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Yields of the Field Experiments 1962

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62/R/DD/3 Potatoes - Fungicides

Rothamsted Research

Rothamsted Research (1963) *62/R/DD/3 Potatoes - Fungicides* ; Yields Of The Field Experiments 1962, pp 139 - 140 - DOI: <https://doi.org/10.23637/ERADOC-1-164>

62/Dd/3.1

POTATOES

Control of blight (*Phytophthora infestans*) by copper and tin fungicides - Long Hoos V 1962.

Design: Two 6 x 6 Latin squares, one for each variety, - King Edward and Ulster Supreme.

Area of each plot: 0.0129 acres. Area harvested: 0.0077 acres.

Treatments:

No fungicide (0)

Sprayed twice with:-

Commercial copper oxychloride wettable powder at $2\frac{1}{2}$ lb Cu per acre (1)

Copper oxychloride at $2\frac{1}{2}$ lb Cu per acre with either 0.25 (2), 0.50 (3), or 1.00% wax (4)

Commercial triphenyltin acetate wettable powder at 0.75 lb triphenyltin acetate per acre (5).

All sprays applied in 100 gallons per acre.

Basal dressing: 10 cwt compound fertiliser (10% N, 10% P_2O_5 , 18% K_2O) per acre.

Cultivations, etc.: Sprayed with dalapon at 8 lb in 40 gallons per acre: Sept 7, 1961 and again at 4 lb in 40 gallons per acre: Sept 26. Ploughed: Oct 17. Rotary cultivated, basal dressing applied, potatoes machine planted: Apr 24, 1962. Earthed up: July 7. Copper and tin fungicides applied: King Edward - July 20 and Aug 9, Ulster Supreme - July 25 and Aug 22. King Edward lifted: Oct 11. Ulster Supreme haulm destroyed mechanically, crop lifted: Oct 15. Previous crops: Spring beans 1960; spring wheat 1961.

Note: The destruction of foliage by blight and the percentage weight of infected tubers at harvest were estimated.

Standard errors per plot. Total tubers tons per acre:

King Edward: 0.626 tons per acre or 4.8% (20 d.f.)

Ulster Supreme: 1.027 tons per acre or 7.5% (20 d.f.)

62/Da/3.2

Summary of Results

	Fungicide						
Variety	0	1	2	3	4	5	Mean
<u>Total tubers: tons per acre</u>							
<u>King Edward</u>							
Mean (± 0.256)	12.43	12.66	13.04	13.21	12.89	14.04	13.05
Increase (± 0.361)		0.23	0.61	0.78	0.46	1.61	
<u>Ulster Supreme</u>							
Mean (± 0.419)	12.02	13.20	13.57	13.79	13.95	15.45	13.67
Increase (± 0.593)		1.18	1.55	1.77	1.93	3.43	
<u>Percentage ware ($1\frac{1}{2}$" riddle)</u>							
<u>King Edward</u>							
Mean	88.3	89.5	90.0	88.9	89.9	90.3	89.5
Increase		1.2	1.7	0.6	1.6	2.0	
<u>Ulster Supreme</u>							
Mean	97.7	97.9	97.9	97.7	97.8	98.1	97.8
Increase		0.2	0.2	0.0	0.1	0.4	

Fungicide.

- 0 = No fungicide
 1 = Commercial copper oxychloride wettable powder at $2\frac{1}{2}$ lb Cu per acre.
 2 = Copper oxychloride at $2\frac{1}{2}$ lb Cu per acre with 0.25% wax.
 3 = " " " " " " " " 0.50% wax.
 4 = " " " " " " " " 1.00% wax.
 5 = Commercial triphenyltin acetate wettable powder at 0.75 lb triphenyltin acetate per acre.