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Yields of the Field Experiments 1958

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58/R/CF/3 Potatoes - Virus Spread (Insecticides)

Rothamsted Research

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58/Cf/3

POTATOES

Control of virus spread by application of insecticides to the soil at planting - Highfield Drive 1958.

Design: 4 x 4 Latin square.

Area of each plot: 0.0089 acres. Area harvested: 0.0081 acres.

Treatments (applied by hand in the ridges before planting):

- Fertilizer alone, 10 cwt compound per acre (10% N, 10% P₂O₅, 18% K₂O). (C)
- Fertilizer and 'Thimet' applied together. (F)
- Fertilizer and 'Thimet' applied separately. (T)
- Fertilizer and 'Rogor' applied separately. (R)

Infector plants: One leaf roll and one virus Y King Edward infector planted in each plot.

Percentages and rate of application of % active ingredient of insecticide: 'Thimet' (Carbon powder) 44%, 'Rogor' (Charcoal powder) 50%, each at 10.8 lb per acre.

Cultivations, etc.: Dung applied at 10 tons per acre: Nov 26, 1957. Ploughed: Nov 28. Compound fertilizer applied: Apr 16, 1958. Potatoes hand planted: Apr 21. Earthed up: June 19. Sprayed with copper fungicide at 5 lb in 40 gallons per acre: July 12. Twice sprayed with copper fungicide at 3 lb and 1 pint of spreader to 40 gallons per acre: Aug 6 and 16. Sprayed with sulphuric acid, 20% BOV, 100 gallons per acre: Sept 18. Lifted: Sept 26. Variety: Majestic. Previous crop: Winter wheat.

Standard error per plot.

Total tubers: 0.845 tons per acre or 5.6% (6 d.f.)

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

Summary of Results

		Treatment				
		C	F	T	R	Mean
Total tubers: tons per acre						
Mean	(±0.423)	15.07	14.95	15.48	14.43	14.98
Increase	(±0.598)		-0.12	+0.41	-0.64	
Percentage ware (1½" riddle)						
Mean		92.0	93.6	94.6	92.5	93.2
Increase			+1.6	+2.6	+0.5	