ROTHAMSTED RESEARCH

Yields of the Field Experiments 1974

Full Table of Content

Barley

Barley, Rothamsted Research (1975) Yields Of The Field Experiments 1974, pp 298 - 319 **- 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 ('Tetralex 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.

https://doi.org/10.23637/ERADOC-1-119

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.)

https://doi.org/10.23637/ERADOC-1-119

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

TABLES OF MEANS

GRAIN: TONNES/HECTARE

DELAFIELD (R)

	N 38	N 75	N 113	Mean
VARIETY				
AB T	4.53	5.18	5.24	4.99
AR T	3.82	4.62	4.90	4.45
BE T	3.99	4.84	5.13	4.65
HA T	4.23	5.07	5.38	4.89
JU O	4.53	4.67	5.00	4.73
JU E	4.94	5.44	5.81	5.40
JU T	4.35	5.11	5.08	4.85
LA T	4.97	6.03	6.09	5.70
MM T	4.85	5.67	5.83	5.45
MZ T	4.65	5.14	5.39	5.06
PR O	3.83	4.35	4.46	4.21
PR E	4.33	4.81	4.89	4.68
PR T	4.38	4.67	4.84	4.63
UN T	5.80	5.88	6.21	5.96
Mean	4.51	5.11	5.30	4.97

WHITE HORSE (W)

	N 38	N 75	N 113	Mean
VARIETY				
AB T	4.62	4.92	5.10	4.88
AR T	4.52	4.46	4.76	4.58
BE T	4.59	5.30	5.36	5.08
HA T	4.79	5.14	5.38	5.10
JU O	4.33	4.93	4.36	4.54
JU E	3.46	4.18	4.19	3.95
JU T	4.62	5.55	5.68	5.28
LA T	5.51	6.06	5.95	5.84
MM T	5.74	6.82	6.54	6.37
MZ T	4.26	4.64	5.12	4.67
PR O	5.04	5.28	4.73	5.02
PR E	4.37	4.35	4.10	4.27
PR T	5.35	5.49	5.11	5.32
UN T	5.75	6.77	6.52	6.35
Mean	4.78	5.28	5.21	5.09

STANDARD ERRORS OF DIFFERENCES

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

Mean D.M. % 85.8 83.9

https://doi.org/10.23637/ERADOC-1-119

74/R/B/5

BARLEY

SYSTEMIC FUNGICIDE STUDY

Object: To study the effectiveness of different methyl benzimidazol-2-yl-carbamate (MBC) precursors and to relate chemical measurements of persistence, movement and conversion to MBC to field performance - Delafield.

Sponsor: I.J. Graham-Bryce.

Design: 3 randomised blocks of 6 plots.

Whole plot dimensions: 2.41 x 9.14. Area harvested: 0.00151.

Treatments: Fungicidal seed dressings (at 1.0 kg/ha):

	FUNGCIDE
None	None
Benomyl	Benomyl
Carbendazim	Carbenda
Cypendazol	Cypendaz
Thiophanate methyl	Thiophan
R 28921 (2-((3-methoxy carbonyl)-thioureido)-O, O-diethyl-phosphoranilide)	R 28921

NOTE: Seed was naturally infected with loose smut (Ustilago nuda).

Basal applications: Manures: (0:20:20) at 1060 kg. (20:14:14) at 440 kg. Weedkiller: Dicamba with mecoprop and MCPA ('Tetralex Plus' at 7.0 l in 220 l).

Seed: Sultan, sown at 160 kg.

Cultivations, etc.:- PK applied: 10 Sept, 1973. Ploughed: 28 Nov. NPK applied, spring-tine cultivated twice: 1 Apr, 1974. Seed sown: 3 Apr. Weedkiller applied: 17 Apr. Combine harvested: 22 Aug. Previous crops: Potatoes 1972, winter wheat 1973.

NOTES: Plant counts were made shortly after germination. Loose smut (Ustilago nuda) was assessed at end of June, eyespot (Cercosporella herpotrichoides) in early July and mildew (Erysiphe graminis) on three occasions.

Standard error per plot.
Grain, tonnes/hectare: 0.200 or 4.4% (10 d.f.).

https://doi.org/10.23637/ERADOC-1-119

74/R/B/5

TABLES OF MEANS

GRAIN: TONNES/HECTARE

FUNGCIDE

None	Benomyl	Carbenda	Cypendaz	Thiophan	R 28921	Mean
3.81	4.86	4.53	4.86	5.02	4.04	4.52

STANDARD ERROR OF DIFFERENCES

FUNGCIDE

0.163

Mean D.M.% 87.9

https://doi.org/10.23637/ERADOC-1-119

74/R/B/7

BARLEY

TIMES OF APPLYING FUNGICIDE

Object: To study the effects of applying fungicides to barley, at different times, on yield and incidence of mildew - Summerdells II.

Sponsor: J.F. Jenkyn.

Design: 4 randomised blocks of 11 plots.

Whole plot dimensions: 4.27 x 12.2. Area harvested: 0.00260.

Treatments: Times of applying fungicides:	FUNGCIDE
None	0
Ethirimol seed dresssing	ED
Ethirimol spray, early (20 May, 1974)	ES1
Ethirimol spray when mildew spores increasing rapidly (3 June)	ES2
Tridemorph spray early (20 May)	TS1
Tridemorph spray when mildew spores increasing rapidly (3 June)	TS2
Ethirimol seed dressing plus tridemorph spray when mildew spores increasing rapidly (3 June)	ED TS2
Ethirimol seed dressing plus tridemorph spray about ten days after mildew spores increasing rapidly (12 June)	ED TS3
Tridemorph spray early plus tridemorph spray about ten days after mildew spores increasing rapidly (12 June)	TS1 3
Captafol + tridemorph sprays repeated 3 times (12 May, 3, 12 June)	CTS 123
Chloraniformethan spray when mildew spores increasing rapidly (3 June)	CHS2

NOTE: Fungicides applied:-
Tridemorph: 0.53 kg in 340 l.
Ethirimol: 0.35 kg in 340 l.
Captafol: 1.3 kg in 340 l.
Chloraniformethan: 0.29 kg in 340 l.

Basal applications: Manures: (20:14:14) at 440 kg, combine drilled.
Weedkillers: Dicamba with mecoprop and MCPA ('Tetralex Plus' at 7.0 l in 220 l).

Seed: Zephyr, sown at 160 kg.

https://doi.org/10.23637/ERADOC-1-119

Cultivations, etc.:- Ploughed: 16 Nov, 1973. Spring-tine cultivated: 21 Mar, 1974. Seed sown: 1 Apr. Weedkiller applied: 21 May. Combine harvested: 23 Aug. Previous crops: Spring beans and potatoes 1972, spring barley 1973.

NOTE: Ear counts were made at harvest time. Mildew (Erysiphe graminis) was assessed on a number of occasions during the season.

Standard error per plot.
Grain, tonnes/hectare: 0.155 or 2.8% (30 d.f.)

https://doi.org/10.23637/ERADOC-1-119

74/R/B/7

TABLES OF MEANS

GRAIN: TONNES/HECTARE

FUNGCIDE

0	ED	ES1	ES2	TS1	TS2	ED TS2	ED TS3	TS1 3 CTS 123	CHS2	Mean
4.61	5.26	5.37	5.08	5.83	5.38	5.69	5.57	6.29	6.45	4.94	5.50

STANDARD ERROR OF DIFFERENCES

FUNGCIDE

0.109

Mean D.M. % 85.8

74/R/B/8

BARLEY

DISTANCE AND MILDEW SPREAD

Object: To study the effects of fungicidal sprays, applied to barley at different times on yield and incidence of mildew. The effects of separating the plots by mildew-free barley are also studied - Summerdells II.

Sponsors: J.F. Jenkyn, A. Bainbridge.

Design: Two 4 x 4 Latin squares (of the same pattern).

Whole plot dimensions: 4.27 x 9.14. Area harvested: 0.00195.

Treatments: All combinations of:

1. Distance apart of plots:	DISTANCE
Close together (1 m)	Close
Far apart (19 m)	Far
2. Fungicidal sprays:	FUNGCIDE
None	None
Chloraniformethan spray 'late' (3 June, 1974)	Chlor L
Tridemorph spray 'early' (20 May)	Tridem E
Tridemorph spray 'late' (3 June)	Tridem L

NOTES: (1) Chloraniformethan was applied at 0.29 kg in 340 l, tridemorph at 0.53 kg in 340 l.
(2) The surrounds of 'Far' plots and 30 m between 'Far' and 'Close' squares were sprayed twice (28 May, 2 July) with tridemorph at 0.53 kg in 450 l.
(3) All 'Far' plots had adjacent plots, sprayed twice (20 May, 8 July) with tridemorph at 0.53 kg in 340 l, from which yields were taken for covariance analysis.

Basal applications: Manures: (20:14:14) at 440 kg combine drilled. Weedkiller: Dicamba with mecoprop and MCPA ('Tetralex Plus' at 7.0 l in 450 l).

Seed: Zephyr, sown at 160 kg.

https://doi.org/10.23637/ERADOC-1-119 *pp 10*

74/R/B/8

Cultivations, etc.:- Ploughed: 16 Nov, 1973. Spring-tine cultivated: 29 Mar, 1974. Seed sown: 1 Apr. Weedkiller applied: 21 May. Combine harvested: 23 Aug. Previous crops: Beans and potatoes 1972, barley 1973.

NOTE: Estimates were made of seedling emergence. Assessments were made of mildew on several occasions and ear counts in early August.

Standard errors per plot. Grain, tonnes/hectare.

DISTANCE Close:	0.124 or 2.4% (6 d.f.)
DISTANCE Far:	0.157 or 3.0% (6 d.f.)
Pooled within DISTANCES:	0.141 or 2.7% (12 d.f.)

TABLES OF MEANS

GRAIN: TONNES/HECTARE

	FUNGCIDE				
	None	Chlor L	Tridem E	Tridem L	Mean
DISTANCE					
Close	4.75	5.21	5.51	5.58	5.26
Far	4.56	5.14	5.66	5.45	5.20
Far-Close	-0.19	-0.07	+0.15	-0.13	-0.06

STANDARD ERRORS OF DIFFERENCES

FUNGCIDE		
DISTANCE Close	DISTANCE Far	DISTANCE* Far-Close
0.88	0.111	0.100

* For use only in the comparison of two differences

Mean D.M.% 86.2

https://doi.org/10.23637/ERADOC-1-119 *pp 11*

74/R/B/10

BARLEY

CONTROL OF CEREAL APHIDS AND BYDV

Object: To study the effects of controlling cereal aphids on the incidence of barley yellow dwarf virus (BYDV) and on yield of barley - Summerdells II.

Sponsor: R.T. Plumb.

Design: 4 blocks of 8 plots, randomisation restricted.

Whole plot dimensions: 6.40 x 24.4. Area harvested: 0.00390.

Treatments: All combinations of:-

1. Phorate as granules to seedbed (1 Apr, 1974) (kg a.i.) PHORATE

None	0.0
5.0	5.0

2. Menazon spray early (20 June) (1 'Saphi-Col') MENAZON(1)

None	0.0
0.7	0.7

3. Menazon spray late (23 July) (1 'Saphi-Col') MENAZON(2)

None	0.0
0.7	0.7

Basal applications: Manures: (20:14:14) at 440 kg combine drilled. Weedkiller: Dicamba with mecoprop and MCPA ('Tetralex Plus' at 7.0 l in 340 l).

Seed: Julia, dressed with ethirimol, sown at 160 kg.

Cultivations, etc.:- Ploughed: 16 Nov, 1973. Power harrowed: 1 Apr, 1974. Seed sown: 2 Apr. Weedkiller applied: 21 May. Combine harvested: 20 Aug. Previous crops: Spring beans and potatoes 1972, barley 1973.

NOTE: Seedling emergence counts were made on two occasions in May. Counts of plants with virus symptoms were made on three occasions and of aphids on two occasions.

Standard error per plot.
Grain, tonnes/hectare: 0.148 or 2.4% (21 d.f.)

https://doi.org/10.23637/ERADOC-1-119 *pp 12*

74/R/B/10

TABLES OF MEANS

GRAIN: TONNES/HECTARE

	MENAZON(1) 0.0	MENAZON(1) 0.7	MENAZON(2) 0.0	MENAZON(2) 0.7	Mean
PHORATE					
0.0	6.13	6.13	6.08	6.17	6.13
5.0	6.39	6.43	6.35	6.47	6.41
	MENAZON(1)				
0.0			6.16	6.36	6.26
0.7			6.28	6.28	6.28
Mean			6.22	6.32	6.27

MENAZON(1)	0.0		0.7	
MENAZON(2)	0.0	0.7	0.0	0.7
PHORATE				
0.0	6.06	6.20	6.11	6.15
5.0	6.26	6.52	6.45	6.41

STANDARD ERRORS OF DIFFERENCES

PHORATE	MENAZON(1)	MENAZON(2)	PHORATE MENAZON(1)	PHORATE MENAZON(2)	MENAZON(1) MENAZON(2)	PHORATE MENAZON(1) MENAZON(2)
0.052	0.052	0.052	0.074	0.074	0.074	0.105

Mean D.M. % 86.4

https://doi.org/10.23637/ERADOC-1-119

74/R/B/13

BARLEY

INSECTICIDE AND BENEFICIAL INSECTS

Object: To study the effect of a range of rates of demeton-s-methyl on beneficial insects, particularly predators and parasites of aphids, and the yield of barley - Black Horse II.

Sponsor: J.H. Stevenson.

Design: 6 randomised blocks of 6 plots.

Whole plot dimensions: 25.6 x 27.4. Area harvested: 0.00520.

Treatments: Rates of demeton-s-methyl (g a.i.) applied on 8 July, 1974 in 390 l:

	DEMETON
None	0
15	15
30	30
60	60
120	120
240	240

Basal applications: Manures: (20:14:14) at 490 kg combine drilled. Weedkillers: TCA ('Tecane' at 34 kg in 220 l); dicamba with mecoprop and MCPA ('Tetralex Plus' at 7.0 l in 220 l).

Seed: Julia, dressed with ethirimol, sown at 160 kg.

Cultivations, etc.:- TCA applied: 9 Nov, 1973. Rotary cultivated: 14 Nov. Deep-tine cultivated: 21 Nov. Spring-tine cultivated and seed sown: 28 Mar, 1974. 'Tetralex Plus' applied: 21 May. Combine harvested: 20 Aug. Previous crops: Barley 1972 and 1973.

NOTES: 1. Aphids were assessed visually, other insects were sampled by sweep netting and water traps throughout the season.
2. There was evidence of a linear fertility trend across the site, and yields adjusted for trend are presented.

Standard error per plot.
Grain, tonnes/hectare: 0.269 or 5.5% (24 d.f.)

https://doi.org/10.23637/ERADOC-1-119 *pp 14*

74/R/B/13

TABLES OF MEANS

GRAIN: TONNES/HECTARE

DEMETON

0	15	30	60	120	240	Mean
4.77	5.11	4.68	5.16	4.76	4.71	4.87

STANDARD ERROR OF DIFFERENCES

DEMETON

0.158

Mean D.M. % 83.0

https://doi.org/10.23637/ERADOC-1-119

74/R/B/14

BARLEY

SLOW-RELEASE N

Object: To compare the effects of slow-release nitrogen fertiliser ('Gold-N', sulphur-coated urea) with a conventional form ('Nitro-Chalk', ammonium nitrate/calcium carbonate) on the yield of barley - Long Hoos VI/VII.

Sponsors: D. Cox, T.M. Addiscott.

Design: 2 randomised blocks of 26 plots.

Whole plot dimensions: 4.27 x 9.14. Area harvested: 0.00195.

Treatments: All combinations of:-

1. Form and time of applying nitrogen fertiliser:	N FORM(1)
'Gold-N' (sulphur-coated urea), to seedbed	Gold-N/E
'Nitro-Chalk' (ammonium nitrate/calcium carbonate) to seedbed	Nitro/E

2. Rate of nitrogen fertiliser (kg N):	N RATE(1)
None	0
15	15
30	30
45	45
60	60
75	75
90	90
105	105
120	120

plus all combinations of:-

1. Form and time of applying nitrogen fertiliser:	N FORM(2)
'Nitro-Chalk', half to seedbed (3 Apr) and half in mid-May (23 May)	Nitro/EL
'Nitro-Chalk', all in mid-May (23 May)	Nitro/L

2. Rate of nitrogen fertiliser (kg N):	N RATE(2)
30	30
60	60
90	90
120	120

https://doi.org/10.23637/ERADOC-1-119

Basal applications: Manures: (0:20:20) at 190 kg combine drilled.
Weedkiller: Dicamba with mecoprop and MCPA ('Tetralex Plus' at 7.0 l in 220 l).

Seed: Julia, dressed with ethirimol, sown at 160 kg.

Cultivations, etc.:- Ploughed: 20 Nov, 1973. Spring-tine cultivated: 23 Nov. Power harrowed and seed sown: 4 Apr, 1974. Weedkiller applied: 28 May. Combine harvested: 21 Aug. Previous crops: Winter wheat 1972, fallow 1973.

NOTE: The percentage of N in the crop was determined at growth stages 3, 7 and 10.5.

Standard error per plot.
Grain, tonnes/hectare: 0.179 or 2.8% (26 d.f.)

https://doi.org/10.23637/ERADOC-1-119

74/R/B/14

TABLES OF MEANS

GRAIN: TONNES/HECTARE

N RATE(1)

	0	15	30	45	60	75	90	105	120	Mean
N FORM(1)										
Gold-N/E		6.37	6.57	6.44	6.44	6.49	6.24	6.52	6.39	6.43
Nitro/E		6.63	6.54	6.22	6.48	6.18	6.34	5.97	6.24	6.32
Mean	6.54	6.50	6.55	6.33	6.46	6.34	6.29	6.24	6.32	6.40

N RATE(2)

	30	60	90	120	Mean
N FORM(2)					
Nitro/EL	6.44	6.44	5.98	5.95	6.20
Nitro/L	6.48	6.49	6.06	5.83	6.22
Mean	6.46	6.46	6.02	5.89	6.21

STANDARD ERRORS OF DIFFERENCES

N FORM(1)	N RATE(1)	N FORM(1) N RATE(1)	N FORM(2)	N RATE(2)	N FORM(2) N RATE(2)
0.063	0.127	0.179	0.090	0.127	0.179

Between any of N RATE(1) v any of N RATE(2) 0.127
Between any of N FORM(1) any of N FORM(2)
x v x 0.179
N RATE(1) N RATE(2)

Grand mean 6.34

Mean D.M. % 83.8

https://doi.org/10.23637/ERADOC-1-119 *pp 18*

74/R/B/14

STRAW: TONNES/HECTARE

N RATE(1)

	0	15	30	45	60	75	90	105	120	Mean
N FORM(1)										
Gold-N/E		4.20	4.41	3.79	3.90	4.11	3.97	4.05	4.00	4.05
Nitro/E		3.80	4.13	4.09	4.40	4.72	4.52	4.12	4.63	4.30
Mean	3.81	4.00	4.27	3.94	4.15	4.42	4.25	4.08	4.32	4.14

N RATE(2)

	30	60	90	120	Mean
N FORM(2)					
Nitro/EL	4.01	4.01	3.90	4.25	4.04
Nitro/L	3.86	3.93	4.30	4.15	4.06
Mean	3.94	3.97	4.10	4.20	4.05

GRAND MEAN 4.11

Mean D.M. % 89.2

https://doi.org/10.23637/ERADOC-1-119 *pp 19*

74/S/B/1

SPRING BARLEY

VARIETIES, N AND FUNGICIDE

Object: To study the effects of three 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: 2.44 x 12.2. Sub plot area harvested: 0.00051.

Treatments: All combinations of:-

Whole plots:	1. Varieties:	VARIETY
	Julia	Julia
	Mazurka	Mazurka
	Midas	Midas
	2. Nitrogen fertiliser (kg N):	N RATE
	50	50
	100	100
	150	150
	3. Time of applying nitrogen:	N TIME
	All to seedbed on 21 Mar, 1974	Seedbed
	Half to seedbed, half top dressed on 21 May	SB/TD
	All top dressed on 21 May	Topdress
Sub plots:	4. Fungicide spray against brown rust:	FUNGCIDE
	None	None
	Benodanil ('BAS 3170F') at 2.8 kg in 560 l on 19 June and 10 July, 1974	Benodani

NOTE: Nitrogen was applied as calcium nitrate.

Basal applications: Manures: (0:20:20) at 290 kg. Weedkiller: Dicamba with dichorprop and MCPA ('Mephetol Extra' at 5.6 l in 560 l). Fungicide: Tridemorph at 0.53 kg in 560 l.

Seed: All varieties, dressed with ethirimol, sown at 190 kg.

https://doi.org/10.23637/ERADOC-1-119 *pp 20*

74/S/B/1

Cultivations, etc.:- Ploughed: 9 Oct, 1973. Basal PK applied and seed sown: 21 Mar, 1974. Tridemorph applied: 21 May. Harvested by hand: 21 Aug. Previous crops: Barley 1972 and 1973.

NOTES: (1) Brown rust (Puccinia hordei) and mildew (Erysiphe graminis) were assessed on 10 July.
(2) There was evidence of a fertility trend across the site and yields adjusted for trend are presented.

Standard errors per plot. Grain: tonnes/hectare.
Whole plot: 0.176 or 3.8% (6 d.f.)
Sub plot: 0.307 or 6.6% (7 d.f.)

https://doi.org/10.23637/ERADOC-1-119

74/S/B/1

TABLES OF MEANS

GRAIN: TONNES/HECTARE

	N RATE			N TIME			FUNGCIDE		
	50	100	150	Seedbed	SB/TD	Topdress	None	Benodani	Mean
VARIETY									
Julia	4.15	5.01	5.07	5.13	4.87	4.23	4.61	4.88	4.74
Mazurka	3.44	4.70	4.92	4.42	4.46	4.18	4.38	4.33	4.35
Midas	3.90	4.85	5.55	5.25	4.99	4.05	4.55	4.99	4.77
		N RATE							
		50		4.18	3.87	3.44	3.76	3.90	3.83
		100		5.00	5.13	4.43	4.78	4.93	4.86
		150		5.63	5.32	4.60	5.01	5.35	5.18
					N TIME				
					Seedbed		4.96	4.91	4.94
					SB/TD		4.66	4.89	4.78
					Topdress		3.93	4.39	4.16
Mean							4.51	4.73	4.62

STANDARD ERRORS OF DIFFERENCES

VARIETY	N RATE	N TIME	FUNGCIDE	VARIETY N RATE	VARIETY N TIME	N RATE N TIME
0.083	0.083	0.083	0.084	0.144	0.144	0.144

VARIETY FUNGCIDE	N RATE FUNGCIDE	N TIME FUNGCIDE
0.134	0.132	0.134

Except when comparing means with same levels of:

VARIETY	0.147		
N RATE		0.145	
N TIME			0.147

Mean D.M. % 86.2

https://doi.org/10.23637/ERADOC-1-119 *pp 22*

74/S/B/1

STRAW: TONNES/HECTARE

	N RATE			N TIME			FUNGCIDE		
	50	100	150	Seedbed	SB/TD	Topdress	None	Benodanil	Mean
VARIETY									
Julia	2.95	3.70	3.65	3.80	3.48	3.01	3.37	3.49	3.43
Mazurka	3.19	3.96	4.20	4.45	3.57	3.32	3.67	3.89	3.78
Midas	2.90	3.68	4.04	4.12	3.56	2.95	3.55	3.53	3.54
		N RATE							
		50		3.60	2.91	2.53	2.96	3.06	3.01
		100		4.18	3.84	3.32	3.71	3.85	3.78
		150		4.59	3.86	3.43	3.93	4.00	3.96
					N TIME				
					Seedbed		4.04	4.21	4.12
					SB/TD		3.53	3.55	3.54
					Topdress		3.03	3.16	3.09
Mean							3.53	3.64	3.59

Mean D.M. % 82.5

https://doi.org/10.23637/ERADOC-1-119