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# Yields of the Field Experiments 1961

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## 61/R/DE/1 Potatoes - Forms and Levels of K

### Rothamsted Research

Rothamsted Research (1962) *61/R/DE/1 Potatoes - Forms and Levels of K* ; Yields Of The Field Experiments 1961, pp 126 - 127 - DOI: <https://doi.org/10.23637/ERADOC-1-182>

61/De/1.1

## POTATOES

Forms and levels of K - Sawyers I 1961.

Design: 4 blocks of 8 plots each with certain high order interactions partially confounded with block differences.

Area of each plot: 0.0141 acres. Area harvested: 0.0071 acres.

Treatments: No potash (2 plots per block) and all combinations of:-

Forms of K: Potassium bi-carbonate,  $\text{KHCO}_3$  (C);  
Potassium sulphate,  $\text{K}_2\text{SO}_4$  (S);  
Potassium chloride,  $\text{KCl}$  (M);

Levels of K: 1.25; 2.50 cwt  $\text{K}_2\text{O}$  per acre.

All the above in combination with:-

Levels of N: 0.75; 1.50 cwt N per acre as 'Nitro-Chalk'.

Basal dressing: 0.75 cwt  $\text{P}_2\text{O}_5$  per acre as triple superphosphate.

Cultivations, etc.: Ploughed: Jan 5, 1961. Ridged: Apr 24.

Fertilisers applied, potatoes hand planted: Apr 25. Earthed up: July 6. Lifted: Sept 22. Variety: King Edward. Previous crop: Fallow.

Standard errors per plot.

Total tubers tons per acre: 1.203 tons per acre or 25.7% (13 d.f.)

Note: This is a repetition with the same treatments on the same plots of the experiment of 1959 (see 59/Cf/1).



61/De/1.2

Summary of Results

Form of K

	O	C	S	M	Mean
<u>Total tubers: tons per acre</u>					
Mean ( $\pm 0.425$ )	3.88	4.88	5.13	4.83	4.68
K <sub>2</sub> O: cwt per acre					
1.25 ( $\pm 0.602$ )	-	5.07	4.89	4.77	4.91 ( $\pm 0.347$ )
2.50 ( $\pm 0.602$ )	-	4.69	5.38	4.89	4.99 ( $\pm 0.347$ )
Diff. ( $\pm 0.851$ )	-	-0.38	+0.49	+0.12	+0.08 ( $\pm 0.491$ )
N: cwt per acre					
0.75 ( $\pm 0.602$ )	3.92	4.27	5.09	4.21	4.37
1.50 ( $\pm 0.602$ )	3.83	5.49	5.18	5.45	4.99
Diff. ( $\pm 0.851$ )	-0.09	+1.22	+0.09	+1.24	+0.62 ( $\pm 0.425$ )

Percentage ware ( $1\frac{1}{2}$ " riddle)

Mean	65.1	71.2	71.5	68.0	68.9
K <sub>2</sub> O: cwt per acre					
1.25	-	72.4	72.3	64.7	69.8
2.50	-	70.1	70.7	71.4	70.7
Diff.	-	-2.3	-1.6	+6.7	+0.9
N: cwt per acre					
0.75	65.0	70.8	69.3	65.4	67.6
1.50	65.2	71.7	73.6	70.7	70.3
Diff.	+0.2	+0.9	+4.3	+5.3	+2.7

Forms of K

- O = None
- C = Potassium bi-carbonate,  $\text{KHCO}_3$
- S = Potassium sulphate,  $\text{K}_2\text{SO}_4$
- M = Potassium chloride,  $\text{KCl}$