

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

# Numerical Results of the Field Experiments 1968

[Full Table of Content](#)



## 68/B/8 Long Term Phosphate - Potatoes, Barley

### Rothamsted Research

Rothamsted Research (1970) *68/B/8 Long Term Phosphate - Potatoes, Barley* ; Numerical Results Of The Field Experiments 1968, pp 121 - 123 - DOI: <https://doi.org/10.23637/ERADOC-1-58>

68/B/8.1

## LONG TERM PHOSPHATE

(WLP)

To assess the residual and cumulative effects of superphosphate -  
Woburn Stackyard III 1968, 1st year.

Design: 6 blocks of 6 plots, split into two. Half plots received  
uniform treatment in 1968 but later there will be a test of  
phosphate.

Area of each sub plot: 0.0167. Area harvested: 0.0111.

Treatments: Superphosphate: None (R0) (2 plots per block), 1.5 (R1),  
3.0 (R2), 6.0 (R4), 9.0 (R6) cwt P<sub>2</sub>O<sub>5</sub> as superphosphate.

Basal applications: Both crops: 5 cwt K<sub>2</sub>O as sulphate of potash,  
2.0 cwt MgO as Epsom salts in August 1967.

Potatoes: 2.0 cwt N as 'Nitro-Chalk' and 1.5 cwt K<sub>2</sub>O as sulphate  
of potash in spring. Weedkiller: Linuron at 0.5 lb plus  
paraquat at 0.37 lb ion in 50 gals. Fungicide: Mancozeb at  
1.2 lb in 38 gals. Insecticide: Demeton-s-methyl at 3.5 oz  
in 38 gals.

Barley: 23 cwt ground chalk. 1.2 cwt N as 'Nitro-Chalk' and 0.5  
cwt K<sub>2</sub>O as muriate of potash in spring. Weedkiller:  
Ioxynil/mecoprop (Actril C at 5 pints in 25 gals).

Cultivations, etc.: Both crops: Rotary cultivated: 13 June, 1967.

Subsoiled: 20 - 21 June, 30 June - 3 July, 3 - 4 July (3  
directions). Deep-tine cultivated: 6 July. Basal K and Mg  
applied: 9 Aug. Phosphate treatments applied: 15 - 16 Aug.  
Fallow since 1963 (the site was part of the site of the Woburn  
Classical Experiments).

Potatoes: 'Nitro-Chalk' applied: 18 Mar, 1968. Sulphate of  
potash applied: 19 Mar. Rotary cultivated, potatoes planted:  
27 Mar. Weedkiller applied: 3 May. Rotary ridged: 13 June.  
Fungicide and insecticide applied: 12 July, 24 July.  
Fungicide applied: 30 July. Sprayed with undiluted BOV at  
15 gals: 4 Sept. Lifted: 25 Sept. Variety: Majestic.

68/B/8.2

Barley: Ground chalk applied: 11 Dec, 1967. 'Nitro-Chalk'  
applied, spring-tine cultivated: 4 Mar, 1968. Muriate  
of potash applied, seed drilled at 140 lb: 6 Mar. Weedkiller  
applied: 3 May. Combine harvested: 20 Aug. Variety: Maris  
Badger.

Standard errors per plot.

Potatoes: Total tubers: Whole plot: 0.478 or 3.8% (10 d.f.)

Barley: Grain: Whole plot: 0.49 or 1.5% (10 d.f.)

68/B/8.3

SUMMARY OF RESULTS

RO	R1	R2	R4	R6	Mean
POTATOES					
TOTAL TUBERS					
(±0.195) 10.65	12.22	(±0.276) 12.29	14.76	13.81	12.40
% WARE					
95.8	96.3	96.3	97.0	96.6	96.3
BARLEY					
GRAIN					
(±0.20) 32.6	33.9	(±0.29) 34.1	34.7	34.2	33.7
STRAW					
31.3	35.7	35.8	36.8	36.5	34.5

Mean D.M. %: Grain: 81.6  
Straw: 85.4