

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 1973

[Full Table of Content](#)



73/S/BS/1 - Varieties, N & Fungicide - Spring Barley

Rothamsted Research

Rothamsted Research (1974) *73/S/BS/1 - Varieties, N & Fungicide - Spring Barley* ; Yields Of The Field Experiments 1973, pp 338 - 342 - DOI: <https://doi.org/10.23637/ERADOC-1-98>

73/S/BS/1

SPRING BARLEY

VARIETIES, N AND FUNGICIDE

Object: To study the effects of a range of nitrogen levels, applied to seedbed or as a top dressing, on the yield of three barley varieties. The effects of a fungicide against brown rust are also studied - Saxmundham, Grove Plot.

Sponsors: F.V. Widdowson, A. Penny.

Design: 3 randomised blocks of 9 plots split into 2.

Whole plot dimensions: 2.43 x 12.2. Area harvested: 0.00045.

Treatments: All combinations of:-

Whole plots: 1. Varieties:

Julia
Mazurka
Midas

VARIETY

Julia
Mazurka
Midas

2. Nitrogen fertiliser (kg N):

NRATE

50
100
150

50
100
150

3. Time of applying nitrogen:

NTIME

All to seedbed on 20 Mar
Half to seedbed, half top
dressed on 22 May
All top dressed on 22 May

Seedbed
SB/TD
Topdress

Sub plots: 4. Fungicide spray against brown rust:

FUNGICIDE

None
BAS3170F applied at 1.4 kg a.i.
in 340 l on 19 June repeated
on 10 July

None
BAS3170F

Basal applications: Manures: (0:20:20) at 280 kg. Weedkiller: Dichlorprop and MCPA ('Mephetol plus' at 5.6 l in 340 l). Fungicide: Tridemorph ('Calixin' at 0.7 l) applied with the weedkiller.

73/S/BS/1

Seed: Dressed with ethirimol, sown at 190 kg.

Cultivations, etc.:— Ploughed: 27 Oct, 1972. PK applied, seed sown: 21 Mar, 1973. Weedkiller and fungicide applied: 22 May. Cut by hand: 15 Aug. Previous crops: Barley 1971, 1972.

NOTE: Brown rust (*Puccinia hordei*) and mildew (*Erysiphe graminis*) were assessed on 16 July.

Standard errors per plot. Grain, tonnes/hectare:

Whole plot: 0.248 or 4.9% (6 d.f.)

Sub plot: 0.274 or 5.5% (8 d.f.)

73/3/56/1

TABLES OF MEANS

GRAIN: TONNES/HECTARE

	NRATE			NTIME			NTOGIDE		
	50	100	150	Seedbed	30/10	Top dress	Rate	Rate	Rate
VARIETY									
Julia	4.37	5.59	5.47	4.90	5.22	5.30	5.01	5.27	5.14
Mazurka	3.97	4.87	5.34	4.79	4.72	4.68	4.64	4.82	4.73
Midas	4.55	5.36	5.54	5.17	5.24	5.03	4.98	5.41	5.15
			NRATE						
			50	4.28	4.33	4.29	4.23	4.36	4.30
			100	5.22	5.46	5.13	5.06	5.49	5.27
			150	5.37	5.38	5.60	5.25	5.65	5.45
					NTIME				
					Seedbed		4.92	4.99	4.95
					30/10		4.99	5.13	5.06
					Topdress		4.63	5.39	5.01
Mean							4.85	5.17	5.01

73/S/BS/1

TABLES OF MEANS

GRAIN: TONNES/HECTARE

STANDARD ERRORS OF DIFFERENCES

VARIETY	NRATE	NTIME	FUNGCIDE	VARIETY NRATE	VARIETY NTIME	NRATE NTIME
0.117	0.117	0.117	0.075	0.202	0.202	0.202
				VARIETY FUNGCIDE	NRATE FUNGCIDE	NTIME FUNGCIDE
				0.148	0.148	0.148
Except when comparing means with same level of				0.129	0.129	0.129
			VARIETY NRATE NTIME			

Mean D.M. % 87.8

73/S/BS/1

STRAW: TONNES/HECTARE

	NRATE			NTIME			FUNGICIDE		Mean
	50	100	150	Seedbed	SB/TD	Top dress	None	BAS3170F	
VARIETY									
Julia	3.80	4.79	5.11	4.70	4.59	4.40	4.51	4.62	4.56
Mazurka	3.84	4.82	5.30	4.81	4.86	4.30	4.67	4.64	4.65
Midas	4.01	4.93	5.20	4.96	4.67	4.52	4.88	4.55	4.77
		NRATE							
			50	4.01	3.88	3.75	3.84	3.92	3.88
			100	4.91	5.03	4.61	4.91	4.79	4.85
			150	5.55	5.20	4.86	5.31	5.10	5.20
				NTIME					
					Seedbed		4.94	4.70	4.82
					SB/TD		4.78	4.63	4.70
					Topdress		4.34	4.47	4.41
Mean							4.69	4.60	4.64

Mean D.M. % 88.5