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82/R/BE/19 Row Spacing and Methods of Applying Phorate - Spring Beans

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82/R/BE/19

SPRING BEANS

ROW SPACING AND METHODS OF APPLYING PHORATE

Object: To study the effects of rates and methods of applying phorate on the incidence of Sitona and on the yield of s. beans sown on wide or narrow rows - Claycroft.

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

Design: 4 randomised blocks of 9 plots.

Whole plot dimensions: 5.33 x 13.7.

Treatments: All combinations of:-

1. PHO RATE Rates of phorate:

PHORATE1	1.7 kg
PHORATE2	2.2 kg

2. PHO METH Methods of applying phorate:

BCAST N	Broadcast and rotary harrowed in to the seedbed, sown in rows 18 cm (7 inches) apart
CDRILL N	Combine drilled with seed, sown in rows 18 cm apart
CDRILL W	Combine drilled with seed, sown in rows 53 cm (21 inches) apart

plus three extra treatments:

EXTRA

O O N	No insecticide, seed sown in rows 18 cm apart
O O W	No insecticide, seed sown in rows 53 cm apart
TE1 BC N	Terbufos at 1.7 kg broadcast and rotary harrowed in to the seedbed, sown in rows 18 cm apart.

Basal applications: Manures: Chalk at 5.0 t. Glyphosate at 1.4 kg in 250 l. Trietazine at 1.0 kg with simazine at 0.14 kg.

Seed: Minden, sown at 270 kg.

Cultivations, etc.: - Glyphosate applied: 4 Nov, 1981. Chalk applied: 10 Nov. Ploughed: 27 Nov. Spring-tine cultivated: 24 Mar, 1982. Terbufos treatment applied: 25 Mar. Remaining broadcast treatments applied, rotary harrowed: 26 Mar. Seed sown: 27 Mar. Trietazine and simazine applied: 1 Apr. Combine harvested: 2 Sept. Previous crops: W. wheat 1980 and 1981.

NOTE: Adult Sitona damage was assessed in late April and mid-May. Larvae were assessed in late June.

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GRAIN TONNES/HECTARE

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

PHO METH	BCAST N	CDRILL N	CDRILL W	MEAN
PHO RATE				
PHORATE1	3.51	3.69	3.76	3.65
PHORATE2	3.74	3.82	3.75	3.77
MEAN	3.62	3.75	3.75	3.71

EXTRA	O O N	O O W	TE1 BC N	MEAN
	3.73	3.44	3.59	3.59

GRAND MEAN 3.67

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

TABLE	EXTRA	PHO RATE	PHO METH	PHO RATE PHO METH & EXTRA
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SED	0.212	0.123	0.150	0.212

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

STRATUM	DF	SE	CV%
BLOCK.WP	24	0.300	8.2

GRAIN MEAN DM% 76.5

PLOT AREA HARVESTED 0.00293