

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 1976

[Full Table of Content](#)

76/R/B/3 and 76/W/B/3 Varieties and N - Barley

Rothamsted Research

Rothamsted Research (1977) *76/R/B/3 and 76/W/B/3 Varieties and N - Barley* ; Yields Of The Field Experiments 1976, pp 298 - 300 - DOI: <https://doi.org/10.23637/ERADOC-1-15>

76/R/B/3 and 76/W/B/3

SPRING BARLEY

VARIETIES AND N

Object: To study the yields of some of the newer varieties of barley. Three nitrogen rates are included and on one variety the effects of mildew control are also studied - Rothamsted (R) Pastures and Woburn (W) Horsepool Lane Close E.

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

Design: 4 randomised blocks of 11 plots split into 3.

Whole plot dimensions: Pastures (R): 4.27 x 24.7.
Horsepool Lane Close (W): 4.27 x 20.1.

Treatments: All combinations of:-

Whole plots

1. VARIETY Varieties and mildew control:

JU H -	Julia, home-grown seed, no fungicide	
JU H E	Julia, home-grown seed, dressed ethirimol	
JU H T	Julia, home-grown seed, crop sprayed tridemorph (2 plots/block)	
JU M T	Julia, multiplication stock, crop sprayed tridemorph	
AM T	Aramir)
AR T	Ark Royal)
GE T	Georgie) crop sprayed tridemorph
LA T	Lofa Abed)
PO T	Porthos)
SU T	Sundance)

Sub plots

2. N Nitrogen fertiliser (kg N):

38	38
75	75
113	113

- NOTES: (1) Pastures (R): Tridemorph applied at 0.53 kg in 450 l: 27 May.
(2) Horsepool Lane Close (W): Tridemorph applied at 0.53 kg in 280 l: 27 May.
(3) On Pastures (R) all sub plots of one plot of (JU H -) received tridemorph in error. Estimated values were used in the analysis.

Basal applications: Pastures (R): Manures: (0:20:20) at 310 kg, combine drilled. Weedkillers: Paraquat at 0.42 kg ion in 220 l. Dicamba with mecoprop and MCPA ('Banlene Plus' at 5.6 l in 220 l).
Horsepool Lane Close (W): Manures: (0:20:20) at 310 kg, combine drilled. Weedkiller: Ioxynil at 0.5³ kg and mecoprop at 1.6 kg in 280 l. Ioxynil at 0.42 kg and mecoprop at 1.3 kg in 280 l.

NOTE: The second application of weedkiller on Horsepool Lane Close was applied with tridemorph where this was applied as a treatment, and separately to remaining plots.

Seed: Pastures (R): Varieties sown at 150 kg.
Horsepool Lane Close (W): Varieties sown at 160 kg.

76/R/B/3 and 76/W/B/3

Cultivations, etc.:-

Pastures (R): Paraquat applied: 6 Nov, 1975. Ploughed: 24 Nov. Spring-tine cultivated twice: 2 Mar, 12 Mar, 1976. Seed sown: 22 Mar. N applied: 1 Apr. 'Banlene Plus' applied: 14 May. Combine harvested: 27 July. Previous crops: Potatoes 1974, winter wheat 1975.

Horsepool Lane Close (W): Deep-tine cultivated four times: 21 Sept, 22 Sept, 23 Oct, 18 Dec, 1975. Spring-tine cultivated: 27 Feb, 1976. Spring-tine cultivated with crumbler: 22 Mar. Seed sown: 24 Mar. N applied: 29 Mar. Weedkiller applied to all plots: 3 May. Tridemorph treatment applied with weedkiller: 27 May. Combine harvested: 29 July. Previous crops: Beans 1974, winter wheat 1975.

76/R/B/3 PASTURES (R)

GRAIN TONNES/HECTARE

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

VARIETY	N	38	75	113	MEAN
JU H -		4.58	4.55	4.45	4.53
JU H E		4.63	4.71	4.79	4.71
JU H T		4.65	4.95	5.15	4.92
JU M T		4.48	4.62	4.74	4.61
AM T		4.68	5.02	5.14	4.95
AR T		4.90	5.31	5.20	5.14
GE T		5.05	5.41	5.59	5.35
LA T		4.67	5.22	5.16	5.02
PO T		4.90	5.46	5.33	5.23
SU T		5.19	5.32	5.58	5.36
MEAN		4.76	5.05	5.12	4.98

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

TABLE	VARIETY	N	VARIETY	N
SED	0.123		0.187	MIN REP
	0.107	0.052	0.162	MAX-MIN

EXCEPT WHEN COMPARING MEANS WITH SAME LEVEL(S) OF:
 VARIETY 0.172 MIN REP
 0.149 MAX-MIN
 0.121 MAX REP

VARIETY
 MAX REP JU H T
 MAX-MIN JU H T V ANY OF REMAINDER
 MIN REP ANY OF REMAINDER

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

STRATUM	DF	SE	CV%
BLOCK.WP	30	0.174	3.5
BLOCK.WP.SP	66	0.243	4.9

GRAIN MEAN DM% 87.1

SUB PLOT AREA HARVESTED 0.00163

76/W/B/3 HORSEPOOL LANE CLOSE E(W)

GRAIN TONNES/HECTARE

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

VARIETY	N	38	75	113	MEAN
JU H -		3.32	3.81	3.51	3.55
JU H E		3.43	3.55	3.35	3.44
JU H T		3.99	4.05	4.08	4.04
JU M T		3.72	3.57	3.76	3.68
AM T		2.59	3.19	2.65	2.81
AR T		4.01	3.80	3.47	3.76
GE T		3.49	4.00	4.27	3.92
LA T		3.30	3.67	3.55	3.51
PO T		3.75	3.88	4.18	3.94
SU T		3.77	3.82	3.58	3.72
MEAN		3.58	3.76	3.68	3.67

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

TABLE	VARIETY	N	VARIETY	N
SED	0.353		0.415	MIN REP
	0.306	0.077	0.360	MAX-MIN

EXCEPT WHEN COMPARING MEANS WITH SAME LEVEL(S) OF:

VARIETY	MIN REP	MAX-MIN	MAX REP
	0.254	0.220	0.180

VARIETY
 MAX REP JU H T
 MAX-MIN JU H T V ANY OF REMAINDER
 MIN REP ANY OF REMAINDER

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

STRATUM	DF	SE	CV%
BLOCK.WP	31	0.500	13.6
BLOCK.WP.SP	64	0.353	9.6

GRAIN MEAN DM% 87.3

SUB PLOT AREA HARVESTED 0.00173