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Yields of the Field Experiments 2007

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Results of the
Classical and other
Long-term Experiments
2007

W/RN/3 Ley Arable

Rothamsted Research

Rothamsted Research (2007) *W/RN/3 Ley Arable* ; Yields Of The Field Experiments 2007, pp 35 - 47
- DOI: <https://doi.org/10.23637/ERADOC-1-217>

07/W/RN/3

LEY/ARABLE

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

Sponsors: P. R. Poulton and A. J. Macdonald

The 70th year, leys, w. beans, w. wheat, w. rye, forage maize

For previous years see 'Details' 1967 & 1973 and Yield Books for 74-06/W/RN/3.

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

Whole plot dimensions: 8.53 x 40.7 m

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 1988 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

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

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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 eight 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).

From 2007 plots previously in the 1st cycle of testing eight-year leys followed by two arable test crops (i.e. those plots which were changed to eight-year ley treatments in 1976 or 1977) will change to a three-year arable rotation followed by two arable test crops. Plots will not be “phased in” but will join the relevant point in the rotation.

LLN/AO (Previously 1st cycle, 8-year grass ley) R, BE, O, W, R
LLC/ABe (Previously 1st cycle, 8-yr grass/clover ley) R, O, BE, W, R.
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:

LLN8
LN 3
LLC 8
LC 3
LLN/AO not yet in phase
LLC/ABe not yet in phase
AM
ABe

1/ 2 plots:

2. **NSPLIT(FYM res)** Farmyard manure residues, last applied 1960s:
Split N v single N dressing to wheat, tested 2001-5

Nsplit (noFYM)
Nsingle(FYM)

1/8 plots:

3. **N** Nitrogen fertilizer as split dressings in spring 2007
(kg N) as 34.5% N:

0	0	
80	40 + 40)
160	40 + 120)
240	40 + 200)

To be applied late February/early March and mid-April

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

Whole plots:

1. **ROTATION** Rotations before first test crop (except LLN/AO, LLC/ABe):

LLN8
LN 3
LLC 8
LC 3
LLN/AO not yet in phase
LLC/ABe not yet in phase
AM
ABe

1/ 2 plots:

2. **NSPLIT(FYM res)** Farmyard manure residues, last applied 1960s:

Nsplit to wheat (no FYM)
Nsingle to wheat (FYM)

1/8 plots:

3. **N** Nitrogen fertilizer in spring 2007 (kg N) as 34.5%:

0
50
100
150

Treatments to leys:

FYM RES Farmyard manure residues:

NONE
FYM 38 t on each occasion, last applied 1960s.

NOTE: Corrective K dressings (kg K₂O) as muriate of potash, applied where necessary to first test crop w. wheat and long-term leys in the wheat block, applied 12 October 2006.

Continuous rotations	No FYM	FYM Res
Before wheat	Half plots	Half plots
ABe	350	260
AM	210	220

None to other plots.

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Experimental Diary:

Grass Ley and clover/grass ley 1st year (ROTATION LN1 and LC1)

			Rate	Unit
25-Sep-06		Azural	4.00	l/200 l/ha
12-Oct-06	f	Triple Superphosphate - Plots 3,4,13,14	213.00	kg/ha
17-Oct-06	f	Sulphate of Potash - Plots 3,4,13,14	140.00	kg/ha
	a	Plough new leys, wheat, rye, maize, bean plots ploughed, /NW		
29-Oct-06	a	Accord drilled		
	s	Grass plots; Promesse, Timothy: Laura Fescue, 50:50	30.00	kg/ha
	s	Grass / clover plots; Promesse Timothy: Laura Fescue: Chieftain White Clover, 44:44:12	30.00	kg/ha
16-Mar-07	f	Sulphate of Potash - whole experiment excluding plots 3, 4, 13, & 14	140.00	kg/ha
11-Jun-07	a	Cut harvest strips, weighed and sampled grass plots		
	a	Mowed grass plots		
12-Jun-07	a	Turned hay grass plots		
19-Jun-07	a	Rowed up hay, grass plots		
	a	Baled grass plots		
22-Jun-07	a	Topped grass plots, to tidy		
25-Jun-07	f	Nitraprill grass plots	217.00	kg/ha
	f	Muriate of Potash grass plots	83.00	kg/ha
12-Nov-07	a	Cut harvest strips, weighed and sampled Ley plots, 2 nd cut		
	a	Mowed Ley plots		
	a	Baled Ley plots		

Grass leys 2nd to 8th year (ROTATION LN2-3 and LLN2-8)

			Rate	Unit
09-Nov-06	f	Nitram grass only plots	145.00	kg/ha
16-Mar-07	f	Sulphate of Potash - whole experiment excluding plots 3, 4, 13, & 14	140.00	kg/ha
	f	Triple Superphosphate -2-8 year leys, plots 7, 8, 11, 12,23, 24, 25, 26, 29, 30, 31, 32, 55, 56, 57, 58, 59, 60, 61, 62	213.00	kg/ha
11-Jun-07	a	Cut harvest strips, weighed and sampled grass plots		
	a	Mowed grass plots		
12-Jun-07	a	Turned hay grass plots		
19-Jun-07	a	Rowed up hay, grass plots		
	a	Baled grass plots		
22-Jun-07	a	Topped grass plots, to tidy		
25-Jun-07	f	Nitraprill grass plots	217.00	kg/ha
	f	Muriate of Potash grass plots	83.00	kg/ha
28-Jun-07	p	Cleancrop Hoedown plots 57, 58, 61, 62	1/200	l/ha
17-Aug-07	p	Clinic Ace plots 57, 58, 61, 62	1/200	l/ha
12-Nov-07	a	Cut harvest strips, weighed and sampled Ley plots, 2 nd cut		
	a	Mowed and Baled Ley plots		

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

			Rate	Unit
09-Nov-06	f	Nitram grass/clover only plots	72.00	kg/ha
16-Mar-07	f	Sulphate of Potash - whole experiment excluding plots 3, 4, 13, & 14	140.00	kg/ha
	f	Muriate of Potash clover/grass leys, plots 3, 4, 7, 8, 11, 12, 13, 14, 23, 24, 25, 26, 29, 30, 31, 32, 55, 56, 57, 58, 59, 60, 61, 62	167.00	kg/ha
	f	Nitraprill - Grass leys, plots 3, 4, 7, 8, 23, 24, 29, 30, 55, 56, 59, 60	218.00	kg/ha
11-Jun-07	a	Cut harvest strips, weighed and sampled grass plots		
	a	Mowed grass plots		
12-Jun-07	a	Turned hay grass plots		
19-Jun-07	a	Rowed up hay, grass plots		
	a	Baled grass plots		
22-Jun-07	a	Topped grass plots, to tidy		
25-Jun-07	f	Nitraprill grass plots	217.00	kg/ha
	f	Muriate of Potash grass plots	83.00	kg/ha
28-Jun-07	p	Cleancrop Hoedown plots 55, 56, 59, 60	1/200	l/ha
17-Aug-07	p	Clinic Ace plots 55, 56, 59, 60	1/200	l/ha
12-Nov-07	a	Cut harvest strips, weighed and sampled Ley plots, 2 nd cut		
	a	Mowed and Baled Ley plots		

Winter Beans (ROTATION)

			Rate	Unit
09-Nov-06	a	Broadcast bean plots		
	s	Wizard recleaned bean plots	28.00	seeds/m ²
	a	Plough bean plots	1.00	
	a	Power Harrowed bean plots	1.00	
10-Nov-06	p	Alpha Simazine 500 all bean plots	2.00	l/220 l/ha
	p	Carbetamex bean plots except plots 53, 54	2.00	l/220 l/ha
16-Mar-07	f	Sulphate of Potash - whole experiment excluding plots 3, 4, 13, & 14	140.00	kg/ha
23-May-07	p	Folicur - bean plots	0.75	l/200 l/ha
	p	Hallmark with Zeon Technology - bean plots	75.00	ml/200 l/ha
19-Jun-07	p	Folicur bean plots	0.75	l/200 l/ha
05-Sep-07	a	Combine harvest, plots for yield wheat, Rye and Bean plots		
	a	Swath straw wheat, Rye and Bean plots		
	a	Combine harvest discards wheat, Rye and Bean plots		
08-Sep-07	a	Baled wheat, rye, oat and bean straw		

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W. Oats (ROTATION)

			Rate	Unit
29-Oct-06	a	Accord drilled		
	s	Gerald tr Baytan Secure - oat plots	350.00	seeds/m ²
19-Dec-06	p	Lexus Class oat plots	60.00	g/200 l/ha
	p	Hallmark with Zeon Technology - oat plots	50.00	ml/200 l/ha
16-Mar-07	f	Sulphate of Potash - whole experiment excluding plots 3, 4, 13, & 14	140.00	kg/ha
25-Apr-07	f	Nitraprill - Oat arable treatment plots 21, 22, 51, 52	290.00	kg/ha
17-May-07	p	Amistar Opti - Oat plots	0.60	l/200 l/ha
	p	Flexity - Oat plots	0.60	l/200 l/ha
05-Sep-07	a	Combine harvest, plots for yield		
	a	Swath straw		
	a	Combine harvest discards		
08-Sep-07	a	Baled wheat, rye, oat and bean straw		

Forage maize (ROTATION)

			Rate	Unit
12-Oct-06	f	Triple Superphosphate - Plots 1, 2, 5, 6, 9, 10, 15-22, 27, 28, 33, 34-54, 63-80	127.00	kg/ha
16-Mar-07	f	Sulphate of Potash - whole experiment excluding plots 3, 4, 13, & 14	140.00	kg/ha
27-Apr-07	a	Flexitined maize plots		
01-May-07	a	Nodet drilled		
	s	Hudson tr Mesurol	10.20	seeds/m ²
03-May-07	f	Nitraprill maize plots	290.00	kg/ha
01-Jun-07	p	Callisto - Maize	1.50	l/200 l/ha
18-Sep-07	a	Cut harvest strips, weighed and sampled		
25-Sep-07	a	Mowed maize plots		
	a	Baled maize plots		

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W. Wheat (1st TEST CROP)

			Rate	Unit
25-Sep-06		Azural	4.00	l/200 l/ha
12-Oct-06	f	Muriate of Potash - Plot 67, corrective K	7.54	kg/plot
	f	Muriate of potash - Plot 68, corrective K	10.15	kg/plot
	f	Muriate of potash - Plot 73, corrective K	6.38	kg/plot
	f	Muriate of Potash - Plot 74, corrective K	6.09	kg/plot
	f	Triple Superphosphate - Plots 1,2,5,6,9,10,15-22,27,28,33,34-54,63-80	127.00	kg/ha
29-Oct-06	a	Accord drilled		
29-Oct-06	s	Glasgow tr Redigo Twin – wheat plots	350.00	seeds/m ²
14-Mar-07	f	Nitraprill - wheat plot N1	232.00	kg/ha
	f	Nitraprill - wheat plot N2	464.00	kg/ha
	f	Nitraprill - wheat plot N3	696.00	kg/ha
16-Mar-07	f	Sulphate of Potash - whole experiment excluding plots 3, 4, 13, & 14	140.00	kg/ha
27-Mar-07	p	Pacifica - Wheat plots	0.50	kg/200 l/ha
	p	Biopower, Wheat plots	1.00	l/200 l/ha
20-Apr-07	p	Splice - W. Wheat	1.00	l/200 l/ha
	p	Jupital - W. Wheat	1.00	l/200 l/ha
24-Apr-07	f	Nitraprill - Wheat plots N1, 652, 664, 673, 681, 694, 704, 711, 724, 731, 742, 753, 762, 772, 783, 792, 802	116.00	kg/ha
	f	Nitraprill - Wheat plots N2, 653, 663, 672, 682, 692, 702, 713, 721, 732, 744, 751, 763, 771, 782, 791, 803	348.00	kg/ha
	f	Nitraprill - Wheat plots N3, 651, 662, 674, 684, 693, 701, 714, 722, 733, 743, 754, 761, 774, 781, 793, 804	580.00	kg/ha
20-May-07	p	Opus - Wheat plots	0.75	l/200 l/ha
	p	Vivid - Wheat plots	0.40	l/200 l/ha
	p	Jupital - Wheat plots	1.00	l/200 l/ha
	p	Sedema Manganese Sulphate - Wheat plots	5.00	kg/200 l/ha
10-Jun-07	p	Amistar Opti - Wheat plots	1.00	l/200 l/ha
	p	Opus - Wheat plots	0.40	l/200 l/ha
05-Sep-07	a	Combine harvest, plots for yield.		
	a	Swath straw		
	a	Combine harvest discards		
08-Sep-07	a	Baled straw		

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W. Rye (2nd TEST CROP and ROTATION)

			Rate	Unit
25-Sep-06		Azural	4.00	l/200 l/ha
11-Oct-06	f	Chalk - Block 3	5.00	t/ha
12-Oct-06	f	Triple Superphosphate - Plots 1,2,5,6,9,10,15-22,27,28,33,34-54,63-80	127.00	kg/ha
29-Oct-06	a	Power harrowed		
01-Nov-06	a	Accord drilled		
	s	Hacada tr. Baytan, Rye plots 9,10, 15, 16	350.00	seeds/m ²
	a	Rolled Block 1		
16-Mar-07	f	Sulphate of Potash - whole experiment excluding plots 3, 4, 13, & 14	140.00	kg/ha
20-Apr-07	p	Quantum 75 DF - rye plots	30.00	g/200 l/ha
	p	BASF 3C Chlormequat 720 - rye plots	2.25	l/200 l/ha
23-Apr-07	f	Nitraprill - Rye plots N1, 334, 341, 354, 364, 374, 381, 393, 404, 411, 423, 431, 443, 454, 463, 474, 482	145.00	kg/ha
	f	Nitraprill - Rye plots N2, 333, 344, 352, 362, 371, 382, 391, 402, 413, 421, 433, 442, 451, 464, 473, 481	290.00	kg/ha
	f	Nitraprill - Rye plots N3, 332, 342, 353, 363, 372, 383, 392, 403, 412, 424, 434, 441, 452, 461, 472, 483	435.00	kg/ha
25-Apr-07	f	Nitraprill - Rye arable treatment plots 01, 02, 05, 06, 09, 10, 15, 16	290.00	kg/ha
10-Jun-07	p	Amistar Opti - Rye plots	1.00	l/200 l/ha
05-Sep-07	a	Combine harvest, plots for yield		
	a	Swath straw		
	a	Combine harvest discards		
08-Sep-07	a	Baled straw		

Note: Samples of grain, forage maize and herbage taken for chemical analysis.

07/W/RN/3

LEYS

1ST CUT (11/6/07) DRY MATTER TONNES/HECTARES

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

FYM_RES	NONE	FYM	Mean
LEY			
LC1	2.07	1.63	1.85
LC2	2.48	3.28	2.88
LC3	5.94	5.75	5.84
LN1	2.98	3.02	3.00
LN2	5.35	6.30	5.83
LN3	7.63	6.79	7.21
LLC6	5.66	3.41	4.54
LLC7	4.39	4.01	4.20
LLC8	3.29	3.52	3.40
LLN6	5.89	6.25	6.07
LLN7	5.08	5.33	5.21
LLN8	7.21	7.62	7.42
Mean	4.83	4.74	4.79

1ST CUT MEAN DM% 21.9

2ND CUT (12/11/07) DRY MATTER TONNES/HECTARE

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

FYM_RES	NONE	FYM	Mean
LEY			
LC1	1.98	1.82	1.90
LC2	2.28	3.06	2.67
LC3	-	-	-
LN1	1.68	2.28	1.98
LN2	2.65	2.51	2.58
LN3	-	-	-
LLC6	2.63	1.97	2.30
LLC7	2.55	2.55	2.55
LLC8	-	-	-
LLN6	3.32	3.01	3.17
LLN7	2.49	4.04	3.26
LLN8	-	-	-
Mean	2.45	2.66	2.56

2ND CUT MEAN DM% 31.6

07/W/RN/3

TOTAL OF 2 CUTS DRY MATTER TONNES/HECTARE

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

FYM_RES LEY	NONE	FYM	Mean
LC1	4.05	3.45	3.75
LC2	4.76	6.35	5.55
LC3	5.94	5.75	5.84
LN1	4.66	5.30	4.98
LN2	8.01	8.80	8.41
LN3	7.63	6.79	7.21
LLC6	8.30	5.38	6.84
LLC7	6.94	6.56	6.75
LLC8	3.29	3.52	3.40
LLN6	9.21	9.26	9.24
LLN7	7.57	9.37	8.47
LLN8	7.21	7.62	7.42
Mean	6.46	6.51	6.49

TOTAL OF 2 CUTS MEAN DM% 25.3

NOTE: No second cut was taken for LC3, LN3, LLC8 and LLN8

PLOT AREA HARVEST 0.00200

ARABLE TREATMENT CROPS

W. RYE

GRAIN TONNES/HECTARES

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

FYMRES ROTATION	NONE	FYM	Mean
ABe	4.16	3.49	3.83
AM	3.52	2.96	3.24
LLn/AO	4.39	4.89	4.64
LLc/ABe	5.21	4.03	4.62
Mean	4.32	3.84	

GRAIN MEAN DM% 83.8

PLOT AREA HARVESTED 0.00413

07/W/RN/3

MAIZE

WHOLE CROP TONNES/HECTARES

**** Tables of means****

FYMRES ROTATION	NONE	FYM	Mean
AM	8.52	6.89	7.70
ABe	5.58	7.03	6.31
Mean	7.05	6.96	

MEAN DM% 26.1

PLOT AREA HARVESTED 0.00108

BEANS

GRAIN TONNES/HECTARES

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

FYMRES ROTATION	NONE	FYM
AM	1.93	2.24
LLn/AO	2.85	3.16
LLc/ABe	3.19	2.98
ABe	3.35	3.82

GRAIN MEAN DM% 84.2

PLOT AREA HARVESTED 0.00413

W. OATS

GRAIN TONNES/HECTARES

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

Grand mean 5.07

FYMRES ROTATION	NONE	FYM
LLC/ABe	4.84	5.29
LLN/AO	4.96	5.20

GRAIN MEAN DM% 89.5

PLOT AREA HARVESTED 0.00413

07/W/RN/3

W. WHEAT (1st TEST CROP)

GRAIN TONNES/HECTARES

**** Tables of means ****

FYMRES	None	FYM	Mean		
ROTATION					
LLN	5.14	5.60	5.37		
LN	3.92	4.46	4.19		
LLc/ABe	4.91	5.68	5.30		
LC	4.78	4.91	4.84		
AM	5.17	5.24	5.20		
ABe	4.04	4.80	4.42		
LLn/AO	5.59	4.97	5.28		
LLc	5.28	4.89	5.09		
Mean	4.85	5.07	4.96		
N	0	80	160	240	Mean
ROTATION					
LLN	3.94	7.28	5.09	5.17	5.37
LN	3.25	5.76	5.21	2.52	4.19
LLc/ABe	3.77	6.76	6.11	4.55	5.30
LC	3.80	5.75	5.32	4.50	4.84
AM	1.89	5.93	7.24	5.76	5.20
ABe	2.40	5.87	5.83	3.58	4.42
LLn/AO	4.91	6.29	5.94	3.99	5.28
LLc	4.19	6.44	5.10	4.62	5.09
Mean	3.52	6.26	5.73	4.34	4.96
N	0	80	160	240	Mean
FYMRES					
none	3.42	6.15	5.54	4.30	4.85
FYM	3.62	6.36	5.92	4.37	5.07
Mean	3.52	6.26	5.73	4.34	4.96
N		0	80	160	240
ROTATION	FYMRES				
LLN	none	3.77	7.30	4.62	4.86
	FYM	4.10	7.27	5.56	5.49
LN	none	3.21	5.33	4.86	2.26
	FYM	3.30	6.18	5.56	2.79
LLc/ABe	none	3.59	6.27	5.77	4.02
	FYM	3.95	7.24	6.46	5.08
LC	none	3.17	6.54	4.73	4.69
	FYM	4.44	4.96	5.92	4.30
AM	none	1.47	5.88	7.13	6.22
	FYM	2.31	5.98	7.35	5.31
ABe	none	2.74	5.45	5.12	2.85
	FYM	2.07	6.28	6.54	4.30
LLn/AO	none	5.33	6.06	6.23	4.76
	FYM	4.50	6.53	5.66	3.21
LLc	none	4.05	6.40	5.90	4.77
	FYM	4.33	6.48	4.31	4.46

GRAIN MEAN DM% 85.80

PLOT AREA HARVESTED 0.00192

07/W/RN/3

W. RYE (2nd TEST CROP)

GRAIN TONNES/HECTARES

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

FYMRES	none	FYM	Mean		
ROTATION					
LLn	4.46	4.80	4.63		
Ln	4.19	4.37	4.28		
LLc	4.43	4.70	4.57		
Lc	4.22	4.27	4.25		
AM	3.25	3.41	3.33		
ABe	3.45	3.73	3.59		
LLn/AO	4.87	5.02	4.94		
LLc/ABe	5.00	5.10	5.05		
Mean	4.23	4.42	4.33		
N	0	50	100	150	
ROTATION					
LLn	3.34	4.45	5.35	5.36	
Ln	2.83	4.49	4.97	4.82	
LLc	3.31	4.41	5.44	5.10	
Lc	2.61	3.93	5.08	5.36	
AM	1.92	2.94	4.14	4.32	
ABe	2.01	3.06	4.59	4.68	
LLn/AO	4.07	4.51	5.99	5.20	
LLc/ABe	4.07	5.40	5.46	5.26	
Mean	3.02	4.15	5.13	5.01	
N	0	50	100	150	
FYMRES					
none	2.98	4.02	5.10	4.82	
FYM	3.06	4.28	5.15	5.21	
N	0	50	100	150	
ROTATION FYMRES					
LLn	none	3.24	4.29	5.20	5.09
	FYM	3.45	4.62	5.50	5.63
Ln	none	2.93	4.61	4.83	4.39
	FYM	2.74	4.38	5.10	5.25
LLc	none	3.09	4.41	5.36	4.87
	FYM	3.53	4.41	5.53	5.33
Lc	none	2.55	4.06	4.91	5.36
	FYM	2.68	3.81	5.24	5.36
AM	none	1.96	2.62	4.10	4.32
	FYM	1.88	3.27	4.19	4.33
ABe	none	1.81	2.75	4.78	4.44
	FYM	2.21	3.36	4.41	4.93
LLn/AO	none	4.28	3.88	6.20	5.10
	FYM	3.86	5.13	5.78	5.29
LLc/ABe	none	3.99	5.54	5.47	4.99
	FYM	4.14	5.26	5.46	5.54

GRAIN MEAN DM% 84.8

PLOT AREA HARVESTED 0.00192