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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&H/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)
P0	20.1	26.9	27.3	24.7
P1	25.6	31.1	29.8	28.8
K0	20.6	27.3	28.2	25.4
K1	25.1	30.7	28.9	28.2
	P0	P1		
		(± 1.88)		
K0	23.6	27.2		
K1	25.9	30.5		
	CA2	CA4	CA8	
	K0	K1	K0	K1
				(± 3.27)
P0	20.1	20.1	24.3	29.5
P1	21.2	30.1	30.4	31.9
			26.3	28.3
			30.1	29.5
	CA0 Plots			
	P0	P1		Mean
K0	2.1	2.2		2.1
K1	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
P0	7.7	10.1	10.8	9.5
P1	10.8	12.7	13.4	12.3
K0	7.6	10.1	11.3	9.7
K1	10.9	12.7	13.0	12.2

	P0	P1
K0	8.6	10.7
K1	10.4	13.9

	CA2		CA4		CA8	
	K0	K1	K0	K1	K0	K1
P0	7.3	8.0	8.9	11.3	9.6	12.1
P1	7.9	13.7	11.3	14.1	13.0	13.8

CAO Plots

	P0	P1	Mean
K0	1.3	0.6	1.0
K1	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&W/CS/10

STACKYARD SERIES C (W)

GRAIN: CWT

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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