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## Collection of Plans for the Highfield Ley-arable Experiment



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## Highfield Ley-arable 1949-59

## **Rothamsted Research**

Rothamsted Research (1949-1990)  $High field \ Ley-arable \ 1949-59$ ; Collection Of Plans For The High field Ley-Arable Experiment, pp 1 - 11

HIGHFIELD 1949 Ist Preliminary year	2 Z Z S	22 Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	A) (Lu) (G) Dell (L) (A) (Cg) (R) (G) (Lu) (Lu) (R) (A) (Cg) (L) (G) (G) (G) (G) (G) (G) (G) (G) (G) (G		Symbol Crop as nitrochalk Basal dressing  NI N2 per acre	W Wheat 0.3 0.6 0.2 cwt. P <sub>2</sub> O <sub>5</sub> combine drilled with seed	H Seeds hay 0.3 0.6 0.15 cwt. P <sub>2</sub> O <sub>5</sub> , 0.15 cwt. K <sub>2</sub> O	Cgl 1st year 0.15 (i) 0.3 0.6 cwt. P <sub>2</sub> O <sub>5</sub> , 0.6 cwt. K <sub>2</sub> O cut grass	30 33400	grazed ley.	R Reseeded 0.075(ii) 0.15 0.3 cwt, $P_2O_5$ , 0.3 cwt. $K_2O_5$ 0.10 grass 0.075(ii) 0.15 0.3 cwt, $P_2O_5$ , 0.3 cwt, $R_2O_5$	Lul 1st year 0.6 cwt. P <sub>2</sub> O <sub>5</sub> , 0.6 cwt. K <sub>2</sub> O	(1) 1st dressing of NI and N2 in spring. Repeated dressings of NI and N2 at the same rates. After 1st cut	and N2 in spring. A second drester in summer at the same
TI ROTATIONS EXPERIMENT	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	2 Z - 2 Z -	(R) (L) (C <sub>9</sub> ) (A		1 cut then fallowed 1 or mare cuts 3 or 4 cuts	×	sith :	Sheep	Test crops		Wheat. Potatoes	Barley		d notebooks
AND ARABLE	= \( \omega \) Z - \( \cdots \) \( \alpha \) Z \( \cdots \) \( \cdots \) \( \alpha \) \( \cdots	≥ Ω Z N ≥ Ω Z N ≥ Ω Z N ○ □ Z − ∞ Ω Z N ○ □ Z N ○ □ Z N	(Lu) (R) (Cg) (A) (L)	Wheat	H Seeds hay  Lul 1st year lucerne  Cal 1st year cut grass		Reseeded grass		s Treatment crops	Hay, Potatoes, Barley	ist yr, 2nd yr, 3rd yr lucerne	ist yr, 2nd yr, 3rd yr cut grass	Ist yr, 2nd yr, 3rd yr grazed ley	4 plot = 0.02205 acre 4 For harvested areas see field
LEY	Present Crosp	ZN	Rotation (G)	Tent crop	Treatment		Permanent	Grass	Rotations	(A)	(rn)	(c <sub>g</sub> )	(4)	7.4 1℃

2nd year		1	σ Z –	a Z N	ا ﴿	d Z -	₹ Z N	G) Rotation
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1950		= (	0 5 Z -	2 Z N	(O) 00 Q	O Z N O	$\frac{1}{4} \frac{\Omega}{\nabla} \frac{Z}{Z} - \frac{1}{\Omega}$	(6)
	£	Block	I & Z N	δ Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z		Δ Z N D	д Z — О	(A) (Cg)
Z			α 5 Z N	8 Z –	_	2 Z N	9 Z -	(g
			es es	98		A Z A	0 Z O	(10)
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		:	Δ Z -	Ф Z И	15	E ZN	# Z -	(0)
		0	× D Z N	o Z n	×	- Z - Z Ω	≥ Z ∨	(Gg) (R)
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			υ	4 Z V		% Z Λ	<sup>3</sup> Z Λ Δ	10
Q F N					1			]~
EXPERIMENT			0 5 Z -	β Z N	(G) (R)			
HIGHFIELD AS EXPERIMEI			≥				. 70	ات
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0			≥ 3 0 Z N	2 Z -	الد	Δ Z N	Δ Z N Ω Ω Z - Ω	-
T NO			≥ 3 0 Z - Z -	2 Z U	(g) (g		Δ Z –	(Cg) (A)
ROTATIONS			α ° Ζ Ν	3 Z -	2	ν Z α	₂ Z -	(3)
ROT			I D Z V	8 D Z -	1	z z N	4 <b>Z</b> –	(R)
		1	2 Z N	Δ Z N	(G) (Cg) Block 5	0 2 11 0	2 Z - Q	(5)
ARABLE			O & ZN	2 Z V	1	O Z - D	Δ Z N Ω σ Z –	(A)
AR		22	24 13 : 7 -	0,000	(Lu) (L)	0 2 - 0	Δ Z N Ω	(R) (Cg)
9		Block 12	-[-		,		ο Z N	
AND					٥		N ZN	(G) (Lu)
LEY							4 5 <sup>2</sup> 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<b>,</b>
				×				
			1					

Year	Grap	Rotation	Present	1	S D	Rotation	Present		
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m	0 2 ZN 2 Z-	9	21	2 c N	ţ c -	3	0 Z N	Q Z N Q	3
951	D Z N D Z N		0	z -	g Z N	(G 00)	O Z N		(g) x0
6	α z N % Z -	R) (L Block	P 2	ם ב מ ס	» Ф С - Ф	(A) Block	DZN		Block
7	DZN , DZN		α.	7 0	* Z -	(R) (	TO ZN	9 Z - 0	(8)
+	ΔZ-	8	Lu 2		38	-	DZN	DZNO	
	₹ o ZN oZN	٦٥	2	DZNO		a) (to	0 Z -	* o z - 0	(Lu)
	ΔZ- ΔZN	Tage T	4	0 Z N	2 Z - Q	) (re	370	e e	(Lu)
	≥ 0 Z - 0 Z N	(C9	0 5	" 0 Z -	OZN	<b>6</b> 0	SE ZN	\$ Z-	3 (6
	<u>α</u> ½ Z –	0 (R	0.	D Z N	2 Z Z Q	CK 7	æ z −	2 Z N	(Cg) (R) Block
	≥ 0 Z N		2R	ZN	° Z -	(R) (Block	369	0 CN.	2 2
	≥ 2 Z U	(Lu) (I Block	م	ΔZ-Q	Δ Z O O	5	80 G C -	€ N 2 0 % €	3
	<u>0</u>	(0)	26	z -	z Z N	(0)	15 E S	3 c-	(7)
F 2	≥ Z → DZN	€	2	7 0	2 Z -	E E			
MEN	3 9	3	2	ZN		(6)		ks cross	
=	(0) 4 7 0) 9 -	-	26	Z Z N O	2 Z N	₹°9			7 .5
PEF	0 - 0 -	0) 6	9	0 Z - 0	8 0 Z - 0	S X	0 % Z-	1 Z N	(6)
X -		(L) (A Biock	9	DZN	OZNO	90	310	23	3
S	7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		۵	D Z N D	2 Z - O	3)	0 0 0 0	a b n n n n n (d) (d) (d)	34
O	2 20 00 300	2	9	0 Z - O	D Z N O	8	0 0 0 0 0	D C -	(Cg) (J
ATI	<u>α</u> , z- , , zα	<u> </u>	28	ZN	8 Z -	(8)	F = C N	2 -	3
ROTATIONS			0	0 C - D.	р с N р		a z N	1 Z -	(R)
α _			209	0 C C	10 6 -	S	DZ-	2 Z N	3
LE	J €0 1 €-	73			; z -	G) (G)	D Z N	DZNO	( <b>4</b> )
ARABLE		-	21	· c -	3 6 0	3	0 Z -	0 Z -	-
AR		(S)	260 2	1.	9.	(07)	1000		(R) (Cg) Block
0 0	Z- 2 ZO	(A) (R) Block	٧L	- 8 n	7	75	A Z N	, Z N	-
LEY AND	T 2 0 C 8 0 C 0			on treatment crops on test crops (W.P.B)	duals		OZN	Q 0 Z -	(3)
0	0 4 c 0 4 c 0	9)		tes (w)	(D) residua 1950 dung atments		0 Z -	~ ZN	9
LEY	ρ. α c	3		n,d on treatment crops N,D on test crop (W,P,B)	(d) (D) residuals of 1950 dung treatments			S. S. S.	
				č ž	9 5 E	Try .	-/-	25 2	et in
<b>A</b>	-	0			~		T	1	
		() A			. 7	-1	A W	1	1

Code Light	Y AND ARABLE         ROTATIONS         EXPERIMENT         — HIGHFIELD         — 1952         4th y           10iter P         26 P 2R 2Lu 2L         2 R 2C9 2L P 26 2Lu P 26 P P 2R P P 2R P 26 R         131 R3	N N N N N N N N N N N N N N N N N N N	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	SS 55 57 59 61 65 65 67 67 7 7 7 7 7 85 87 89 99 93 87 87 87 87 87 87 89 87 89 89 89 89 89 89 89 89 89 89 89 89 89	Z	Lu   R   C2   H   L   R   W   W   W   G   W   W   R   G   W   Lu   R   H   C2   L   G   G   W   W   R   G   W   Lu   R   H   C2   L   G   G   G   W   W   G   W   W   G   W   W	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	J 24 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Basal PK. All rotations and permanent grass: 13 cmt/a Superphosphate 4 cmt/a murate of potash spread over 6 years. (Equivalent to Salvin Calcuin cathonale applied once in 6 years before test tran hardon
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