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ROTHAMSTED
RESEARCH

Collection of Plans for the Highfield Ley-arable Experiment

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Highfield Ley-arable 1980-90

Rothamsted Research

Rothamsted Research (1949-1990) *Highfield Ley-arable 1980-90* ; Collection Of Plans For The Highfield Ley-Arable Experiment, pp 32 - 43

1980

HIGHFIELD

80/R/R/N/1

32nd YEAR

LE1 - 11/10/82

KOTHAN'S ED

SPONSORS: Blocks 1-4 A.C. Tomlinson, 5-12 D.A. Slope

CROPPING

WHEAT (Blocks 1+4, 5+8)

Flanders, Test N

1, 2, 3. None, 50,

100, 150 kg/ha (-15, 5, 85, 134 kg N/ha)

Y.S. Yield, Same as Areas

NEW SEQUENCES (Blocks 6, 7, 10, 11, 12)

Lk Lucerne, v. r. f. v. s.

Lc Grass / clover

Rg Perennial Ryegrass

Rgt as Rg but not ploughed after 3 years

Bf Beans, m. inden

B Barley

O Oats

P Potatoes Pentland Crown (00)

W Wheat Flanders

TREATMENT CROPS (Blocks 9+3)

Lk Lucerne

Lm Grass / ley

Lc Grass / clover / ley

Sb Sugar beet

R Reseeded grass

G Old grass

[c] Arundo / old grass

133	135	137	139	141	143
RB	Rgt	Bf	W	Lk	Lc
134	136	138	140	142	144
(Lm)	(G)	(A)	(R)	(Lm)	(Lc)

12 NEW SEQUENCES (3rd year)

097	099	101	103	105	107	109	111	113	115	117	119
W	RG	Lc	Bf	Rgt	Lk	O	Rgt	Lk	Lc	B	RG
098	100	102	104	106	108	110	112	114	116	118	120
(R)	(Lm)	(Lc)	(A)	(G)	(Lm)	(A)	(G)	(Lm)	(Lc)	(R)	(Lm)

9 NEW SEQUENCES (2nd year)

121	123	125	127	129	131
O	RG	B	Lc	Rgt	Lk
122	124	126	128	130	132
(A)	(Lm)	(R)	(Lc)	(G)	(Lm)

11 NEW SEQUENCES (1st year)

049	051	053	055	057	059	061	063	065	067	069	071
W	Lc	Rgt	Rg	R	R	R	Lk	Lc	P	Rgt	B
050	052	054	056	058	060	062	064	066	068	070	072
(Lm)	(Lc)	(G)	(Lm)	(A)	(R)	(Lm)	(Lm)	(Lc)	(A)	(G)	(R)

5 WHEAT (1st best crop)

073	075	077	079	081	083	085	087	089	091	093	095
Rgt	Lc	B	P	R	Lk	Lk	AR	A	Rgt	Lc	R
074	076	078	080	082	084	086	088	090	092	094	096
(G)	(Lc)	(R)	(A)	(Lm)	(Lm)	(Lm)	(Lm)	(A)	(G)	(Lc)	(Lm)

7 NEW SEQUENCES (2nd year)

085	087	089	091	093	095
W	Lc	Rgt	R	Lc	R
086	088	090	092	094	096
(Lm)	(R)	(A)	(G)	(Lc)	(Lm)

8 WHEAT (1st best crop)

001	003	005	007	009	011	013	015	017	019	021	023
G	R	R	Lc	Lc	Lc	Lc	Lc	Lc	Lc	Lc	Lc
002	004	006	008	010	012	014	016	018	020	022	024
(Lm)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)

1 WHEAT (2nd best crop)

025	027	029	031	033	035	037	039	041	043	045	047
Lk	Sb	Lc	Lc	Lc	Lc	Lc	Lc	Lc	Lc	Lc	Lc
026	028	030	032	034	036	038	040	042	044	046	048
(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)

3 TREATMENT CROPS (3rd year)

025	027	029	031	033	035	037	039	041	043	045	047
Lk	Sb	Lc	Lc	Lc	Lc	Lc	Lc	Lc	Lc	Lc	Lc
026	028	030	032	034	036	038	040	042	044	046	048
(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)	(Lc)

4 WHEAT (3rd best crop)

NOTE: R, G & etc. refers to year that reseeded (R) and old grass (G), first under arable crop (163 v 162 etc.) (F) (D): None, Dung (residual treatments), c, g, n, none, N & K top dress in spring v after each cut except the last.

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 ROTHAMSTED KEY-ARABLE 33rd. YEAR. 81/R/RN/1 HIGHFIELD 1981

Sponsors: Blocks 1-4 A.E. Johnston, Blocks 5-12 D

CROPPING

WHEAT (Blocks 10, 4, 5, 8, 9, 12)
 Flanders, Test N
 - 1, 2, 3, None, 50, 100, 150 kg N/ha
 (None, 45, 89, 184 kg N/ha)
 Y, S. yield, Sample areas
 Sown: 8 Oct 68
 NEW SEQUENCES (Blocks 6, 7, 10, 11)

133	135	137	139	141	143
V+S	V+S	V+S	V+S	V+S	V+S
1	2	3	1	3	1
RF	RF+	A	AR	LU	LC
134	136	138	140	142	144
3	1	3	3	2	2
V+S	V+S	V+S	V+S	V+S	V+S
1	2	2	2	3	3
(4A)	(6B)	(9)	(R1)	(4A)	(4C)

12 WHEAT (1st test crop)

097	077	101	103	105	107	109	111	113	115	117	119
V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S
2	3	2	3	3	1	1					
RF	RF	LC	A	RF+	LU	P	RF+	LU	LC	B	RF
098	100	102	104	106	108	110	112	114	116	118	120
2	2	1	1	2	2	2					
V+S	V+S	V+S	V+S	V+S	V+S	V+S					
1	1	2	2	2	2	2					
(R5)	(4A)	(4C)	(A)	(G2)	(4A)	(A)	(9A)	(4A)	(4C)	(R2)	(4A)

9 WHEAT (1st test crop)

049	051	053	055	057	059	061	063	065	067	069	071
V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S
2	3	3	2	3	-	-	-	-	-	-	-
LU	LC	RF+	RF	A	AR	RF	LU	LC	BE	RF+	W
050	052	054	056	058	060	062	064	066	068	070	072
2	2	1	3	1	2	1	2	1	2	3	3
V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S
1	1	1	1	2	3	1	1	1	2	3	3
(4A)	(4C)	(6B)	(4A)	(A)	(R5)	(4A)	(4A)	(4C)	(A)	(6B)	(R2)

5 WHEAT (2nd test crop)

001	002	003	004	005	007	009	011	013	015	017	019	021	023
V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S
1	1	2	1	1	1	1	1	1	1	1	1	1	1
RF	RF	R	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF
002	004	006	008	010	012	014	016	018	020	022	024		
3	1	1	1	1	1	1	1	1	1	1	1	1	1
V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S	V+S
1	1	1	1	1	1	1	1	1	1	1	1	1	1
(F1)(D)	(D)(F)	(F)(D)	(D)(F)	(F)(D)	(D)(F)	(F)(D)	(D)(F)	(F)(D)	(D)(F)	(F)(D)	(D)(F)	(F)(D)	(D)(F)

1 WHEAT (3rd test crop)

2 TREATMENT CROPS (3rd year)

3 TREATMENT CROPS (3rd year)

4 WHEAT (3rd test crop)

10 NEW SEQUENCES (2nd year)

121	123	125	127	129	131
P	RF	B	LC	RF+	LU
122	124	126	128	130	132
(A)	(4A)	(R2)	(4C)	(G2)	(4A)

11 NEW SEQUENCES (2nd year)

085	087	089	091	093	095
V+S	V+S	V+S	V+S	V+S	V+S
2	1	2	2	2	3
LU	AR	A	RF+	LC	RF
086	088	090	092	094	096
3	2	3	3	3	1
V+S	V+S	V+S	V+S	V+S	V+S
1	1	1	1	1	2
(4A)	(R5)	(A)	(R5)	(4C)	(4A)

7 NEW SEQUENCES (3rd year)

025	027	029	031	033	035	037	039	041	043	045	047
LC	O	LU	R	[G]							
026	028	030	032	034	036	038	040	042	044	046	048
(F1)(D)	(D)(F)	(F)(D)	(D)(F)	(F)(D)	(D)(F)	(F)(D)	(D)(F)	(F)(D)	(D)(F)	(F)(D)	(D)(F)

3 TREATMENT CROPS (3rd year)

8 WHEAT (2nd test crop)

NOTE: R5, 6 etc. refers to years reseeded (R) and old grass (G) first under arable crop (1973+1978 etc)
 (F)(D) None, FYM (Residual treatments), C, N, None N+K top dressed in Spring, and after each cut except the last.

*
010

ROTHAMSTED LEY-ARABLE 34th YEAR 82/R/RN/1 HIGHFIELD 1982

Sponsors: Blocks 1-4 A.E. Johnston, Blocks 5-12 D.B. Slope

CROPPING

153	137	141	143
3	1	1	-
Y+S	Y+S	Y+S	Y+S
1	2	3	1
RG	AR	LA	AS
134	136	140	144
3	3	2	2
Y+S	Y+S	Y+S	Y+S
2	2	2	3
1	2	2	3
(LN)	(A)	(LA)	(LC)

WHEAT (Blocks 5, 6, 7, 8, 9, 12)

Flanders Test N

1, 1, 2, 3. None, 50, 100, 150 kg N/ha
(None, 45, 89, 134 lb N/acre)
Y, S. yield, sample area
Sum of 176 slope (1984/ha)
on 17 October

NEW SEQUENCES (Blocks 10+11)

- LA Lucerne, Vetch
- LC Grass / Clover
- RG Perennial Ryegrass
- RG+ AS RG, but not ploughed after 3 years
- BE Beans
- W Wheat - Flanders

TREATMENT CROPS (Blocks 1+4)

- LA Lucerne
 - LN Grass ley
 - LC Grass Clover ley
 - R Reseeded grass
 - G Old grass
 - [G] Pseudo old grass
 - H 1 year hay
- TEST CROP (Block 203)
Potato, Partheno-Corn
-planted 22 April

9 WHEAT (2nd. test crop)

099	101	103	105	107	109	111	113	115	117	119
2	3	3	3	3	3	3	3	3	3	3
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	2	3	1	1	1	1	1	1	1	1
AR	LC	A	RG+	LA	BE	LC	W	RG	LC	RG
098	100	102	104	106	108	110	112	114	116	118
3	2	1	1	1	1	1	1	1	1	1
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	2	2	2	2	2	2	2	2
(RG)	(LN)	(LC)	(A)	(G)	(LA)	(A)	(LN)	(LC)	(RG)	(LN)

10 NEW SEQUENCES (3rd year)

073	075	077	079	081	083	085	087	089	091	093	095
3	3	3	3	3	3	3	3	3	3	3	3
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	2	2	2	2	2	2	2	2
RG+	LC	AR	A	RG	LA	LA	AR	A	RG+	LC	RG
074	076	078	080	082	084	086	088	090	092	094	096
2	3	3	2	3	3	3	2	3	3	3	3
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	2	2	3	3	3	3	3	3	3	3	3
(G)	(LC)	(RG)	(A)	(LN)	(LN)	(LN)	(RG)	(A)	(RG)	(LC)	(LN)

11 NEW SEQUENCES (3rd year)

121	123	125	127	129	131
BE	RG	W	LC	RG+	LA
122	124	126	128	130	132
(A)	(LN)	(RG)	(LC)	(G)	(LN)

9 WHEAT (2nd. test crop)

061	063	065	067	069	071
2	3	3	3	3	3
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	3	1	1	2
RG	LA	LC	A	RG+	AR
062	064	066	068	070	072
3	3	3	2	3	1
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	2	2	2	2	2
(LN)	(LN)	(LC)	(A)	(G)	(RG)

7 WHEAT (1st test crop)

025	027	029	031	033	035
3	3	3	3	3	3
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1
LC	A	LN	LN	LN	LN
026	028	030	032	034	036
2	3	3	3	3	3
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	2	2	2	2	2
(G)	(LC)	(RG)	(A)	(LN)	(LN)

8 WHEAT (3rd test crop)

037	039	041	043	045	047
1	1	1	1	1	1
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1
LC	LA	H	LN	LC	LA
038	040	042	044	046	048
1	1	1	1	1	1
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1
(LN)	(RG)	(A)	(G)	(LC)	(LN)

5 WHEAT (2nd test crop)

001	003	005	007	009	011
1	1	1	1	1	1
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1
LC	LA	LC	LN	H	LC
002	004	006	008	010	012
1	1	1	1	1	1
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1
(LN)	(LN)	(LC)	(LN)	(H)	(LC)

6 WHEAT (1st test crop)

013	015	017	019	021	023
3	3	3	3	3	3
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1
LC	(F)	LN	A	LA	LA
014	016	018	020	022	024
3	3	3	3	3	3
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1
(F)	(F)	(F)	(D)	(F)	(F)

4 TREATMENT CROPS (1st year)

001	002	003	004	005	006	007	008	009	010	011	012
1	1	1	1	1	1	1	1	1	1	1	1
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
LC	LA	LC	LN	H	LC	LN	H	LC	LN	LC	LA
001	002	003	004	005	006	007	008	009	010	011	012
1	1	1	1	1	1	1	1	1	1	1	1
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
(F)	(F)	(F)	(D)	(F)	(F)	(F)	(D)	(F)	(D)	(F)	(F)

1 TREATMENT CROPS (1st year)

3 POTATOES (1st test crop)

4 TREATMENT CROPS (1st year)

NOTE: R₃+4 etc. refer to years recorded (R) and old grass (G) first under arable. Def (1963+1968 etc.)
(F) (D) None; FYM (residual treatments); C, N, none No X top dressed in Spring, and after each cut except the last.

SEQUENCE

ROTHAMSTED 167 - ARABLE 83/R/R/V/I HOLFELD 1983

Spacers: Block 5-4 of rotation, Blocks 5-12 D.B. Slope

CROPPING

12 WHEAT (3rd test crop)

133	135	137	139	141	143
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	3	1	1	1	3
2	2	2	1	1	1

11 WHEAT (1st test crop)

121	123	125	127	129	131
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	3	1
2	1	1	1	1	3

WHEAT Blocks 5, 6, 7, 8, 9, 10, 11, 12
 Flanders Test N
 -, 1, 2, 3, None, 50, 100, 150 $\frac{1}{2}$ Ha
 (none, 45, 89, 134 lbs/acre)
 Y+S, yield, Sample area
 Sown on 11 November
 must include Feb-17 Nov to 2

- TREATMENT CROPS Blocks 1+4
- Lk Interne
 - Ln Grass ley
 - Lc Grass Clover ley
 - R Reseeded grass
 - G Old grass
 - [G] Pseudo old grass
 - SB Sugar beets

TEST CROP Blocks 2+3

Wheat: Flanders
 Sown on 18 November

NOTE: RG+ pots are not ploughed
 first drilled on blocks 6, 7,
 10 & 11. Soil are ploughed and
 sown on 11 Nov or later
 5, 8, 9 & 12.

9 WHEAT (3rd test crop)

097	099	101	103	105	107	109	111	113	115	117	119
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	3	2	3	1	1	3	2	2	2	2	3
2	2	2	2	2	2	2	1	3	1	1	1

10 WHEAT (1st test crop)

073	075	077	079	081	083	085	087	089	091	093	095
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	3	1	2	2	1	1	2	2	2	2
2	1	1	1	1	1	1	1	1	1	1	1

11 WHEAT (1st test crop)

121	122	123	124	125	126	127	128	129	130	131
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1

12 WHEAT (1st test crop)

049	051	053	055	057	059	061	063	065	067	069	071
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1

1 WHEAT (HR test crop)

050	052	054	056	058	060	062	064	066	068	070	072
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1

2 WHEAT (2nd test crop)

025	027	029	031	033	035	037	039	041	043	045	047
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1

3 WHEAT (2nd test crop)

025	027	029	031	033	035	037	039	041	043	045	047
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1

4 WHEAT (HR test crop)

001	002	005	007	009	011	013	015	017	019	021	023
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1

5 WHEAT (HR test crop)

001	002	005	007	009	011	013	015	017	019	021	023
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1

6 WHEAT (2nd test crop)

049	051	053	055	057	059	061	063	065	067	069	071
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1

7 WHEAT (2nd test crop)

073	075	077	079	081	083	085	087	089	091	093	095
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1

8 WHEAT (HR test crop)

073	075	077	079	081	083	085	087	089	091	093	095
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1

9 WHEAT (2nd test crop)

025	027	029	031	033	035	037	039	041	043	045	047
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1

10 WHEAT (2nd test crop)

049	051	053	055	057	059	061	063	065	067	069	071
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1

11 WHEAT (HR test crop)

049	051	053	055	057	059	061	063	065	067	069	071
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1

12 WHEAT (HR test crop)

001	002	005	007	009	011	013	015	017	019	021	023
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1

NOTE: R₁ + G₂ etc. refers to years reseeded (R) and old grass (G) first under arable crop (1963 & 1968 etc)
 (F)(D), None, FYM (residual treatments), C, N, None, NPK top dressed in Spring and A/R each cut except the last

ROTHAMSTED

LEY-FARABLE

36H YLNR

84/R/RN/1

HIGHFIELD

1984

Sponsors: Blocks 1-4 A.E. Johns-on, Blocks 6, 7, 9, 12, R.J. Gooding

CROPPING

WHEAT Blocks 6, 7, 9, 12

Flanders Test N

- 1, 2, 3, None, 50, 100, 150kg/ha

(None, 45, 87, 134kg/ha)

Y, S, Yield, sample area.

WHEAT Blocks 5, 8, 10, 11

Sown solid uniform N

110 yields

133	135	137	139	141	143
-	3	1	-	1	-
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	2	-	1	3	1
RG	RG+	A	AR	LH	LC
134	136	138	140	142	144
3	1	3	3	2	2
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
2	-	2	2	-	3
(LN)	(GN)	(R)	(RN)	(LH)	(LC)

107	109	111	113	115	117	119
2	-	3	-	3	3	3
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
-	3	2	3	1	1	1
AR	RG	LH	LC	AR	RG	LC
110	112	114	116	118	120	
NO YIELDS						
(R)	(LN)	(LC)	(R)	(LN)	(LC)	(LN)

121	123	125	127	129	131
NO YIELDS					
(R)	(LN)	(RG)	(LC)	(GB)	(LN)

TREATMENT CROPS Blocks 1+4

LN lucerne

LH Grass ley

LC Grass clover ley

R Reseeded grass

G Old grass

[G] Pseudo old grass

O Oats

12 WHEAT (4th test crop)

049	051	053	055	057	059
LH	LC	RG+	RG	A	AR
NO YIELDS					
(LN)	(LC)	(R)	(RN)	(LH)	(LC)

9 WHEAT (4th test crop)

061	063	065	067	069	071
2	1	3	-	3	3
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	3	1	1	2
DE	LH	LC	A	RG+	AR
062	064	066	068	070	072
3	Y+S	Y+S	Y+S	Y+S	Y+S
1	2	2	1	2	1
(LN)	(LN)	(LN)	(LC)	(R)	(RN)

10 WHEAT

073	075	077	079	081	083
3	-	3	-	3	3
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
1	1	-	1	2	2
RG+	LC	AR	A	RG	LH
074	076	078	080	082	084
-	3	1	2	3	1
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
2	2	2	3	1	-
(GB)	(LC)	(R)	(R)	(LN)	(LN)

11 WHEAT

085	087	089	091	093	095
NO YIELDS					
(LN)	(RS)	(R)	(GB)	(LC)	(LN)

TEST CROP Blocks 2+3

Wheat Flanders, 18 Oct 84

5 WHEAT

001	003	005	007	009	011	013
G	R	R	LH	O	LC	LH
NO YIELDS						
(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)

6 WHEAT (3rd test crop)

015	017	019	021	023
112	114	116	118	120
213	215	217	219	221
(F)	(F)	(F)	(F)	(F)
016	018	020	022	024
119	121	123	125	127
(F)	(F)	(F)	(F)	(F)

7 WHEAT (3rd test crop)

025	027	029	031	033	035
-13	-12	-11	R	[G]	21-
(F)	(F)	(F)	C'n	(D)	(D)
LC	A	LH	LH	LH	LH
026	028	030	032	034	036
112	114	116	118	120	122
(F)	(F)	(F)	(F)	(F)	(F)

8 WHEAT

037	039	041	043	045	047
NO YIELDS					
(LN)	(RS)	(R)	(GB)	(LC)	(LN)

1 TREATMENT CROPS (3rd year)

001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	
G	LH	R	LH	R	LH	R	LH	R	LH	R	LH	R	LH	R	LH	R	LH	R	LH	R	LH	R	LH
NO YIELDS																							
(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)

2 WHEAT (P.W.W) 3rd test crop

024	026	028	030	032	034	036	038	040	042	044	046	048
112	114	116	118	120	122	124	126	128	130	132	134	136
(F)	(F)	(F)	(F)	(F)	(F)	(F)	(F)	(F)	(F)	(F)	(F)	(F)

3 WHEAT (P.W.W) 3rd test crop

025	027	029	031	033	035	037	039	041	043	045	047
112	114	116	118	120	122	124	126	128	130	132	134
(F)	(F)	(F)	(F)	(F)	(F)	(F)	(F)	(F)	(F)	(F)	(F)

4 TREATMENT CROPS (3rd year)

001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021	022	023	
G	LH	R	LH	R	LH	R	LH	R	LH	R	LH	R	LH	R	LH	R	LH	R	LH	R	LH	R	LH
NO YIELDS																							
(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)

NOTE R3+GB etc. refers to years reseeded (R) and old grass (G) first under arable crop (1963 + 1968 etc.) (F)(D), None, F+M (residual treatments). C, R, None, N + K top dressed in Spring and after each cut except the last.

ROTHAMSTED LEY ARABLE 37th YEAR HIGHFIELD 1985 9

Sponsors: Blocks 1-4 A.E. Johnston, Blocks 6 & 7 R.T. Gutteridge

85/R/R/N/1

CROPPING

W. wheat blocks 6+7
 Flanders manure at 1704/ha (14/6) on 2 November
 TEST N
 1, 2, 3, None, 50, 100, 150 kg N/ha
 (None, 45, 89, 134 lb N/ac)
 V, S, Yield, sample area
 Wheat blocks 5, 8, 9, 10, 11+12
 Sown solid, uniform N
 No yields. Sown at 1108/ha (116/ha) on 2 November

133	135	137	139	141	143
Sown solid, uniform N					
RG	RB+	A	AR	L4	LC
134	136	138	140	142	144
No yields					
(LN)	(G)	(A)	(R)	(L4)	(LC)

12 WHEAT

097	099	101	103	105	107
Sown solid, uniform N					
AR	RG	LC	A	RB+	L4
098	100	102	104	106	108
No yields					
(R)	(LN)	(LC)	(A)	(RB)	(L4)

9 WHEAT

109	111	113	115	117	119
Sown solid, uniform N					
A	RB+	L4	LC	AR	RG
110	112	114	116	118	120
No yields					
(A)	(G)	(L4)	(LC)	(R)	(LN)

10 WHEAT

121	123	125	127	129	131
Sown solid, uniform N					
A	RG	AR	LC	RB+	L4
122	124	126	128	130	132
No yields					
(A)	(LN)	(R)	(LC)	(G)	(LN)

11 WHEAT

TREATMENT CROPS blocks 2+3

L4 Lucerne
 LN grass ley
 LC grass Clover ley
 H 1 year hay
 R reseeded grass
 G Old grass
 [G] Pseudo - old grass

049	051	053	055	057	059
Sown solid, uniform N					
L4	LC	RB+	RG	A	AR
050	052	054	056	058	060
No yields					
(LN)	(LC)	(RB)	(LN)	(A)	(R)

6 WHEAT (4th test crop)

073	075	077	079	081	083
Sown solid, uniform N					
Y+S	Y+S	Y+S	Y+S	Y+S	Y+S
074	076	078	080	082	084
No yields					
(G)	(LC)	(RB)	(A)	(LN)	(LN)

7 WHEAT (4th test crop)

085	087	089	091	093	095
Sown solid, uniform N					
L4	AR	A	RB+	LC	RG
086	088	090	092	094	096
No yields					
(LN)	(R)	(A)	(G)	(LC)	(LN)

8 WHEAT

001	003	005	007	009	011	013	015	017	019	021	023
TEST CROP blocks 1+4											
G	D	R	-13	112	-11	R					G
n/c	(F)	n/c	(D)	(D)	(D)	c/n					c/n
L4	L4	A	L4	L4	L4	L4	L4	L4	L4	L4	L4
002	004	006	008	010	012	014	016	018	020	022	024
No yields											
112											
(F)	(F)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

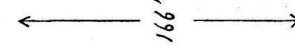
1 WHEAT (1st test crop)

025	027	029	031	033	035
TEST CROPS (1st year)					
L4	H	L4	L4	L4	L4
026	028	030	032	034	036
No yields					
(D)	(D)	(D)	(D)	(D)	(D)

2 TREATMENT CROPS (1st year)

037	039	041	043	045	047
TEST CROPS (1st year) + WHEAT (1st test crop)					
113	R	112	-11	3	2
(F)	(F)	(D)	(D)	(D)	(D)
L4	L4	L4	L4	L4	L4
038	040	042	044	046	048
No yields					
21					
(D)	(D)	(D)	(D)	(D)	(D)

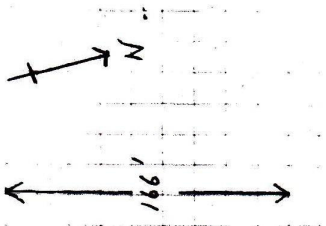
3 TREATMENT CROPS (1st year) + WHEAT (1st test crop)



W. wheat
 Flanders manure at 1704/ha (14/6) on 2 November
 NOTE: TEST CROP to wheat replaces potatoes

NOTE: R3+G8 etc refers to years reseeded (R) and old grass (G), first under arable crop (1963-1968 etc.) (F) (D), None FYM (residual treatments, c.n. None, N+K top dressed in spring and after each cut except the last

ROTHAMSTED LEY ARABLE (MUSEUM PLOTS) 38th YEAR HIGHFIELD 1986
 Sponsor: A.E. Johnston



025	027	029	031	033	035	037	039	041	043	045	047
			R	[G]		1/3	R	1/2	-1	3/2	G
			c n			(F)(F)	c n	(F)(D)	(F)(D)	(D)(F)	n c
						L4		A	L4	L4	
						038	040	042	044	046	048
						2		-3	2/3	1	
						(D)(D)		(D)(F)	(F)(D)	(D)(F)	

3 TREATMENT CROPS (2nd year) + WHEAT (2nd test crop)

001	003	005	007	009	011	013	015	017	019	021	023
G	1/2	R	-3	1/2	-1	R					G
n c	(D)(F)	n c	(D)(F)	(D)(F)	(D)(F)	c n					c n
	L4		L4	A	L4		L4	L4	S3	L4	
	004	006	008	010	012	014	016	018	020	022	024
	1/2	-3	2/1	-3	2/3						
	(F)(D)		(D)(F)	(F)(D)	(D)(F)						

2 TREATMENT CROPS (2nd year)

002	004	006	008	010	012	014	016	018	020	022	024

1 WHEAT (2nd test crop)

CROPPING

TREATMENT CROPS blocks 2 + 3 TEST CROPS blocks 1 + 4

- L4 Ancerne
- L4 n Grass ley
- L4 c Grass / Clover ley
- S3 Sugar beet
- R Reseeded grass
- G Old grass
- [G] Pseudo old grass

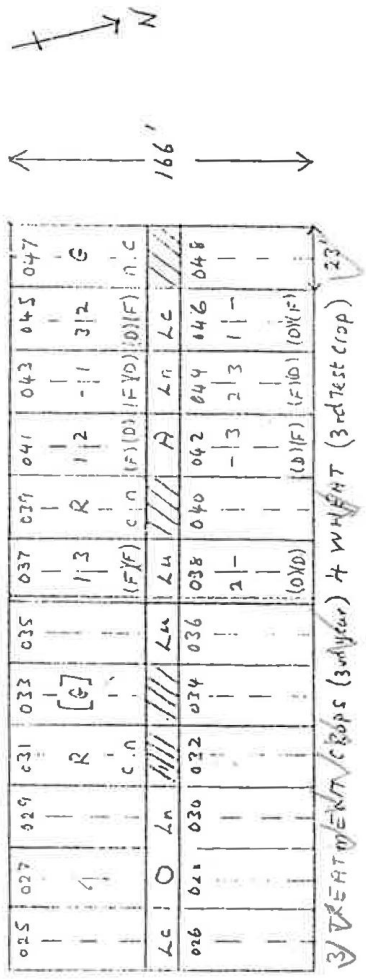
Winter wheat, sown 10 October
 Avalon

Notes: (F)(D); None, FYM (Residual treatments), c, n, None, N + K top dressed in spring and after each cut except the last.

NOTE: Crop sequence blocks (old blocks 5-12) all to be sown solid, uniform N, no yields.

Variety Avalon

87/R/RN/V ROTHAMSTED LEY ARABLE (MUSEUM PLOTS) 39th YEAR HIGHFIELD 1987
 Sponsor: A.E. Johnston



001	003	005	007	009	011	013	015	017	019	021	023
G	1 2	R	- 3	1 2	- 1	R	-	-	-	-	G
n.c	(b)(F)	n.c	(b)(F)	(b)(F)	(b)(F)	c.n					c.n
LC	LC	LC	LC	LC	LC	LC	LC	LC	LC	LC	LC
002	004	006	008	010	012	014	016	018	020	022	024
1 2	- 3	-	2 1	- 3	2 1	-	-	-	-	-	-
(F)(b)	(b)(F)	(b)(F)	(b)(F)	(b)(F)	(b)(F)						

1 WHEAT (3rd test crop) 2 TREATMENT CROPS (3rd year)

CROPPING

TREATMENT CROPS blocks 2 + 3

- LC Lucerne
- LN Grass ley
- LO Grass / Clover ley
- O Oats
- R Reseeded grass
- G Old grass
- [G] Pseudo old grass

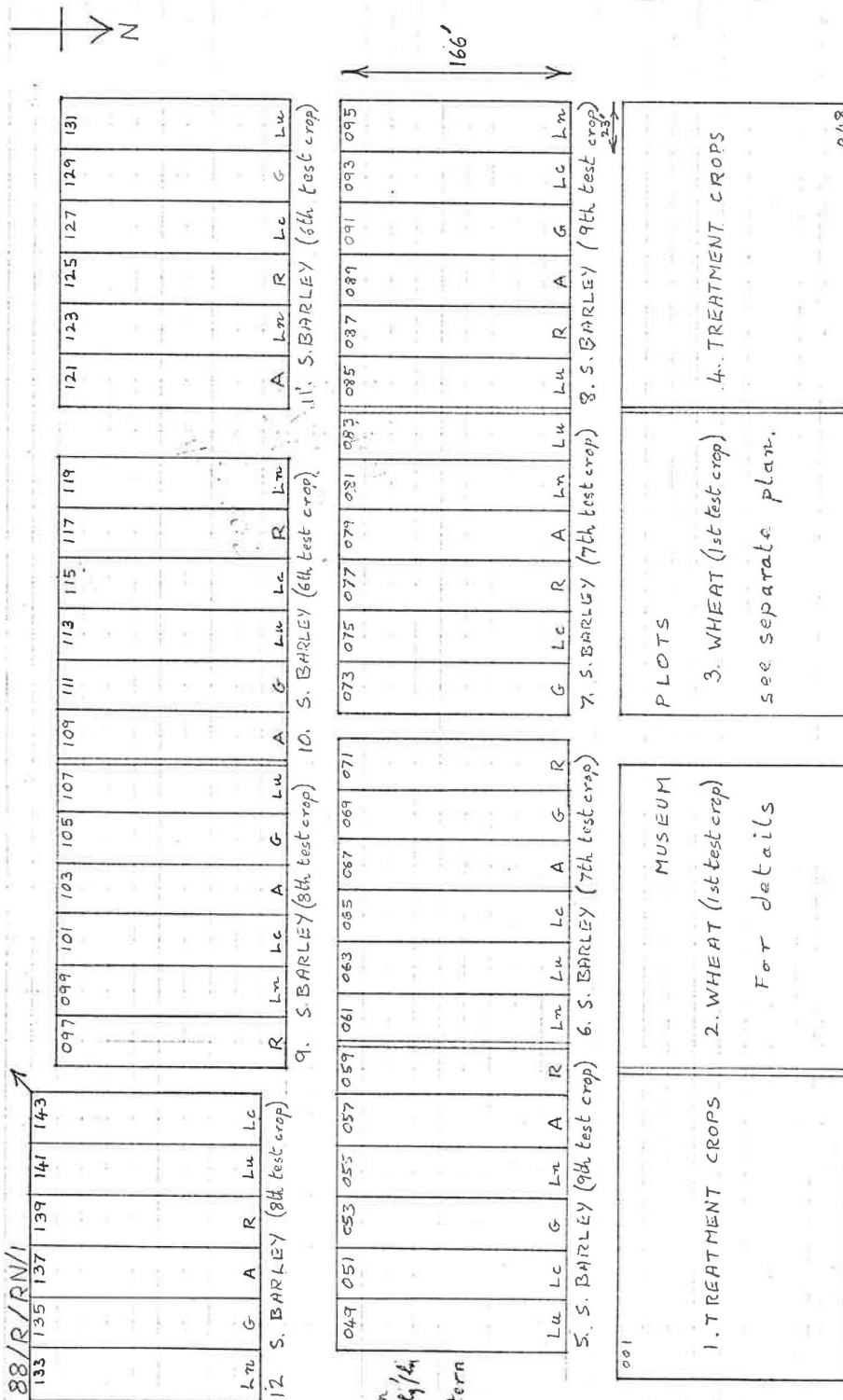
TREATMENT CROPS blocks 1 + 4

- Winter Wheat
- AVALON, non-m 4000lb

Notes: (F)(b), None, FYM (Residual treatments), c.n, None, N + K top dressed in spring and after each cut except the last.

4 crops
6th test crop
7
8
9
9a

ROTHAMSTED LEY ARABLE S. Barley 40TH YEAR 1988
 Sponsor: A.E. Johnston



TREATMENT CROPS

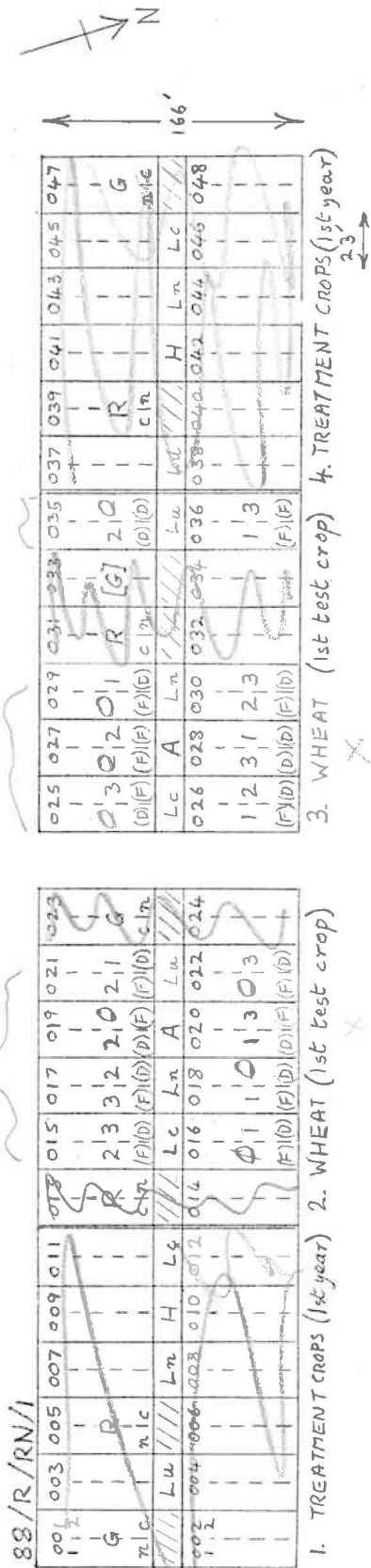
- A Arable
- G Old Grass
- Lc Grass clover ley
- Ln Grass ley
- Lu Lucerne
- R Reseeded grass

CROPPING 1988

Blocks 5-12
 S Barley: Variety: Klaxon
 sown 0.1 m. only sown at 158g/ha
 on 3rd March, 1988
 Yields taken from eastern
 half of each plot only

Thea Rot x FYM + W
Block —
NS = 0

ROTHAMSTED LEY ARABLE (MUSEUM PLOTS) OF 10
40TH YEAR
HIGHFIELD 1988
Sponsor: A.E. Johnston



CROPPING

TREATMENT CROPS blocks 1 & 4

- Lc Lucerne
- Ln Grass Ley
- Lc Grass/clover Ley
- H 1 year Hay
- R Reseeded grass
- G Old grass
- [G] Pseudo Old Grass

TEST CROPS blocks 2 & 3

Winter Wheat
Avalon, Sown 5 Oct, 87

N test to Wheat

- None
- 1 50 Kg N ha⁻¹
- 2 100 ..
- 3 150 ..

Notes: (F), (D): None; FYM (residual treatments)

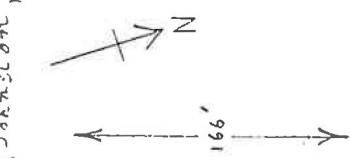
c, n: None; NOK top dressed in spring and after each cut except the last.

9

HIGHFIELD 17.5.9
Sponsor: A.K. Johnston, P.R. Poulton

41st YEAR

RCTHAMSTED LEY ARABLE (MUSEUM PLOTS)



025	027	029	031	033	035	037	039	041	043	045	047
-13 (D)(F)	-12 (F)(F)	-11 (F)(G)	R (G)	[G]	21- (D)(D)		R cm				G nic
Lc	A	Ln	Ln		Lw	Lw	Lw	Lc	Lc	Lc	
026	028	030	032	034	036	038	040	042	044	046	048
123 (F)(D)	31 (D)(D)	23 (F)(D)			13 (F)(F)						

001	003	005	007	009	011	013	015	017	019	021	023
G		R				R	23 (F)(D)	32 (F)(D)	21 (D)(F)	21 (F)(D)	G cm
Lw	Lw	Lc	Lc	Lc	Lc	Lc	Lc	Lc	Lc	Lc	Lc
002	004	006	008	010	012	014	016	018	020	022	024
12									3 (F)(D)	13 (F)(D)	

1. TREATMENT CROPS (2nd year) 2. WHEAT (2nd test crop) 3. WHEAT (2nd test crop) 4. TREATMENT CROPS (2nd year)

Note: Position of N-9 NI seed (in error) in several of plots in 1989

CROPPING

L4	Lucerne	None	None	None	None	None	None	None	None	None	None
Ln	Grass Ley	Winter Wheat	Winter Wheat	Winter Wheat	Winter Wheat	Winter Wheat	Winter Wheat	Winter Wheat	Winter Wheat	Winter Wheat	Winter Wheat
Lc	Grass/clover Ley	Avalon	Avalon	Avalon	Avalon	Avalon	Avalon	Avalon	Avalon	Avalon	Avalon
Sb	Sugar beet										
R	Reseeded grass										
G	Old grass										
[G]	Pseudo Old Grass										

Notes: (F), (D): None, FYM (residual treatments)
c, n: None, N&K top dressed in spring and after each cut except the last.

ROTHAMSTED LEY ARABLE (MUSEUM PLOTS) 42nd YEAR 1990
 HIGHFIELD
 Sponsor: P.R. Poulton



001	003	005	007	009	011	013	015	017	019	021	023
G	R	R	n/c	Ln	Ln	R	Ln	Ln	Ln	Ln	G
n/c	Ln	Ln	Ln	Ln	Ln	c/n	Ln	Ln	(F)(D)	(F)(D)	c/n
002	004	006	008	010	012	014	016	018	020	022	024
Ln	Ln	Ln	Ln	Ln	Ln	Ln	Ln	Ln	Ln	Ln	Ln
Ln	Ln	Ln	Ln	Ln	Ln	Ln	Ln	Ln	Ln	Ln	Ln

1. TREATMENT CROPS (3rd year) 2. WHEAT (3rd test crop) 3. WHEAT (3rd test crop) 4. TREATMENT CROPS (3rd year)

CROPPING

TREATMENT CROPS blocks 1 & 4 TEST CROPS blocks 2 & 3 N Test to Wheat

- Ln Lucerne
- Ln Grass Ley
- Ln Grass/clover Ley
- O Oats
- R Reseeded grass
- G Old grass
- [G] Pseudo Old Grass

Notes: (F), (D): None, FYM (residual treatments)
 c, n: None, NAK top dressed in spring and after each cut except the last.