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Yields of the Field Experiments 1974

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74/R/BE/2 Insecticide and Beneficial Insects - Beans

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74/R/BE/2

SPRING BEANS

INSECTICIDE AND BENEFICIAL INSECTS

Object: To study the effects of a range of rates of dimethoate on beneficial insects, particularly predators and parasites of aphids and the yield of field beans - Whittlocks.

Sponsor: J.H. Stevenson.

Design: 5 randomised blocks of 6 plots.

Whole plot dimensions: 21.3 x 22.9. Area harvested: 0.00439.

Treatments: Rates of dimethoate (g a.i.)	DIMETH
None	0
26	26
52	52
105	105
210	210
420	420

- NOTES: (1) Treatments were applied on 8 July in 390 l.
(2) The application of treatments was deliberately delayed to allow aphid infestations and associated parasites and predators to establish. Weather conditions then delayed spraying until 8 July, by which time aphids had caused appreciable damage to all plots.

Basal applications: Manures: Chalk at 7.5 tonnes. (0:14:28) at 400 kg placement drilled. Weedkillers: Paraquat at 0.56 kg ion in 220 l, and simazine at 1.1 kg in 220 l.

Seed: Minor, sown at 220 kg.

Cultivations, etc.: Chalk applied: 6 Sept, 1973. Paraquat applied: 24 Oct. Chisel ploughed twice: 6 Dec and 10 Dec. Spring-tine cultivated: 23 Mar, 1974. Rotary harrowed, seed sown and spring-tine cultivated: 27 Mar. Simazine applied: 5 Apr. Combine harvested: 30 Sept. Previous crops: Winter wheat 1972, barley 1973.

74/R/BE/2

- NOTES: (1) Insect populations were sampled by sweep nets and water traps, aphid (*Aphis fabae*) counts were made.
 (2) There was evidence of a linear fertility trend across the site and yields adjusted for trend are presented.

Standard error per plot.

Grain, tonnes/hectare: 0.277 or 15.3% (19 d.f.)

TABLES OF MEANS

GRAIN: TONNES/HECTARE

DIMETH						Mean
0	26	52	105	210	420	
1.36	1.39	1.64	1.89	2.49	2.09	1.81

STANDARD ERROR OF DIFFERENCES

DIMETH

0.176

Mean D.M.% 69.7