

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.



ROTHAMSTED  
RESEARCH

## Yields of the Field Experiments 1974

[Full Table of Content](#)



### 74/W/CS/138 Control of Pcn - Potatoes

74/W/CS/138 Control of Pcn - Potatoes, Rothamsted Research (1975) Yields Of The Field Experiments 1974, pp 257 - 259 - DOI: <https://doi.org/10.23637/ERADOC-1-119>

74/W/CS/138

# CONTROL OF PCN

Object: To study the effects of rates and depths of applying nematicides on control of *Heterodera rostochiensis* (PCN) and yield of early and maincrop potatoes - Woburn Butt Close.

Sponsor: A.G. Whitehead.

The first year, potatoes.

Design: 2 series (for early and maincrop varieties respectively) each of 3 blocks of 7 plots.

Whole plot dimensions: 2.84 x 7.01. Area harvested: 0.00100.

Treatments: To each series: Nematicides, times and depths of application:

## NEMACIDE

None

None

Autumn applications, all also given dichloropropene (200 kg) injected at 20 cm:

Dazomet at 100 kg, worked in to top 7.5 cm of soil

DiD1/7.5

Dazomet at 100 kg, worked in to top 15 cm of soil

DiD1/15

Dazomet at 200 kg, worked in to top 7.5 cm of soil

DiD2/7.5

Dazomet at 200 kg, worked in to top 15 cm of soil

DiD2/15

Dichloropropene at 200 kg in autumn, injected at

20 cm + 'Du Pont 1410' at 6 kg (a.i.) in spring

DiDP

'Du Pont 1410' at 6 kg (a.i.) in spring

DP

Basal applications: Manures: (13:13:20) at 1880 kg. Weedkillers:

Paraquat at 0.56 kg ion in 370 l. Linuron at 1.2 kg plus paraquat

at 0.28 kg ion in 280 l. Fungicide with insecticide: Mancozeb at

1.3 kg plus demeton-s-methyl at 0.25 kg in 450 l. Fungicide:

Mancozeb at 1.3 kg in 450 l.

Seed: Early, Arran Pilot. Maincrop, Pentland Crown.

74/W/CS/138

Cultivations, etc.:-

Early and maincrop potatoes: Paraquat applied: 13 Sept, 1973.  
Subsoiled, tines 140 cm apart 50 cm deep: 25 Sept. Ploughed:  
2 Nov. Dichloropropene and dazomet applied: 7 Nov. Rotary  
cultivated maincrop: 7 Nov. Early crop: 19 Dec. NPK applied,  
'Du Pont 1410' applied, rotary cultivated: 1 Apr, 1974. Potatoes  
planted: 2 Apr. Inter-row rotary cultivated and earthed up: 11 Apr.  
Weedkiller applied: 8 May. Fungicide with insecticide applied:  
19 July. Fungicide applied: 7 Aug. Early crop lifted: 19 Aug.  
Maincrop: Haulm mechanically destroyed: 11 Sept. Sprayed with  
undiluted BOV at 170 l. Lifted: 14 Oct.  
Previous crops: Potatoes 1972, barley 1973.

NOTE: Soil samples were taken in autumn 1973 and after harvest 1974 for  
cyst and egg counts of *Heterodera rostochiensis*.  
Early. One plot NEMACIDE None was incorrectly treated. An  
estimated value was used in the analysis.

Standard errors per plot. Total tubers, tonnes/hectare:  
Early: 2.08 or 6.4% (11 d.f.)  
Maincrop: 3.96 or 7.0% (12 d.f.)

74/W/CS/138

TABLES OF MEANS

NEMACIDE

| None                                      | DiD1/7.5 | DiD1/15 | DiD2/7.5 | DiD2/15 | DiDP | DP   | Mean |
|-------------------------------------------|----------|---------|----------|---------|------|------|------|
| EARLY                                     |          |         |          |         |      |      |      |
| TOTAL TUBERS: TONNES/HECTARE              |          |         |          |         |      |      |      |
| 15.5                                      | 31.7     | 27.9    | 34.9     | 36.1    | 41.6 | 41.7 | 32.7 |
| PERCENTAGE WARE 3.81 CM (1.5 INCH) RIDDLE |          |         |          |         |      |      |      |
| 56.3                                      | 79.4     | 77.4    | 83.2     | 81.9    | 85.0 | 83.1 | 78.0 |
| MAINCROP                                  |          |         |          |         |      |      |      |
| TOTAL TUBERS: TONNES/HECTARE              |          |         |          |         |      |      |      |
| 30.4                                      | 61.2     | 52.4    | 56.5     | 60.0    | 72.8 | 62.6 | 56.6 |
| PERCENTAGE WARE 3.81 CM (1.5 INCH) RIDDLE |          |         |          |         |      |      |      |
| 88.1                                      | 94.8     | 94.4    | 94.3     | 93.7    | 94.4 | 93.8 | 93.4 |

STANDARD ERRORS OF DIFFERENCES: TOTAL TUBERS: TONNES/HECTARE.

NEMACIDE

|          |      |
|----------|------|
| EARLY    | 1.70 |
| MAINCROP | 3.23 |