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ROTHAMSTED
RESEARCH

Collection of Plans for the Highfield Ley-arable Experiment

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Highfield Ley-arable 1970-79

Rothamsted Research

Rothamsted Research (1949-1990) *Highfield Ley-arable 1970-79* ; Collection Of Plans For The Highfield Ley-Arable Experiment, pp 22 - 31

R & G Plots (Memo. 24/6/70) cut by 1/2 plots, one sample from each 1/2 plot on each cutting occasion.

Rothamsted LEY-ARABLE 22nd year 70/R/RN/1 HIGHFIELD 1970 9

135	137	139	141	143	
1 2	1 2	1 2	1 2	1 2	
3 4	3 1	2 1	4 1	3 4	
Ln (G)	A	(R)	Lu	Lc	
134	136	138	140	142	144
1 2	1 2	1 2	1 2	1 2	1 2
4 3	1 2	4 2	4 3	2 3	1 2

097	099	101	103	105	107	109	111	113	115	117	119
3 2	3 4	2 1	2 3	1 2	1 3	3 4	3 4	3 4	3 4	3 4	3 4
(R)	Ln	Lc	A	(G)	Lu	A ⁴ (G)	Lu ²	Lc ² (R)	Ln ³	Ln ³	Ln ³
098	100	102	104	106	108	110	112	114	116	118	120
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
1 4	2 1	3 4	4 1	3 4	4 2	3 4	3 4	3 4	3 4	3 4	3 4

121	123	125	127	129	131
1 2	1 2	1 2	1 2	1 2	1 2
2 1	3 4	2 1	1 2	2 1	2 3
3 4	3 4	3 4	3 4	3 4	3 4
- 3	1 2	- 3	3 -	- 3	- 1
A	Ln (R)	Lc (G)	Lu	Ln	Lu
122	124	126	128	130	132
1 2	1 2	1 2	1 2	1 2	1 2
1 2	2 1	2 1	3 -	1 -	3 2
3 4	3 4	3 4	3 4	3 4	3 4
3 -	- 3	- 3	1 2	3 2	1 -

12. WHEAT 5th test crop

049	051	053	055	057	059	061	063	065	067	069	071
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
3 1	4 3	3 4	1 2	1 4	4 1	3 4	3 4	3 4	3 4	3 4	3 4
Lu	Lc (G)	Ln	A	(R)	Ln	Lu	Lc	A	(G)	(R)	(R)
050	052	054	056	058	060	062	064	066	068	070	072
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
2 4	2 1	1 2	3 4	2 3	3 2	2 1	1 -	3 3	3 -	3 3	3 3

Sowing
W: 16 Oct
(Jois Cambiar)
B: 20 Mar
(Julia)

9. WHEAT 5th test crop

073	075	077	079	081	083	085	087	089	091	093	095
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4
(G)	Lc	(R)	A	Ln	Lu	Lu	(R)	A	(G)	Lc	Ln
074	076	078	080	082	084	086	088	090	092	094	096
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
3 3	1 -	1 1	3 2	2 3	- 3	2 1	2 1	3 2	4 1	1 4	4 1

5. WHEAT 6th test crop

001	003	005	007	009	011	013	015	017	019	021	023
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
G	n.c	R	n.c								
Lu	Ln	B ^{1/2}	Lc	Ln	B ^{1/2}	Lc	Ln	A	Lu	Lu	Lu
002	004	006	008	010	012	014	016	018	020	022	024
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2

1. Treatment Crops 1st year.

7. BARLEY after Wheat

025	027	029	031	033	035	037	039	041	043	045	047
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4
(G)	Lc	A	Ln	(R)	Lu	Lu	B ^{1/2}	Ln	Lc	Ln	Lc
026	028	030	032	034	036	038	040	042	044	046	048
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4

3. POTATOES 1st test crop

8. WHEAT 6th test crop

001	003	005	007	009	011	013	015	017	019	021	023
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
G	n.c	R	n.c								
Lu	Ln	B ^{1/2}	Lc	Ln	B ^{1/2}	Lc	Ln	A	Lu	Lu	Lu
002	004	006	008	010	012	014	016	018	020	022	024
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2

4. Treatment Crops 2nd year.

HIGHFIELD 1971 9

1971
487
71/R/RN/I

Rothamsted LEY - ARABLE 2697 23rd year

2697
(2)

135	137	139	141	143
1 2	1 2	1 2	1 2	1 2
1 2	3 4	3 1	4 1	3 4
Ln	G ⁹	A	R ⁹	Lu
134	136	138	140	142
1 2	1 2	1 2	1 2	1 2
4 3	1 2	4 2	4 3	2 3
1 2	1 2	1 2	1 2	1 2

097	099	101	103	105	107	109	111	113	115	117	119
1 2	1 2	1 2	1 2	1 2	1 2	3 2	2 3	2 1	2 3	2 1	2 1
3 2	3 4	2 1	2 3	1 2	1 3	3 4	3 4	3 4	- 1	3 4	3 4
R ⁹	Ln	Lc	A	G ⁹	Lu	A ⁴	G ⁹	Lu	Lc	R ⁹	Ln
098	100	102	104	106	108	110	112	114	116	118	120
1 2	1 2	1 2	1 2	1 2	1 2	3 2	1 2	1 2	1 2	1 2	1 2
1 4	2 1	3 4	4 1	3 4	4 2	3 4	3 4	3 4	3 4	3 4	3 4
1 1	1 1	1 3	1 3	1 3	1 3	1 1	1 3	1 3	1 3	1 1	1 1

073	075	077	079	081	083
1 2	1 2	1 2	1 2	1 2	1 2
4 3	4 3	2 1	4 2	1 2	3 2
G ⁸	Lc	R ⁸	A	Ln	Lu
074	076	078	080	082	084
1 2	1 2	1 2	1 2	1 2	1 2
2 1	2 1	4 3	1 3	3 4	1 4

121	123	125	127	129	131
1 2	1 2	1 2	1 2	1 2	1 2
3 4	3 4	3 4	3 4	3 4	3 4
A ⁴	Ln	R ⁸	Lc	G ⁹	Lu
122	124	126	128	130	132
1 2	1 2	1 2	1 2	1 2	1 2
- 3	- 3	2 1	- 1	3 1	1 -
3 4	3 4	3 4	3 4	3 4	3 4
2 1	2 1	- 3	2 3	1 3	3 2

12 WHEAT 4th cereal

049	051	053	055	057	059
1 2	1 2	1 2	1 2	1 2	1 2
3 1	4 3	3 4	1 2	1 4	4 1
Lu	Lc	G ⁸	Ln	A	R ⁸
050	052	054	056	058	060
1 2	1 2	1 2	1 2	1 2	1 2
2 4	2 1	1 2	3 4	2 3	3 2

9 WHEAT 4th cereal

061	063	065	067	069	071
1 2	1 2	1 2	1 2	1 2	1 2
2 3	3 4	3 4	1 2	3 4	4 1
Ln	Lu	Lc	A	G ⁸	R ⁸
062	064	066	068	070	072
1 2	1 2	1 2	1 2	1 2	1 2
4 1	1 2	2 1	4 3	1 2	2 3

10 BARLEY after Wheat

073	075	077	079	081	083
1 2	1 2	1 2	1 2	1 2	1 2
4 3	4 3	2 1	4 2	1 2	3 2
G ⁸	Lc	R ⁸	A	Ln	Lu
074	076	078	080	082	084
1 2	1 2	1 2	1 2	1 2	1 2
2 1	2 1	4 3	1 3	3 4	1 4

11 BARLEY after Wheat

085	087	089	091	093	095
1 2	1 2	1 2	1 2	1 2	1 2
4 3	4 3	4 1	2 3	3 2	3 2
Lu	R ⁸	A	G ⁸	Lc	Ln
086	088	090	092	094	096
1 2	1 2	1 2	1 2	1 2	1 2
2 1	2 1	3 2	4 1	1 4	4 1

5 WHEAT 5th cereal

001	003	005	007	009	011
1 2	1 2	1 2	1 2	1 2	1 2
G	n.c	R	n.c	F	Lc
Lu	Lu	Ln	H	Ln	Lc
002	004	006	008	010	012
1 2	1 2	1 2	1 2	1 2	1 2
3 4	3 4	3 4	3 4	3 4	3 4
2 1	2 1	2 1	2 1	2 1	2 1

6 WHEAT 3rd cereal

015	017	019	021	023
1 2	1 2	1 2	1 2	1 2
3 2	3 3	- 1	2 1	G
R ⁴	Lc	Ln	A ⁴	Lu
016	018	020	022	024
1 2	1 2	1 2	1 2	1 2
- 3	- 3	2 2	3 -	1 2
3 4	3 4	3 4	3 4	3 4
2 1	2 1	- 1	2 3	-

7 WHEAT 3rd cereal

025	027	029	031	033	035
1 2	1 2	1 2	1 2	1 2	1 2
3 -	1 -	2 3	3 -	[G ⁴]	3 2
Lc	A ⁴	Ln	R ⁴	Lu	Lu
026	028	030	032	034	036
1 2	1 2	1 2	1 2	1 2	1 2
3 2	- 1	3 -	2 1	3 2	3 2
3 4	3 4	3 4	3 4	3 4	3 4
1 -	2 3	1 2	- 3	1 -	1 -

8 WHEAT 5th cereal

037	039	041	043	045	047
1 2	1 2	1 2	1 2	1 2	1 2
R	n.c	F	n.c	n.c	n.c
Lu	Lu	H	Ln	Lc	Lc
038	040	042	044	046	048
1 2	1 2	1 2	1 2	1 2	1 2
3 4	3 4	3 4	3 4	3 4	3 4
1 -	1 -	1 -	1 -	1 -	1 -

1 Treatment Crops
2nd year

2 WHEAT after Potatoes
R⁸, G⁸ etc 1963, 1968 crop year
R & G put into arable crop

3 WHEAT after Potatoes 4 Treatment Crops
2nd year

Sowing W. Wheat 5 Oct. 1970
Barley 25 Feb. 71

2692
1 (1) 166
Lu
Lc
Ln
A

KOTHAMSTED LEY - AKABLE 24th year HIGHFIELD 1972

133	135	137	139	141	143
1 2 3	1 2 3 4	1 2 3 4 5	1 2 3 4	1 2 3 4	1 2 3 4
Ln	G9	A	R9	Lu	Lc
134	136	138	140	142	144
1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
4 3	1 2	4 2	4 3	2 3	1 2

097	099	101	103	105	107	109	111	113	115	117	119
1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
R9	Ln	Lc	A	G9	Lu	A	G9	Lu	Lc	R3	Ln
098	100	102	104	106	108	110	112	114	116	118	120
1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
1 4	2 1	3 4	4 1	3 4	4 2	4 1	1 4	3 4	3 4	3 2	2 1

121	123	125	127	129	131
1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
A	Ln	R3	Lc	G9	Lu
122	124	126	128	130	132
1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
3 1	1 3	1 3	4 1	1 2	3 1

12 WHEAT 5th Cereal

9 WHEAT 5th Cereal 10 WHEAT 3rd Cereal

049	051	053	055	057	059	061	063	065	067	069	071
1 2 3 4	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Lu	Lc	G8	Ln	A	R5	Ln	Lu	Lc	A	G8	R8
050	052	054	056	058	060	062	064	066	068	070	072
1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
2 4	2 1	1 2	3 4	2 3	3 2	4 1	1 2	2 1	4 3	1 2	2 3

5 WHEAT 6th Cereal 6 WHEAT 4th Cereal

001	003	005	007	009	011	013	015	017	019	021	023
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
G	R	R	R	R	R	R	R	R	R	R	R
002	004	006	008	010	012	014	016	018	020	022	024
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
Lu	Lu	Ln	SB	Lc	Lu	Ln	A	Lu	Lu	Lu	Lu

1 Treatment Crops 2 BARLEY after Wheat

025	027	029	031	033	035	037	039	041	043	045	047
1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
Lc	A	Ln	R4	Lu	Lu	Lu	R	SB	Ln	Lc	Lc
026	028	030	032	034	036	038	040	042	044	046	048
1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4

3 BARLEY after Wheat, 4 Treatment Crops 5th year

BARLEY after Wheat (sown 15 Mar 1972) 3rd year
 R³, G⁸, etc. 1963, 1968 the year R9G under first arable crop. Note Barley seed dressed with 'Milstem' K.C./fr



Rothamsted LEY-ARABLE 25th year 73/R/RN/1 HIGHFIELD 1973

Sponsors: Blocks 1-4, AE Johnsons, Blocks 5-12, D.B.S. Slope

097	099	101	103	105	107	109	111	113	115	117	119
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
3 2	3 4	2 1	2 3	1 2	1 3	3 2	3 2	1 2	1 2	4 1	4 3
R9	Lt	LC	A	G9	Lt	A	G9	Lt	LC	R3	Lt
098	100	102	104	106	108	110	112	114	116	118	120
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
1 4	2 1	3 4	4 1	3 4	4 2	4 1	1 4	3 4	3 4	3 2	2 1

133	135	137	139	141	143
1 2	1 2	1 2	1 2	1 2	1 2
1 2	3 4	3 1	2 1	4 1	3 4
L7	G9	A	R9	Lt	LC
134	136	138	140	142	144
1 2	1 2	1 2	1 2	1 2	1 2
4 3	1 2	4 2	4 3	2 3	1 2

12 Wheat 6th Cereal
WW drilled 24 Oct. 1972

049	051	053	055	057	059	061	063	065	067	069	071
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
3 1	4 3	3 4	1 2	1 4	4 1	2 3	3 4	1 2	3 4	1 2	4 1
Lt	LC	G8	Lt	A	R5	Lt	Lt	LC	A	G8	R8
050	052	054	056	058	060	062	064	066	068	070	072
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
2 4	2 1	1 2	3 4	2 3	3 2	4 1	1 2	2 1	4 3	1 2	2 3

5 Wheat 7th Cereal
Potato sub-plots

001	003	005	007	009	011	013	015	017	019	021	023
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
2 3	2 3	R	D	0	1 1	R	0 1 5	0 1 2	0 1 9	0 2 1	0 2 3
G	D	n:c	0	D	0	c:n	LC	Lt	H	Lt	G
002	004	006	008	010	012	014	016	018	020	022	024
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
2 1	2 1	3 4	3 3	1 2	2 0	1 2	1 2	1 2	1 2	2 2	0 2 4
3 4	3 4	D	D	D	D	1 3	1 3	1 3	1 3	1 3	1 3

1 POTATOES
1st Test Crop

R, G8 etc refers to year R & G under 1st arable crop. i.e. 1963, 1968

2 Treatment Crops
1st year

3 Treatment Crops
1st year

4 POTATOES
1st Test Crop

D FYM last applied in 1968

121	123	125	127	129	131
1 2	1 2	1 2	1 2	1 2	1 2
2 4	2 4	2 4	3 2	3 4	4 2
A	Lt	R3	LC	G9	Lt
122	124	126	128	130	132
1 2	1 2	1 2	1 2	1 2	1 2
3 1	1 3	1 3	4 1	1 2	3 1

11 Wheat 4th Cereal

085	087	089	091	093	095
1 2	1 2	1 2	1 2	1 2	1 2
4 3	4 3	4 1	2 3	3 2	3 2
Lt	R5	A	G8	LC	Lt
086	088	090	092	094	096
1 2	1 2	1 2	1 2	1 2	1 2
2 1	2 1	3 2	4 1	1 4	4 1

7 Wheat 5th Cereal
Variety: Cappelle

073	075	077	079	081	083	085	087	089	091	093	095
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
4 3	4 3	2 1	4 2	1 2	3 2	4 3	4 3	4 1	2 3	3 2	3 2
G8	LC	R8	A	Lt	Lt	Lt	R5	A	G8	LC	Lt
074	076	078	080	082	084	086	088	090	092	094	096
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
2 1	2 1	4 3	1 3	3 4	1 4	2 1	2 1	3 2	4 1	1 4	4 1

8 Wheat 7th Cereal

9 Wheat 6th Cereal



(Rothamsted)
Keep
Grass from
Potato blocks
(Treatment blocks)
separately

Rothamsted LEY - ARABLE Sponsors 26th year 74/R/RN/1 HIGHFIELD 1974 9

Blocks 1-4, AE Johnston Blocks 5-12 DB Slope.

Nitrogen Blocks 5-12

1	0.6 cwt N	135	137	139	141	143
2	1.0 cwt N	12	3	4	1	2
3	1.4 cwt N	1	2	1	4	3
4	1.8 cwt N	L _N	G ₉	A	R ₉	L _C
Applied in spring		134	136	138	140	142
		1	2	1	2	1
		4	3	1	2	4
		4	3	2	3	1

12 Wheat 7th cereal

Variety Cappelle seed dressed Dieltrin/organomercury sown at 180 lb/a on 24 Oct 1973

049	051	053	055	057	059	061	063	065	067	069	071
1	2	1	2	1	2	1	2	1	2	1	2
3	1	4	3	4	1	2	1	4	1	2	3
L _N	L _C	G ₈	L _N	A	R ₅	L _N	L _N	L _C	A	G ₈	R ₅
050	052	054	056	058	060	062	064	066	068	070	072
1	2	1	2	1	2	1	2	1	2	1	2
2	4	2	1	2	3	4	2	3	3	2	4
L _N	L _C	G ₈	L _N	A	R ₅	L _N	L _N	L _C	A	G ₈	R ₅

5 Wheat 8th cereal

001	003	005	007	009	011	013	015	017	019	021	023
1	2	1	2	1	2	1	2	1	2	1	2
G	2	R	1	0	2	0	1	3	4	G	
n.c	3	4	n.c	2	3	4	2	2		c.n	
L _N	L _N	A	L _C	L _N	A	L _C	L _N	L _C	L _N	L _N	L _N
002	004	006	008	010	012	014	016	018	020	022	024
1	2	1	2	1	2	1	2	1	2	1	2
1	1	3	4	0	2	3	3	0			
3	4	3	4	3	4	3	4	3	4	3	4
0	0	0	0	1	0	1					
L _N	L _N	A	L _C	L _N	A	L _C	L _N	L _C	L _N	L _N	L _N

1 WHEAT 2nd Test crop

2 Treatment crops 2nd year R, G etc. refers to year R & G w 1st arable crop ie 1963, 1968

Blocks 1-4, AE Johnston Blocks 5-12 DB Slope.

097	099	101	103	105	107	109	111	113	115	117	119
1	2	1	2	1	2	1	2	1	2	1	2
3	2	3	4	2	1	2	3	2	1	2	4
R ₉	L _N	L _C	A	G ₉	L _N	A	G ₉	L _N	L _C	R ₃	L _N
098	100	102	104	106	108	110	112	114	116	118	120
1	2	1	2	1	2	1	2	1	2	1	2
1	4	2	1	3	4	4	1	3	4	3	2
4	1	3	4	4	1	3	4	3	4	3	2
L _N	L _N	L _C	R ₈	A	L _N	L _N	L _N	L _C	R ₈	A	L _N

9 Wheat 7th cereal

073	075	077	079	081	083	085	087	089	091	093	095
1	2	1	2	1	2	1	2	1	2	1	2
4	3	4	3	2	1	2	3	2	4	3	2
G ₈	L _C	R ₈	A	L _N	L _N	L _N	L _N	A	G ₈	L _C	L _N
074	076	078	080	082	084	086	088	090	092	094	096
1	2	1	2	1	2	1	2	1	2	1	2
2	1	2	1	4	3	4	1	4	2	1	3
L _N	L _N	L _C	R ₈	A	L _N	L _N	L _N	A	G ₈	L _C	L _N

7 Wheat 6th cereal

025	027	029	031	033	035	037	039	041	043	045	047
1	2	1	2	1	2	1	2	1	2	1	2
L _C	S _B	L _N	L _N	L _N	L _N	L _N	L _N	L _N	L _N	L _N	L _N
026	028	030	032	034	036	038	040	042	044	046	048
1	2	1	2	1	2	1	2	1	2	1	2
2	1	2	1	4	3	4	1	4	2	1	3
L _C	S _B	L _N	L _N	L _N	L _N	L _N	L _N	A	L _N	L _C	L _N

3 Treatment crops 2nd year

4 WHEAT 2nd Test crop

11 Wheat 5th cereal

121	123	125	127	129	131
1	2	1	2	1	2
2	4	2	4	3	2
A	L _N	R ₃	L _C	G ₉	L _N
122	124	126	128	130	132
1	2	1	2	1	2
3	1	1	3	4	1
1	2	3	4	1	2
L _N	L _N	L _C	R ₃	L _C	L _N

11 Wheat 5th cereal

085	087	089	091	093	095
1	2	1	2	1	2
4	3	4	3	2	1
L _N	L _N	R ₅	A	G ₈	L _C
086	088	090	092	094	096
1	2	1	2	1	2
2	1	2	1	3	2
L _N	L _N	L _C	R ₅	A	G ₈

8 Wheat 8th cereal

037	039	041	043	045	047
1	2	1	2	1	2
0	2	R	3	0	1
3	4	n.c	3	4	3
L _N	L _N	L _N	L _N	L _N	L _N
038	040	042	044	046	048
1	2	1	2	1	2
0	3	2	2	2	3
L _N	L _N	L _N	L _N	L _N	L _N

4 WHEAT 2nd Test crop

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Rothamsted LEY - ARABLE
Sponsors:
75/R/RN/I HIGHFIELD 1975

27th year

75/R/RN/I

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

133 1/2	135	137	139	141	143
1/2	3	4	3	1	2
1/2	1	2	1	4	1
1/2	3	4	3	1	2
1/2	1	2	1	4	1
1/2	3	4	3	1	2
1/2	1	2	1	4	1
1/2	3	4	3	1	2
1/2	1	2	1	4	1
1/2	3	4	3	1	2
1/2	1	2	1	4	1
1/2	3	4	3	1	2

Corrected
plan - see
0572
Sub-plots
and 0582
N Treatments
in 1975

12 WHEAT 8th cereal

W.W. Cappelle
sown at 180 lb/a
with 336 lb/a of
(0.120:120) combine
drilled
Sown
81ks 1+4 on 31 Oct
81ks 5-12 on 30 Oct.

9 WHEAT 8th cereal 10 WHEAT 8th cereal

049 1/2	051	053	055	057	059	061	063	065	067	069	071
1/2	3	1	4	3	4	1	2	3	4	3	4
1/2	3	1	4	3	4	1	2	3	4	3	4
1/2	3	1	4	3	4	1	2	3	4	3	4
1/2	3	1	4	3	4	1	2	3	4	3	4
1/2	3	1	4	3	4	1	2	3	4	3	4
1/2	3	1	4	3	4	1	2	3	4	3	4
1/2	3	1	4	3	4	1	2	3	4	3	4
1/2	3	1	4	3	4	1	2	3	4	3	4
1/2	3	1	4	3	4	1	2	3	4	3	4
1/2	3	1	4	3	4	1	2	3	4	3	4

5 WHEAT 9th cereal * 75/cs/69 New treatments to Rn, blocks 1-4

001 1/2	003	005	007	009	011	013	015	017	019	021	023
1/2	1	1	* R	0	0	0	3	0	3	G	
1/2	1	1	* R	0	0	0	3	0	3	G	
1/2	1	1	* R	0	0	0	3	0	3	G	
1/2	1	1	* R	0	0	0	3	0	3	G	
1/2	1	1	* R	0	0	0	3	0	3	G	
1/2	1	1	* R	0	0	0	3	0	3	G	
1/2	1	1	* R	0	0	0	3	0	3	G	
1/2	1	1	* R	0	0	0	3	0	3	G	
1/2	1	1	* R	0	0	0	3	0	3	G	
1/2	1	1	* R	0	0	0	3	0	3	G	

1 WHEAT 3rd Test crop
2 Treatment crops
3rd year
3 Treatment crops
3rd year
under 1st arable crop
ie 1963, 1968

Note: R3, G8 etc. refers to year R & G under 1st arable crop ie 1963, 1968

121 1/2	123	125	127	129	131
1/2	2	4	2	4	3
1/2	2	4	2	4	3
1/2	2	4	2	4	3
1/2	2	4	2	4	3
1/2	2	4	2	4	3
1/2	2	4	2	4	3
1/2	2	4	2	4	3
1/2	2	4	2	4	3
1/2	2	4	2	4	3
1/2	2	4	2	4	3

11 WHEAT 6th cereal

073 1/2	075	077	079	081	083	085	087	089	091	093	095
1/2	4	3	4	2	1	4	2	1	2	3	2
1/2	4	3	4	2	1	4	2	1	2	3	2
1/2	4	3	4	2	1	4	2	1	2	3	2
1/2	4	3	4	2	1	4	2	1	2	3	2
1/2	4	3	4	2	1	4	2	1	2	3	2
1/2	4	3	4	2	1	4	2	1	2	3	2
1/2	4	3	4	2	1	4	2	1	2	3	2
1/2	4	3	4	2	1	4	2	1	2	3	2
1/2	4	3	4	2	1	4	2	1	2	3	2
1/2	4	3	4	2	1	4	2	1	2	3	2

7 WHEAT 7th cereal 8 WHEAT 9th cereal

025 1/2	027	029	031	033	035	037	039	041	043	045	047
1/2	1	2	1	2	3	2	1	2	3	2	3
1/2	1	2	1	2	3	2	1	2	3	2	3
1/2	1	2	1	2	3	2	1	2	3	2	3
1/2	1	2	1	2	3	2	1	2	3	2	3
1/2	1	2	1	2	3	2	1	2	3	2	3
1/2	1	2	1	2	3	2	1	2	3	2	3
1/2	1	2	1	2	3	2	1	2	3	2	3
1/2	1	2	1	2	3	2	1	2	3	2	3
1/2	1	2	1	2	3	2	1	2	3	2	3
1/2	1	2	1	2	3	2	1	2	3	2	3

3 Treatment crops
3rd year
4 WHEAT 3rd Test crop
(2nd cereal)

Kotnamstad LEY-ARABLE 28th Year 76/R/RN/1 HIGHFIELD 1976

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

125	137	139	141	143
1.2	3.4	3.1	2.1	4.1
Ln	G9	A	R9	LW
134	136	138	140	142
4.3	1.2	4.2	4.3	2.3

097	099	101	103	105	107	109	111	113	115	117	119
5.2	3.4	2.1	2.3	1.2	1.3	3.2	3.2	1.2	1.2	4.1	4.3
R9	Ln	Lc	A	G9	LW	A	G9	LW	Lc	R9	Ln
098	100	102	104	106	108	110	112	114	116	118	120
1.4	2.1	3.4	4.1	3.4	4.2	4.1	1.4	3.4	3.4	3.2	2.1

121	123	125	127	129	131
2.4	2.4	2.4	3.2	3.4	4.2
A	Ln	R9	Lc	G9	LW
122	124	126	128	130	132
3.1	1.3	1.3	4.1	1.2	3.1



**12 WHEAT 9th Cereal
Cappelle Sown 22.10.75**

049	051	053	055	057	059
(no cross cultivations)					
FALLOW					
Lu	Lc	G8	Ln	A	R5
061	063	065	067	069	071
2.3	3.4	3.4	1.2	3.4	4.1
Ln	LW	Lc	A	G8	R9
062	064	066	068	070	072
4.1	1.2	2.1	4.3	1.2	2.3

11 WHEAT 7th Cereal

073	075	077	079	081	083
4.3	4.3	2.1	4.2	1.2	3.2
G8	Lc	R9	A	Ln	LW
074	076	078	080	082	084
2.1	2.1	4.3	1.3	3.4	1.4
FALLOW					
Lu	R5	A	G8	Lc	Ln

5 Varieties Portland Crops. #76/c5/169 New treatments to RN, blocks 1-4

001	003	005	007	009	011	013	015	017	019	021	023
G						R	2.3	3.2	2.1	2.1	G
						G	F	D	F	D	C.R
002	004	006	008	010	012	014	016	018	020	022	024

7 WHEAT 8th Cereal

025	027	029	031	033	035	037	039	041	043	045	047
3	2	1	R	G	2	1	R				G
D	F	F	F	D	C.R		C.R				n.c
Lc	A	Ln				LW		H	Ln	Lc	
026	028	030	032	034	036	038	040	042	044	046	048
1.2	3.1	2.3			1.3						
F	D	D	F	D	F	D	F	D	F	D	F

1 Treatment Crops 1st year

OTE: R3, G8 etc. refers to year R&G under 1st arable crop i.e. 1963. 1963 Residuals: F, D None, Durg

3 POTATOES (PWW) 4 Treatment Crops 1st year

1st year

1977

HIGHFIELD

29th Year 77/R/RN/1

LEY-ARABLE

Rothamsted

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

133	135	137	139	141	143
FALLOW					
(Ln)	(G9)	(A)	(R9)	(Ln)	(Lc)

WHEAT (Blocks 2-3):
Coffeale, Test N,
- 1, 2, 3: 0, 50, 100,
150 kg N/ha. Yields
required

WHEAT (Blocks 6, 7, 10):
Coffeale, Control N
(125 kg/ha) No yields
All wheat sown
24/11/76

121	123	125	127	129	131
A	Ln	R3	Lc	G9	Ln
122	124	126	128	130	132
11 WHEAT 8 th Barred					

097	099	101	103	105	107	109	111	113	115	117	119
FALLOW											
(R9)	(Ln)	(Lc)	(A)	(G9)	(Ln)						
A	G9	Ln	Lc	R3	Ln						
110	112	114	116	118	120						
10 WHEAT 8 th Barred											

NEW SEQUENCES (Blocks 5-8):
LU Lucerne no Rother-to,
winter resistant & Verticillium
LC Grass/beans by an tiller to,
fields must not be changed
RG Perennial ryegrass (3 yrs)
RG1 - farm choice of mixed
B Barley, India
O Oats, Mamod
ALL SPRING (1977) SOWN

049	051	053	055	057	059	061	063	065	067	069	071
Lc	Lc	RG1	RG	O	B	Ln	Lc	Lc	A	G9	R9
050	052	054	056	058	060	062	064	066	068	070	072
5 NEW SEQUENCES											

073	075	077	079	081	083	085	087	089	091	093	095
G9	Lc	R9	A	Ln	Ln	Ln	B	O	R67	Lc	RG
074	076	078	080	082	084	086	088	090	092	094	096
7 WHEAT 9 th Barred											

001	003	005	007	009	011	013	015	017	019	021	023
G	R	n.c.	Ln	Sb	Lc	R	2 3	3 2	2 1	2 1	G
002	004	006	008	010	012	014	016	018	020	022	024
2 WHEAT (R.V.W.) 2 nd Test Crop											

025	027	029	031	033	035	037	039	041	043	045	047
- 3	- 2	- 1	R	[G]	2 -	R	R				G
026	028	030	032	034	036	038	040	042	044	046	048
3 WHEAT (R.V.W.) 2 nd Test Crop											

revised
March 1977
incorporating
N left to
blocks 2 & 3

NOTE: R3, G9 etc. refer to year that received (R) or old grass (G) first under arable crop (1963 1969 etc.)
Residuals: F, D, None, Dune

1978

HIGHFIELD

78/R/RN/1

30th Year

LEY-ARABLE

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

CROPPING

133	135	137	139	141	143
RG	RG	O	B	Lu	Lc
134	136	138	140	142	144
(Ln)	(G ₂)	(A)	(R ₉)	(Lu)	(Lc)

WHEAT (Blocks 10,11)
Cappelle, basal N
@ 125 kg/ha. No yields.

NEW SEQUENCES (Blocks 5,8,9,12)
Lu Lucerne, Vertus.

Lc Grass/clover as 1977

RG Perennial ryegrass (3 yrs) as 1977

RG T As R₄ but not ploughed after 3 years

B Barley, Julia
O Oats, Manod
P Potatoes, Pentland Crown

WHEAT (Blocks 2 & 3)

Cappelle, Test N,
-1, 2, 3 : 0, 50, 100, 150 kg N/ha
Yields required

TREATMENT CROPS (Blocks 1,4)

Lu Lucerne
Ln Grass ley
Lc Grass/clover, Ley
O Oats, Manod
R Reseeded grass
G Old grass
[G] Arundo-old grass

121	123	125	127	129	131
A	Ln	R ₃	Lc	G ₉	Lu
122	124	126	128	130	132



097	099	101	103	105	107	109	111	113	115	117	119
B	RG	Lc	O	RG T	Lu	A	G ₉	Lu	Lc	R ₃	Ln
098	100	102	104	106	108	110	112	114	116	118	120

9 NEW SEQUENCES (1ST YEAR) 10 WHEAT 9th Cereal

049	051	053	055	057	059	061	063	065	067	069	071
Lu	Lc	RG T	RG	P	B	FALLOW					
050	052	054	056	058	060	062	064	066	068	070	072

11 WHEAT 9th Cereal

073	075	077	079	081	083	085	087	089	091	093	095
074	076	078	080	082	084	086	088	090	092	094	096

7

5 NEW SEQUENCES (2nd YEAR) 6

001	003	005	007	009	011	013	015	017	019	021	023
G		R				R	2 3	3 2	2 1	2 1 1	G
002	004	006	008	010	012	014	016	018	020	022	024

1 Treatment crops 3rd year 2 WHEAT (P.W.N) 3rd Test Crop

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

3 WHEAT (P.W.N) 3rd Test Crop 4 Treatment Crops 3rd year

NOTE: R₃, G₈ etc refers to year that reseeded (R) and old grass (G) first under arable crop (1963, 1968 etc)
(F), (D) : None, Duing (residual treatments); c, n : None, N & K top dressed in Spring & after each cut except the last

ROTHAMSTED LEY-ARABLE 31st. YEAR 1977 HIGHFIELD 79/R/RN/1

SPONSORS: Blocks 1-4 R.E. Johnson, Blocks 5-12 D.B. Slope

133	135	137	139	141	143	097	099	101	103	105	107	109	111	113	115	117	119
RG	RG	P	B	LU	LC	B	RG	LC	P	RG	LU	FALLOW					
134	136	138	140	142	144	098	100	102	104	106	108	110	112	114	116	118	120
(LN)	(G ₁)	(A)	(R ₁)	(LN)	(LC)	(R ₁)	(LN)	(LC)	(A)	(G ₁)	(LN)	(R)	(G ₁)	(LN)	(LC)	(R ₂)	(LN)

049	051	053	055	057	059	061	063	065	067	069	071	073	075	077	079	081	083	085	087	089	091	093	095
LN	LC	RG	BE	W	RG	LC	O	RG	LU	B	RG	LC	B	O	RG	LU	LN	LN	W	BE	RG	LC	RG
050	052	054	056	058	060	062	064	066	068	070	072	074	076	078	080	082	084	086	088	090	092	094	096
(LN)	(LC)	(G ₁)	(LN)	(R ₁)	(A)	(LN)	(LN)	(LC)	(A)	(G ₁)	(R ₁)	(G ₁)	(LC)	(R ₁)	(R)	(LN)	(LN)	(LN)	(R ₁)	(A)	(G ₁)	(LN)	(LN)

001	003	005	007	009	011	013	015	017	019	021	023	025	027	029	031	033	035	037	039	041	043	045	047	
G	1	R	-	3	1	2	-	-	-	-	G	1	1	R	-	[G]	-	-	1	1	1	1	1	G
002	004	006	008	010	012	014	016	018	020	022	024	026	028	030	032	034	036	038	040	042	044	046	048	
(LN)	(LN)	(A)	(LN)	(LC)	(LN)	(LN)	(LC)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	(LN)	

CROPPING

NEW SEQUENCES (Blocks 5, 6, 7, 8, 9, 12)

- LU Lucerne, Verbas
- LC Grass/Clover
- RG Bromine ryegrass
- RG+ As RG but not ploughed after 3 years
- BE Beam, Maiden
- B Barley, Potatoes
- O Oats, Maiden
- P Potatoes, Penland town (06)
- W wheat, Flanders
- Potatoes (Blocks 1 & 4)
- Penland Crown, Test N
- 1, 2, 3: 0, 30, 60, 240 kgN/ha
- Yields required

TREATMENT CROPS (Blocks 2 & 3)

- LU Lucerne
- LN Grass ley
- LC Grass Clover ley
- H 1st. year hay
- R Reseeded grass
- G Old grass
- [G] Reseeds - old grass

NOTE: R, G, etc. refers to year that sown (R) and old grass (G) first under arable crop (1963 + 1968 etc.) (R, D): none etc. (residual treatments); C, N, None, 1, 2, 3, K by dressed in Spring and after each crop except the last