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69/R/RN/7 - Residual Phosphate Rotation - Potatoes, Barley & Swedes

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RESIDUAL PHOSPHATE ROTATION

(69/R/RN/7)

The long term and residual effects of phosphate fertilisers - Great Field IV and Sawyers I, the 10th year. For treatments and previous years' results see 'Details' 1967 and 'Results' 67/B/6 and 68/B/5.

Area of each plot:

Great Field IV: 0.0193.

Sawyers I: 0.0212.

Area harvested: Potatoes and barley: 0.0129. Swedes: 0.0096.

Area harvested: Potatoes and barley: 0.0141. Swedes: 0.0106.

Standard applications: Manures as previously. Weedkillers:

Potatoes: Paraquat at 0.375 lb ion plus linuron at 0.75 lb ion in 37 gals. Fungicide: Mancozeb at 1.2 lb in 37 gals on 3 occasions. Insecticide: Demeton-s-methyl at 3.5 oz applied with second spraying with mancozeb. Haulm destroyer: Undiluted BOV at 15 gals. Barley: Weedkiller: 2,4-D at 8 oz and dichlorprop at 32 oz in 20 gals.

Cultivations, etc. (both fields): Ploughed: 21 Nov, 1968.

Potatoes: Fertilisers applied: 14 Apr, 1969. Plots rotary cultivated, potatoes planted: 16 Apr. Paraquat and linuron applied: 13 May. Grubbed: 19 June. Rotary ridged: 25 June. Mancozeb applied: 15 July, 4 Aug, 21 Aug. Insecticide applied: 4 Aug. BOV applied: 4 Sept. Lifted: 23 Sept.

Barley: Ground chalk applied at 23 cwt: 12 Nov, 1968. Fertilisers applied: 11 Mar, 1969. Seed drilled at 140 lb: 25 Mar. Weedkiller applied: 20 May. Combine harvested: 22 Aug.

Swedes: Fertilisers applied: 29 Apr, 1969. Seed drilled at 1.25 lb: 14 May. Singled: 25 June. Lifted: 21 Oct.

Standard errors per plot.

Sawyers I:

Potatoes, total tubers, tons:	0.425 or 3.6% (11 d.f.)
Barley, grain, cwt:	2.17 or 5.2% (11 d.f.)
Swedes, fresh weight, tons:	1.059 or 10.2% (11 d.f.)

SUMMARY OF RESULTS

POTATOES

Treatment	TOTAL TUBERS: TONS		% WARE	
	Great Field IV Mean	Sawyers I Mean	Great Field IV Mean	Sawyers I Mean
		(± 0.301)		
O	12.84	9.28	97.2	95.3
A1	14.68	11.03	96.6	94.9
A2	15.10	11.96	97.0	95.7
A3	16.28	12.50	96.8	95.2
A4	15.75	12.74	94.9	94.3
T1	15.79	12.08	96.4	95.2
T2	16.25	12.60	95.0	94.8
R2	14.82	11.51	97.1	96.5
R3	15.59	12.49	97.1	95.1
R4	15.74	12.76	95.1	94.7
G1	14.24	10.38	97.8	95.5
S1	13.71	10.81	96.6	95.1
Mean	15.07	11.68	96.5	95.2

BARLEY

	GRAIN: CWT		STRAW: CWT	
		(± 1.53)		
O	30.1	39.1	27.3	28.5
A1	37.2	42.2	31.9	35.0
A2	31.4	44.7	33.9	34.7
A3	33.8	42.9	30.8	38.2
A4	34.9	42.3	28.0	34.3
T1	32.8	43.3	35.3	35.8
T2	40.1	43.0	35.0	34.8
R2	36.5	41.9	36.4	36.3
R3	33.5	44.3	46.0	37.3
R4	35.9	42.7	34.3	37.4
G1	31.7	40.1	28.3	30.5
S1	31.8	39.0	29.0	27.9
Mean	34.1	42.1	33.0	34.2
Mean D.M. %:	80.4	83.8	88.6	91.6

SWEDES, ROOTS: TONS

Treat- ment	Great Field IV Mean	Sawyers I Mean
		(± 0.749)
O	5.70	2.78
A1	10.93	8.97
A2	16.67	12.06
A3	17.64	13.72
A4	15.56	14.44
T1	14.72	11.98
T2	16.48	11.83
R2	15.46	10.99
R3	16.58	12.00
R4	16.07	13.26
G1	10.00	5.24
S1	10.37	7.26
Mean	13.85	10.38