

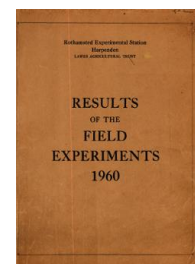
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Yields of the Field Experiments 1960

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60/R/CE/1 and 60/W/CE/1 Spring Beans - Control of Aphids (Seed Rates and Spraying)

Rothamsted Research

Rothamsted Research (1961) *60/R/CE/1 and 60/W/CE/1 Spring Beans - Control of Aphids (Seed Rates and Spraying)* ; Yields Of The Field Experiments 1960, pp 113 - 114 - DOI:

<https://doi.org/10.23637/ERADOC-1-180>

60/Ce/1.1

SPRING BEANS

Effect of seed rates and spraying on aphids (*Aphis fabae*) - Rothamsted
(R) Long Hoos V and Woburn (W) Warren Field N 1960.

Design (each field): 4 randomised blocks of 7 plots each, blocks and plots being split into 2 strips for the application of spray.

Area of each sub plot: 0.0118 acres. Area harvested: 0.0074 acres.

Treatments. All combinations of:-

Whole plots. Seed rate, lb per acre: 50; 100; 200; 300; 400; 600, all at 22 inch row spacing; and 600 at 11 inch.

Sub plots. Spray: None; demeton-methyl at 12 fluid oz (50% active ingredients) in 40 gallons per acre.

Basal dressing: 412 lb compound fertiliser (10% P₂O₅, 20% K₂O) per acre placement drilled with the seed.

Cultivations, etc.:

Long Hoos V (R): Ploughed: Nov 5, 1959. Seed drilled: Mar 17, 1960.
Sprayed with simazine at 2 lb in 40 gallons per acre: Mar 22.
Appropriate sub plots sprayed with demeton-methyl: June 13.
Combine harvested: Sept 5. Variety: Garton's Tick. Previous crop: Oats.

Warren Field N (W): Ploughed: Oct 22 - 26, 1959. Ground chalk applied at 18 cwt per acre: Mar 12, 1960. Seed drilled: Mar 23. Sprayed with simazine at 2 lb in 40 gallons per acre: Mar 25. Appropriate sub plots sprayed with demeton-methyl: June 15. Combine harvested: Sept 24. Variety: Garton's Tick. Previous crop: Spring wheat.

Standard errors per plot, Grain (at 85% dry matter)

Long Hoos V (R), Whole plot: 2.21 cwt per acre or 14.3% (18 d.f.)
Sub plot: 4.21 cwt per acre or 27.3% (21 d.f.)

Warren Field N (W), Whole plot: 2.28 cwt per acre or 14.0% (18 d.f.)
Sub plot: 3.75 cwt per acre or 23.1% (21 d.f.)

60/Ce/1.2

Summary of Results

Grain (at 85% dry matter): cwt per acre

Seed rate: lb per acre

| | at 22" | | | | | | at 11" | Mean |
|------------------------------------|-------------------------------|------|------|------|------|------|--------|------|
| | 50 | 100 | 200 | 300 | 400 | 600 | 600 | |
| <u>Long Hoos V (R)</u> | | | | | | | | |
| <u>Spray</u> | (± 1.85) ⁽¹⁾ | | | | | | | |
| None | 8.8 | 7.7 | 9.2 | 11.1 | 12.7 | 16.0 | 20.4 | 12.3 |
| Demeton-methyl | 15.1 | 16.5 | 20.5 | 18.6 | 19.6 | 19.2 | 20.7 | 18.6 |
| Mean (± 1.10) | 11.9 | 12.1 | 14.9 | 14.8 | 16.1 | 17.6 | 20.6 | 15.4 |
| Diff (± 2.98) ⁽²⁾ | 6.3 | 8.8 | 11.3 | 7.5 | 6.9 | 3.2 | 0.3 | 6.3 |

Mean dry matter % as harvested: 69.3

Warren Field N (W)

| <u>Spray</u> | (± 1.74) ⁽¹⁾ | | | | | | | |
|------------------------------------|-------------------------------|------|------|------|------|------|------|------|
| | None | 2.2 | 2.4 | 2.7 | 5.9 | 12.0 | 17.3 | 22.2 |
| Demeton-methyl | 12.1 | 19.8 | 22.7 | 24.5 | 24.6 | 26.8 | 32.2 | 23.2 |
| Mean (± 1.14) | 7.1 | 11.1 | 12.7 | 15.2 | 18.3 | 22.0 | 27.2 | 16.2 |
| Diff (± 2.65) ⁽²⁾ | 9.9 | 17.4 | 20.0 | 18.6 | 12.6 | 9.5 | 10.0 | 14.0 |

Mean dry matter % as harvested: 68.9

(1) For use in horizontal comparisons only

(2) For use only in testing the difference of two differences.