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Yields of the Field Experiments 1960

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60/R/CF/3 Potatoes - Control of Blight (Fungicides)

Rothamsted Research

Rothamsted Research (1961) *60/R/CF/3 Potatoes - Control of Blight (Fungicides)* ; Yields Of The Field Experiments 1960, pp 124 - 125 - DOI: <https://doi.org/10.23637/ERADOC-1-180>

60/Cf/3.1

POTATOES

Control of blight (Phytophthora infestans) by copper, tin and zinc fungicides - Long Hoos VII 1960.

Design: 4 randomised blocks of 8 plots each.

Area of each plot: 0.0128 acres. Area harvested: 0.0077 acres.

Treatments:-

Unsprayed (0) (2 plots per block) together with all combinations of:-
Spray 50% copper oxychloride at 5 lb in 100 gallons per acre (C);
Triphenyltin acetate (25% active material) at 3 lb in 100 gallons per acre (T); Zineb (65% zinc ethylene bis dithiocarbamate) at 2 lb in 100 gallons per acre (Z).

No. of sprays: 2 (July 21 and Aug 8); 3 (July 21, Aug 8 and Aug 25).

Basal dressing per acre: 15 tons of dung; and 10 cwt compound fertiliser (10% N, 10% P₂O₅, 18% K₂O) applied over ridges before machine planting.

Cultivations, etc.: Ploughed twice: Nov 5 - 7, 1959 and Feb 10, 1960, (dung applied Feb 8). Ridged, basal fertiliser applied: Apr 13. Machine planted: Apr 14. Earthed up: June 16. Sprayed with 15 gallons of undiluted BOV per acre: Sept 13. Haulm destroyed mechanically: Sept 20. Lifted: Oct 18. Variety: Ulster Supreme. Previous crop: Barley. *Winter wheat.*

Note: An assessment was made of the destruction of foliage during the blight epidemic, and counts were made from harvest samples to calculate the percentage of numbers and weight of infected tubers.

Standard error per plot.

Total tubers: 1.293 tons per acre or 8.7% (22 d.f.)

60/Cf/3.2

Summary of Results

No. of sprays	Spray				Mean
	O	C	T	Z	
	<u>Total tubers: tons per acre</u>				
			(±0.647)		(±0.373)
2		14.87	16.67	13.89	15.14
3		15.13	16.01	15.57	15.57
Mean (±0.457)	13.53	15.00	16.34	14.73	14.89 ⁺
Diff. (±0.915)		+0.26	-0.66	+1.68	+0.43 (±0.528)

Percentage ware (1½" riddle)

2		96.0	96.5	97.5	96.7
3		97.7	96.7	97.2	97.2
Mean	96.7	96.9	96.6	97.3	96.8 ⁺
Diff.		+1.7	+0.2	-0.3	+0.5

Sprays

O = Unsprayed

C = 50% copper oxychloride at 5 lb in 100 gallons per acre

T = Triphenyltin acetate (25% active material) at 3 lb in 100 gallons per acre

Z = Zineb (65% zinc ethylene bis dithiocarbamate) at 2 lb in 100 gallons per acre.

+ General mean.