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# Yields of the Field Experiments 1961

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## 61/R/DE/4 and 61/W/DE/4 Potatoes - Control of Weeds

### Rothamsted Research

Rothamsted Research (1962) *61/R/DE/4 and 61/W/DE/4 Potatoes - Control of Weeds* ; Yields Of The Field Experiments 1961, pp 131 - 132 - DOI: <https://doi.org/10.23637/ERADOC-1-182>

61/De/4.1

## POTATOES

The control of weeds by triazine weedkillers - Rothamsted (R)  
Long Hoos III and Woburn (W) Warren Field S 1961.

Design: Long Hoos III (R): 3 randomised blocks of 6 plots each.  
Warren Field (W): 4 randomised blocks of 6 plots each.

Area of each plot (acres):	Area harvested (acres):
Long Hoos III (R): 0.0145	0.0032
Warren Field (W): 0.0161	0.0054

Treatments: No weed control (O);  
\* Mechanical weed control (M);  
Simazine:  $\frac{1}{2}$  lb ( $S_1$ ); 1 lb ( $S_2$ ) active material in 40 gallons per acre.  
Methyl-mercapto-triazine:  $1\frac{1}{4}$  lb ( $T_1$ );  $2\frac{1}{2}$  lb ( $T_2$ ) active material in 40 gallons per acre.

Basal dressing per acre:

Long Hoos III (R): 10 cwt compound fertiliser, 10% N, 10%  $P_2O_5$ , 18%  $K_2O$ .  
Warren field (W): 10 cwt compound fertiliser, 17% N, 11%  $P_2O_5$ , 22%  $K_2O$ .

Cultivations, etc.:-

Long Hoos III (R): Ground chalk applied at 23 cwt per acre: Sept 17 - Dec 19, 1960. Ploughed: Dec 29. Basal fertiliser applied: Apr 17, 1961. Rotary cultivated, machine planted: Apr 24. Sprays applied: May 1. M plots earthed up: July 6. Sprayed with zineb at 2 lb in 40 gallons per acre: Aug 3. Sprayed with undiluted BOV at 15 gallons per acre: Sept 21. 2 rows per plot hand dug and weighed: Sept 25. Variety: Ulster Supreme. Previous crop: Winter wheat  
Warren Field (W): Ground chalk applied at 59 cwt per acre: Dec 17, 1960. Ploughed: Dec 20. Basal fertiliser applied, potatoes machine planted: Apr 17, 1961. Sprays applied: Apr 28. M plots earthed up: July 5. Sprayed with zineb at 2 lb in 40 gallons per acre: Aug 3. Sprayed with undiluted BOV at 12 gallons per acre: Sept 18. Lifted: Sept 22. Variety: King Edward. Previous crop: Winter beans.

Standard errors per plot. Total tubers tons per acre.

Long Hoos III (R): 0.945 tons per acre or 19.0% (10 d.f.)  
Warren Field (W): 1.639 tons per acre or 17.3% (15 d.f.)

\* Long Hoos III (R): Chain harrowed once, grubbed 3 times, tractor weeded once, earthed up.  
Warren Field (W). Harrowed once, grubbed once, earthed up.

61/De/4.2

Summary of Results

<u>Weed Control</u>						
O	M	S <sub>1</sub>	S <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>	Mean
<u>Long Hoos III (R)</u>						
<u>Total Tubers: tons per acre</u>						
(±0.545)						
2.34	8.03	4.11	5.14	4.03	6.14	4.96
<u>Percentage ware (1½" riddle)</u>						
77.2	96.4	88.1	92.7	91.9	93.0	89.9
<u>Warren Field (W)</u>						
<u>Total Tubers: tons per acre</u>						
(±0.819)						
6.47	13.66	8.86	8.75	9.09	9.97	9.47
<u>Percentage ware (1½" riddle)</u>						
90.9	96.7	95.8	94.2	96.0	95.0	94.8

Weed Control

O = No weed control

M = Mechanical weed control

S = Simazine: ½ lb active material in 40 gallons per acre

S<sub>1</sub> = Simazine: 1 lb " " " " " " " "

S<sub>2</sub> = Simazine: 1 lb " " " " " " " "

T<sub>1</sub> = Methyl-mercapto-triazine: 1¼ lb active material in 40 gallons per acre

T<sub>2</sub> = Methyl-mercapto-triazine: 2½ lb " " " " " " " "

Note. Two extra plots outside the main experiment on Long Hoos III (R) gave the following results:

2,6 DEN: lb of active material in 40 gallons per acre	Total tubers tons per acre	Percentage ware
1½	6.84	95.9
3	7.81	94.7