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## Yields of the Field Experiments 1973

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### 73/R/BE/5 - Control of Pests & Diseases - Beans

#### Rothamsted Research

Rothamsted Research (1974) *73/R/BE/5 - Control of Pests & Diseases - Beans* ; Yields Of The Field Experiments 1973, pp 352 - 353 - DOI: <https://doi.org/10.23637/ERADOC-1-98>

73/R/BE/5

SPRING BEANS

CONTROL OF PESTS AND DISEASES

Object: To study the effects of a range of chemicals on pest and disease incidence and yield of beans using a seed stock infected with seed-borne viruses and not isolated from other bean crops (see also 73/R/CS/95) - Great Knott II.

Sponsors: R. Bardner, A.J. Cockbain, D. Hornby, G.A. Salt.

Design: 4 randomised blocks of 5 plots.

Whole plot dimensions: 6.40 x 19.2. Area harvested: 0.00615.

Treatments: Chemicals (kg):	CHEMICAL
None	None
Aldicarb nematocide/insecticide, 4.5 applied as granules	Aldicarb
Gamma BHC insecticide, 2.2 in 290 l	BHC
Dexon fungicide, 78.5 in 290 l	Dexon
Dieldrin insecticide, 2.2 in 290 l	Dieldrin

Basal applications: Ground chalk at 7.5 tonnes. (0:20:20) at 1300 kg, Epsom salts at 900 kg in autumn to area not treated in 1971. (0:14:28) at 400 kg, placement drilled. Weedkiller: Simazine at 1.1 kg in 220 l. Insecticide: Demeton-s-methyl at 0.25 kg in 370 l.

Cultivations, etc.:- Autumn PK applied: 21 Sept, 1972. Epsom salts applied: 22 Sept. Chalk applied: 25 Sept. Ploughed: 22 Nov. Treatments applied and all plots rotary cultivated: 12 Mar, 1973. Seed sown: 13 Mar. Weedkiller applied: 16 Mar. Insecticide applied: 8 June. Combine harvested: 3 Sept. Previous crops: Winter wheat 1971, barley 1972.

73/R/BE/5

- NOTE: The following observations were made:-
- (1) Incidence of viruses.
  - (2) Adult weevil populations.
  - (3) Damage to plants by adult weevils.
  - (4) Incidence of wilt.
  - (5) Incidence of Aphis fabae.
  - (6) Root health.
  - (7) Sitona larvae in soil.

Standard error per plot.

Grain, tonnes/hectare: 0.391 or 11.8% (12 d.f.)

TABLES OF MEANS

GRAIN: TONNES/HECTARE

CHEMICAL

None	Aldicarb	BHC	Dexon	Dieldrin	Mean
3.18	3.61	3.33	3.10	3.32	3.31

STANDARD ERROR OF DIFFERENCES

CHEMICAL

0.277

Mean D.M. % 81.9