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Numerical Results of the Field Experiments 1968

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68/C/3 Long Term Liming Experiment - Potatoes

Rothamsted Research

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68/c/3.1

LONG TERM LIMING EXPERIMENT

POTATOES 1968

(LL and WLL)

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

For treatments etc. see 'Results' 63/C/3 and for previous years' results see 62/C/8, 63/C/3, 64/C/3, 65/C/3, 66/C/3 and 67/C/3.

Design: 2 randomised blocks of 16 plots.

Area of each plot: 0.0284. Area harvested: Sawyers I (R): 0.0095.
Stackyard C (W): 0.0126.

Treatments: All combinations of:-

1. Ground chalk (tons) applied 1962 - 1963.

	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), 1.0 (P1) cwt P2O5 as superphosphate.

3. K: None (K0), 1.5 (K1) cwt K2O as muriate of potash.

Basal applications:

Sawyers I (R): 1.5 cwt N as 'Nitro-Chalk' broadcast before planting. Weedkiller: Paraquat at 0.38 lb ion and linuron at 0.75 lb in 36 gals. Fungicide: Mancozeb at 1.2 lb in 37 gals on 3 occasions. Insecticide: Demeton-s-methyl at 3.5 oz applied with the second spraying of mancozeb.

Stackyard Series C (W): 2.0 cwt N as 'Nitro-Chalk' broadcast before planting. Weedkiller: Paraquat at 0.38 lb ion and linuron at 0.5 lb in 50 gals. Fungicide: Mancozeb at 1.2 lb in 38 gals on 3 occasions. Insecticide: Demeton-s-methyl at 3.5 oz applied with the first spraying of mancozeb.

68/c/3.2

Cultivations, etc.:-

Sawyers I (R): Ploughed: 25 Sept, 1967. 'Nitro-Chalk' applied: 28 Mar, 1968. P and K applied, plots rotary cultivated, potatoes machine planted: 4 Apr. Weedkiller applied: 3 May. Fungicide applied: 4 July, 19 July, 5 Aug. Insecticide applied: 19 July. Sprayed with undiluted BOV at 15 gals: 30 Aug. Lifted: 3 Oct. Variety: Majestic.

Stackyard Series C (W): Ploughed: 15 Nov, 1967. 'Nitro-Chalk' applied: 26 Mar, 1968. P and K applied, plots rotary cultivated: 28 Mar. Potatoes machine planted: 29 Mar. Weedkiller applied: 3 May. Rotary ridged: 13 June. Fungicide applied: 12 July, 18 July, 30 July. Insecticide applied: 12 July. Sprayed with undiluted BOV at 15 gals: 4 Sept. Lifted: 2 Oct. Variety: Majestic.

Standard errors per plot. Tubers:

Sawyers I (R): 1.981 or 19.7% ((15 d.f.)
Stackyard C (W): 1.021 or 10.1% (15 d.f.)

68/c/3.3

SUMMARY OF RESULTS

SAWYERS I (R)

TOTAL TUBERS

	CA0	CA2	CA4	CA8	Mean
Mean (± 0.700)	9.19	10.38	10.68	9.93	10.05
	(± 0.990)				(± 0.495)
PO	7.58	9.50	10.05	8.18	8.83
PI	10.80	11.26	11.32	11.69	11.27
KO	8.89	8.44	8.27	7.27	8.22
KI	9.49	12.33	13.09	12.59	11.88
	PO	PI			

	(± 0.700)								
KO	7.63	8.80							
KI	10.02	13.73							
	CA0		CA2		CA4		CA8		
	KO	KI	KO	KI	KO	KI	KO	KI	
	(± 1.401)								
PO	8.36	6.79	9.26	9.75	8.09	12.01	4.82	11.54	
PI	9.41	12.19	7.61	14.91	8.46	14.13	9.73	13.65	

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SAWYERS I (R)

% WARE

	CA0	CA2	CA4	CA8	Mean
Mean	96.3	95.7	96.4	95.4	95.9
P0	96.7	97.2	96.9	94.1	96.2
P1	95.9	94.2	95.8	96.7	95.7
K0	95.7	93.9	94.8	92.9	94.3
K1	96.9	97.5	97.9	97.9	97.6

	P0	P1
K0	94.8	93.9
K1	97.7	97.5

	CA0		CA2		CA4		CA8	
	K0	K1	K0	K1	K0	K1	K0	K1
P0	96.7	96.7	96.9	97.5	95.1	98.6	90.5	97.8
P1	94.7	97.2	91.0	97.4	94.5	97.2	95.3	98.1

68/c/3.5

STACKYARD SERIES C (W)

TOTAL TUBERS

	CA0	CA2	CA4	CA8	Mean
Mean (± 0.361)	10.67	10.31	9.63	9.76	10.09
		(± 0.510)			(± 0.255)
P0	8.21	9.39	8.18	8.77	8.64
P1	13.12	11.22	11.08	10.74	11.54
K0	8.65	7.04	6.40	6.57	7.17
K1	12.68	13.58	12.86	12.94	13.01

P0

P1

(± 0.361)

K0	6.29	8.04
K1	10.98	15.05

CA0	CA2	CA4	CA8
K0	K1	K0	K1

(± 0.722)

P0	6.90	9.52	6.11	12.66	5.90	10.46	6.26	11.28
P1	10.41	15.84	7.96	14.49	6.91	15.25	6.88	14.60

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STACKYARD SERIES C (W)

% WARE

	CA0	CA2	CA4	CA8	Mean
Mean	94.9	94.8	95.0	95.7	95.1
PO	94.9	94.2	95.5	96.9	95.4
P1	94.9	95.4	94.5	94.4	94.8
K0	93.2	92.4	92.0	93.6	92.8
K1	96.6	97.2	98.0	97.8	97.4
	PO	P1			
K0	93.1	92.5			
K1	97.7	97.1			

	CA0		CA2		CA4		CA8	
	K0	K1	K0	K1	K0	K1	K0	K1
PO	92.7	97.1	91.0	97.5	92.9	98.1	95.6	98.2
P1	93.6	96.2	93.9	96.9	91.2	97.8	91.5	97.4