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## Yields of the Field Experiments 1989

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### 89/R/B/1 Factors Limiting Yield - W. Barley

#### Rothamsted Research

Rothamsted Research (1990) *89/R/B/1 Factors Limiting Yield - W. Barley* ; Yields Of The Field Experiments 1989, pp 136 - 150 - DOI: <https://doi.org/10.23637/ERADOC-1-40>

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**WINTER BARLEY**

**FACTORS LIMITING YIELD**

**Object:** To study the effects of a range of factors on the quality and yield of winter barley - Great Knott I.

**Sponsors:** J.F. Jenkyn, R.J.Gutteridge, R.T. Plumb, D.G. Christian, R.J. Darby, S.H.T. Harper, L.A. Mullen, N. Carter, G.J.S. Ross.

**Associate sponsors:** B.R. Kerry, G.F.J. Milford, Dr. E.D. Baxter (Brewing Research Foundation).

**Design:** A single replicate of 2 x 2 x 2 x 2 x 2 + 24 extra plots.

**Whole plot dimensions:** 3.0 x 18.2.

**Treatments:** All combinations of the following, all sown early (20 Sept, 1988) and given cypermethrin at 0.025 kg in 220 l on 28 Oct:

1. **PREVCROP**                      Previous cropping:  
  
    BARLEY                      Potatoes 1986, w. wheat 1987, w. barley 1988  
    OATS                         Potatoes 1986, w. wheat 1987, w. oats 1988
  
2. **WINTER N**                    Nitrogen fertilizer in winter (kg N) as urea (46% N):  
  
    0                                None  
    NOV+FEB                      On 16 Nov, 1988 20 to BARLEY, 49 to OATS, on 20 Feb, 1989 25 to BARLEY and OATS
  
3. **SPRING N**                    Nitrogen fertilizer in spring (kg N) as 'Nitro-Chalk':  
  
    85  
    160
  
4. **N TIME**                      Timing of spring nitrogen application:  
  
    14 MAR                        14 March, 1989  
    10 APR                        10 April
  
5. **E FUNG**                      Early fungicides:  
  
    NONE                         None  
    TFSD                         Triadimenol and fuberidazole seed dressing
  
6. **L FUNG**                      Late fungicides:  
  
    NONE                         None  
    SPRAYS                        Foliar sprays of prochloraz at 0.40 kg, carbendazim at 0.15 kg and tridemorph at 0.38 kg in 220 l on 12 Apr, 1989. Propiconazole at 0.125 kg and tridemorph at 0.22 kg in 220 l on 19 May

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plus all combinations of the following, all after barley and given late fungicides and 85 kg N in spring, not given cypermethrin in the autumn:

1. **SOWDATEV**                      Sowing dates:  

20 SEPT	20 September, 1988
17 OCT	17 October
  
2. **WINTR NV**                      Nitrogen fertilizer in winter (kg N) as urea (46 %N):  

0	None
20+25	20 on 16 Nov, 1988, 25 on 20 Feb, 1989
  
3. **E FUNGV**                      Early fungicides:  

NONE	None
TFSD	Triadimenol and fuberidazole seed dressing
  
4. **N TIMEV**                      Timing of spring nitrogen application:  

14 MAR	14 March, 1989
10 APR	10 April

plus 2 extra treatments following fallow, sown 20 September and given early and late fungicides, cypermethrin, 85 kg spring nitrogen but not given winter nitrogen:

- |                |  |
|----------------|--|
| <b>N TIMEF</b> | Timing of spring nitrogen application: |
| 14 MAR         | 14 March, 1989 (duplicated)            |
| 10 APR         | 10 April (duplicated)                  |

plus 1 extra treatment following barley, sown 20 September given early and late fungicides, cypermethrin, 160 kg spring nitrogen in April:

- |                  |  |
|------------------|--|
| <b>WINTER NX</b> | Extra winter nitrogen (kg N):                                |
| 45+25            | 45 kg on 16 Nov, 1988, 25 kg on 20 Feb, 1989<br>(duplicated) |

plus 1 extra treatment following barley, sown 20 September, and given early and late fungicides, cypermethrin but no nitrogen:

- |                 |                          |
|-----------------|--------------------------|
| <b>EXTRA NO</b> |                          |
| 0+0+0           | No nitrogen (duplicated) |

**Basal applications:** Manure: Magnesian limestone at 5.0 t. Weedkillers: Glyphosate at 0.27 kg in 200 l. Paraquat at 0.60 kg ion in 200 l. Chlortoluron at 3.5 kg in 200 l. Metsulfuron-methyl at 6.0 g with isoproturon at 1.5 kg in 200 l. Growth regulators: 2-chloroethylphosphonic acid at 0.31 kg and mepiquat chloride at 0.61 kg with a wetting agent ('Citowett' at 0.08 l) in 200 l.

**Seed:** Magie, sown at 300 seeds per square metre.

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**Cultivations, etc.:-** Rotary cultivated : 10 Aug, 1988. Glyphosate applied, magnesian limestone applied: 6 Sept. Paraquat applied: 19 Sept. Cultivated with rotary grubber, rotary harrowed, first sowing date plots rotary harrowed again, seed sown: 20 Sept. Second sowing date plots rotary harrowed, seed sown: 17 Oct. Chlortoluron applied: 15 Nov. Growth regulators with wetting agent applied: 19 Apr, 1989. Metsulfuron-methyl with isoproturon applied: 26 Apr. Combine harvested: 13 July. Previous crops: S. barley, w. wheat 1987, w. barley, w. oats, fallow 1988.

- NOTES:** (1) Soil was sampled to measure nitrate and ammonium contents in October, 1988 and February, 1989. Crop samples were taken from November to June to measure nitrate N concentrations.  
 (2) Plants were sampled in March, April, May and July to measure plant and shoot numbers, dry weights and nitrogen uptakes. After harvest thousand grain weights were measured.  
 (3) Leaf diseases, take-all, eyespot, barley yellow dwarf virus and aphid numbers were assessed.

**GRAIN TONNES/HECTARE**

\*\*\*\*\* Tables of means \*\*\*\*\*

<b>WINTER N</b>	0	NOV+FEB	Mean
<b>PREVCROP</b>			
BARLEY	6.98	7.75	7.36
OATS	7.36	7.95	7.65
Mean	7.17	7.85	7.51
<b>E FUNG</b>	NONE	TFSD	Mean
<b>PREVCROP</b>			
BARLEY	7.22	7.51	7.36
OATS	7.64	7.67	7.65
Mean	7.43	7.59	7.51
<b>E FUNG</b>	NONE	TFSD	Mean
<b>WINTER N</b>			
0	7.05	7.28	7.17
NOV+FEB	7.81	7.90	7.85
Mean	7.43	7.59	7.51
<b>L FUNG</b>	NONE	SPRAYS	Mean
<b>PREVCROP</b>			
BARLEY	6.94	7.79	7.36
OATS	7.27	8.04	7.65
Mean	7.10	7.92	7.51

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GRAIN TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

<b>L FUNG</b>	NONE	SPRAYS	Mean
<b>WINTER N</b>			
0	6.90	7.44	7.17
NOV+FEB	7.31	8.40	7.85
Mean	7.10	7.92	7.51
<b>L FUNG</b>	NONE	SPRAYS	Mean
<b>E FUNG</b>			
NONE	6.99	7.87	7.43
TFSD	7.21	7.97	7.59
Mean	7.10	7.92	7.51
<b>SPRING N</b>	85	160	Mean
<b>PREVCROP</b>			
BARLEY	7.11	7.62	7.36
OATS	7.48	7.83	7.65
Mean	7.30	7.72	7.51
<b>SPRING N</b>	85	160	Mean
<b>WINTER N</b>			
0	6.89	7.44	7.17
NOV+FEB	7.70	8.00	7.85
Mean	7.30	7.72	7.51
<b>SPRING N</b>	85	160	Mean
<b>E FUNG</b>			
NONE	7.22	7.64	7.43
TFSD	7.37	7.81	7.59
Mean	7.30	7.72	7.51
<b>SPRING N</b>	85	160	Mean
<b>L FUNG</b>			
NONE	6.89	7.32	7.10
SPRAYS	7.71	8.13	7.92
Mean	7.30	7.72	7.51
<b>N TIME</b>	14 MAR	10 APR	Mean
<b>PREVCROP</b>			
BARLEY	7.48	7.25	7.36
OATS	7.67	7.64	7.65
Mean	7.58	7.44	7.51

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GRAIN TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

N TIME	14 MAR	10 APR	Mean
<b>WINTER N</b>			
0	7.32	7.01	7.17
NOV+FEB	7.83	7.87	7.85
Mean	7.58	7.44	7.51

N TIME	14 MAR	10 APR	Mean
<b>E FUNG</b>			
NONE	7.59	7.27	7.43
TFSD	7.56	7.62	7.59
Mean	7.58	7.44	7.51

N TIME	14 MAR	10 APR	Mean
<b>L FUNG</b>			
NONE	7.09	7.12	7.10
SPRAYS	8.07	7.77	7.92
Mean	7.58	7.44	7.51

N TIME	14 MAR	10 APR	Mean
<b>SPRING N</b>			
85	7.29	7.30	7.30
160	7.86	7.59	7.72
Mean	7.58	7.44	7.51

PREVCROP	E FUNG	NONE	TFSD
<b>WINTER N</b>			
BARLEY	0	6.74	7.22
	NOV+FEB	7.69	7.81
OATS	0	7.37	7.35
	NOV+FEB	7.92	7.99

PREVCROP	L FUNG	NONE	SPRAYS
<b>WINTER N</b>			
BARLEY	0	6.74	7.22
	NOV+FEB	7.13	8.37
OATS	0	7.05	7.66
	NOV+FEB	7.48	8.43

PREVCROP	L FUNG	NONE	SPRAYS
<b>E FUNG</b>			
BARLEY	NONE	6.70	7.73
	TFSD	7.17	7.86
OATS	NONE	7.27	8.01
	TFSD	7.26	8.08

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GRAIN TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

	L FUNG	NONE	SPRAYS
WINTER N	E FUNG		
0	NONE	6.80	7.31
	TFSD	7.00	7.57
NOV+FEB	NONE	7.18	8.43
	TFSD	7.43	8.36
	SPRING N	85	160
PREVCROP	WINTER N		
BARLEY	0	6.65	7.31
	NOV+FEB	7.57	7.93
OATS	0	7.14	7.58
	NOV+FEB	7.82	8.08
	SPRING N	85	160
PREVCROP	E FUNG		
BARLEY	NONE	6.93	7.51
	TFSD	7.30	7.72
OATS	NONE	7.52	7.76
	TFSD	7.44	7.90
	SPRING N	85	160
WINTER N	E FUNG		
0	NONE	6.80	7.31
	TFSD	6.99	7.58
NOV+FEB	NONE	7.65	7.96
	TFSD	7.75	8.05
	SPRING N	85	160
PREVCROP	L FUNG		
BARLEY	NONE	6.68	7.19
	SPRAYS	7.55	8.04
OATS	NONE	7.09	7.44
	SPRAYS	7.87	8.22
	SPRING N	85	160
WINTER N	L FUNG		
0	NONE	6.66	7.13
	SPRAYS	7.13	7.75
NOV+FEB	NONE	7.11	7.50
	SPRAYS	8.28	8.51
	SPRING N	85	160
E FUNG	L FUNG		
NONE	NONE	6.74	7.23
	SPRAYS	7.71	8.04
TFSD	NONE	7.03	7.40
	SPRAYS	7.71	8.23

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GRAIN TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

	<b>N TIME</b>	14 MAR	10 APR
<b>PREVCROP</b>	<b>WINTER N</b>		
BARLEY	0	7.15	6.81
	NOV+FEB	7.82	7.68
OATS	0	7.49	7.22
	NOV+FEB	7.84	8.06
	<b>N TIME</b>	14 MAR	10 APR
<b>PREVCROP</b>	<b>E FUNG</b>		
BARLEY	NONE	7.42	7.01
	TFSD	7.54	7.48
OATS	NONE	7.75	7.53
	TFSD	7.58	7.75
	<b>N TIME</b>	14 MAR	10 APR
<b>WINTER N</b>	<b>E FUNG</b>		
0	NONE	7.29	6.82
	TFSD	7.35	7.21
NOV+FEB	NONE	7.89	7.73
	TFSD	7.77	8.02
	<b>N TIME</b>	14 MAR	10 APR
<b>PREVCROP</b>	<b>L FUNG</b>		
BARLEY	NONE	7.04	6.83
	SPRAYS	7.92	7.66
OATS	NONE	7.13	7.41
	SPRAYS	8.21	7.88
	<b>N TIME</b>	14 MAR	10 APR
<b>WINTER N</b>	<b>L FUNG</b>		
0	NONE	7.00	6.79
	SPRAYS	7.64	7.24
NOV+FEB	NONE	7.17	7.44
	SPRAYS	8.49	8.30
	<b>N TIME</b>	14 MAR	10 APR
<b>E FUNG</b>	<b>L FUNG</b>		
NONE	NONE	7.19	6.79
	SPRAYS	7.99	7.75
TFSD	NONE	6.98	7.44
	SPRAYS	8.14	7.79
	<b>N TIME</b>	14 MAR	10 APR
<b>PREVCROP</b>	<b>SPRING N</b>		
BARLEY	85	7.13	7.10
	160	7.84	7.40
OATS	85	7.46	7.50
	160	7.88	7.78



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GRAIN TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

	N TIME	14 MAR	10 APR
<b>WINTER N</b>	<b>SPRING N</b>		
0	85	6.98	6.81
	160	7.66	7.22
NOV+FEB	85	7.61	7.79
	160	8.05	7.96
	<b>N TIME</b>	<b>14 MAR</b>	<b>10 APR</b>
<b>E FUNG</b>	<b>SPRING N</b>		
NONE	85	7.29	7.16
	160	7.89	7.38
TFSD	85	7.30	7.44
	160	7.83	7.80
	<b>N TIME</b>	<b>14 MAR</b>	<b>10 APR</b>
<b>L FUNG</b>	<b>SPRING N</b>		
NONE	85	6.87	6.90
	160	7.30	7.33
SPRAYS	85	7.71	7.70
	160	8.42	7.84
<b>WINTR NV</b>	0	20+25	Mean
<b>SOWDATEV</b>			
20 SEPT	6.31	6.29	6.30
17 OCT	6.39	6.66	6.53
Mean	6.35	6.48	6.41
<b>E FUNGV</b>	NONE	TFSD	Mean
<b>SOWDATEV</b>			
20 SEPT	6.19	6.41	6.30
17 OCT	6.41	6.65	6.53
Mean	6.30	6.53	6.41
<b>E FUNGV</b>	NONE	TFSD	Mean
<b>WINTR NV</b>			
0	6.21	6.50	6.35
20+25	6.39	6.57	6.48
Mean	6.30	6.53	6.41
<b>N TIMEV</b>	14 MAR	10 APR	Mean
<b>SOWDATEV</b>			
20 SEPT	6.43	6.18	6.30
17 OCT	6.52	6.54	6.53
Mean	6.47	6.36	6.41

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GRAIN TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

N TIMEV	14 MAR	10 APR	Mean
WINTR NV			
0	6.51	6.20	6.35
20+25	6.44	6.52	6.48
Mean	6.47	6.36	6.41

N TIMEV	14 MAR	10 APR	Mean
E FUNGV			
NONE	6.29	6.31	6.30
TFSD	6.66	6.41	6.53
Mean	6.47	6.36	6.41

N TIMEF	14 MAR	10 APR	Mean
	9.04	8.24	8.64

WINTR NX	45+25		
	8.69		

EXTRA NO	0+0+0		
	4.19		

\*\*\* Standard errors of differences of means \*\*\*

(not including extra plots)  
 Margin of two factor tables 0.052  
 Two factor tables 0.074  
 Three factor tables 0.105

\*\*\*\*\* Stratum standard errors and coefficients of variation \*\*\*\*\*

Stratum	d.f.	s.e.	cv%
WP	22	0.210	2.8

GRAIN MEAN DM% 86.3

PLOT AREA HARVESTED 0.00245

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STRAW TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

<b>WINTER N</b>	0	NOV+FEB	Mean
<b>PREVCROP</b>			
BARLEY	2.85	3.40	3.13
OATS	3.27	3.94	3.60
Mean	3.06	3.67	3.37
<b>E FUNG</b>	NONE	TFSD	Mean
<b>PREVCROP</b>			
BARLEY	2.95	3.30	3.13
OATS	3.57	3.64	3.60
Mean	3.26	3.47	3.37
<b>E FUNG</b>	NONE	TFSD	Mean
<b>WINTER N</b>			
0	2.98	3.15	3.06
NOV+FEB	3.54	3.80	3.67
Mean	3.26	3.47	3.37
<b>L FUNG</b>	NONE	SPRAYS	Mean
<b>PREVCROP</b>			
BARLEY	2.82	3.43	3.13
OATS	3.33	3.87	3.60
Mean	3.08	3.65	3.37
<b>L FUNG</b>	NONE	SPRAYS	Mean
<b>WINTER N</b>			
0	2.87	3.25	3.06
NOV+FEB	3.28	4.06	3.67
Mean	3.08	3.65	3.37
<b>L FUNG</b>	NONE	SPRAYS	Mean
<b>E FUNG</b>			
NONE	2.96	3.56	3.26
TFSD	3.20	3.74	3.47
Mean	3.08	3.65	3.37
<b>SPRING N</b>	85	160	Mean
<b>PREVCROP</b>			
BARLEY	2.91	3.34	3.13
OATS	3.40	3.81	3.60
Mean	3.16	3.58	3.37

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STRAW TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

<b>SPRING N</b>	85	160	Mean
<b>WINTER N</b>			
0	2.85	3.28	3.06
NOV+FEB	3.47	3.87	3.67
Mean	3.16	3.58	3.37
<b>SPRING N</b>	85	160	Mean
<b>E FUNG</b>			
NONE	3.08	3.44	3.26
TFSD	3.23	3.72	3.47
Mean	3.16	3.58	3.37
<b>SPRING N</b>	85	160	Mean
<b>L FUNG</b>			
NONE	2.93	3.23	3.08
SPRAYS	3.38	3.92	3.65
Mean	3.16	3.58	3.37
<b>N TIME</b>	14 MAR	10 APR	Mean
<b>PREVCROP</b>			
BARLEY	3.39	2.87	3.13
OATS	3.74	3.46	3.60
Mean	3.57	3.17	3.37
<b>N TIME</b>	14 MAR	10 APR	Mean
<b>WINTER N</b>			
0	3.27	2.86	3.06
NOV+FEB	3.87	3.47	3.67
Mean	3.57	3.17	3.37
<b>N TIME</b>	14 MAR	10 APR	Mean
<b>E FUNG</b>			
NONE	3.48	3.04	3.26
TFSD	3.66	3.29	3.47
Mean	3.57	3.17	3.37
<b>N TIME</b>	14 MAR	10 APR	Mean
<b>L FUNG</b>			
NONE	3.20	2.96	3.08
SPRAYS	3.93	3.37	3.65
Mean	3.57	3.17	3.37

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STRAW TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

N TIME	14 MAR	10 APR	Mean
<b>SPRING N</b>			
85	3.31	3.01	3.16
160	3.83	3.32	3.58
Mean	3.57	3.17	3.37
	<b>E FUNG</b>	NONE	TFSD
<b>PREVCROP</b>	<b>WINTER N</b>		
BARLEY	0	2.69	3.02
	NOV+FEB	3.22	3.58
OATS	0	3.27	3.27
	NOV+FEB	3.86	4.01
	<b>L FUNG</b>	NONE	SPRAYS
<b>PREVCROP</b>	<b>WINTER N</b>		
BARLEY	0	2.65	3.05
	NOV+FEB	3.00	3.81
OATS	0	3.10	3.44
	NOV+FEB	3.57	4.30
	<b>L FUNG</b>	NONE	SPRAYS
<b>PREVCROP</b>	<b>E FUNG</b>		
BARLEY	NONE	2.57	3.34
	TFSD	3.08	3.52
OATS	NONE	3.35	3.78
	TFSD	3.32	3.96
	<b>L FUNG</b>	NONE	SPRAYS
<b>WINTER N</b>	<b>E FUNG</b>		
0	NONE	2.86	3.09
	TFSD	2.89	3.40
NOV+FEB	NONE	3.05	4.03
	TFSD	3.51	4.08
	<b>SPRING N</b>	85	160
<b>PREVCROP</b>	<b>WINTER N</b>		
BARLEY	0	2.60	3.10
	NOV+FEB	3.22	3.58
OATS	0	3.09	3.45
	NOV+FEB	3.71	4.16
	<b>SPRING N</b>	85	160
<b>PREVCROP</b>	<b>E FUNG</b>		
BARLEY	NONE	2.63	3.28
	TFSD	3.20	3.41
OATS	NONE	3.54	3.59
	TFSD	3.26	4.02

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STRAW TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

	<b>WINTER N</b>	<b>SPRING N</b>	85	160
	0	<b>E FUNG</b>		
		NONE	2.81	3.14
		TFSD	2.88	3.41
	<b>NOV+FEB</b>	<b>NONE</b>	3.36	3.73
		TFSD	3.58	4.02
	<b>PREVCROP</b>	<b>SPRING N</b>	85	160
	<b>BARLEY</b>	<b>L FUNG</b>		
		NONE	2.69	2.96
		SPRAYS	3.14	3.72
	<b>OATS</b>	<b>NONE</b>	3.18	3.49
		SPRAYS	3.62	4.12
	<b>WINTER N</b>	<b>SPRING N</b>	85	160
	0	<b>L FUNG</b>		
		NONE	2.76	2.99
		SPRAYS	2.93	3.56
	<b>NOV+FEB</b>	<b>NONE</b>	3.11	3.46
		SPRAYS	3.83	4.28
	<b>E FUNG</b>	<b>SPRING N</b>	85	160
	<b>NONE</b>	<b>L FUNG</b>		
		NONE	2.84	3.07
		SPRAYS	3.33	3.80
	<b>TFSD</b>	<b>NONE</b>	3.02	3.38
		SPRAYS	3.44	4.05
	<b>PREVCROP</b>	<b>N TIME</b>	14 MAR	10 APR
	<b>BARLEY</b>	<b>WINTER N</b>		
		0	3.13	2.57
		NOV+FEB	3.64	3.16
	<b>OATS</b>	<b>0</b>	3.40	3.14
		NOV+FEB	4.09	3.79
	<b>PREVCROP</b>	<b>N TIME</b>	14 MAR	10 APR
	<b>BARLEY</b>	<b>E FUNG</b>		
		NONE	3.22	2.69
		TFSD	3.56	3.04
	<b>OATS</b>	<b>NONE</b>	3.73	3.40
		TFSD	3.75	3.53
	<b>WINTER N</b>	<b>N TIME</b>	14 MAR	10 APR
	0	<b>E FUNG</b>		
		NONE	3.17	2.79
		TFSD	3.36	2.93
	<b>NOV+FEB</b>	<b>NONE</b>	3.78	3.30
		TFSD	3.95	3.65

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STRAW TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

	<b>N TIME</b>	14 MAR	10 APR
<b>PREVCROP</b>	<b>L FUNG</b>		
BARLEY	NONE	3.07	2.58
	SPRAYS	3.70	3.16
OATS	NONE	3.33	3.34
	SPRAYS	4.16	3.59
	<b>N TIME</b>	14 MAR	10 APR
<b>WINTER N</b>	<b>L FUNG</b>		
0	NONE	3.02	2.73
	SPRAYS	3.52	2.98
NOV+FEB	NONE	3.38	3.18
	SPRAYS	4.35	3.76
	<b>N TIME</b>	14 MAR	10 APR
<b>E FUNG</b>	<b>L FUNG</b>		
NONE	NONE	3.15	2.77
	SPRAYS	3.80	3.32
TFSD	NONE	3.25	3.15
	SPRAYS	4.06	3.42
	<b>N TIME</b>	14 MAR	10 APR
<b>PREVCROP</b>	<b>SPRING N</b>		
BARLEY	85	3.12	2.71
	160	3.66	3.02
OATS	85	3.50	3.30
	160	3.99	3.63
	<b>N TIME</b>	14 MAR	10 APR
<b>WINTER N</b>	<b>SPRING N</b>		
0	85	2.99	2.70
	160	3.54	3.02
NOV+FEB	85	3.62	3.32
	160	4.12	3.63
	<b>N TIME</b>	14 MAR	10 APR
<b>E FUNG</b>	<b>SPRING N</b>		
NONE	85	3.24	2.93
	160	3.71	3.16
TFSD	85	3.37	3.09
	160	3.94	3.49
	<b>N TIME</b>	14 MAR	10 APR
<b>L FUNG</b>	<b>SPRING N</b>		
NONE	85	3.05	2.82
	160	3.36	3.10
SPRAYS	85	3.57	3.20
	160	4.30	3.55

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STRAW TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

WINTR NV	0	20+25	Mean
SOWDATEV			
20 SEPT	2.87	3.25	3.06
17 OCT	3.37	3.86	3.62
Mean	3.12	3.55	3.34
E FUNGV	NONE	TFSD	Mean
SOWDATEV			
20 SEPT	3.09	3.03	3.06
17 OCT	3.56	3.67	3.62
Mean	3.33	3.35	3.34
E FUNGV	NONE	TFSD	Mean
WINTR NV			
0	3.09	3.15	3.12
20+25	3.56	3.55	3.55
Mean	3.33	3.35	3.34
N TIMEV	14 MAR	10 APR	Mean
SOWDATEV			
20 SEPT	3.41	2.71	3.06
17 OCT	3.71	3.52	3.62
Mean	3.56	3.11	3.34
N TIMEV	14 MAR	10 APR	Mean
WINTR NV			
0	3.44	2.81	3.12
20+25	3.69	3.42	3.55
Mean	3.56	3.11	3.34
N TIMEV	14 MAR	10 APR	Mean
E FUNGV			
NONE	3.58	3.07	3.33
TFSD	3.54	3.16	3.35
Mean	3.56	3.11	3.34
N TIMEF	14 MAR	10 APR	Mean
	4.96	3.94	4.45
WINTR NX	45+25		
	4.30		
EXTRA NO	0+0+0		
	1.25		
STRAW MEAN DM%	94.0		
PLOT AREA HARVESTED	0.00245		