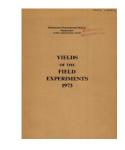
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Yields of the Field Experiments 1973



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Rothamsted Research

Rothamsted Research (1974) 73/R/P/8 - Aphids & Top-roll - Potatoes; Yields Of The Field Experiments 1973, pp 394 - 395 - DOI: https://doi.org/10.23637/ERADOC-1-98

73/R/P/8

POTATOES

APHIDS AND TOP-ROLL

Object: To study the relationship between aphids and the appearance of top-roll in three potato varieties and to measure their effects on yields and quality of produce - Little Hoos.

Sponsor: R.W. Gibson.

Design: 4 randomised blocks of 9 plots.

Whole plot dimensions: 3.56 x 6.10. Area harvested: 0.00130.

Treatments: All combinations of:-

1. Aphid infestation

APHID

None, aphids controlled by insecticide - phorate at 1.7 kg applied as granules at planting Natural colonisation (2 plots/block)

None Natural

2. Varieties

VARIETY

King Edward Majestic Pentland Crown Edward Majestic Crown

Basal applications: Manures: (13:13:20) at 1500 kg. Weedkillers: Linuron at 1.8 kg with paraquat at 0.8 kg ion in 430 l. Fungicide: Mancozeb at 1.3 kg in 430 l.

Cultivations, etc.:- Deep-tine cultivated: 7 Aug, 1972, twice 22 Aug, once 11 Sept. NPK applied: 23 Mar, 1973. Rotary cultivated: 16 Apr. Ridged and hand planted: 17 Apr. Rotoridged: 27 Apr. Weedkiller applied: 15 May. Fungicide applied 10, 25 July. Haulm mechanically destroyed: 17 Sept. Sprayed with undiluted BOV at 220 1: 18 Sept. Lifted: 12 Oct. Previous crops: Barley 1971, grass 1972.

NOTE: Aphid counts and assessments of top-roll were made at weekly intervals during June and July.

Standard error per plot.
Total tubers, tonnes/hectare: 2.56 or 5.1% (27 d.f.)

73/R/P/8

TABLES OF MEANS

TOTAL TUBERS: TONNES/HECTARE

	1	VARIETY	4	1
	Edward	Majestic	Crown	Mean
APHID				
None Natural	50.0 47.9	52.4 51.8	46.5 49.4	49.6 49.7
Mean	48.6	52.0	48.4	49.7

STANDARD ERRORS OF DIFFERENCES

	ADVITO	***************************************	
	APHID	VARIETY	APHID VARIETY
APHID	0.00	. 01	
	0.90	1.04	- 0-
None			1.81
Natural			1.28
None v Natural			1.56

PERCENTAGE WARE 4.44 CM (1.75 INCH) RIDDLE

	VARIETY					
	Edward	Majestic	Crown	Mean		
APHID	12 4 37 71		***********			
None Natural	83.6 81.0	82.8 82.0	94.9 93.1	87 .1 85 . 4		
Mean	81.9	82.3	93.7	85.9		