

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 1974

[Full Table of Content](#)



74/R/B/4 and 74/W/B/4 Varieties and N - Barley

74/R/B/4 and 74/W/B/4 Varieties and N - Barley, Rothamsted Research (1975) Yields Of The Field Experiments 1974, pp 298 - 300 - DOI: <https://doi.org/10.23637/ERADOC-1-119>

74/R/B/4 and 74/W/B/4

BARLEY

VARIETIES AND N

Object: To study the yield of several varieties of barley grown at a range of nitrogen rates - Rothamsted (R) Delafield and Woburn (W) White Horse.

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

Design: 4 randomised blocks of 14 plots, split into 3.

Whole plot dimensions: 4.27 x 20.1. Sub plot area harvested:
Delafield (R) - 0.00130, White Horse (W) - 0.00173.

Treatments: All combinations of:-

Whole plots: 1. Varieties and mildew control: VARIETY

Abacus, sprayed tridemorph	AB T
Armelle, sprayed tridemorph	AR T
Berac, sprayed tridemorph	BE T
Hassan, sprayed tridemorph	HA T
Julia, no mildew control	JU O
Julia, seed dressed ethirimol	JU E
Julia, sprayed tridemorph	JU T
Lofa Abed, sprayed tridemorph	LA T
Maris Mink, sprayed tridemorph	MM T
Mazurka, sprayed tridemorph	MZ T
Proctor, no mildew control	PR O
Proctor, seed dressed ethirimol	PR E
Proctor, sprayed tridemorph	PR T
Universe, sprayed tridemorph	UN T

Sub plots: 2. Nitrogen fertiliser (kg N):	N
38	38
75	75
113	113

NOTE: Tridemorph applied at 0.5 kg in 450 l Delafield (R) and 280 l White Horse (W).

Basal applications:

Delafield (R): Manures: Balancing (0:20:20) at 1060 kg and (0:20:20) at 310 kg combine drilled. Weedkiller: MCPA, mecoprop and dicamba ('Tetralax Plus' at 7.0 l in 220 l).

White Horse (W): Manures: (0:20:20) at 310 kg combine drilled. Weedkillers: Paraquat at 0.56 kg ion in 370 l. Ioxynil at 0.53 kg and mecoprop at 1.6 kg in 280 l.

74/R/B/4 and 74/W/B/4

Seed: Delafield (R) and White Horse (W): Varieties sown at 160 kg.

Cultivations, etc.:-

Delafield (R): Balancing PK applied: 10 Sept, 1973. Ploughed: 28 Nov.
Spring-tine cultivated twice, seed sown: 1 Apr, 1974. N applied:
9 Apr. Weedkiller applied: 17 May. Tridemorph applied: 4 June.
Combine harvested: 22 Aug. Previous crops: Potatoes 1972, winter
wheat 1973.

White Horse (W): Paraquat applied: 12 Sept, 1973. Ploughed: 16 Nov.
Spring-tine cultivated with crumbler, seed sown: 27 Mar, 1974.
N applied: 3 Apr. Ioxynil with mecoprop applied: 17 May.
Tridemorph applied: 4 June. Combine harvested: 24 Aug. Previous
crops: Spring beans 1972, winter wheat 1973.

NOTE: White Horse (W): Only three blocks were harvested, the fourth was
badly damaged by rabbit grazing.

Standard errors per plot. Grain: tonnes/hectare.

Delafield (R). Whole plot: 0.276 or 5.6% (39 d.f.)

Sub plot: 0.373 or 7.5% (84 d.f.)

White Horse (W). Whole plot: 0.627 or 12.3% (26 d.f.)

Sub plot: 0.389 or 7.6% (56 d.f.)

74/R/B/4 and 74/W/B/4

TABLES OF MEANS

GRAIN: TONNES/HECTARE

VARIETY	DELAFIELD (R)				VARIETY	WHITE HORSE (W)			
	38	N 75	113	Mean		38	N 75	113	Mean
AB T	4.53	5.18	5.24	4.99	AB T	4.62	4.92	5.10	4.88
AR T	3.82	4.62	4.90	4.45	AR T	4.52	4.46	4.76	4.58
BE T	3.99	4.84	5.13	4.65	BE T	4.59	5.30	5.36	5.08
HA T	4.23	5.07	5.38	4.89	HA T	4.79	5.14	5.38	5.10
JU O	4.53	4.67	5.00	4.73	JU O	4.33	4.93	4.36	4.54
JU E	4.94	5.44	5.81	5.40	JU E	3.46	4.18	4.19	3.95
JU T	4.35	5.11	5.08	4.85	JU T	4.62	5.55	5.68	5.28
LA T	4.97	6.03	6.09	5.70	LA T	5.51	6.06	5.95	5.84
MM T	4.85	5.67	5.83	5.45	MM T	5.74	6.82	6.54	6.37
MZ T	4.65	5.14	5.39	5.06	MZ T	4.26	4.64	5.12	4.67
PR O	3.83	4.35	4.46	4.21	PR O	5.04	5.28	4.73	5.02
PR E	4.33	4.81	4.89	4.68	PR E	4.37	4.35	4.10	4.27
PR T	4.38	4.67	4.84	4.63	PR T	5.35	5.49	5.11	5.32
UN T	5.80	5.88	6.21	5.96	UN T	5.75	6.77	6.52	6.35
Mean	4.51	5.11	5.30	4.97	Mean	4.78	5.28	5.21	5.09

STANDARD ERRORS OF DIFFERENCES

	N	VARIETY	N	VARIETY	N	VARIETY	N	VARIETY
Except when comparing means with same level of:	0.071	0.195	0.291	0.085	0.512	0.574	0.264	0.317
		VARIETY						

Mean D.M. % 85.8

83.9