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Yields of the Field Experiments 1974

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Barley

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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: 4.2' 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.

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

	DELAFIELD (R)					WHITE HORSE (W)			
	38	N 75	113	Mean		38	N 75	113	Mean
VARIETY					VARIETY				
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		N	VARIETY	N
			VARIETY				VARIETY
Except when comparing means	0.071	0.195	0.291	0.085	0.512	0.574	
with same level of: VARIETY			0.264			0.317	
Mean D.M. %	85.8				83.9		

74/R/E/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):	FUNGICIDE
None	None
Benomyl	Benomyl
Carbendazim	Carbenda
Cypendazol	Cypendaz
Thiophanate methyl	Thiophan
R 28921 (2-((3-methoxy carbonyl)-thioureido)-0, 0-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-time 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 (*Cercospora 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.).

74/R/B/5

TABLES OF MEANS

GRAIN: TONNES/HECTARE

FUNGICIDE						
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

FUNGICIDE

0.163

Mean D.M.% 87.9

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:	FUNGICIDE
None	O
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)	TSL
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)	TSL 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 ('Tetralox Plus' at 7.0 l in 220 l).

Seed: Zephyr, sown at 160 kg.

74/R/E/7

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.)

74/R/B/7

TABLES OF MEANS

GRAIN: TONNES/HECTARE

FUNGICIDE

O	ED	ES1	ES2	TSL	T82	ED T82	ED TS3	TSL 3 CTS 123	CH82	Mean
4.61	5.26	5.37	5.08	5.83	5.38	5.69	5.57	6.29	4.94	5.50

STANDARD ERROR OF DIFFERENCES

FUNGICIDE

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:	FUNGICIDE
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 ('Tetralix Plus' at 7.0 l in 450 l).

Seed: Zephyr, sown at 160 kg.

74/R/B/8

Cultivations, etc.:— Ploughed: 16 Nov, 1973. Spring-time 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

	FUNGICIDE				Mean
	None	Chlor L	Tridem E	Tridem L	
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

DISTANCE	FUNGICIDE		DISTANCE*
	DISTANCE Close	DISTANCE Far	
	0.88	0.111	0.100

* For use only in the comparison of two differences

Mean D.M.% 86.2

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.)	PHDRATE
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.)

74/R/B/10

TABLES OF MEANS

GRAIN: TONNES/HECTARE

	MENAZON(1)		MENAZON(2)		Mean
	0.0	0.7	0.0	0.7	
PHDRATE					
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) MENAZON(2)	0.0 0.7		0.0 0.7	
	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	PHORATE	MENAZON(1)	PHORATE:
MENAZON(1)	MENAZON(2)	MENAZON(2)	MENAZON(1)	MENAZON(2)	MENAZON(2)	MENAZON(1)
						MENAZON(2)
0.052	0.052	0.052	0.074	0.074	0.074	0.105

Mean D.M. % 86.4

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.) DEMETON
applied on 8 July, 1974 in 390 l:

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.)

74/R/B/13

TABLES OF MEANS

GRAIN: TONNES/HECTARE

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

STANDARD ERROR OF DIFFERENCES

DEMETON

0.158

Mean D.M. $\frac{7}{8}$ 83.0

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

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Basal applications: Manures: (0:20:20) at 190 kg combine drilled.
Weedkiller: Dicamba with mecoprop and MCPA ('Tetralix 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.)

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

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

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. Penry.

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:

Julia	VARIETY
Mazurka	Julia
Midas	Mazurka
	Midas

2. Nitrogen fertiliser (kg N):

50	N RATE
100	50
150	100
	150

3. Time of applying nitrogen:

All to seedbed on 21 Mar, 1974	N TIME
Half to seedbed, half top dressed on 21 May	Seedbed
All top dressed on 21 May	SB/TD
	Topdress

Sub plots: 4. Fungicide spray against brown rust:

None	FUNGICIDE
Benodanil ('BAS 3170F') at 2.8 kg	None
in 560 l on 19 June and 10 July, 1974	Benodanil

NOTE: Nitrogen was applied as calcium nitrate.

Basal applications: Manures: (0:20:20) at 290 kg. Weedkiller: Dicamba with dichlorprop 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.

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.)

74/S/B/1

TABLES OF MEANS

GRAIN: TONNES/HECTARE

	N RATE			N TIME			FUNGICIDE		Mean
	50	100	150	Seedbed	SB/TD	Topdress	None	Benodanil	
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	FUNGICIDE	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 FUNGICIDE	N RATE FUNGICIDE	N TIME FUNGICIDE
				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

74/S/E/1

STRAW: TONNES/HECTARE

	N RATE			N TIME			FUNGICIDE		Mean
	50	100	150	Seedbed	SB/TD	Topdress	None	Benodanil	
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