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Numerical Results of the Field Experiments 1970

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70/R/BE/9 Spring Beans Thizobium Strains and Lime

Rothamsted Research

Rothamsted Research (1971) *70/R/BE/9 Spring Beans Thizobium Strains and Lime* ; Numerical Results Of The Field Experiments 1970, pp 282 - 284 - **DOI:**

<https://doi.org/10.23637/ERADOC-1-59>

SPRING BEANS

(70/R/BE/9)

Rhizobium strains and lime, Sawyers I 1970.

Design: 3 randomised blocks of 6 plots, split into 3.

Area of each sub plot: 0.0011. Area harvested: 0.0006.

Treatments: All combinations of:-

Whole plots: 1. Seed inoculum (*Rhizobium leguminosarum*):-

None	(0)
Strain 1025	(1)
Strain 1034	(2)
Strain 1035	(3)
Strain 1036	(4)
Strain DP	(5)

Sub plots: 2. Ground chalk: 2 tons (I1) to obtain pH 5, 6 tons (I2) to obtain pH 6, 10 tons (I3) to obtain pH 7.

NOTE: pH of site was 4.5.

Basal applications: 360 lb (0:14:28) broadcast by hand. Insecticide: Demeton-s-methyl at 3.5 oz in 35 gals.

Cultivations, etc.: Ploughed: 31 Jan, 1970. Lime and basal PK applied: 11 Feb. Rotary cultivated, seed drilled at 200 lb: 17 Apr. Insecticide applied: 17 June. Harvested by hand: 14 Sept. Variety: Maris Bead. Previous crops: Fallow since 1959.

NOTE: Counts of *Rhizobium leguminosarum* in the soil were made in March.

Standard errors per plot. Grain, cwt:

Whole plot: 1.33 or 13.5% (10 d.f.)

Sub plot: 2.52 or 25.6% (24 d.f.)

70/R/BE/9

SUMMARY OF RESULTS

GRAIN: CWT

	0	1	2	3	4	5	Mean
			(1) and (2)				(±0.59)
L1	8.9	8.9	9.5	8.6	9.4	9.3	9.1
L2	10.9	9.9	11.1	10.9	8.3	10.4	10.3
L3	9.6	9.0	12.8	11.4	9.2	9.1	10.2
Mean (±0.77)	9.8	9.3	11.2	10.3	9.0	9.6	9.9

Mean D.M. %: 79.2

- (1) (±1.42) For use in horizontal and diagonal comparisons only.
 (2) (±1.45) For use in vertical and interaction comparisons only

SPRING BEANS

(70/R/BE/10)

Growth regulator 'PRB-8' (2-B-chloro-B-cyanoethyl-6-chloro-toluene)
Fosters O and E III 1970.

Design: 3 randomised blocks of 4 plots.

Area of each plot: 0.0022. Area harvested: 0.0005.

Treatments:- 'PRB-8':

None	(0)
0.45 oz a.i. in 56 gals	(1)
4.5 oz a.i. in 56 gals	(2)
45 oz a.i. in 56 gals	(3)

Basal applications: 360 lb (0:14:28) broadcast and rotary cultivated
in before sowing. Weedkiller: Simazine at 1 lb in 35 gals.
Insecticide: Demeton-s-methyl at 3.5 oz in 35 gals on 2 occasions.

Cultivations, etc.: Ploughed: 8 Oct - 3 Nov, 1969. Basal PK
applied: 16 Apr, 1970. Rotary cultivated, seed drilled at
200 lb: 18 Apr. Weedkiller applied: 24 Apr. Growth regulator
applied: 11 June. Insecticide applied: 17 June and 20 July.
Harvested by hand: 7 Sept. Variety: Tarvin. Previous crops:
Barley 1968 and 1969.

NOTE: Stem heights were measured.

Standard error per plot.

Grain, cwt: 2.10 or 12.4% (6 d.f.)

SUMMARY OF RESULTS

GRAIN: CWT

0	1	2	3	Mean
(±1.21)				
17.5	18.2	17.9	14.0	16.9

Mean D.M. %: 82.9