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Yields of the Field Experiments 1955

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55/R/CD/2 Potatoes - Virus Spread (Insecticides)

Rothamsted Research

Rothamsted Research (1956) *55/R/CD/2 Potatoes - Virus Spread (Insecticides)* ; Yields Of The Field Experiments 1955, pp 93 - 94 - DOI: <https://doi.org/10.23637/ERADOC-1-175>

55/cd/2.1

POTATOES

Control of virus spread by insecticides - Little Hoos 1955.

Design: 5 × 5 Latin square.

Area of each plot: 0.0602 acre. Area harvested: 0.0139 acre.

Treatments:

No. of insecticide sprayings: None; 2; 4; 6; 8 times sprayed with D.D.T. emulsion, 2 lb. active ingredient, in 100 gallons per acre.

Infector plants: 6 leaf roll and 6 virus Y infected plants planted in each plot.

Note: The tractor used for spraying was driven over all plots on each occasion always passing over the same rows. Yields were taken from the undamaged rows and an estimate of the loss in yield due to tractor damage was made from an area of 0.0820 acre.

Basal dressing: 13 cwt per acre compound granular fertilizer (7% N, 7% P₂O₅, 10¹/₂% K₂O).

Cultivations, etc.: Ploughed: Oct 7, 1954. Machine planted with fertilizer placement: Apr 23, 1955. Earthed up: July 7. Sprayed with sulphuric acid, 15% B.O.V.: Sept 29. Lifted: Oct 7. Variety: Majestic. Previous crop: Beans.

Sprayings:	2	4	6	8
	June 13	June 13	June 13	June 3
	July 14	July 5	June 23	June 13
		July 27	July 5	June 23
		Aug 10	July 14	July 5
			July 27	July 14
			Aug 10	July 27
				Aug 10
				Aug 26

Standard error per plot:

Total tubers: 0.583 tons per acre or 12.3% (12 d.f.)

Note: Aphid counts were made and tuber samples taken to assess virus spread.

55/CA/2.2

Summary of Results

	Number of sprayings with D.D.T.					Mean
	None	2	4	6	8	
Total tubers: tons per acre						
Mean (± 0.261)	4.59	4.68	4.72	4.94	4.86	4.76
Increase (± 0.369)		+0.09	+0.13	+0.35	+0.27	

Estimated loss in yield in damaged rows due to:-

8 passages of the tractor: 21.5%

Estimated loss in yield in whole crop due to:-

8 passages of the tractor along 4 rows out of 10: 8.6%