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Numerical Results of the Field Experiments 1968



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68/B/1 Rothamsted Ley and Arable Rotations

Rothamsted Research

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LEY AND ARABLE ROTATIONS

(HLA and FLA)

Highfield and Fosters Field 1968, the 20th year.

For details of treatments, rotations, etc. see 'Details' and 'Results' 63/B/1, 64/B/1, 65/B/1, 66/B/1 and 67/B/1.

Revised cropping: From 1968 the sequence of test crops has been changed to potatoes, winter wheat, barley. This new sequence started on blocks 6 and 7 (Highfield) and blocks 8 and 9 (Fosters). Apart from blocks 1 - 4 on each field, which are retained in the three year cycles of treatment and test crops, no further treatment sequences will be started. After three test crops, blocks will be sown to winter wheat each year. This scheme started on blocks 5 and 8 (Highfield) and blocks 5 and 7 (Fosters). Apart from blocks 1 - 4 on each field, old and reseeded grass is now ploughed up for test cropping as blocks enter either 1st or 4th test crop phase.

Manures to 1st test crop, potatoes:N to 1/8th plots: None (NO), 0.6 (N1), 1.2 (N2), 1.8 (N3) cwt as
'Nitro-Chalk' shortly before planting.

P205 to 1/16th plots (in cwt):
Sub plots without FYM (F): 1.95 (P0) v 2.85 (P1)
Sub plots with FYM (D): 1.50 (P0) v 2.40 (P1)

NOTE: In 1968 because of an excess application to Fosters Field the rates were revised for both fields as follows:

F sub plots: 2.85 (PO) v 3.75 (P1)

D sub plots: 2.40 (PO) v 3.30 (P1)

K20 to 1/16th plots (in cwt):
 Sub plots without FYM (F): 1.80 (KO) v 2.70 (K1)
 Sub plots with FYM (D): 0.90 (KO) v 1.80 (K1)

FYM to 1/4 plots: None (F) v 12 tons (D) applied on the plough furow and rotary cultivated in. No FYM is applied to the R and G plots coming into potatoes in 1968 and 1969, these plots being treated as F plots.

P and K are applied as superphosphate and muriate of potash except the 'dung equivalent' P and K (0.45 cwt P205 and 0.90 K20) which is compound fertiliser (0:14:28). All are applied on the plough furrow and rotary cultivated in.

Corrective K dressings to 1st test crop potatoes designed to bring the K levels on both fields to that of the Fosters IC plots, were ploughed in as muriate of potash in autumn 1967 as follows (in cwt):-

Rotation	Fosters	Highfield
AH	5.5	6.7
Lu	3.8	4.8
IC	None	0.6
LN	2.9	4.4
RC	None	None
RN	3.5	3.5
GC	None	None
GN	None	3.5

NPK dressings to 4th test crop, winter wheat:-

Basal dressing: 0.9 cwt P205, 0.9 cwt K20 as compound fertiliser (0:20:20) half combine drilled, half by hand.

Test nitrogen to 1/8th plots:

Highfield (all rotations): 0.3 (N1), 0.6 (N2), 0.9 (N3), 1.2 (N4) cwt N as 'Nitro-Chalk' in spring.

Fosters (all rotations): 0.4 (N1), 0.8 (N2), 1.2 (N3), 1.6 (N4) cwt N as 'Nitro-Chalk' in spring.

Varieties:

Potatoes, 1st Test Crop: King Edward
2nd Test Crop: Majestic
Barley, 3rd Test Crop: Maris Badger
Winter wheat, 4th Test Crop: Cappelle
Sugar Beet, 2nd Treatment Crop: Klein E
Dats, 3rd Treatment Crop: Manod

NOTE: Highfield: The fourth test crop wheat was severely attacked by take-all (Ophiobolus graminis) on both blocks, especially wheat after lucerne and arable rotations. The wheat on the 2 plots ploughed in autumn 1967 from old grass was badly damaged by wireworms (Agriotes spp.), wheat flea beetle larvae (genus Phyllotreta), and unidentified stem boring larvae.

HIGHFIELD

2nd year Treatment Crops:

All-grass ley: Basal PK compound applied: 20 Nov, 1967. NK compound applied: 28 Mar, 1968. Cut four times: 23 May, 26 June, 12 Aug, 25 Oct. NK compound applied after first three cuts.

Clover-grass ley: Basal PK compound applied: 20 Nov, 1967. Muriate of potash applied: 29 Mar, 1968. Cut four times: 24 May, 26 June, 12 Aug, 25 Oct. Muriate of potash applied after first three cuts. Lucerne: Basal PK compound applied: 20 Nov, 1967. Sprayed with

paraquat at 2 lb ion in 37 gals: 22 Jan, 1968. Cut four times: 30 May, 4 July, 29 Aug, 28 Oct.

Sugar beet: Ploughed: 25 July, 1967. Ploughed second time:
18 Sept. Muriate of potash applied: 4 Jan, 1968. Basal NPK
compound applied: 11 Mar. 'Nitro-Chalk' applied: 27 Mar. Seed
drilled at 8 lb: 29 Mar. Singled: 21 May. Sprayed with demetons-metyl at 7 oz in 37 gals: 12 June, Lifted: 12 Dec.

3rd year Treatment Crops:

- All-grass ley: Basal PK compound applied: 20 Nov, 1967. NK compound applied: 28 Mar, 1968. Cut four times: 23 May, 26 June, 12 Aug, 25 Oct. NK compound applied after first three cuts.
- Clover-grass ley: Basal PK compound applied: 20 Nov, 1967. Muriate of potash applied: 29 Mar, 1968. Cut four times: 23 May, 26 June, 12 Aug, 25 Oct. Muriate of potash applied after first three cuts.
- Lucerne: Basal PK compound applied: 20 Nov, 1967. Sprayed with paraquat at 2 lb ion in 37 gals: 22 Jan, 1968, at 0.9 lb ion in 37 gals: 12 July, at 0.75 lb ion in 20 gals: 10 Sept. Cut three times: 30 May, 4 July, 29 Aug.

Oats: Ploughed: 22 Nov, 1967. Seed combine drilled at 160 lb: 8 Mar, 1968. 'Nitro-Chalk' applied: 14 Mar. Combine harvested: 23 Aug.

1st Test Crop, Potatoes:-

Corrective K applied: 14 Nov, 1967. Ploughed: 20 Nov. All fertilizers applied: 1 - 10 Apr, 1968. FYM applied: 16 Apr. All plots following reseeded and permanent grass sprayed with aldrin at 3 lb in 37 gals, all plots rotary cultivated, potatoes machine planted: 17 Apr. Sprayed with paraquat at 0.5 lb ion plus linuron at 0.75 lb in 40 gals: 6 May. Grubbed: 6 June. Rotary ridged: 7 June. Sprayed with mancozeb three times at 1.2 lb in 37 gals, the second time including demeton-s-methyl at 3.5 oz: 3 July, 19 July, 5 Aug. Sprayed with undiluted BOV at 15 gals: 30 Aug. Lifted: 24 Sept.

2nd Test Crop, Potatoes:
FYM applied: 30 Oct, 1967. Ploughed: 31 Oct. NPK fertilisers applied: 4 - 9 Apr, 1968. Rotary cultivated, potatoes machine planted: 10 Apr. Sprayed with paraquat at 0.38 lb ion plus linuron at 0.75 lb in 33 gals: 3 May. Grubbed: 6 June. Rotary ridged: 12 June. Sprayed with mancozeb three times at 1.2 lb in 37 gals, the second time including demeton-s-methyl at 3.5 oz: 3 July, 19 July, 5 Aug. Sprayed with undiluted BOV at 15 gals: 30 Aug. Lifted: 25 Sept.

3rd Test Crop, Barley:Ground chalk applied, plots ploughed: 29 Sept, 1967. Seed combine drilled at 140 lb: 27 Feb, 1968. 'Nitro-Chalk' applied:
14 Mar. Sprayed with mecoprop at 42 oz and 2,4-D at 10.5 oz in 40 gals: 2 May. Combine harvested: 21 Aug.

4th Test Crop, Wheat:Ploughed: 30 Sept, 1967. Seed combine drilled at 180 lb: 23 Oct.
Remaining half of basal PK compound applied by hand: 4 Dec.
'Nitro-Chalk' applied: 17 - 23 Apr, 1968. Sprayed with mecoprop at 42 oz and 2,4-D at 10.5 oz in 40 gals: 2 May. Combine harvested: 24 Aug.

Permanent grasses: 18th and 20th experimental years permanent (old) grass, blocks 1, 2, 4, 9, 10, 11, 12, 18th and 20th years reseeded grass, blocks 1, 4, 9 and 12. Ground chalk applied to blocks 9 and 12: 29 Sept, 1967. Basal PK compound applied: 20 Nov. NK compound applied to 'all grass' half plots, muriate of potash to 'clover grass' half plots: 28 Mar, 1968. Cut five times (except blocks 9 and 12 four times): 23 May, 26 June, 12 Aug, 5 Sept and (except blocks 9 and 12) 25 Oct. NK compound and muriate of potash applied to appropriate half plots after each cut except the last (4 and 3 applications respectively).

FOSTERS

2nd year Treatment Crops:-

All-grass ley: Basal PK compound applied: 20 Nov, 1967. NK compound applied: 28 Mar, 1968. Cut four times: 23 May, 1 July, 12 Aug, 25 Oct. NK compound applied after first three cuts.

Clover-grass ley: Basal PK compound applied: 20 Nov, 1967. Muriate of potash applied: 28 Mar, 1968. Cut four times: 23 May, 1 July, 12 Aug, 25 Oct. Muriate of potash applied after first three cuts.

Lucerne: Basal PK compound applied: 20 Nov, 1967. Sprayed with paraquat at 2 lb ion in 37 gals: 22 Jan, 1968. Cut four times: 30 May, 4 July, 30 Aug, 28 Oct.

Sugar beet: Ploughed: 25 July, 1967. Ploughed second time: 18 Sept.
Muriate of potash applied: 4 Jan, 1968. Basal NPK compound applied:
11 Mar. 'Nitro-Chalk' applied: 27 Mar. Seed drilled at 8 lb:
29 Mar. Singled: 23 May - 4 June. Sprayed with demeton-s-methyl
at 7 oz in 37 gals: 12 June. Lifted: 12 Dec.

3rd year Treatment Crops:-

All-grass ley: Basal PK compound applied: 20 Nov, 1967. NK compound applied: 28 Mar, 1968. Cut four times: 23 May, 1 July, 12 Aug, 25 Oct. NK compound applied after first three cuts.

Clover-grass ley: Basal PK compound applied: 20 Nov, 1967. Muriate of potash applied: 28 Mar, 1968. Cut four times: 23 May, 1 July, 12 Aug, 25 Oct. Muriate of potash applied after first three cuts.

Lucerne: Basal PK compound applied: 20 Nov, 1967. Sprayed with paraquat at 2 lb ion in 37 gals: 22 Jan, 1968, at 0.9 lb ion in 37 gals: 9 July, at 0.75 lb ion in 20 gals: 30 Aug. Cut three times: 30 May, 4 July, 30 Aug.

Oats: Ploughed: 22 Nov, 1967. Seed combine drilled at 160 lb: 8 Mar, 1968. 'Nitro-Chalk' applied: 14 Mar. Combine harvested: 24 Aug.

1st Test Crop, Potatoes:Corrective K applied: 14 Nov, 1967. Ploughed: 17 Nov. Superphosphate
and muriate of potash applied: 1 Apr, 1968. Superphosphate
applied: 4 Apr. Dung equivalent PK compound, 'NitroChalk', superphosphate and muriate of potash applied:
10 Apr. FYM applied, rotary cultivated, potatoes machine planted:
16 Apr. Sprayed with paraquat at 0.5 lb ion plus linuron at 0.75
lb in 40 gals: 6 May. Grubbed: 6 June. Rotary ridged: 7 June.
Sprayed with mancozeb three times at 1.2 lb in 37 gals, the
second time including demeton-s-methyl at 3.5 oz: 3 July, 19 July,
5 Aug. Sprayed with undiluted BOV at 15 gals: 30 Aug. Lifted:
24 Sept.

NOTE: Aldrin was not applied on Fosters.

2nd Test Crop, Potatoes:
FYM applied, plots ploughed: 30 Oct, 1967. NPK fertilisers applied:
4 - 9 Apr, 1968. Rotary cultivated, potatoes machine planted:
10 Apr. Sprayed with paraquat at 0.38 lb ion plus linuron at
0.75 lb in 33 gals: 3 May. Grubbed: 6 June. Rotary ridged:
12 June. Sprayed with mancozeb three times at 1.2 lb in 37 gals,
the second time including demeton-s-methyl at 3.5 oz: 3 July,
19 July, 5 Aug. Sprayed with undiluted BOV at 15 gals:
30 Aug. Lifted: 27 Sept.

3rd Test Crop, Barley:Ploughed: 25 Sept, 1967. Seed combine drilled at 140 lb:
27 Feb, 1968. 'Nitro-Chalk' applied: 14 Mar. Sprayed with
mecoprop at 42 oz and 2,4-D at 10.5 oz in 40 gals: 2 May.
Combine harvested: 21 Aug.

4th Test Crop, Wheat:Ploughed: 18 Sept, 1967. Seed combine drilled at 180 Lb:
19 Oct. Remaining half of basal PK compound applied by hand:
4 Dec. 'Nitro-Chalk' applied: 17 Apr. Sprayed with mecoprop
at 42 oz and 2,4-D at 10.5 oz in 40 gals: 2 May. Combine
harvested: 24 Aug.

Permanent grasses:-

18th and 20th year reseeded grass, blocks 1, 3, 6 and 11. Basal PK compound applied: 20 Nov, 1967. NK compound applied to 'all-grass' half plots and muriate of potash to 'clover-grass' half plots: 28 Mar, 1968. Cut five times: 23 May, 26 June, 12 Aug, 5 Sept, 25 Oct. NK compound and muriate of potash applied to appropriate half plots after each cut except the last. (N.B. Plots on blocks 6 and 11 were ploughed up before the fifth cut was taken).

Standard errors per plot.

Potatoes: 2nd Test Crop. Total tubers:

Highfield: Sub plot: 1.137 or 6.9% (12 d.f.)
Fosters: Sub plot: 0.853 or 5.6% (12 d.f.)

SUMMARY OF RESULTS

WHEAT 4TH TEST CROP

1962 - 1964

	Lu	IC	LN	AH	R	Mean	G
			GRAIN				
		1	HIGHFIEL	D		The second	
Mean	24.6	34.0	33.8	28.6	35.6	31.3	25.2
1968 NO N1 N2 N3	21.1 24.2 26.5 26.5	36.6 33.4 32.9 33.0	34.8 34.3 33.0 33.1	25.0 28.8 29.8 30.9	37.4 36.7 34.5 33.7	31.0 31.5 31.3 31.5	24.3 27.4 23.2 25.8
1966 F D	25.6 23.6	32.6 35.3	34.6 33.0	30.2 27.0	35.3 35.8	31.7	
General mean: General mean D.M.	30. %: 84.						
			FOSTERS	188			
Mean	40.4	39.7	40.0	37.9	40.3	39.7	
1968 NO N1 N2 N3	38.9 42.4 41.1 39.2	42.3 40.3 40.6 35.5	41.0 43.3 37.0 38.8	37.9 39.5 38.0 36.0	43.1 41.7 38.7 37.8	40.6 41.4 39.1 37.5	
1966	39.8	40.7	39.6	38.5 37.2	40.3	39.8 39.5	

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In addition to basal

			Mean	20.20		21.94	20.44	20.42	17.99	20,18	20.21	20.29	20,10
			GN	19.21		22.73	17.76	19.12	17.24	18,84	19.59	19.19	19.54
			25	20.64		20.92	21.46	21.46	18.73	20.67	20:62	20.89	20.40
IRS			RIN	20.65		22,19	21,11	21.65	17.60	21.22	20.09	20.91	20.39
TOTAL TUBERS			PC .	20.28		21.93	21.41	19.45	18,32	20.01	20.54	20.17	20,38
	1965 - 1967	HIGHFIELD	Mean	18,98	18.90	18.92	19.55	18.81	18,63	19.14	18.81	19.06	18,89
POTATOES 1ST TEST CROP.	1965	HIC	AH	19.72	18.88	16.43	20.27	20.91	21.28	19.87	19.58	19.72	19.72
OTATOES			LN	18.85	19.02	19.72	18,88	18,53	18.28	18,78	18,93	19.10	18.61
щ			23	18,50	18.79	19.65	18.90	18,06	17.41	18,93	18.07	18.82	18.18
			Lu	18.83	18.93	19.89	20,16	17.72	17.54	19.00	18.65	18,61	19.04
			11	Mean	EΑ	NO	IN	NS	N3	*04	P1*	KO*	**

1965 - 1967 HIGHFIELD REAL Mean RC RN GC 92.7 92.1 92.8 92.4 91.9 91.8 92.3 88.7 92.0 92.1 92.7 90.9 92.9 93.7 92.6 93.1 92.9 92.4 92.4 92.4 92.4 92.4 92.4 92.4		92.6 91.7 92.3 92.3 92.3 92.3	
1965 - 1967 HIGHFIELD P2.7 92.1 92.8 92.4 92.3 88.7 92.0 92.1 92.9 92.7 92.6 93.1 92.9 92.7 92.0 92.1 92.9 92.7 92.0 92.1 92.9 92.6 93.1 92.9 92.6 93.0 92.1 92.5 92.6 93.0 93.1			
1965 - 1967 HIGHFIELD HIGHFIELD 92.7 92.1 92.8 92.0 92.9 92.9 92.9 93.3 92.9 93.3 92.9 92.9	91.9 92.7 92.4 91.0	91.3	
28.28.28.38.40.70.40.40.40.40.40.40.40.40.40.40.40.40.40	% % % % % % % % % % % % % % % % % % %	93.1 93.1	
28.28.28.38.40.73.28.28.28.28.29.28.29.29.29.29.29.29.29.29.29.29.29.29.29.	Mean Mean 92.8 92.0 92.0 93.1 93.3 92.9	83 83.0	
	AH 92.2 91.9 92.6 93.7 93.3	92.0 92.6 91.6	
2. 2. 2. 2. 2. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	1.N 93.0 92.7 92.9 92.9 92.9		
1 8 88 9888 88 3	93.8 93.8 93.8 93.8)* 92.8 93.9 92.6 94.1 .* 93.0 93.3 In addition to basal	
92.8 92.9 92.9 92.8 92.8 92.8 92.6 93.0	92.8 93.0 92.9 92.9 92.9	92.8 92.6 93.0	

POTATOES 1ST TEST CROP. TOTAL TUBERS 1965 - 1967

FOSTERS

	Lu	IC	LN	HA	Mean	RC	RN	Mean
Mean	18.74	19.44	20.31	18.13	19.15	19.22	20.21	19.71
F D	18.98 18.49		19.92 20.71	17.21 19.04	18.62 19.69			
NO N1 N2 N3	18.06 19.91 18.60 18.38	20.28	19.78 20.82 20.53 20.12	18.35	17.81 19.76 19.86 19.19	21.03 19.53 18.89 17.41	22.09 20.23 20.33 18.18	21.56 19.88 19.61 17.80
PO* P1*	18.54 18.93	19.49 19.39	20.51 20.12	18.12 18.13	19.16 19.14	19.23 19.20	20.12	19.68 19.75
KO* Kl*	18.65 18.82		20.56		19.29 19.02	19.89 18.54	20.26	20.08 19.35

^{*} In addition to basal

POTATOES 1ST TEST CROP. % WARE

1965 - 1967

FOSTERS

	Lu	rc	LN	HA	Mean	RC	RN	Mean
Mean	93.0	94.3	93.3	92.2	93.2	92.5	93.0	92.8
F D	93.2 92.8	94.6 94.0	93.4 93.2	91.8 92.6	93.3 93.2			
NO	93.5	94.6	93.4	88.2	92.4	93.5	93.3	93.4
N1	93.1	94.1	93.2	92.8	93.3	93.6	93.7	93.6
N2	93.3	94.9	93.1	93.7	93.7	92.1	93.2	92.6
N3	92.2	93.8	93.6	94.2	93.4	91.0	92.1	91.5
PO*	92.9	93.9	93.2	92.4	93 . 1	92.1	92.7	92.4
P1*	93.1	94.8	93.5	92.0	93 . 3	92.9	93.3	93.1
KO*	93.0	94.4	93.6	92.4	93.3	92.2	93.1	92.6
K1*	93.0		93.0	92.0	93.1	92.9	93.0	92.9

^{*} In addition to basal

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POTATOES 2ND TEST CROP. TOTAL TUBERS

1964 - 1966

	Lu	Lu LC LN	LN	AH	Mean	
	-n-26 25	HIGHFI	ELD		11.3	
Mean	16.68	16.11	16.78	16.16	16.43	
1		(±0.	568)		(±0.284)	
F D	16.87 16.49	15.92 16.31	15.96	15.92 16.40	16.17 16.70	
To wheat 1	1967					
1	1,615,76	(±0.5			(±0.284)	
NO2	15.89 17.47	15.81 16.42	16.65 16.91	15.82 16.49	16.04 16.82	
		FOSTER	S		25	
Mean	15.47	14.63	15.66	14.85	15.15	
	P. 30 0.50	(±0.	426)*	2.79	(±0.213)	
F	15.19	15.15	15.49	14.19	15.01	
D	15.76	14.12	15.83	15.50	15.30	
To wheat 1	.967					
- 1	4	(±0.4	26)*		(±0.213)	
N13	15.14 15.81	14.45	1 5.79 15.52	15.05 14.64	15.11 15.20	
				1		

^{*} For use in vertical and interaction comparisons

68/B/1.13

POTATOES 2ND TEST CROP. % WARE

1964 - 1966

Lu	IC	LN	AH	Mean
	HIGHFI	ELD		
95.5	95.6	95.2	96.0	95.6
95.8 95.2	95.8 95.5	94.9 95.4	96.8 95.3	95.8 95.4
95.3 95.6	95.8 95.5	95.0 95.3	96.6 95.5	95•7 95•5
	FOSTER	S		
96.3	96.8	96.7	97.1	96.7
96.1 96.4	96.8 96.7	97.2 96.2	97 . 2 96 . 9	96.9 96.5
96.2 96.3	96.4 97.1	96.7 96.7	97.4 96.7	96.7 96.7
	95.5 95.8 95.2 95.3 95.6 96.3 96.1 96.4	HIGHFI 95.5 95.6 95.8 95.8 95.2 95.5 95.3 95.8 95.6 95.5 FOSTER 96.3 96.8 96.1 96.8 96.1 96.8 96.7	HIGHFIELD 95.5 95.6 95.2 95.8 95.8 94.9 95.2 95.5 95.4 95.3 95.8 95.0 95.6 95.5 95.3 FOSTERS 96.3 96.8 96.7 96.1 96.8 97.2 96.4 96.7 96.2	HIGHFIELD 95.5 95.6 95.2 96.0 95.8 95.8 94.9 96.8 95.2 95.5 95.4 95.3 95.3 95.8 95.0 96.6 95.6 95.5 95.3 95.5 FOSTERS 96.3 96.8 96.7 97.1 96.1 96.8 97.2 97.2 96.4 96.7 96.2 96.9

BARLEY 3RD TEST CROP

GRAIN

1963 - 1965

		Lu	IC	LN	AH	Mean
	14.00	0.88	HIGHFI	ELD	£.34	250
Mean	8.50	40.3	41.9	41.0	38.4	40.4
1968 NO N1 N2 N3	7 80	37.2 40.8 41.5 41.8	41.2 42.0 43.4 41.0	40.8 39.6 41.4 42.4	34.1 37.0 41.1 41.5	38.3 39.8 41.9 41.7
1967 F D	Y de	39.0 41.7	41.5 42.3	41.0 41.1	38.4 38.4	40.0 40.9
	95.6		Exclud	ding AH		
1967		NO	N1	N2	и3	Mean
F D	132	38.4 41.0	39.8 41.8	41.1 43.1	42.6 40.9	40.5 4 1. 7

Mean D.M. %: 83.2

BARLEY 3RD TEST CROP

GRAIN

1963 - 1965

	Lu	IC	LN	AH	Mean
		FOSTER	S		
Mean	38.4	37.1	37.8	35.9	37.3
1968 NO N1 N2 N3 N4	32.7 39.0 41.1 40.7	34.4 36.4 40.0 37.7	33.3 38.6 39.4 39.9	28.9 37.4 39.1 38.1	32.3 39.5 39.4
1967 F D	37.8 39.0	36.9 37.4	36.8 38.7	35•3 36•4	36.7 37.9
		Exclu	ding AH		
		19	68		
1967	NO	Nl	N2	N3	Mean
F D	31.7 35.2	37 .1 38 . 8	39.9 40.5	39 . 9 39 . 0	37.2 38.4

Mean D.M. %: 80.1

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TREATMENT CROPS ARABLE AND HAY ROTATION

	HI	GHFIELI)				F	OSTERS			
AH		R	-	Mean		AH		R		Mean	
					SUGAF	R BEET					
			,		ROC	TS					
22.62		23.95	9.85	23.28	3,55	21.99		22.16		22.08	
			- 49		SUGA	IR %			o Tologi		
15.3		14.8		15.0		15.8		15.3		15.5	
					TOTAL	SUGAR			•		
69.1		70.8		69.9		69.5		67.8		68.6	
					TC	PS					
17.85		22.05		19.95	22.	18.21		22.69		20.45	
					0.0	TS					
					GRA						
31.5		37.0	1	34.2		39.2		40.2	1	20.7	
31.7		31.0		34.2		39.2		40.2	110	39.7	
Mean 1	D.M. %	: Oats,	grai		field	: 82.5 81.4					

LUCERNE: DRY MATTER

	HIGHFIELD			FOSTERS			
	F	D	Mean	F	D	Mean	
2nd year (4 cuts)	63.9	68.2	66.0	83.5	87.3	85.4	
3rd year (3 cuts)	30.1	26.4	28.2	40.5	40.6	40.5	

ALL-GRASS LEY: DRY MATTER

	HIGHFIELD			FOSTERS			
	F	D	Mean	F	D	Mean	
2nd year (4 cuts)	100.9	99.0	99.9	101.5	100.3	100.9	
3rd year (4 cuts)	94.9	97.0	96.0	103.2	109.7	106.4	

CLOVER-GRASS LEY: DRY MATTER

	HIGHFIELD			FOSTERS			
	F	D	Mean	F	D	Mean	
2nd year (4 cuts)	69.8	72.0	70.9	74.9	77.5	76.2	
3rd year (4 cuts)	50.6	53.4	52.0	57.6	57.3	57•5	

PERMANENT GRASS: DRY MATTER

- 86.50	GC	GN	Mean
	HIGH	FIELD	
18th Exptl year Blocks 9 and 12 Blocks 10 and 11	35•5 38•8	95.2 109.3	65.4 74.0
20th Exptl year Blocks 1 and 4 Block 2	41.2 39.3	102.6	71.9 73.5

RESEEDED GRASS: DRY MATTER

HIGHFIELD				FOSTERS				
	RC	RN	Mean		RC	RN	Mean	
18th Exptl year Blocks 9 and 12	39.4	97.0	68.2	18th Exptl year Blocks 6 and 11	51.7	85.8	68.8	
20th Exptl year Blocks 1 and 4	51.4	99.4	75.4	20th Exptl year Blocks 1 and 3	56.6	100.3	78.5	

(GC, RC) Clover-grass management (GN, RN) All-grass management