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Numerical Results of the Field Experiments 1970

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70/R/CS/10 and 70/W/CS/10 - Barley

Rothamsted Research

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LONG TERM LIMING

(70/R/CS/10 and 70/W/CS/10)

Rothamsted Sawyers I (R) and Woburn Stackyard Series C (W) -
the ninth year, barley.

For treatments and previous years' results see 'Details' 1967
and 'Results' 67/C/3, 68/C/3 and 69/R&W/CS/10.

Design: 2 randomised blocks of 16 plots.

Area of each plot: 0.0289. Area harvested: Sawyers I (R): 0.0127.
Stackyard Series C (W): 0.0128.

Treatments: All combinations of:-

1. Ground chalk (tons) applied 1962 - 3

	Sawyers I (R)	Stackyard Series C (W)
CA0	0	0
CA2	2	2
CA4	4	4.75
CA8	8	7.5

2. P: None (P0), 0.5 (P1) cwt P₂O₅ as superphosphate.

3. K: None (K0), 1.0 (K1) cwt K₂O as muriate of potash.

Basal applications:

Sawyers I (R): 0.75 cwt N as 'Nitro-Chalk' combine drilled.
Weedkiller: 2,4-D at 0.5 lb and dichlorprop at 2 lb in
20 gals.

Stackyard Series C (W): 1.0 cwt N as 'Nitro-Chalk' broadcast
before planting. Weedkiller: Ioxynil at 7.5 oz and mecoprop
at 22.5 oz in 25 gals.

Cultivations, etc.:

Sawyers I (R): Ploughed: 30 Dec, 1969. P and K applied:
26 Mar, 1970. Seed combine drilled at 140 lb: 28 Mar.
Weedkiller applied: 18 May. Combine harvested: 15 Aug.
Variety: Julia.

Stackyard Series C (W): Ploughed: 30 Oct - 8 Nov, 1969. N
applied: 25 Mar, 1970. Seed drilled at 135 lb, P and K
applied: 26 Mar. Weedkiller applied: 18 May. Combine
harvested: 12 Aug. Variety: Julia.

NOTE: On Sawyers I (R) the yields on the CA0 plots were very small
and have been omitted from the analysis.

70/R&I/CS/10

Standard errors per plot. Grain, cwt:

Sawyers I (R): 4.62 or 17.2% (11 d.f.)

Stackyard C (W): 2.09 or 7.7% (15 d.f.)

70/R&W/CS/10

SUMMARY OF RESULTS

SAWYERS I (R)

GRAIN: CWT

	CA2	CA4	CA8	Mean		
Mean (± 1.63)	22.8	29.0	28.6	26.8		
		(± 2.31)		(± 1.33)		
PO	20.1	26.9	27.3	24.7		
PI	25.6	31.1	29.8	28.8		
KO	20.6	27.3	28.2	25.4		
KI	25.1	30.7	28.9	28.2		
	PO	PI				
	(± 1.88)					
KO	23.6	27.2				
KI	25.9	30.5				
	CA2	CA4	CA8			
	KO	KI	KO	KI		
	(± 3.27)					
PO	20.1	20.1	24.3	29.5	26.3	28.3
PI	21.2	30.1	30.4	31.9	30.1	29.5
	CAO Plots					
	PO	PI			Mean	
KO	2.1	2.2			2.1	
KI	0.3	5.2			2.7	
Mean	1.2	3.7			2.4	

General mean: 20.7
 Mean D.M. % (all plots): 83.2

70/R&W/CS/10

SAWYERS I (R)

STRAW: CWT

	CA2	CA4	CA8	Mean
Mean	9.2	11.4	12.1	10.9
PO	7.7	10.1	10.8	9.5
PI	10.8	12.7	13.4	12.3
KO	7.6	10.1	11.3	9.7
KI	10.9	12.7	13.0	12.2

	PO	PI
KO	8.6	10.7
KI	10.4	13.9

	CA2		CA4		CA8	
	KO	KI	KO	KI	KO	KI
PO	7.3	8.0	8.9	11.3	9.6	12.1
PI	7.9	13.7	11.3	14.1	13.0	13.8

CAO Plots

	PO	PI	Mean
KO	1.3	0.6	1.0
KI	0.4	2.3	1.4
Mean	0.8	1.5	1.2

General mean: 9.0
 Mean D.M. % (all plots): 81.4

70/R&H/CS/10

STACKYARD SERIES C (W)

GRAIN: CWT

	CA0	CA2	CA4	CA8	Mean			
Mean (± 0.74)	12.1	30.0	32.6	33.8	27.1			
	(± 1.04)				(± 0.52)			
PO	7.4	28.5	30.8	34.3	25.2			
PI	16.9	31.6	34.4	33.3	29.0			
KO	11.8	27.9	32.0	31.6	25.8			
KI	12.5	32.2	33.2	35.9	28.4			
	PO	PI						
	(± 0.74)							
KO	24.9	26.8						
KI	25.6	31.3						
	CA0	CA2	CA4	CA8				
	KO	KI	KO	KI	KO	KI	KO	KI
	(± 1.48)							
PO	10.1	4.6	27.5	29.5	30.3	31.3	31.6	36.9
PI	13.4	20.3	28.3	34.9	33.8	35.1	31.7	34.9

Mean D.M. %: 81.9

70/R&W/CS/10

STACKYARD SERIES C (W)

STRAW: CWT

	CA0	CA2	CA4	CA8	Mean			
Mean	6.9	12.6	14.9	13.3	11.9			
P0	3.3	10.3	12.4	12.2	9.6			
P1	10.6	14.8	17.3	14.4	14.3			
K0	5.4	8.9	12.9	12.8	10.0			
K1	8.5	16.2	16.8	13.8	13.8			
	P0	P1						
K0	8.7	11.3						
K1	10.4	17.2						
	CA0	CA2	CA4	CA8				
	K0	K1	K0	K1	K0	K1	K0	K1
P0	4.8	1.8	6.6	14.0	11.0	13.9	12.6	11.9
P1	6.0	15.1	11.2	18.4	14.9	19.6	13.0	15.8

Mean D.M. %: 83.6