

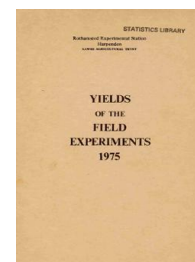
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED  
RESEARCH

# Yields of the Field Experiments 1975

[Full Table of Content](#)



## 75/ R&w/B/4 - Varieties, N & Fungicides - Barley

### Rothamsted Research

Rothamsted Research (1976) 75/ R&w/B/4 - Varieties, N & Fungicides - Barley ; Yields Of The Field Experiments 1975, pp 309 - 313 - DOI: <https://doi.org/10.23637/ERADOC-1-141>

75/R/B/4 and 75/W/B/4

SPRING BARLEY

VARIETIES, N AND FUNGICIDES

Object: To study the yields of some of the newer varieties of barley. The effects of fungicides and a range of nitrogen rates are also studied - Rothamsted (R) Gt Knott II and Woburn (W) Far Field II.

Sponsors: R. Moffitt, J.F. Jenkyn.

Design: 2 randomised blocks of 18 plots split into 3.

Whole plot dimensions: 4.27 x 24.7.

Treatments: All combinations of:-

Whole plots: 1. Varieties and mildew control:	VARIETY
Julia - no fungicide	JU O
Julia - seed dressed ethirimol	JU E
Julia - tridemorph spray at 0.53 kg in 220 l, early with weedkiller	JU TW
Julia - seed dressed MEB 6447	JU M
Julia )	JU T
Aramir )	AR T
Hassan ) sprayed tridemorph at 0.53 kg in	HA T
Lofa Abed ) 450 l at recommended stage	LA T
Maris Mink)	MM T
2. Rust fungicide:	FUNGICIDE
None	NONE
Benodanil at 1.12 kg in 450 l	BENODANI
Sub plots: 3. Nitrogen fertiliser (kg N):	N
38	38
75	75
113	113

NOTE: At Woburn the planned FUNGICIDE treatment was not applied i.e. VARIETY treatments were duplicated in each block.

Basal applications:-

Great Knott II (R): Manures: (0:20:20) at 310 kg. Weedkiller: Dicamba, mecoprop and MCPA ('Tetralax Plus' at 7.0 l in 220 l).

Far Field II (W): Manures: (0:20:20) at 310 kg. Weedkiller: Ioxynil at 0.52 kg and mecoprop at 1.6 kg in 280 l.

Seed: Both sites varieties sown at 160 kg.

75/R/B/4 and 75/W/B/4

Cultivations, etc.:-

Great Knott II (R): Ploughed: 4-6 Nov, 1974. Spring-tine cultivated twice: 14 Apr, 21 Apr, 1975. Rotary harrowed: 22 Apr. Seed sown: 23 Apr. N applied: 30 Apr. Weedkiller applied to all plots tridemorph treatment applied with weedkiller: 6 June. Tridemorph applied: 20 June. Benodanil applied: 21 July. Combine harvested: 22 Aug. Previous crops: Beans 1973, winter wheat 1974.

Far Field II (W): Ploughed: 10-13 Jan, 1975. Spring-tine cultivated with crumbler twice: 21 Mar, 25 Mar. Seed sown: 25 Mar. N applied: 1 Apr. Weedkiller applied to all plots, tridemorph treatment applied with weedkiller: 20 May. Tridemorph applied: 20 June. Combine harvested: 11 Aug. Previous crops: Fallow 1973, barley 1974.

- NOTES: (1) Estimates of mildew (*Erysiphe graminis*) and other leaf diseases were made during the season.
- (2) GREAT KNOTT II (R). There was evidence of a linear fertility trend across the site and yields adjusted for this trend are presented.

75/R/B/4 GREAT KNOTT (R)

GRAIN TONNES/HECTARE

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

FUNGCIDE	NONE	BENODANI	MEAN
VARIETY			
JU O	3.45	3.68	3.57
JU E	3.93	3.87	3.90
JU TW	3.99	4.13	4.06
JU M	3.54	3.65	3.60
JU T	3.62	4.16	3.89
AR T	3.44	3.26	3.35
HA T	3.13	3.41	3.27
LA T	4.26	4.30	4.28
MM T	3.41	3.78	3.59
MEAN	3.64	3.80	3.72

N	38	75	113	MEAN
VARIETY				
JU O	3.16	3.71	3.83	3.57
JU E	3.37	3.95	4.38	3.90
JU TW	3.44	4.23	4.51	4.06
JU M	3.04	3.76	3.99	3.60
JU T	3.40	3.81	4.48	3.89
AR T	2.93	3.49	3.63	3.35
HA T	2.80	3.29	3.72	3.27
LA T	3.81	4.31	4.72	4.28
MM T	2.95	3.77	4.05	3.59
MEAN	3.21	3.81	4.15	3.72

N	38	75	113	MEAN
FUNGCIDE				
NONE	3.15	3.71	4.07	3.64
BENODANI	3.27	3.92	4.22	3.80
MEAN	3.21	3.81	4.15	3.72

FUNGCIDE	NONE	BENODANI				
N	38	75	113	38	75	113
VARIETY						
JU O	3.11	3.60	3.66	3.22	3.83	4.00
JU E	3.35	3.92	4.52	3.39	3.97	4.25
JU TW	3.23	4.15	4.60	3.65	4.30	4.43
JU M	2.91	3.79	3.92	3.17	3.72	4.06
JU T	3.18	3.56	4.12	3.61	4.05	4.83
AR T	3.11	3.55	3.65	2.74	3.43	3.60
HA T	2.85	2.99	3.56	2.75	3.59	3.88
LA T	3.84	4.29	4.64	3.77	4.33	4.80
MM T	2.74	3.52	3.97	3.16	4.03	4.14



75/R/B/4 GREAT KNOTT (R)

GRAIN TONNES/HECTARE

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

TABLE	VARIETY	FUNGCIDE	N	VARIETY FUNGCIDE
REP	12	54	36	6
SED	0.196	0.090	0.063	0.278

TABLE	VARIETY N	FUNGCIDE N	VARIETY FUNGCIDE N
REP	4	18	2
SED	0.247	0.116	0.350
EXCEPT WHEN COMPARING MEANS WITH SAME LEVEL(S) OF:			
VARIETY	0.190		
FUNGCIDE		0.089	
VARIETY.FUNGCIDE			0.269

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

STRATUM	DF	SE	CV%
BLOCK.WP	16	0.270	7.3
BLOCK.WP.SP	36	0.267	7.2

GRAIN MEAN DM% 81.7

SUB PLOT AREA HARVESTED 0.00163

75/W/B/4 FAR FIELD II (W)

GRAIN TONNES/HECTARE

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

VARIETY	N	38	75	113	MEAN
JU O		4.15	5.33	5.59	5.02
JU E		4.10	5.29	5.81	5.07
JU TW		4.09	5.57	5.82	5.16
JU M		4.30	5.36	5.75	5.14
JU T		4.13	5.43	5.80	5.12
AR T		3.95	5.43	6.12	5.16
HA T		4.07	5.37	5.86	5.10
LA T		4.25	5.66	6.64	5.52
MM T		4.64	4.91	5.99	5.18
MEAN		4.19	5.37	5.93	5.16

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

TABLE	VARIETY	N	VARIETY	N
SED	0.188	0.085	0.282	
EXCEPT WHEN COMPARING MEANS WITH SAME LEVEL(S) OF:				
VARIETY			0.256	

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

STRATUM	DF	SE	CV%
BLOCK.WP	26	0.267	5.2
BLOCK.WP.SP	54	0.362	7.0

GRAIN MEAN DM% 89.3

SUB PLOT AREA HARVESTED 0.00217