

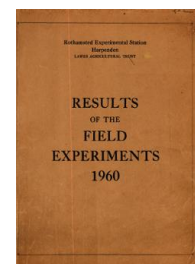
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Yields of the Field Experiments 1960

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60/R/CF/1 Potatoes - Control of Blight (Copper and Zinc Sprays)

Rothamsted Research

Rothamsted Research (1961) *60/R/CF/1 Potatoes - Control of Blight (Copper and Zinc Sprays)* ;
Yields Of The Field Experiments 1960, pp 119 - 120 - DOI:

<https://doi.org/10.23637/ERADOC-1-180>

60/Cf/1.1

POTATOES

Control of blight (*Phytophthora infestans*) by copper and zinc fungicide sprays and times of spraying - Delharding 1960.

Design: 4 × 4 Latin square.

Area of each plot: 0.1270 acres. Area harvested: 0.0035 acres.

Treatments: 0, 1, 2, 3 as follows:-

Treatment	Stage			
	I	II	III	IV
0	-	-	-	-
1	-	C	C	-
2	-	Z	C	C
3	Z	C	C	-

where stage I = sprayed at closure of leaf canopy, July 14, 1960.

II = sprayed on issue of blight forecast, July 25, 1960.

III = sprayed on blight outbreak, Aug 13, 1960.

IV = sprayed when the deposit from the previous spray had gone, Aug 27, 1960.

C = sprayed with copper oxychloride (15% copper) at 5 lb in 40 gallons per acre.

Z = sprayed with zineb (zinc ethylene bis dithiocarbamate - 65% active ingredient) at 2 lb in 40 gallons per acre.

Basal dressing: 12 cwt compound fertiliser (10% N, 10% P₂O₅, 18% K₂O) per acre.

Cultivations, etc.: Ground chalk applied at 63 cwt per acre: Sept 14 - 18, 1959. Ploughed: Nov 3 - 12. Ridged, basal dressing applied: Apr 20, 1960. Potatoes machine planted: Apr 22. Earthed up: June 27. Sprayed with undiluted BOV at 15 gallons per acre: Sept 13. Haulm destroyed mechanically: Oct 18. Lifted*: Oct 30. Variety: Majestic. Previous crop: Wheat.

*Hand dug. Harvested area very much reduced, owing to wet conditions.

Note: Fortnightly estimates of yield by sampling, and estimates of foliage destroyed by blight were made commencing early August; also estimates of blight on the tubers at the times of sampling and at harvest.

Standard error per plot.

Total tubers: 0.770 tons per acre or 4.6% (6 d.f.)

60/Cf/1.2

Summary of Results

Spray

	0	1	2	3	Mean
<u>Total tubers: tons per acre</u>					
Mean (± 0.385)	14.43	16.66	16.76	18.46	16.58
Increase (± 0.544)		+2.23	+2.33	+4.03	
<u>Percentage ware (1$\frac{1}{2}$" riddle)</u>					
Mean	92.8	95.2	94.6	96.0	94.6
Increase		+2.4	+1.8	+3.2	

Sprays

- 0 = None.
- 1 = Copper oxychloride (15% copper) at 5 lb in 40 gallons per acre after issue of blight forecast.
- 2 = Zineb (zinc ethylene bis dithiocarbamate - 65% active ingredient) at 2 lb in 40 gallons per acre after issue of blight forecast plus copper oxychloride when the previous deposit had been removed.
- 3 = Zineb after closure of leaf canopy plus copper oxychloride after issue of blight forecast.