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## Yields of the Field Experiments 1964

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

#### Rothamsted Research

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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	Great Field IV Mean Increase	Swiss I Mean Increase	Year
1914	42.12	42.12	1914
1915	42.12	42.12	1915
1916	42.12	42.12	1916
1917	42.12	42.12	1917
1918	42.12	42.12	1918
1919	42.12	42.12	1919
1920	42.12	42.12	1920
1921	42.12	42.12	1921
1922	42.12	42.12	1922
1923	42.12	42.12	1923
1924	42.12	42.12	1924
1925	42.12	42.12	1925
1926	42.12	42.12	1926
1927	42.12	42.12	1927
1928	42.12	42.12	1928
1929	42.12	42.12	1929
1930	42.12	42.12	1930
1931	42.12	42.12	1931
1932	42.12	42.12	1932
1933	42.12	42.12	1933
1934	42.12	42.12	1934
1935	42.12	42.12	1935
1936	42.12	42.12	1936
1937	42.12	42.12	1937
1938	42.12	42.12	1938
1939	42.12	42.12	1939
1940	42.12	42.12	1940
1941	42.12	42.12	1941
1942	42.12	42.12	1942
1943	42.12	42.12	1943
1944	42.12	42.12	1944
1945	42.12	42.12	1945
1946	42.12	42.12	1946
1947	42.12	42.12	1947
1948	42.12	42.12	1948
1949	42.12	42.12	1949
1950	42.12	42.12	1950
1951	42.12	42.12	1951
1952	42.12	42.12	1952
1953	42.12	42.12	1953
1954	42.12	42.12	1954
1955	42.12	42.12	1955
1956	42.12	42.12	1956
1957	42.12	42.12	1957
1958	42.12	42.12	1958
1959	42.12	42.12	1959
1960	42.12	42.12	1960
1961	42.12	42.12	1961
1962	42.12	42.12	1962
1963	42.12	42.12	1963
1964	42.12	42.12	1964
1965	42.12	42.12	1965
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1974	42.12	42.12	1974
1975	42.12	42.12	1975
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1978	42.12	42.12	1978
1979	42.12	42.12	1979
1980	42.12	42.12	1980
1981	42.12	42.12	1981
1982	42.12	42.12	1982
1983	42.12	42.12	1983
1984	42.12	42.12	1984
1985	42.12	42.12	1985
1986	42.12	42.12	1986
1987	42.12	42.12	1987
1988	42.12	42.12	1988
1989	42.12	42.12	1989
1990	42.12	42.12	1990
1991	42.12	42.12	1991
1992	42.12	42.12	1992
1993	42.12	42.12	1993
1994	42.12	42.12	1994
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2018	42.12	42.12	2018
2019	42.12	42.12	2019
2020	42.12	42.12	2020
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2022	42.12	42.12	2022
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2049	42.12	42.12	2049
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2054	42.12	42.12	2054
2055	42.12	42.12	2055
2056	42.12	42.12	2056
2057	42.12	42.12	2057
2058	42.12	42.12	2058
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2062	42.12	42.12	2062
2063	42.12	42.12	2063
2064	42.12	42.12	2064
2065	42.12	42.12	2065
2066	42.12	42.12	2066
2067	42.12	42.12	2067
2068	42.12	42.12	2068
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2071	42.12	42.12	2071
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2074	42.12	42.12	2074
2075	42.12	42.12	2075
2076	42.12	42.12	2076
2077	42.12	42.12	2077
2078	42.12	42.12	2078
2079	42.12	42.12	2079
2080	42.12	42.12	2080
2081	42.12	42.12	2081
2082	42.12	42.12	2082
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2090	42.12	42.12	2090
2091	42.12	42.12	2091
2092	42.12	42.12	2092
2093	42.12	42.12	2093
2094	42.12	42.12	2094
2095	42.12	42.12	2095
2096	42.12	42.12	2096
2097	42.12	42.12	2097
2098	42.12	42.12	2098
2099	42.12	42.12	2099
2100	42.12	42.12	2100