP	40	0.294	8.7

GRAIN MEAN DM% 83.9

SUB PLOT AREA HARVESTED 0.00345