

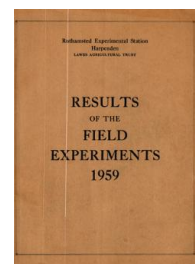
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1959

[Full Table of Content](#)



59/R/CF/1 and 59/W/CF/1 Potatoes - Forms and Levels of K

Rothamsted Research

Rothamsted Research (1960) *59/R/CF/1 and 59/W/CF/1 Potatoes - Forms and Levels of K* ; Yields Of The Field Experiments 1959, pp 92 - 93 - DOI: <https://doi.org/10.23637/ERADOC-1-179>

59/Cf/1.2

Summary of ResultsTotal tubers: tons per acre

	Form of K				
	O	G	S	M	Mean
	<u>Rothamsted</u>				
Mean (± 0.430)	7.23	10.75	10.65	10.26	9.72
K: cwt per acre					
1.25 (± 0.608)	-	10.55	9.86	9.12	9.84 (± 0.351)
2.50	-	10.95	11.44	11.40	11.26
Diff. (± 0.859)	-	+0.40	+1.58	+2.28	+1.42 (± 0.496)
N: cwt per acre					
0.75 (± 0.608)	7.33	10.46	11.01	10.47	9.82
1.50	7.12	11.04	10.28	10.05	9.62
Diff. (± 0.859)	-0.21	+0.58	-0.73	-0.42	-0.20 (± 0.430)
	<u>Woburn</u>				
Mean (± 0.380)	6.29	6.69	6.58	6.72	6.57
K: cwt per acre					
1.25 (± 0.538)	-	6.05	6.93	5.34	6.11 (± 0.334)
2.50	-	7.34	6.16	8.10	7.20
Diff. (± 0.818)	-	+1.29	-0.77	+2.76	+1.09 (± 0.472)
N: cwt per acre					
0.75 (± 0.538)	6.07	6.43	6.92	7.28	6.68
1.50	6.50	6.97	6.19	6.16	6.46
Diff. (± 0.818)	+0.43	+0.54	-0.73	-1.12	-0.22 (± 0.409)

Forms of K

O = No potash

G = Potassium bi-carbonate, KHCO_3 S = Potassium sulphate, K_2SO_4 M = Potassium chloride, KCl .

59/Cf/2.1

POTATOES

Concentrated fertilizers - Rothamsted (R) Great Field I and Woburn (W) Lansome Field 1959.

Design (each field): 4 randomized blocks of 5 plots each.

Area of each plot (each field): 0.0212 acres. Area harvested: 0.0141 acres.

Treatments: None and all combinations of:-

Types of fertilizer: A mixture of sulphate of ammonia, superphosphate and muriate of potash (A); concentrated compound fertilizer (15% N, 10% P_2O_5 , 20% K_2O) (B).

Rates of application: cwt per acre

(1) 0.75 N; 0.5 P_2O_5 ; 1.0 K_2O .

(2) 1.5 N; 1.0 P_2O_5 ; 2.0 K_2O .

Basal dressing: None.

Cultivations, etc.:

Great Field I (R): Ploughed: Oct 23, 1958. Ridged: Apr 14, 1959. Fertilizers applied in the furrows, potatoes hand planted: Apr 20. Earthed up: June 30. Sprayed with copper fungicide at 5 lb in 40 gallons per acre: Aug 15. Sprayed with sulphuric acid, 15% BOV in 100 gallons per acre: Sept 21. Lifted: Oct 8. Variety: Ulster Supreme. Previous crop: Wheat.

Lansome Field (W): Sprayed with dalapon at 10 lb in 40 gallons per acre: Nov 8, 1958, and at 5 lb in 40 gallons per acre: Nov 22. Ploughed: Jan 23, 1959. Ridged, fertilizers applied in the furrows, potatoes hand planted: Apr 9. Earthed up: June 22. Sprayed with zineb at 2 lb and demeton methyl at 12 fluid oz (50% active ingredients) in 40 gallons per acre: Aug 15. Haulm destroyed mechanically: Sept 22. Lifted: Sept 29. Variety: Majestic. Previous crop: Barley.

Note: At Woburn the plant was poor and irregular. There was no evidence of association between yield and plant number and the yields were not adjusted.

Standard errors per plot. Total tubers:

Great Field I (R): 0.839 tons per acre or 7.2% (12 d.f.)

Lansome Field (W): 0.683 tons per acre or 10.5% (12 d.f.)