

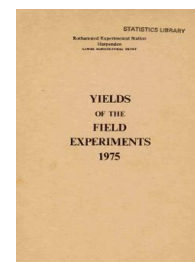
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75/ R/CS/116 - Effects of Stem Eelworm - Beans

Rothamsted Research

Rothamsted Research (1976) 75/ R/CS/116 - *Effects of Stem Eelworm - Beans* ; Yields Of The Field Experiments 1975, pp 207 - 208 - DOI: <https://doi.org/10.23637/ERADOC-1-141>

75/R/CS/116

EFFECTS OF STEM EELWORM

Object: To study the effects of applying field bean straw infested with two races of stem eelworm (*Ditylenchus dipsaci*) on the yield and subsequent infestation of field beans - Highfield O and E III.

Sponsor: D.J. Hooper.

The third year, spring beans.

For previous years see 73-74/R/CS/116.

Design: 3 randomised blocks of 6 plots.

Whole plot dimensions: 4.27 x 9.14.

Treatments: All combinations of:-

1. Bean straw infested with stem eelworm (<i>Ditylenchus dipsaci</i>) worked into soil, autumn 1972 only:	EELWORM
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Oat race	OAT
Giant race	GIANT

2. Rate of application of straw (tonnes) to give populations of eelworms:-	RATE
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None	O
Single, 3.1	SINGLE
Double, 6.2	DOUBLE

Basal applications: Manures: (0:14:28) at 410 kg placement drilled.

Weedkillers: Simazine at 0.84 kg in 220 l. Insecticide: Demeton-s-methyl at 0.25 kg in 450 l.

Seed: Minor, sown at 220 kg.

Cultivations, etc.: Ploughed: 15 Oct, 1974. Rotary harrowed: 14 Apr, 1975.

Seed sown and spring-tine cultivated: 21 Apr. Simazine applied:

24 Apr. Tractor-hoed: 27 May and 25 June. Insecticide applied: 10 July.

Combine harvested: 29 Aug.

NOTE: Stems showing symptoms of stem eelworm attack were counted on 6 Aug.

Samples of seed were taken at harvest to assess seed infestation and soil samples after harvest to assess soil infestation.

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GRAIN TONNES/HECTARE

*** TABLES OF MEANS ***

RATE EELWORM	0	SINGLE	DOUBLE	MEAN
OAT		0.72	0.54	0.63
GIANT		0.69	0.70	0.70
MEAN	0.89	0.71	0.62	0.74

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

TABLE	EELWORM	RATE	EELWORM RATE
SED	0.163	0.163	0.230

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

	DF	SE	CV%
BLOCK.WP	11	0.282	38.1
GRAIN MEAN DM%	87.5		