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# Yields of the Field Experiments 1967

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## 67/W/WCM/C/40 Ploughsole Dd - Sugar Beet

### Rothamsted Research

Rothamsted Research (1968) *67/W/WCM/C/40 Ploughsole Dd - Sugar Beet* ; Yields Of The Field Experiments 1967, pp 255 - 258 - DOI: <https://doi.org/10.23637/ERADOC-1-157>

67/C/40.1

# PLUGHSOLE D-D

(WCM)

The effect of 'D-D' (dichloropropane-dichloropropene) in the control of *Trichodorus* and *Longidorus* in sugar beet - Woburn Butt Furlong 1967.

Design: 6 randomised blocks of 4 plots, split into 3 for N.

Area of each sub plot: 0.0064. Area harvested: 0.0032.

Treatments: All combinations of:-

Whole plots: D-D: None (D0), 65 (D1), 140 (D2), 250 lb D-D (dichloropropane-dichloropropene) (D3).

Sub plots: Nitrogen: 0.6 (N1), 1.2 (N2), 1.8 cwt N (N3) as 'Nitro-Chalk'.

Basal applications: 360 lb (0:14:28). Salt: 4 cwt. Insecticide: Demeton-s-methyl at 3.12 fl oz in 30 gals on two occasions.

Cultivations, etc.: Ploughed with D-D applications: Jan 13 - 15, 1967. Salt applied: Feb 6. PK fertiliser applied: Mar 17. 'Nitro-Chalk' applied: Mar 28. Seed drilled at 5 lb: Mar 30. Singled: May 18 - 19. Insecticide applied: June 9, July 10. Lifted: Oct 12. Variety: Klein E. Previous crops: Carrots and sugar beet 1966, barley 1965.

NOTE: Samples were taken monthly from May to October for nematode counts.

Standard errors per plot.

|                 |                                      |
|-----------------|--------------------------------------|
| Roots (washed), | Whole plot: 1.229 or 12.8% (15 d.f.) |
|                 | Sub plot: 1.395 or 14.6% (40 d.f.)   |
| Total sugar,    | Whole plot: 3.79 or 13.7% (15 d.f.)  |
|                 | Sub plot: 4.72 or 17.1% (40 d.f.)    |
| Tops,           | Whole plot: 1.531 or 13.1% (15 d.f.) |
|                 | Sub plot: 1.328 or 11.4% (40 d.f.)   |

67/c/40.2

# SUMMARY OF RESULTS

|                      | N1             | N2    | N3    | Mean            |
|----------------------|----------------|-------|-------|-----------------|
|                      | ROOTS (WASHED) |       |       |                 |
|                      | (1) and (2)    |       |       | ( $\pm 0.502$ ) |
| D0                   | 7.27           | 8.14  | 8.68  | 8.03            |
| D1                   | 9.03           | 9.34  | 10.38 | 9.58            |
| D2                   | 9.77           | 11.61 | 10.53 | 10.64           |
| D3                   | 9.11           | 10.12 | 10.82 | 10.02           |
| Mean ( $\pm 0.285$ ) | 8.79           | 9.80  | 10.11 | 9.57            |

(1) ( $\pm 0.684$ ) For use in vertical and diagonal comparisons

(2) ( $\pm 0.569$ ) For use in horizontal and interaction comparisons

|      | SUGAR % |      |      |      |
|------|---------|------|------|------|
| D0   | 14.5    | 14.3 | 13.9 | 14.2 |
| D1   | 14.8    | 14.3 | 13.9 | 14.4 |
| D2   | 14.6    | 14.5 | 13.9 | 14.3 |
| D3   | 14.6    | 14.2 | 13.8 | 14.2 |
| Mean | 14.7    | 14.3 | 13.9 | 14.3 |

67/C/40.3

|              | N1          | N2   | N3   | Mean    |
|--------------|-------------|------|------|---------|
| TOTAL SUGAR  |             |      |      |         |
|              | (1) and (2) |      |      | (±1.55) |
| D0           | 21.3        | 23.6 | 24.3 | 23.1    |
| D1           | 27.3        | 27.1 | 29.1 | 27.8    |
| D2           | 28.8        | 34.1 | 29.5 | 30.8    |
| D3           | 27.0        | 28.9 | 30.1 | 28.7    |
| Mean (±0.96) | 26.1        | 28.4 | 28.3 | 27.6    |

(1) (±2.21) For use in vertical and diagonal comparisons

(2) (±1.93) For use in horizontal and interaction comparisons

|               |             |       |       |          |
|---------------|-------------|-------|-------|----------|
| TOPS          |             |       |       |          |
|               | (1) and (2) |       |       | (±0.625) |
| D0            | 8.26        | 10.26 | 12.45 | 10.33    |
| D1            | 9.89        | 11.09 | 15.07 | 12.02    |
| D2            | 10.07       | 13.33 | 13.87 | 12.42    |
| D3            | 9.65        | 12.22 | 13.71 | 11.86    |
| Mean (±0.271) | 9.47        | 11.73 | 13.77 | 11.66    |

(1) (±0.766) For use in vertical and diagonal comparisons

(2) (±0.542) For use in horizontal and interaction comparisons

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|      | N1           | N2   | N3   | Mean |
|------|--------------|------|------|------|
|      | PLANT NUMBER |      |      |      |
| D0   | 60.1         | 60.6 | 59.0 | 59.9 |
| D1   | 58.2         | 58.4 | 57.7 | 58.1 |
| D2   | 57.7         | 61.1 | 56.7 | 58.5 |
| D3   | 56.2         | 56.3 | 57.8 | 56.7 |
| Mean | 58.1         | 59.1 | 57.8 | 58.3 |