

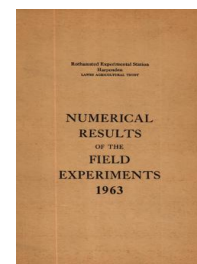
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Yields of the Field Experiments 1963

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63/R/RP101/DD/1 Potatoes - Effects of Chloride

Rothamsted Research

Rothamsted Research (1964) *63/R/RP101/DD/1 Potatoes - Effects of Chloride* ; Yields Of The Field Experiments 1963, pp 169 - 170 - DOI: <https://doi.org/10.23637/ERADOC-1-183>

63/Dd/1.1

POTATOES

(RP 101)

Effect of chloride on uptake of other ions - Sawyers II 1963.

Design: 3 randomised blocks of 12 plots each.

Area of each plot (acres): 0.0141. Area harvested: 0.0065.

Treatments. All combinations of:-

Fertilisers:

No nitrogen, potassium sulphate and calcium carbonate	(O)
No nitrogen, potassium chloride and calcium sulphate	(C)
Urea, potassium sulphate and calcium carbonate	(A)
Urea, potassium chloride and calcium sulphate	(AC)
Potassium nitrate and calcium sulphate	(N)
Calcium nitrate, potassium chloride and calcium sulphate	(NC)

Methods of placement: Broadcast, placed in one band 2.5 - 3 inches to the side of the seed.

Rates of application:

A, N: 0.81 cwt N per acre.

C: 2.15 cwt Cl per acre.

Also 3.0 cwt K_2O , 1.7 cwt Ca and 1.0 cwt S per acre broadcast or placed according to treatment.

Basal dressing per acre: 1.5 cwt P_2O_5 as triple superphosphate, placed.

Cultivations, etc.: Ploughed: Sept 27 - Oct 3, 1962. Rotary cultivated, fertilisers applied, potatoes planted: May 8, 1963. Earthed up: July 3. Sprayed with maneb at 1.2 lb in 20 gallons per acre: July 11. Sprayed with diquat at 1.2 pints in 40 gallons per acre: Sept 25. Lifted: Oct 16. Variety: Majestic. Previous crops: Fallow 1961, spring wheat 1962.

Note: Leaf samples were taken in July for chemical analysis and tuber samples at harvest for chemical analysis and assessment of quality by the Low Temperature Research Station.

Standard error per plot.

Total tubers: 0.515 tons per acre or 4.5% (22 d.f.)

63/Dd/1.2

Summary of Results

Method of placement	Fertiliser						Mean
	0	C	A	AC	N	NC	
<u>Total tubers: tons per acre</u>							
(±0.298)							
Broadcast	9.02	9.77	12.30	12.69	11.81	13.21	11.47
Placed	8.91	9.82	12.20	12.67	12.75	12.28	11.44
Mean (±0.210)	8.96	9.80	12.25	12.68	12.28	12.74	11.45
Diff. (±0.420)	-0.11	+0.05	-0.10	-0.02	+0.94	-0.93	-0.03 (±0.172)
<u>Percentage ware (1.5 inch riddle)</u>							
Broadcast	91.5	94.6	94.4	95.4	94.2	95.1	94.2
Placed	92.6	94.2	95.8	96.9	95.1	96.4	95.2
Mean	92.0	94.4	95.1	96.2	94.7	95.7	94.7
Diff.	+1.1	-0.4	+1.4	+1.5	+0.9	+1.3	+1.0

For details of treatment symbols see page 63/Dd/1.1