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# Yields of the Field Experiments 2001

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Yields of the  
Classical  
and other  
Long-term Experiments  
2001

MACR - Rothamsted

## 01/W/RN/3 - Woburn Ley Arable

### Rothamsted Research

Rothamsted Research (2002) *01/W/RN/3 - Woburn Ley Arable* ; Yields Of The Field Experiments 2001, pp 28 - 42 - DOI: <https://doi.org/10.23637/ERADOC-1-258>

01/W/RN/3

LEY/ARABLE

**Object:** To compare the effects on soil fertility of rotations with or without leys - Woburn, Stackyard D.

**Sponsor:** P.R. Poulton.

The 64th year, leys, w. beans, w. wheat, w. rye, forage maize.

For previous years see 'Details' 1967 & 1973 and 74-00/W/RN/3.

**Design:** 5 series of 8 plots, split for treatments other than rotations.

**Whole plot dimensions:** 8.53 x 40.7.

**Treatments:** All phases of four five-course rotations were originally present:

**ROTATION**

LEY	Clover/grass ley:	L, L, L, P, W
CLO	All legume ley:	SA, SA, SA, P, W until 1971 then CL, CL, CL, P, W
A	Arable with roots:	P, R, C, P, W until 1971 then P, B, B, P, W
A H	Arable with hay:	P, R, H, P, W until 1971 then P, B, H, P, W

P = potatoes, R = w. rye, C = carrots, W = w. wheat, B = s. barley,  
H = hay, L = clover/grass ley, SA = sainfoin ley, CL = red clover ley

Rotations themselves followed different cycles:

On four plots in each block the rotations were repeated

On four plots in each block arable rotations alternated each five years with ley rotations

From 1976 all the rotations were changed on all phases except for the first and second test crops in 1976:

LN 3	(Previous LEY) LN1, LN2, LN3, W, R
LC 3	(Previous CLO) LC1, LC2, LC3, W, R
AF	(Previous A) F, F, BE, W, R
AB	(Previous A H) B, B, BE, W, R

From 1998 rotations AF and AB are replaced by AM and ABe respectively. Phased in at the beginning of each treatment crop sequence.

AM	R, BE, M, W, R
ABe	R, M, BE, W, R

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ROTATION (continued)

LN1 to LN3 = three year grass ley with N, 1st year to 3rd year,  
LC = clover/grass ley, no N, BE = beans (s. oats until 1980), F = fallow,  
M = forage maize

Plots hitherto in alternating rotations were changed to  
test eight-year leys and two test crops:

LLN                    LLN1, LLN2, LLN3, LLN4, LLN5, LLN6, LLN7, LLN8, W, R  
LLC                    LLC1, LLC2, LLC3, LLC4, LLC5, LLC6, LLC7, LLC8, W, R

LLN1 to LLN8 = eight year grass ley with nitrogen, first year to eighth  
year, similarly for LLC - clover/grass ley, no nitrogen

The new scheme started by sowing these new leys in spring 1976 on four  
phases and in spring 1977 on the fifth phase (2nd test crop in 1976).

In 1992 w. rye (R) replaced s. barley (B) as the second test crop.

Yields are taken from the leys, arable treatment crops and the test crops.

Treatments to first test crop w. wheat, all combinations of:

Whole plots:

1. ROTATION            Rotations before wheat:

LLN 8  
LN 3  
LLC 8  
LC 3  
AM  
ABe

1/2 plots:

2. FYMRES66            Farmyard manure residues, last applied 1966:

NONE  
FYM                    38 t on each occasion

1/8 plots:

3. N                    Nitrogen fertilizer in spring 2001 (kg N) as 27% N for 1<sup>st</sup>  
split dressing, as 33.5% N for second and single  
dressings:

0  
70                    )as a                    40 + 30                    )split dressings  
140                    )single                    OR                    40 + 100                    )late Feb/early Mar  
210                    )dressing                    40 + 170                    )and GS31 or mid-Apr

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Treatments to second test crop w. rye, all combinations of:

Whole plots:

1. **ROTATION** Rotations before first test crop:

LLN 8  
LN 3  
LLC 8  
LC 3  
AF  
AB

1/2 plots:

2. **FYMRES65** Farmyard manure residues, last applied 1965:

NONE  
FYM 38 t on each occasion

1/8 plots:

3. **N** Nitrogen fertilizer in spring 2001 (kg N) as 33.5% N:

0  
40  
80  
120

Treatments to leys:

**FYM RES** Farmyard manure residues:

NONE  
FYM 38 t on each occasion, last applied 1964 to 1st and 6th year leys, 1963 to 2nd and 7th year leys, 1967 to 3rd and 8th year leys, 1966 to 4th year leys, 1965 to 5th year leys.

**NOTE:** Corrective K dressings (kg K<sub>2</sub>O) as muriate of potash, applied to first test crop w. wheat and long-term leys in the wheat block, applied 5<sup>th</sup> October 2000.

Continuous rotations before wheat	No FYM half plots	FYM half plots
AM	260	260
ABe	280	260

None to other plots.

**NOTE:** Corrective K dressings (kg K<sub>2</sub>O) as muriate of potash should have been applied to first test crop w. wheat and long-term leys in the wheat block for 2000. This was omitted in error and was applied 4<sup>th</sup> May 2001 to the second test crop, w. rye.

Continuous rotations before wheat	No FYM half plots	FYM half plots
AF	(265)	(245)
AB	(245)	(360)

None to other plots.

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**Experimental diary:**

Grass ley and clover/grass ley, 1<sup>st</sup> year (**ROTATION** LN1, LC1, LLN1 and LLC1)

01-Sep-00 : T : : Potassium sulphate at 140 kg, .  
01-Sep-00 : T : : Triple superphosphate at 213 kg.  
03-Sep-00 : T : : Azural at 4.0 l in 200 l, stubbles.  
25-Sep-00 : T : : Ploughed, rotary harrowed, drilled grass/clover mix and grass mix, at 30 kg with the 4.0 m Accord Drill, rolled, to LC1, LN1, LLC1, LLN1 plots.  
25-Sep-00 : T : : 33.5% N at 149 kg, LN1, LLN1 plots.  
25-Sep-00 : T : : 33.5% N at 74 kg, LC1, LLC1 plots.  
29-Mar-01 : T : : 33.5% N at 224 kg, grass leys.  
19-Jun-01 : T : : First cut yield strips, weighed and sampled, mowed discards.  
20-Jun-01 : T : : Tedded hay.  
22-Jun-01 : T : : Tedded hay.  
23-Jun-01 : T : : Tedded hay.  
24-Jun-01 : T : : Rowed up, round baled and carted hay.  
04-Jul-01 : T : : Muriate of potash at 83 kg, grass and grass clover leys.  
: T : : 33.5% N at 224 kg, grass leys.  
06-Jul-01 : T : : Topped.  
...14-Nov-01 : T : : Second cut yield strips, weighed and sampled, mowed discards

Grass leys 2<sup>nd</sup> to 8<sup>th</sup> year (**ROTATION** LN2-3 and LLN2-8)

29-Mar-01 : T : : Muriate of potash at 140 kg, all 2 - 8 year leys.  
: T : : Sulphate of potash at 140 kg, all 2 - 8 year leys.  
: T : : Triple superphosphate at 213 kg, all 2 - 8 year leys.  
: T : : 33.5% N at 224 kg.  
19-Jun-01 : T : : First cut yield strips, weighed and sampled, mowed discards.  
20-Jun-01 : T : : Tedded hay.  
22-Jun-01 : T : : Tedded hay.  
23-Jun-01 : T : : Tedded hay.  
24-Jun-01 : T : : Rowed up, round baled and carted hay.  
04-Jul-01 : T : : Muriate of potash at 83 kg, all 2-8 year leys.  
: T : : 33.5% N at 224 kg.  
06-Jul-01 : T : : Topped.  
10-Sep-01 : T : : Azural at 4.0 l in 200 l, ley plots 65, 66, 71, 72, 75, 76, 79, & 80.  
17-Sep-01 : T : : Second cut, sampled and weighed yield strips and discards, LNf and LLN8 only, baled and removed grass.  
14-Nov-01 : T : : Second cut remaining grass strips for yield, weighed and sampled.  
: T : : Mowed discard grass.

Clover/grass leys 2<sup>nd</sup> to 8<sup>th</sup> year (**ROTATION** LC2-3 and LLC2-8)

29-Mar-01 : T : : Muriate of potash at 140 kg, all 2 - 8 year leys.  
: T : : Sulphate of potash at 140 kg, all 2 - 8 year leys.  
: T : : Triple superphosphate at 213 kg, all 2 - 8 year leys.  
19-Jun-01 : T : : First cut yield strips, weighed and sampled, mowed discards.  
20-Jun-01 : T : : Tedded hay.  
22-Jun-01 : T : : Tedded hay.  
23-Jun-01 : T : : Tedded hay.

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**Experimental diary:**

Clover/grass leys 2<sup>nd</sup> to 8<sup>th</sup> year (**ROTATION** LC2-3 and LLC2-8), continued.

- 24-Jun-01 : T : : Rowed up, round baled and carted hay.
- 04-Jul-01 : T : : Muriate of potash at 83 kg, all 2-8 year leys.
- 06-Jul-01 : T : : Topped.
- 10-Sep-01 : T : : Azural at 4.0 l in 200 l, ley plots 65, 66, 71, 72, 75, 76, 79, & 80.
- 17-Sep-01 : T : : Second cut, sampled and weighed yield strips and discards, LC3 and LLC8 only, baled and removed grass.
- 14-Nov-01 : T : : Second cut remaining grass strips for yield, weighed and sampled.
- : T : : Mowed discard grass.

W. beans, 2<sup>nd</sup> and 3<sup>rd</sup> treatment crop (**ROTATION** AM and ABe)

- 01-Sep-00 : T : : Potassium sulphate at 140 kg, by hand, plots 63 & 64.
- 01-Sep-00 : T : : Triple superphosphate at 127 kg, by hand, plots 63 & 64.
- 05-Oct-00 : T : : Potassium sulphate at 140 kg, by hand, plots 67 & 68.
- 05-Oct-00 : T : : Triple superphosphate at 127 kg, by hand, plots 67 & 68.
- 13-Nov-00 : T : : Broadcast Clipper, recleaned, at 30 seeds/m<sup>2</sup> by hand, ploughed.
- 15-Dec-00 : B : : Alpha Simazine 50 SC at 2.0 l in 200 l.
- 26-May-01 : T : : Bravo 500 at 1.5 l in 200 l.
- 20-Aug-01 : T : : Combine harvested, plots for yield, swathed straw.
- 29-Aug-01 : T : : Baled and carted straw.

Forage maize, 2<sup>nd</sup> treatment crop (**ROTATION** ABe)

- 11-May-01 : T : : Flexitined.
- 22-May-01 : T : : Rotary harrowed, drilled Orient, tr. Mesuro1, at 10 seeds/m<sup>2</sup> with the Nodet drill.
- 06-Jun-01 : T : : 33.5% N at 298 kg.
- 05-Jul-01 : T : : Barclay Mutiny at 2.4 l in 200 l.
- 25-Sep-01 : T : : Cut sample areas, weighed and sampled.
- 26-Sep-01 : T : : Cut remaining maize.

W. wheat, 1<sup>st</sup> test crop (W)

- 01-Sep-00 : T : : Potassium sulphate at 140 kg, excluding plots 39 & 40, following maize.
- 01-Sep-00 : T : : Triple superphosphate at 127 kg, excluding plots 39 & 40, following maize.
- 03-Sep-00 : T : : Azural at 4.0 l in 200 l, stubbles and old grass plots.
- 05-Oct-00 : T : : Muriate of potash (corrective K) at 260 kg K<sub>2</sub>O, by hand, plots 39, 40 & 46 and at 280 kg K<sub>2</sub>O plot 45.
- 05-Oct-00 : T : : Potassium sulphate at 140 kg, by hand, plots 39, 40.
- 05-Oct-00 : T : : Triple superphosphate at 127 kg, by hand, plots 39, 40.
- 05-Oct-00 : T : : Ploughed.
- 14-Oct-00 : T : : Rotary harrowed, drilled Claire, tr. Sibutol at 350 seeds/m<sup>2</sup> with the 4.0 m Accord drill.
- 18-Jan-01 : T : : tm)Stomp 400 SC at 2.0 l in 200 l.
- : T : : tm)Tolkan liquid at 1.0 l in 200 l.
- 16-Mar-01 : T : : First N applied to split N sub-plots.

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**Experimental diary:**

W. wheat, 1<sup>st</sup> test crop (W), continued.

08-May-01 : T : : Harmony M at 75 g in 200 l.  
: T : : tm)Opus at 0.5 l in 200 l.  
: T : : tm)BASF 3C Chlormequat 720 at 2.0 l in 200 l.  
18-May-01 : T : : Second N to split N sub-plots and single dose to  
others.  
25-May-01 : T : : Opus at 0.75 l in 200 l.  
22-Aug-01 : T : : Combine harvested, plots for yield, and discards.,  
and swathed straw  
23-Aug-01 : B : : Sampled, baled and weighed straw.  
29-Aug-01 : T : : Baled and carted straw.

W. rye, 2<sup>nd</sup> test crop (R) and 1<sup>st</sup> treatment crop (**ROTATION** ABe and AM)

01-Sep-00 : T : : Potassium sulphate at 140 kg.  
01-Sep-00 : T : : Triple superphosphate at 127 kg.  
03-Sep-00 : T : : Azural at 4.0 l in 200 l, stubbles.  
25-Sep-00 : T : : Ploughed, (ABE)R and (AM)R plots and WR plots and  
rolled.  
14-Oct-00 : T : : Rotary harrowed, drilled Esprit/Nikita blend, tr.  
Baytan at 310 seeds/m<sup>2</sup> with the 4.0 m Accord  
drill.  
15-Dec-00 : T : : Lexus class at 60 g in 200 l.  
04-May-01 : T : : Muriate of potash (delayed corrective application  
for 2000), at 245 kg K<sub>2</sub>O to plots 2 & 5, 165 kg  
K<sub>2</sub>O to plot 6 and 360 kg K<sub>2</sub>O to plot 1.  
08-May-01 : T : : tm)Opus at 0.5 l in 200 l.  
: T : : tm)BASF 3C Chlormequat 720 at 2.0 l in 200 l.  
18-May-01 : T : : Test N applied to 2<sup>nd</sup> test crop. 33.5% N at 238 kg  
applied to treatment crop.  
25-May-01 : T : : Opus at 0.75 l in 200 l.  
22-Aug-01 : T : : Combine harvested, plots for yield, and discards  
and swathed straw.  
23-Aug-01 : B : : Sampled, baled and weighed straw  
29-Aug-01 : T : : Baled and carted straw, wheat.

Note: Poor weather prevented timely applications of N.  
Samples of grain, straw and forage maize were taken. For chemical  
analysis.



01/W/RN/3

LEYS

1ST CUT (19/6/01) DRY MATTER TONNES/HECTARE

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

FYM RES	NONE	FYM	Mean
LEY			
LC1	0.68	0.82	0.75
LC2	5.99	6.31	6.15
LC3	7.23	7.08	7.15
LN1	3.51	3.68	3.60
LN2	7.66	8.11	7.89
LN3	6.67	7.23	6.95
LLC1	1.29	1.13	1.21
LLC2	6.39	7.16	6.78
LLC3	7.48	7.00	7.24
LLC4	5.71	4.40	5.05
LLC5	4.39	3.40	3.90
LLC6	3.62	4.21	3.91
LLC7	6.47	7.27	6.87
LLC8	5.18	4.35	4.76
LLN1	3.60	3.89	3.75
LLN2	7.81	7.72	7.76
LLN3	7.51	7.15	7.33
LLN4	7.76	7.46	7.61
LLN5	7.15	7.33	7.24
LLN6	6.77	7.73	7.25
LLN7	7.32	7.07	7.20
LLN8	7.25	7.68	7.47
Mean	5.79	5.83	5.81

1ST CUT MEAN DM% 28.5

01/W/RN/3

LEYS

2ND CUT (17/09/01 OR 14/11/01) DRY MATTER TONNES/HECTARE

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

FYM RES	NONE	FYM	Mean
LEY			
LC1	0.43	0.60	0.51
LC2	2.33	2.15	2.24
LC3	2.17	2.38	2.27
LN1	2.57	2.52	2.55
LN2	3.06	3.26	3.16
LN3	3.02	3.28	3.15
LLC1	0.61	0.34	0.47
LLC2	2.63	3.10	2.87
LLC3	1.78	2.37	2.07
LLC4	1.56	1.64	1.60
LLC5	1.00	1.06	1.03
LLC6	0.72	1.28	1.00
LLC7	1.53	1.43	1.48
LLC8	2.67	1.00	1.83
LLN1	1.81	1.53	1.67
LLN2	2.90	3.10	3.00
LLN3	2.68	2.77	2.73
LLN4	3.34	3.61	3.48
LLN5	2.42	2.39	2.40
LLN6	2.87	3.89	3.38
LLN7	3.86	4.06	3.96
LLN8	3.98	3.21	3.60
Mean	2.27	2.32	2.29

2ND CUT MEAN DM% 25.1

01/W/RN/3

LEYS

TOTAL OF 2 CUTS DRY MATTER TONNES/HECTARE

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

FYM RES	NONE	FYM	Mean
LEY			
LC1	1.10	1.42	1.26
LC2	8.32	8.46	8.39
LC3	9.40	9.45	9.42
LN1	6.09	6.21	6.15
LN2	10.72	11.37	11.05
LN3	9.69	10.51	10.10
LLC1	1.90	1.47	1.69
LLC2	9.03	10.26	9.64
LLC3	9.26	9.37	9.31
LLC4	7.26	6.04	6.65
LLC5	5.40	4.46	4.93
LLC6	4.34	5.49	4.92
LLC7	8.00	8.70	8.35
LLC8	7.84	5.34	6.59
LLN1	5.42	5.42	5.42
LLN2	10.71	10.82	10.76
LLN3	10.19	9.92	10.05
LLN4	11.11	11.07	11.09
LLN5	9.57	9.71	9.64
LLN6	9.64	11.62	10.63
LLN7	11.19	11.13	11.16
LLN8	11.24	10.89	11.06
Mean	8.06	8.14	8.10

TOTAL OF 2 CUTS MEAN DM% 26.8

PLOT AREA HARVESTED 0.00200

01/W/RN/3

**MAIZE**

**WHOLE CROP (100% DRY MATTER) TONNES/HECTARE**

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

<b>FYMRES</b>	<b>NONE</b>	<b>FYM</b>	<b>Mean</b>
	13.55	13.15	13.35

GRAIN MEAN DM% 27.4

PLOT AREA HARVESTED 0.00108

**BEANS**

**GRAIN (85% DRY MATTER) TONNES/HECTARE**

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

<b>FYMRES</b>	<b>NONE</b>	<b>FYM</b>	<b>Mean</b>
	3.54	3.86	3.70

GRAIN MEAN DM% 82.0

PLOT AREA HARVESTED 0.00472

**W.RYE (IN NON TEST YEAR)**

**GRAIN (85% DRY MATTER) TONNES/HECTARE**

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

<b>FYMRES</b>	<b>NONE</b>	<b>FYM</b>	<b>Mean</b>
	3.17	3.30	3.23

GRAIN MEAN DM% 82.9

PLOT AREA HARVESTED 0.00472

01/W/RN/3

W. WHEAT

GRAIN TONNES/HECTARE

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

<b>NSPLITFYM</b>	Nsplit(noFYM)		Nsingle(FYM)		Mean
<b>ROTATION</b>					
LLN 8	4.71		4.68		4.69
LN 3	5.82		4.44		5.13
LLC 8	5.34		4.18		4.76
LC 3	5.52		4.63		5.08
AM	2.34		2.23		2.28
ABe	3.42		2.51		2.97
Mean	4.52		3.78		4.15
<b>N</b>	-	1	2	3	Mean
<b>ROTATION</b>					
LLN 8	3.38	4.46	5.81	5.12	4.69
LN 3	3.73	4.83	6.03	5.93	5.13
LLC 8	3.19	4.28	5.45	6.11	4.76
LC 3	4.20	4.93	5.96	5.22	5.08
AM	1.16	2.44	2.72	2.82	2.28
ABe	1.93	2.50	4.11	3.32	2.97
Mean	2.93	3.91	5.01	4.75	4.15
<b>N</b>	-	1	2	3	Mean
<b>NSPLITFYM</b>					
Nsplit(noFYM)	2.99	4.55	5.52	5.04	4.52
Nsingle(FYM)	2.87	3.27	4.51	4.46	3.78
Mean	2.93	3.91	5.01	4.75	4.15
<b>N</b>	-	1	2	3	
<b>ROTATION NSPLITFYM</b>					
LLN 8Nsplit(noFYM)	3.35	5.17	5.58	4.72	
Nsingle(FYM)	3.41	3.75	6.04	5.51	
LN 3Nsplit(noFYM)	3.82	5.49	6.76	7.22	
Nsingle(FYM)	3.64	4.16	5.31	4.64	
LLC 8Nsplit(noFYM)	3.78	6.12	5.91	5.53	
Nsingle(FYM)	2.60	2.44	4.99	6.69	
LC 3Nsplit(noFYM)	3.92	5.27	7.22	5.68	
Nsingle(FYM)	4.48	4.58	4.70	4.76	
AMNsplit(noFYM)	1.05	2.54	2.76	3.01	
Nsingle(FYM)	1.26	2.35	2.68	2.63	
ABeNsplit(noFYM)	2.04	2.67	4.86	4.09	
Nsingle(FYM)	1.82	2.33	3.36	2.56	

GRAIN MEAN DM% 85.8

01/W/RN/3

W. WHEAT

STRAW TONNES/HECTARE

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

NSPLITFYM	Nsplit (noFYM)	Nsingle (FYM)				Mean
<b>ROTATION</b>						
LLN 8	3.20	3.22				3.21
LN 3	2.84	2.13				2.49
LLC 8	2.32	1.59				1.96
LC 3	2.68	1.83				2.25
AM	0.80	0.68				0.74
ABe	1.41	0.88				1.15
Mean	2.21	1.72				1.97
<b>N</b>	-	1	2	3	<b>Mean</b>	
<b>ROTATION</b>						
LLN 8	2.21	3.92	3.02	3.70	3.21	
LN 3	2.04	2.29	2.86	2.75	2.49	
LLC 8	1.67	2.01	1.94	2.21	1.96	
LC 3	1.89	2.36	2.77	2.00	2.25	
AM	0.56	0.82	0.75	0.82	0.74	
ABe	0.88	1.03	1.61	1.06	1.15	
Mean	1.54	2.07	2.16	2.09	1.97	
<b>N</b>	-	1	2	3	<b>Mean</b>	
<b>NSPLITFYM</b>						
Nsplit (noFYM)	1.58	2.43	2.51	2.31	2.21	
Nsingle (FYM)	1.50	1.71	1.81	1.87	1.72	
Mean	1.54	2.07	2.16	2.09	1.97	
<b>ROTATION</b>	<b>N</b>	-	1	2	3	
LLN 8	Nsplit (noFYM)	1.92	3.84	2.77	4.26	
	Nsingle (FYM)	2.49	4.00	3.26	3.15	
LN 3	Nsplit (noFYM)	2.09	2.93	3.32	3.03	
	Nsingle (FYM)	1.99	1.66	2.40	2.47	
LLC 8	Nsplit (noFYM)	1.98	3.00	2.23	2.09	
	Nsingle (FYM)	1.36	1.02	1.66	2.34	
LC 3	Nsplit (noFYM)	2.02	2.55	3.74	2.41	
	Nsingle (FYM)	1.75	2.17	1.80	1.59	
AM	Nsplit (noFYM)	0.62	0.88	0.79	0.89	
	Nsingle (FYM)	0.50	0.77	0.71	0.75	
ABe	Nsplit (noFYM)	0.85	1.40	2.17	1.21	
	Nsingle (FYM)	0.91	0.67	1.05	0.90	
STRAW MEAN DM% 82.8						
PLOT AREA HARVESTED 0.00183						

01/W/RN/3

W. RYE

GRAIN TONNES/HECTARE

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

FYMRES64	NONE	FYM	Mean
<b>ROTATION</b>			
LLN 8	4.39	4.73	4.56
LN 3	4.44	4.32	4.38
LLC 8	4.23	3.92	4.08
LC 3	4.44	3.72	4.08
AF	2.48	2.80	2.64
AB	3.96	3.74	3.85
Mean	3.99	3.87	3.93

	N	1	2	3	Mean
<b>ROTATION</b>					
LLN 8	3.46	4.21	5.21	5.36	4.56
LN 3	3.23	4.16	4.98	5.15	4.38
LLC 8	2.50	3.96	4.66	5.19	4.08
LC 3	3.58	3.81	4.45	4.48	4.08
AF	1.15	2.48	2.88	4.05	2.64
AB	2.74	3.64	4.34	4.67	3.85
Mean	2.78	3.71	4.42	4.82	3.93

	N	1	2	3	Mean
<b>FYMRES64</b>					
NONE	2.77	3.78	4.41	5.02	3.99
FYM	2.79	3.65	4.44	4.62	3.87
Mean	2.78	3.71	4.42	4.82	3.93

		N	1	2	3
<b>ROTATION</b>					
LLN 8	NONE	3.57	4.39	4.86	4.75
	FYM	3.34	4.03	5.57	5.97
LN 3	NONE	3.30	4.19	4.96	5.33
	FYM	3.17	4.13	5.00	4.97
LLC 8	NONE	2.27	4.25	4.79	5.61
	FYM	2.73	3.66	4.53	4.76
LC 3	NONE	3.72	3.80	4.72	5.53
	FYM	3.44	3.82	4.18	3.44
AF	NONE	0.99	2.44	2.44	4.07
	FYM	1.32	2.52	3.33	4.03
AB	NONE	2.77	3.58	4.68	4.81
	FYM	2.72	3.71	4.01	4.53

GRAIN MEAN DM% 84.9

01/W/RN/3

W. RYE

STRAW TONNES/HECTARE

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

FYMRES64	NONE	FYM	Mean
<b>ROTATION</b>			
LLN 8	2.84	2.92	2.88
LN 3	2.67	2.55	2.61
LLC 8	2.87	3.05	2.96
LC 3	2.94	2.43	2.68
AF	1.72	1.69	1.70
AB	2.75	2.53	2.64
Mean	2.63	2.53	2.58

N	-	1	2	3	Mean
<b>ROTATION</b>					
LLN 8	2.32	2.96	2.93	3.31	2.88
LN 3	2.11	2.03	3.31	2.97	2.61
LLC 8	2.03	3.04	2.90	3.87	2.96
LC 3	2.52	2.15	3.08	2.99	2.68
AF	0.81	1.92	1.82	2.27	1.70
AB	1.73	2.74	2.75	3.33	2.64
Mean	1.92	2.47	2.80	3.12	2.58

N	-	1	2	3	Mean
<b>FYMRES64</b>					
NONE	1.95	2.55	2.73	3.31	2.63
FYM	1.89	2.40	2.87	2.94	2.53
Mean	1.92	2.47	2.80	3.12	2.58

ROTATION	N	-	1	2	3
	<b>FYMRES64</b>				
LLN 8	NONE	2.74	3.30	2.28	3.05
	FYM	1.89	2.61	3.59	3.57
LN 3	NONE	2.21	1.86	3.45	3.15
	FYM	2.02	2.20	3.17	2.80
LLC 8	NONE	1.81	3.19	2.64	3.83
	FYM	2.25	2.90	3.16	3.91
LC 3	NONE	2.56	2.28	3.15	3.77
	FYM	2.48	2.02	3.00	2.22
AF	NONE	0.66	1.97	1.71	2.55
	FYM	0.96	1.87	1.94	1.99
AB	NONE	1.69	2.68	3.14	3.48
	FYM	1.76	2.79	2.36	3.19

STRAW MEAN DM% 83.4

PLOT AREA HARVESTED 0.00183