

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 1981

[Full Table of Content](#)



81/R/B/13 Mildew Sources - S. Barley

Rothamsted Research

Rothamsted Research (1982) *81/R/B/13 Mildew Sources - S. Barley* ; Yields Of The Field Experiments 1981, pp 289 - 291 - DOI: <https://doi.org/10.23637/ERADOC-1-35>

81/R/B/13

SPRING BARLEY

MILDEW SOURCES

Object: To study the effects of inter-plot interactions and mildew sources on the response of s. barley to fungicide sprays applied at different times - Summerdells II.

Sponsors: J.F. Jenkyn, A. Bainbridge, G.V. Dyke.

Design: Series I: 3 randomised blocks of 3 plots split into 8.
Series II: 3 randomised blocks of 8 plots.

Plot dimensions: Series I sub plots: 2.13 x 9.14.
Series II whole plots: 2.13 x 9.14.

Treatments:

To Series I, all combinations of:-

Whole plots

1. SEPRTION Separations between sides of sub plots:

NONE	No crop, 0.61 m fallow path
SINGLE	2.13 m wide strip of mildew resistant barley, Simon, seed dressed triadimenol plus fuberidazole, 0.61 m fallow paths on each side of the Simon
DOUBLE	As for SINGLE except strip of Simon 4.26 m wide

Sub plots

2. FNG TIME(1) Times of applying tridemorph to mildew susceptible barley, Porthos, sown on strips 2.13 m wide, 9.14 m long:

0	None
1	14 May, 1981
2	21 May
3	28 May
4	4 June
5	12 June
6	18 June
R	Repeated on 14 May, 4 June, 18 June, 8 July

81/R/B/13

To Series II:-

FNG TIME(2) Times of applying tridemorph to mildew susceptible barley, Porthos, sown on strips 2.13 m wide, 9.14 m long, strips separated from each other by further strips of Porthos, not given fungicide, 2.13 m wide with 0.61 m fallow paths on each side:

0	None
1	14 May
2	21 May
3	28 May
4	4 June
5	12 June
6	18 June
R	Repeated on 14 May, 4 June, 18 June, 8 July

- NOTES: (1) On Series I whole plots were surrounded by 9 m of variety Simon, seed dressed triadimenol plus fuberidazole.
 (2) Series II was surrounded by 4 m of variety Porthos, not given fungicide
 (3) Tridemorph was applied at 0.53 kg in 340 l on all occasions except occasion 3 when poor ground conditions forced the use of another sprayer which applied the tridemorph in 450 l.

Basal applications: Manures: (20:10:10) at 500 kg. 'Nitro-Chalk' at 190 kg. Weedkillers: Dicamba with mecoprop and MCPA (as 'Banlene Plus' at 5.0 l) in 250 l.

Seed: All varieties sown at 160 kg.

Cultivations, etc.: - Ploughed: 18 Dec, 1980. Spring-tine cultivated: 7 Apr, 1981. NPK applied, spring-tine cultivated: 8 Apr. Seed sown: 9 Apr. Weedkillers applied: 28 May. N applied: 6 June. Combine harvested: 2 Sept. Previous crops: S. beans, 1979, w. wheat 1980.

NOTE: Mildew was assessed frequently during the season.

SERIES I

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

SEPRTION FNG TIME(1)	NONE	SINGLE	DOUBLE	MEAN
0	5.55	5.36	5.25	5.39
1	5.73	5.76	5.32	5.60
2	5.63	5.82	5.66	5.70
3	5.63	5.56	6.04	5.74
4	5.80	5.89	5.85	5.85
5	5.96	5.92	5.72	5.87
6	5.53	5.82	5.63	5.66
R	6.52	6.34	6.38	6.41
MEAN	5.79	5.81	5.73	5.78

81/R/B/13 SERIES I

GRAIN TONNES/HECTARE

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	SEPRTION FNG TIME(1)	SEPRTION FNG TIME(1)
SED	0.194	0.262
EXCEPT WHEN COMPARING MEANS WITH SAME LEVEL(S) OF: SEPRTION		
		0.188

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	4	0.237	4.1
BLOCK.WP.SP	42	0.230	4.0

GRAIN MEAN DM% 85.8

SUB PLOT AREA HARVESTED 0.00195

SERIES II

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

FNG TIME(2)	0	1	2	3	4	5	6	R	MEAN
	4.89	4.87	5.23	5.27	5.21	5.32	5.15	5.42	5.17

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	FNG TIME(2)
SED	0.301

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	14	0.368	7.1

GRAIN MEAN DM% 85.7

PLOT AREA HARVESTED 0.00195