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64/R/RP/B/7 Residual Phosphate Rotation

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64/B/7.1

RESIDUAL PHOSPHATE ROTATION

(RP)

The long term and residual effects of a number of phosphate fertilisers compared with superphosphate - Great Field IV and Sawyers I 1964, the fifth year.

For treatments and rotation, etc. see 'Results', 63/B/8 and for previous years' results see 60/B/9, 61/B/8, 62/B/8 and 63/B/8.

Area of each plot:

Great Field IV: 0.0193. Area harvested: Potatoes and barley
- 0.0129, swedes - 0.0096.
Sawyers I: 0.0212. Area harvested: Potatoes and barley
- 0.0141, swedes - 0.0106.

Cultivations, etc. (both fields, except as indicated): Ploughed:

Great Field IV - Dec 9, 1963. Sawyers I - Jan 3, 1964.

Potatoes: Ground chalk applied to Great Field IV at 23 cwt: Dec 9, 1963.

Fertilisers applied, potatoes planted: May 4, 1964. Sprayed with diquat/paraquat (Preeglon Extra at 2 pints in 40 gals): May 19.

Earthed up: June 22. Sprayed twice with mancozeb at 1.2 lb in 35 gals: July 1 and Aug 6. Sprayed with diquat (Reglone at 3 pints in 40 gals): Sept 17. Lifted: Sept 23.

Barley: Ground chalk applied at 23 cwt: Dec 9, 1963. Fertilisers applied, seed drilled at 2 bushels: Feb 13, 1964. Sprayed with mecoprop/2,4-D (Methoxone Extra at 6 pints in 40 gals): May 15. Combine harvested: Aug 20.

Swedes: Ground chalk applied at 23 cwt: Dec 9, 1963. Fertilisers applied: May 19, 1964. Seed drilled at 2 lb: May 21. Singled: July 2. Lifted: Oct 13.

Standard errors per plot.

Sawyers I.

Potatoes, Total tubers: 0.465 or 5.4% (11 d.f.)

Barley, Grain: 1.97 or 4.4% (11 d.f.)

Swedes, Roots: 1.356 or 15.1% (11 d.f.)

64/B/7.2

SUMMARY OF RESULTS

Treatment	POTATOES							
	TOTAL TUBERS:				PERCENTAGE WARE			
	Great Field IV Mean	Field IV Increase	Sawyers I Mean	Sawyers I Increase	Great Field IV Mean	Field IV Increase	Sawyers I Mean	Sawyers I Increase
			(±0.329)(±0.465)					
1	8.46		8.66		96.7		97.0	
2	9.54	+1.08	9.05	+0.39	94.7	-2.0	95.0	-2.0
3	10.44	+1.98	9.53	+0.87	95.6	-1.1	95.1	-1.9
4	9.34	+0.88	8.41	-0.25	97.1	+0.4	96.9	-0.1
5	7.93	-0.53	8.60	-0.06	93.8	-2.9	94.9	-2.1
6	8.84	+0.38	8.91	+0.25	95.5	-1.2	95.7	-1.3
7	9.75	+1.29	8.57	-0.09	96.9	+0.2	95.8	-1.2
8	8.51	+0.05	8.35	-0.31	95.3	-1.4	95.6	-1.4
9	9.02	+0.56	7.68	-0.98	95.8	-0.9	95.5	-1.5
10	8.25	-0.21	8.45	-0.21	96.5	-0.2	95.0	-2.0
11	8.70	+0.24	8.72	+0.06	97.7	+1.0	95.7	-1.3
12	9.74	+1.28	8.58	-0.08	96.4	-0.3	95.0	-2.0
Mean	9.04		8.63		96.0		95.6	

	BARLEY							
	GRAIN				STRAW			
	Great Field IV Mean	Field IV Increase	Sawyers I Mean	Sawyers I Increase	Great Field IV Mean	Field IV Increase	Sawyers I Mean	Sawyers I Increase
			(±1.39)(±1.97)					
1	40.4		41.7		24.3		26.3	
2	37.2	-3.2	46.2	+4.5	27.0	+2.7	25.6	-0.7
3	36.6	-3.8	42.9	+1.2	24.4	+0.1	24.3	-2.0
4	37.7	-2.7	43.8	+2.1	27.3	+3.0	25.5	-0.8
5	33.2	-7.2	43.9	+2.2	25.1	+0.8	24.9	-1.4
6	37.8	-2.6	46.3	+4.6	25.5	+1.2	26.6	+0.3
7	38.6	-1.8	44.2	+2.5	28.1	+3.8	26.2	-0.1
8	37.6	-2.8	46.5	+4.8	25.8	+1.5	26.4	+0.1
9	40.9	+0.5	45.3	+3.6	25.9	+1.6	25.5	-0.8
10	40.1	-0.3	44.0	+2.3	27.3	+3.0	23.4	-2.9
11	38.0	-2.4	45.9	+4.2	25.3	+1.0	27.1	+0.8
12	35.0	-5.4	46.6	+4.9	29.8	+5.5	27.5	+1.2
Mean	37.8		44.8		26.3		25.8	
Mean D.M.%:	82.2		81.4		87.8		89.3	

64/B/7.3

SWEDES, ROOTS

Treatment	Great Field IV		Sawyers I	
	Mean	Increase	Mean	Increase
			(±0.959)	(±1.356)
1	7.82		4.65	
2	12.36	+4.54	8.80	+4.15
3	15.70	+7.88	10.29	+5.64
4	11.90	+4.08	7.53	+2.88
5	12.87	+5.05	8.33	+3.68
6	14.77	+6.95	9.89	+5.24
7	13.24	+5.42	11.26	+6.61
8	13.10	+5.28	10.06	+5.41
9	13.43	+5.61	9.53	+4.88
10	12.36	+4.54	8.80	+4.15
11	13.98	+6.16	9.15	+4.50
12	13.24	+5.42	9.74	+5.09
Mean	12.90		9.00	

0.7/1.0

SWISS, ROOTS

Year	Mean Increase	Mean Increase	Mean Increase
	(1950-55)	(1955-60)	(1960-65)
1950	10.24	10.06	10.24
1951	9.80	9.53	9.80
1952	9.75	9.53	9.75
1953	9.80	9.53	9.80
1954	9.80	9.53	9.80
1955	9.80	9.53	9.80
1956	9.80	9.53	9.80
1957	9.80	9.53	9.80
1958	9.80	9.53	9.80
1959	9.80	9.53	9.80
1960	9.80	9.53	9.80
1961	9.80	9.53	9.80
1962	9.80	9.53	9.80
1963	9.80	9.53	9.80
1964	9.80	9.53	9.80
1965	9.80	9.53	9.80
1966	9.80	9.53	9.80
1967	9.80	9.53	9.80
1968	9.80	9.53	9.80
1969	9.80	9.53	9.80
1970	9.80	9.53	9.80
1971	9.80	9.53	9.80
1972	9.80	9.53	9.80
1973	9.80	9.53	9.80
1974	9.80	9.53	9.80
1975	9.80	9.53	9.80
1976	9.80	9.53	9.80
1977	9.80	9.53	9.80
1978	9.80	9.53	9.80
1979	9.80	9.53	9.80
1980	9.80	9.53	9.80
1981	9.80	9.53	9.80
1982	9.80	9.53	9.80
1983	9.80	9.53	9.80
1984	9.80	9.53	9.80
1985	9.80	9.53	9.80
1986	9.80	9.53	9.80
1987	9.80	9.53	9.80
1988	9.80	9.53	9.80
1989	9.80	9.53	9.80
1990	9.80	9.53	9.80
1991	9.80	9.53	9.80
1992	9.80	9.53	9.80
1993	9.80	9.53	9.80
1994	9.80	9.53	9.80
1995	9.80	9.53	9.80
1996	9.80	9.53	9.80
1997	9.80	9.53	9.80
1998	9.80	9.53	9.80
1999	9.80	9.53	9.80
2000	9.80	9.53	9.80
2001	9.80	9.53	9.80
2002	9.80	9.53	9.80
2003	9.80	9.53	9.80
2004	9.80	9.53	9.80
2005	9.80	9.53	9.80
2006	9.80	9.53	9.80
2007	9.80	9.53	9.80
2008	9.80	9.53	9.80
2009	9.80	9.53	9.80
2010	9.80	9.53	9.80
2011	9.80	9.53	9.80
2012	9.80	9.53	9.80
2013	9.80	9.53	9.80
2014	9.80	9.53	9.80
2015	9.80	9.53	9.80
2016	9.80	9.53	9.80
2017	9.80	9.53	9.80
2018	9.80	9.53	9.80
2019	9.80	9.53	9.80
2020	9.80	9.53	9.80
2021	9.80	9.53	9.80
2022	9.80	9.53	9.80
2023	9.80	9.53	9.80
2024	9.80	9.53	9.80
2025	9.80	9.53	9.80
2026	9.80	9.53	9.80
2027	9.80	9.53	9.80
2028	9.80	9.53	9.80
2029	9.80	9.53	9.80
2030	9.80	9.53	9.80