ROTHAMSTED RESEARCH

# Yields of the Field Experiments 1957

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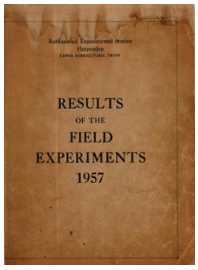


## 57/R/CE/1 Spring Beans - Control of Aphids (Dates of Sowing and Spraying)

### Rothamsted Research

Rothamsted Research (1958) *57/R/CE/1 Spring Beans - Control of Aphids (Dates of Sowing and Spraying) ;* Yields Of The Field Experiments 1957, pp 89 - 90 **- DOI: https://doi.org/10.23637/ERADOC-1-177**

# SPRING BEANS

The control of Aphids (Aphis fabae) by dates of sowing and spraying - Long Hoos V 1957.

Design: 4 × 4 Latin square, plots being split into 4 for the application of sprays.

Area of each sub plot: 0.0253 acres.

Treatments. All combinations of:-
Whole plots. Date of sowing: Mid-March (A); early April (B); late April (C); mid-May (D).
Sub plots. Spray: None; mid-June (E); early July (L); E and L.

Owing to the first sowing 'A' being drilled in error at 150 lb per acre instead of 200 lb per acre, the second sowing 'B' was made in March.

The insecticide spray was methyl demeton at 12 fluid oz. in 60 gallons per acre.

Basal dressing: 2 cwt compound fertilizer (16% $P_2O_5$, 16% $K_2O$) per acre placement drilled with seed.

Cultivations, etc.: Ploughed: Oct 4, 1956 and Jan 18, 1957. 'A' plots - seed drilled at 150 lb per acre with placed fertilizer: Mar 12. 'B', 'C', 'D' plots - seed drilled at 200 lb per acre with placed fertilizer: Mar 20, Apr 30, May 15. Sprayed 'A', 'B', 'C' plots with miscible DDT at 3 pints in 20 gallons per acre: May 29. Appropriate plots sprayed with methyl demeton: 'E' plots - June 13, 'L' plots - July 5. Combine harvested: 'A' and 'B' plots - Aug 30, 'C' plots - Sept 17, 'D' plots - Oct 9. Variety: Garton. Previous crop: Wheat.

Note: The crop failed completely on the unsprayed plots of 'A' and 'B' sowings and was very poor on the 'L' plots of the same sowings. The analysis was therefore carried out on the 'E' and 'EL' plots only of each sowing.

Standard errors per plot. Grain (at 85% dry matter):
Whole plot: 1.63 cwt per acre or 11.2% (6 d.f.)
Sub plot: 1.24 cwt per acre or 8.5% (12 d.f.)

Note: Counts of aphids at intervals after spraying, and assessment of early incidence of virus disease were made.



*https://doi.org/10.23637/ERADOC-1-177* 

## Summary of Results

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

| Date of Spraying | Date of Sowing Mar 12 | Mar 20 | Apr 30 | May 15 | Mean |
|---|---|---|---|---|---|
| | | (±0.92)* | | | |
| June 13 | 10.2 | 16.7 | 15.3 | 13.8 | 14.0 |
| June 13 & July 5 | 11.8 | 18.0 | 16.9 | 13.5 | 15.0 |
| Mean (±0.81) | 11.0 | 17.3 | 16.1 | 13.7 | 14.5 |
| Diff. (±0.88) | +1.6 | +1.3 | +1.6 | -0.3 | +1.0 (±0.44) |
| Mean dry matter % as harvested: | 79.6 | 80.9 | 50.3 | 62.8 | 68.4 |

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

| Date of Spraying | Date of Sowing Mar 12 | Mar 20 | Apr 30 | May 15 |
|---|---|---|---|---|
| None | 0.0 | 0.0 | 9.4 | 12.3 |
| July 5 | 1.6 | 1.2 | 13.9 | 13.4 |

*For use in comparisons other than vertical.



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