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## Yields of the Field Experiments 1978

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### 78/W/P/4 Oxamyl Sprays Against Pcn - Potatoes

#### Rothamsted Research

Rothamsted Research (1979) *78/W/P/4 Oxamyl Sprays Against Pcn - Potatoes* ; Yields Of The Field Experiments 1978, pp 438 - 439 - DOI: <https://doi.org/10.23637/ERADOC-1-30>

78/W/P/4

POTATOES

OXAMYL SPRAYS AGAINST PCN

Object: To study the effects of a range of rates and times of applying foliar sprays of oxamyl on the control of potato cyst-nematode (PCN) and on the yield of potatoes - Butt Close I.

Sponsor: A.G. Whitehead.

Design: 2 randomised blocks of 14 plots.

Whole plot dimensions: 2.84 x 9.14.

Treatments: All combinations of:-

1. OX RATE Rates of applying oxamyl on each spraying occasion (kg):

1  
2  
4

2. OX FREQ Frequency of applying oxamyl

2 Twice (20 June and 5 July)  
4 Four times (20 June, 5 July, 19 July and 9 Aug)  
6 Six times (duplicated) (20 June, 5 July, 19 July, 9 Aug, 22 Aug and 7 Sept)

EXTRA Plus one extra treatment not given oxamyl

NONE None (duplicated)

NOTES: (1) The first spray on 1 June was applied at a quarter of the intended rate.

(2) The site of this experiment was sown to winter wheat given (10:24:24) at 250 kg, combine drilled. The crop failed and was ploughed up for potatoes.

Basal applications: Manures: (13:13:20) at 1870 kg. Weedkillers: Linuron at 1.3 kg plus paraquat at 0.42 kg ion in 280 l. Fungicide: Fentin acetate with maneb ('Fennite A' at 1.7 kg in 280 l). Haulm desiccant: Undiluted BOV at 170 l.

Seed: Pentland Crown.

Cultivations, etc.: Ploughed: 4 Nov, 1977. Spring-tine cultivated with crumbler attached, winter wheat sown: 15 Nov. Ploughed: 6 Mar, 1978. NPK applied, deep-tine cultivated: 5 Apr. Rotary cultivated, ridged up, potatoes planted: 21 Apr. Weedkillers applied: 18 May. Grubbed, earthed up: 9 June. Hand hoed: 27 July. Fungicide applied: 23 Aug. Haulm desiccant applied: 23 Sept. Lifted: 2 Oct.

Note: Soil samples were taken before applying treatments and after harvest for counts of cysts, eggs and larvae of *Globodera rostochiensis*.

78/W/P/4

TOTAL TUBERS TONNES/HECTARE

\*\*\*\*\* TABLES OF MEANS \*\*\*\*\*

| OX FREQ<br>OX RATE | 2    | 4    | 6    | MEAN |
|--------------------|------|------|------|------|
| 1                  | 18.1 | 24.4 | 27.9 | 24.6 |
| 2                  | 26.9 | 29.2 | 28.0 | 28.0 |
| 4                  | 24.3 | 19.3 | 25.1 | 23.5 |
| MEAN               | 23.1 | 24.3 | 27.0 | 25.3 |

EXTRA NONE 24.6

GRAND MEAN 25.2

\*\*\*\*\* STANDARD ERRORS OF DIFFERENCES OF MEANS \*\*\*\*\*

| TABLE | OX RATE | OX FREQ | OX RATE<br>OX FREQ<br>& EXTRA NONE |         |
|-------|---------|---------|------------------------------------|---------|
| SED   |         | 3.04    | 5.28                               | MIN REP |
|       | 2.64    | 2.64    | 4.58                               | MAX-MIN |
|       |         |         | 3.74                               | MAX REP |

OX FREQ  
MAX-MIN 6 OR EXTRA NONE V ANY OF REMAINDER  
MIN REP ANY OF REMAINDER  
MAX REP 6 ONLY

\*\*\*\*\* STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION \*\*\*\*\*

| STRATUM  | DF | SE   | CV%  |
|----------|----|------|------|
| BLOCK.WP | 17 | 5.28 | 20.9 |

PERCENTAGE WARE 3.81CM (1.5 INCH) RIDDLE

\*\*\*\*\* TABLES OF MEANS \*\*\*\*\*

| OX FREQ<br>OX RATE | 2    | 4    | 6    | MEAN |
|--------------------|------|------|------|------|
| 1                  | 91.9 | 89.3 | 89.9 | 90.2 |
| 2                  | 87.8 | 91.8 | 87.8 | 88.8 |
| 4                  | 89.4 | 92.0 | 91.6 | 91.1 |
| MEAN               | 89.7 | 91.1 | 89.7 | 90.1 |

EXTRA NONE 89.2

GRAND MEAN 89.9

PLOT AREA HARVESTED 0.00130