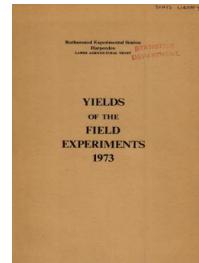


Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



Yields of the Field Experiments 1973

[Full Table of Content](#)



73/R/P/2 - Blight Aphid Reference Plots - Potatoes

Rothamsted Research

Rothamsted Research (1974) 73/R/P/2 - *Blight Aphid Reference Plots - Potatoes ; Yields Of The Field Experiments 1973*, pp 374 - 377 - DOI: <https://doi.org/10.23637/ERADOC-1-98>

73/R/P/2

POTATOES

BLIGHT AND APHID REFERENCE PLOTS

Object: To study the separate and combined effect of sprays to control blight and aphids on potatoes - Little Hoos.

Sponsors: J.M. Hirst, O.J. Stedman, R.W. Gibson.

Design: 4 randomised blocks of 7 plots split into 3.

Whole plot dimensions: 8.53 x 9.52. Sub plot area harvested: 0.00271.

Treatments: All combinations of:-

Whole plots: 1. Blight fungicide: FUNGICIDE

None	None
Mancozeb applied on 3 occasions at 1.3 kg in 370 l	Mancozeb

2. Aphicide: APHICIDE

None	None
Demeton-s-methyl applied on 4 occasions, starting early, on 14 June, at 0.25 kg in 370 l	Demeton1
Demeton-s-methyl applied on 3 occasions, starting with first blight spray on 3 July, at 0.25 kg in 370 l	Demeton2

Sub plots: 3. Varieties: VARIETY

King Edward	Edward
Majestic	Majestic
Pentland Crown	Crown

together with one extra treatment, sprayed mancozeb only and split for varieties as above, plot used for sampling (no yields recorded).

Basal applications: Manures: (13:13:20) at 1500 kg. Weedkillers:
Linuron at 1.2 kg with paraquat at 0.4 kg ion in 450 l.

B/R/P/2

Cultivations, etc.: Deep-tine cultivated: 7 Aug, 1972, twice 22 Aug, once 11 Sept. NPK applied: 23 Mar, 1973. Rotary cultivated: 13 Apr. Seed planted: 16 Apr. Weedkiller applied: 15 May. Grubbed: 9 June. Insecticide applied to Donatrol plots: 14 June. Rotoridged: 15 June. Insecticide with fungicide applied: 3 and 24 July, 11 Aug. Sprayed with undiluted BOV at 220 l: 18 Sept. Lifted: 12 Oct. Previous crops: Barley 1971, grass 1972.

- NOTES: (1) Aphids were counted fortnightly during June and July.
(2) Samples were taken for bulking and size distribution of tubers on 18 June, 2, 16, 30 July, 13, 28 Aug, and 10 Sept.
(3) Estimates were made of the percentage of haulm destroyed by blight and of tubers blighted.

Standard errors per plot. Total tubers, tonnes/hectare:

Whole plot: 1.95 or 4.4% (15 d.f.)

Sub plot: 4.13 or 9.2% (36 d.f.)

73/R/P/2

3

TOTAL YIELDS OF MEANS

TOTAL YIELDS: TONNES/HECTARE

	None	APHICIDE Deltalon1	Deltalon2	Edward	VARIETY Majestic	Crown	Mean
FUNGicide							
None	43.5	43.3	45.1	43.6	44.2	44.2	44.0
Mancozeb	46.4	46.4	45.7	45.3	45.9	46.2	45.5
APHICIDE							
	None	44.5	45.6	44.2	44.9		
	Deltalon1	44.2	41.5	45.7	43.8		
	Deltalon2	44.2	46.8	45.5	45.4		
Mean		44.4	44.6	45.2	44.7		

	None	Deltalon1	Deltalon2					
VARIETY	Edward	Majestic	Crown	Edward	Majestic	Crown	Edward	Majestic
FUNGicide								
None	42.8	45.5	42.2	44.2	41.1	44.5	43.7	45.9
Mancozeb	47.0	45.8	46.3	44.2	42.0	47.0	40.7	47.3

STANDARD ERRORS OF DIFFERENCES

FUNGicide	APHICIDE	VARIETY	FUNGicide	FUNGicide	APHICIDE	FUNGicide	FUNGicide
			APHICIDE	VARIETY	VARIETY	APHICIDE	VARIETY
0.80	0.98	1.19	1.38	1.59	1.95	2.75	
Except when comparing means with same levels of							
FUNGicide				1.63			
APHICIDE					2.06		
FUNGicide, APHICIDE						2.92	

73/R/P/2

PERCENTAGE WARE 3.81 CM (1.5 INCH) RIDDLE

FUNGICIDE	APHICIDE			VARIETY			Mean		
	None	Demeton1	Demeton2	Edward	Majestic	Crown			
None	97.6	97.5	97.9	97.4	97.8	97.7	97.6		
Mancozeb	97.5	97.3	97.6	97.4	97.4	97.7	97.5		
APHICIDE									
	None	97.2	97.6	97.8	97.5				
	Demeton1	97.4	96.9	97.9	97.4				
	Demeton2	97.6	98.3	97.4	97.8				
Mean				97.4	97.6	97.7	97.6		
VARIETY									
FUNGICIDE	Edward	Majestic	Crown	Edward	Majestic	Crown	Edward		
							Majestic Crown		
None	96.6	98.1	98.0	97.8	96.9	97.7	97.6	98.5	97.5
Mancozeb	97.7	97.1	97.6	96.9	97.0	98.0	97.5	98.2	97.3