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Yields of the Field Experiments 1959

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59/R/CF/2 and 59/W/CF/2 Potatoes - Concentrated Fertilizers

Rothamsted Research

Rothamsted Research (1960) *59/R/CF/2 and 59/W/CF/2 Potatoes - Concentrated Fertilizers*; Yields Of The Field Experiments 1959, pp 94 - 95 - DOI: <https://doi.org/10.23637/ERADOC-1-179>

59/Cf/2.2

Summary of Results

None	Fertilizer				Mean
	Mixture A ₁	A ₂	B ₁	Concentrated B ₂	
<u>Total tubers: tons per acre</u>					
Great Field I (R)					
8.46	11.47	13.41	11.49	13.68	11.70
(±0.419)					
Lansome Field (W)					
4.03	6.74	7.06	6.64	8.01	6.49
(±0.341)					
<u>Percentage ware*</u>					
Great Field I (R)					
90.6	90.7	91.6	88.2	89.1	90.0
Lansome Field (W)					
48.3	51.6	42.7	59.6	57.3	51.9

*Riddle size (R) $1\frac{1}{2}$ "
(W) $1\frac{5}{8}$ ".

Treatments

Fertilizer. (A) a mixture of sulphate of ammonia, superphosphate and muriate of potash.

(B) concentrated compound fertilizer (15% N, 10% P₂O₅, 20% K₂O).

Rates of application: cwt per acre

(1) 0.75 N; 0.5 P₂O₅; 1.0 K₂O.

(2) 1.5 N; 1.0 P₂O₅; 2.0 K₂O.

59/Cf/3

POTATOES

Control of blight (*Phytophthora infestans*) by copper and zinc fungicide sprays and times of spraying - Great Field I 1959.

Design: 4 x 4 Latin square.

Area of each plot: 0.127 acres. Area harvested: 0.0141 acres.

Treatments:-

Sprays: None (0); copper oxychloride (15% copper) at 5 lb in 40 gallons per acre after issue of blight forecast (1); 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 (2); Zineb after closure of leaf canopy plus copper oxychloride after issue of blight forecast (3).

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

Cultivations, etc.: Ploughed: Oct 24, 1958. Basal dressing applied: Mar 31, 1959. Potatoes machine planted: Apr 2. Earthed up: June 18. Appropriate plots sprayed with zineb: July 22 and Aug 14, and with copper fungicide: Aug 14 and Sept 4. Sprayed with sulphuric acid at 15% BOV in 100 gallons per acre: Sept 30. Lifted: Oct 13. Variety: Majestic. Previous crop: Barley.

Standard error per plot.

Total tubers: 1.049 tons per acre or 8.8% (6 d.f.)

Note: Commencing mid July, fortnightly samples of yield, and estimates of foliage destroyed by blight, and of amounts of blight on the tubers at time of sampling and after storage were made.

Summary of Results

	Spray				Mean
	0	1	2	3	
<u>Total tubers: tons per acre</u>					
Mean (±0.525)	11.81	10.91	11.94	12.97	11.91
Increase (±0.742)		-0.90	+0.13	+1.16	
<u>Percentage ware (1½" riddle)</u>					
Mean	85.5	84.3	84.8	84.2	84.7
Increase		-1.2	-0.7	-1.3	