

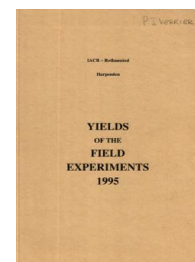
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Winter Oilseed Rape

Rothamsted Research

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95/R/RAW/2

WINTER OILSEED RAPE

HIGH ERUCIC ACID RAPE

Object: To study the effects of disease on the yield and seed quality of high erucic acid rape - Delafield

Sponsors: K.J. Doughty, H.A. McCartney, P.J.W. Lutman.

Design: 4 blocks of 2 plots.

Whole plot dimensions: 3.0 x 17.0.

Treatments:

FUNGINOC Inoculum or fungicide applied:

I Inoculated with contaminated straw

F Fungicide applied in November, April and June

Experimental diary:

- 07-Sep-94 : B : Heavy spring-tine cultivated, cultivated by rotary grubber, rotary harrowed, Askari, dressed Lindex-Plus FS, drilled at 120 seeds per m².
- 17-Oct-94 : B : Draza at 5.5 kg.
- 25-Oct-94 : T : **INOCFUNG** I: Straw inoculum applied at one bale per 51 m².
- 26-Oct-94 : B : Butisan S at 2.5 l and Laser at 1.0 l with Ashlade Adjuvant Oil at 2.4 l in 260 l.
- 02-Nov-94 : T : **FUNGINOC** F: Sportak 45 at 1.1 l in 200 l.
- 22-Feb-95 : B : 34.5% N at 174 kg.
- 11-Apr-95 : T : **FUNGINOC** F: Barclay Eytak at 1.1 l in 200 l.
- 03-May-95 : B : Fastac at 200 ml in 200 l.
- 19-Jun-95 : T : **FUNGINOC** F: Rovral Flo at 3.0 l in 400 l.
- 24-Jul-95 : B : Stefes Diquat at 3.0 l with Vassgro Spreader at 0.30 l in 300 l.
- 28-Jul-95 : B : Combine harvested.

Previous crops: Linseed 1993 and 1994.

- NOTES:** (1) The crop failed on 2 plots, one of each treatment. The means presented are the means of the other 3 replicates.
- (2) Seed was analysed for quality and ease of processing.

95/R/RAW/2

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

FUNGINOC

I	2.14
F	2.79

Mean	2.47
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GRAIN MEAN DM% 83.1

PLOT AREA HARVESTED 0.00391

95/R/RAW/5

WINTER OILSEED RAPE

FUNGICIDE TYPE AND TIMING

Object: To compare prophylactic and forecast fungicidal spray programmes for the control of diseases in oilseed rape - Highfield V.

Sponsors: B.D.L. Fitt, C.X. Hong, S. Mitchell.

Design: 3 randomised blocks of 16 plots.

Whole plot dimensions: 3.0 x 20.0.

Treatments:

FUNGCODE		Fungicide spraying strategy, fungicide type, rate and timing:
NIL		None (triplicated)
S1	Standard	Tebuconazole, full rate, autumn
S2	Standard	Tebuconazole, full rate, spring
S12	Standard	Tebuconazole, half rate, autumn and spring
S3	Standard	Iprodione, full rate, summer
S13	Standard	Tebuconazole, full rate, autumn and iprodione, full rate, summer
S23	Standard	Tebuconazole, full rate, spring and iprodione, full rate, summer
S123	Standard	Tebuconazole, half rate, autumn and spring and iprodione full rate, summer
F1	Forecast	Tebuconazole, full rate, autumn (duplicated)
F2	Forecast	Tebuconazole, full rate, spring (duplicated)
F12	Forecast	Tebuconazole, half rate, autumn and spring (duplicated)

Experimental diary:

18-Jul-94 : B : PK as (0:20:32) at 1406 kg.
29-Jul-94 : B : Deep tine cultivated with vibrating tines 60 cm apart and 45 cm deep. Rolled.
03-Aug-94 : B : Ploughed and furrow pressed.
04-Aug-94 : B : Rolled.
23-Aug-94 : B : Spring-tine cultivated. Rotary harrowed, Envol, dressed Lindex-Plus FS, drilled at 120 seeds per m². Rolled.
23-Nov-94 : T : FUNGCDE S1, S13: Folicur at 1.0 l in 220 l.
 : T : FUNGCDE S12, S123: Folicur at 0.5 l in 220 l.
19-Dec-94 : T : FUNGCDE F1: Folicur at 1.0 l in 220 l.
 : T : FUNGCDE F12: Folicur at 0.5 l in 220 l.
23-Feb-95 : B : 34.5% N at 174 kg.
24-Feb-95 : T : FUNGCDE S1, S12, S13, S123: Folicur at 0.5 l in 220 l.
15-Mar-95 : B : 34.5% N at 348 kg.
30-Mar-95 : T : FUNGCDE S2, S23: Folicur at 1.0 l in 220 l.
 : T : FUNGCDE S12, S123: Folicur at 0.5 l in 220 l.
19-Apr-95 : B : Fastac at 0.2 l in 200 l.
21-Apr-95 : T : FUNGCDE F2: Folicur at 1.0 l in 220 l.
 : T : FUNGCDE F12: Folicur at 0.5 l in 220 l.

95/R/RAW/5

Experimental diary:

01-Jun-95 : T : FUNGCDE S3, S13, S23, S123: Rovral Flo at 3.0 l in
200 l.
11-Jul-95 : B : Reglone at 3.0 l with Vassgro Spreader at 400 ml in
400 l.
17-Jul-95 : B : Combine harvested.

Previous crops: S. beans 1993, set-aside 1994.

NOTE: Incidence of disease on leaves, stems and pods were assessed regularly. Meteorological data was recorded throughout the season.

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

FUNGCDE

NIL	4.50
S1	5.12
S2	4.84
S12	5.16
S3	4.53
S13	5.15
S23	4.95
S123	5.14
F1	4.97
F2	4.85
F12	4.89
Mean	4.86

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

FUNGCDE

0.148 min.rep
0.121 max-min

FUNGCDE

max-min NIL v any of remainder
min.rep Any of the remainder

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	35	0.181	3.7
GRAIN MEAN DM%	83.0		
SUB-PLOT AREA HARVESTED	0.00391		

95/R/RAW/7

Experimental diary:

- 19-Apr-95 : B : Fastac at 0.2 l in 200 l.
- 12-Jul-95 : B : Reglone at 3.0 l with Vassgro Spreader at 400 ml in 400 l.
- 17-Jul-95 : B : Combine harvested.

Previous crops: W. barley 1993, set-aside 1994.

NOTES: (1) Crop failed on six plots due to slugs with treatment combinations:

CROP DEN	C1	C2	C1	C4
WEED DEN	W0 (twice)	W0 (twice)	W0	W1
	N	N0	N0	N1

Estimated values were used in the analysis.

- (2) Crop and weed density was assessed in September and October. Crop and weed growth was recorded in December, April, May and July.

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

WEED DEN	W0	W1	Mean		
CROP DEN					
C1	3.84	2.90	3.37		
C2	3.70	3.91	3.80		
C4	4.29	4.02	4.16		
C8	4.49	4.15	4.32		
Mean	4.08	3.75	3.91		
	N	N0	N1	Mean	
CROP DEN					
C1		2.98	3.76	3.37	
C2		3.77	3.84	3.80	
C4		3.95	4.36	4.16	
C8		4.37	4.27	4.32	
Mean		3.77	4.06	3.91	
		N	N0	N1	
WEED DEN				Mean	
W0		3.92	4.24	4.08	
W1		3.61	3.88	3.75	
Mean		3.77	4.06	3.91	
		WEED DEN	W0	W1	
CROP DEN	N		N0	N1	N1
C1		3.79	3.89	2.18	3.63
C2		3.35	4.04	4.18	3.64
C4		4.08	4.50	3.81	4.23
C8		4.46	4.51	4.27	4.03

95/R/RAW/7

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

CROP DEN	WEED DEN	N	CROP DEN
			WEED DEN
0.145	0.103	0.103	0.206

CROP DEN	WEED DEN	CROP DEN
N	N	WEED DEN
		N
0.206	0.145	0.291

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	24	0.356	9.1
GRAIN MEAN DM%	82.4		
PLOT AREA HARVESTED	0.00267		

95/R/RAW/8

WINTER OILSEED RAPE

VARIETIES AND DISEASES

Object: To study the effects of disease on growth, yield and seed quality of winter oilseed rape - Highfield IV/Road Piece E.

Sponsors: K.J. Doughty, H.A. McCartney.

Design: 4 blocks of 2 plots split into 2 sub-plots.

Whole plot dimensions: 6.0 x 10.0.

Treatments:

Whole plots

1. **INOCFUNG** Inoculation and fungicide:

I Inoculated with diseased straw in autumn
F Fungicide sprays in autumn, spring and summer

Sub-plots

2. **VARIETY**

CA Capricorn
FA Falcon

Experimental diary:

27-Jul-94 : B : Dolomite at 5.0 t.
01-Aug-94 : B : Ploughed and furrow pressed.
24-Aug-94 : B : Spring-tine cultivated.
 : T : **VARIETY** CA: Rotary harrowed, Capricorn, dressed Lindex-Plus FS, drilled at 120 seeds per m².
 : T : **VARIETY** FA: Rotary harrowed, Falcon, dressed Lindex-Plus FS, drilled at 120 seeds per m².
26-Aug-94 : B : Rolled.
20-Sep-94 : B : Draza at 5.5 kg.
24-Oct-94 : T : **INOCFUNG** I: Straw inoculum applied at 1 bale per 60 m².
02-Nov-94 : B : Butisan S at 2.5 l in 260 l.
 : B : Fusilade 5 at 1.0 l with Vassgro Spreader at 260 ml in 260 l.
 : T : **INOCFUNG** F: Sportak 45 at 1.1 l in 200 l.
22-Feb-95 : B : 34.5% N at 174 kg.
21-Mar-95 : B : 34.5% N at 348 kg.
11-Apr-95 : T : **INOCFUNG** F: Barclay Eytak at 1.1 l in 200 l.
19-Jun-95 : T : **INOCFUNG** F: Rovral Flo at 3.0 l in 400 l.
24-Jul-95 : B : Stefes Diquat at 3.0 l with Vassgro Spreader at 300 ml in 300 l.
28-Jul-95 : B : Combine harvested.

Previous crops: W. barley 1993, set-aside 1994.

95/R/RAW/8

NOTE: Seed was analysed for quality and ease of processing.

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

VARIETY INOCFUNG	CA	FA	Mean
I	2.71	3.23	2.97
F	3.63	3.55	3.59
Mean	3.17	3.39	3.28

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

INOCFUNG	VARIETY	INOCFUNG VARIETY
0.289	0.147	0.324

Except when comparing means with the same level(s) of
INOCFUNG 0.207

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP.SP	6	0.293	8.9

GRAIN MEAN DM% 79.0

SUB PLOT AREA HARVESTED 0.00230