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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:**

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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