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80/R/BE/6 Spring Beans Control of Sitona

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80/R/BE/6

SPRING BEANS

CONTROL OF SITONA

Object: To study the effects of three insecticides on the incidence of Sitona and on the yield of s. beans - Gt. Knott II.

Sponsors: R. Bardner, D.C. Griffiths, K.E. Fletcher.

Design: 4 randomised blocks of 8 plots.

Whole plot dimensions: 5.33 x 9.14.

Treatments:

| INSCTCDE | Forms, rates and methods of application of insecticides: |
|----------|--|
| NONE | None (duplicated) |
| CAR 1 CD | Carbofuran at 1.70 kg, combine drilled |
| CAR 2 CD | Carbofuran at 2.24 kg, combine drilled |
| PHO 1 CD | Phorate at 1.70 kg, combine drilled |
| PHO 2 CD | Phorate at 2.24 kg, combine drilled |
| PER 1 FS | Permethrin at 0.05 kg, foliar spray |
| PER 2 FS | Permethrin at 0.15 kg, foliar spray |

NOTE: Permethrin was applied in 340 l on 15 Apr, 1980.

Basal applications: Manures: Chalk at 7.5 t. Weedkillers: Trietazine and simazine (as 'Remtal SC' at 2.5 l) in 250 l.

Seed: Minden, sown at 180 kg.

Cultivations, etc.: - Chalk applied: 8 Oct, 1979. Ploughed: 29 Nov.
Spring-tine cultivated: 1 Mar, 1980 and 3 Mar. Seed sown: 4 Mar.
Weedkillers applied: 21 Mar. Combine harvested: 19 Sept. Previous crops: W. wheat 1978, s. barley 1979.

NOTES: (1) Leaf notching by adult Sitona was assessed twice in May; soil cores were examined for larval populations in June. In August soil cores were examined for root damage and a full growth analysis was made on ten plants per plot.
(2) Because of an error in applying treatments, four plots were treated as missing, one of each, CAR 1 CD, CAR 2 CD, PER 1 FS, PER 2 FS. Estimated values were used in the analysis.

80/R/BE/6

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

| INSCTCDE | NONE | CAR 1 | CD CAR 2 | CD PHO 1 | CD PHO 2 | CD PER 1 | FS PER 2 | FS | MEAN |
|----------|------|-------|----------|----------|----------|----------|----------|----|------|
| | 4.02 | 5.31 | 5.49 | 5.06 | 5.21 | 4.19 | 4.55 | | 4.73 |

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

| TABLE | INSCTCDE | MIN REP | MAX-MIN |
|-------|----------|---------|---------|
| SED | 0.220 | | 0.190 |

INSCTCDE
 MAX-MIN NONE V ANY OF THE REMAINDER
 MIN REP ANY OF THE REMAINDER

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

| STRATUM | DF | SE | CV% |
|---------------------|---------|-------|-----|
| BLOCK.WP | 18 | 0.311 | 6.6 |
| GRAIN MEAN DM% | 79.8 | | |
| PLOT AREA HARVESTED | 0.00293 | | |