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Numerical Results of the Field Experiments 1969

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69/R&W/BE/3 - *Rhizobium* Strains - Beans

Rothamsted Research

Rothamsted Research (1970) 69/R&W/BE/3 - *Rhizobium* Strains - Beans ; Numerical Results Of The Field Experiments 1969, pp 282 - 283 - DOI: <https://doi.org/10.23637/ERADOC-1-96>

SPRING BEANS

(69/R/BE/3 and 69/W/BE/3)

The effect on yield of inoculating beans with different strains of *Rhizobium leguminosarum* - Rothamsted (R) Stackyard and Woburn (W) Horsepool 1969.

Design: 4 randomised blocks of 6 plots.

Area of each plot:

Stackyard (R): 0.0202. Area harvested: 0.0127.

Horsepool (W): 0.0193. Area harvested: 0.0121.

Treatments: Seed inoculum (*Rhizobium leguminosarum*):-

None	(0)
Strain 1015	(1)
Strain 1028	(2)
Strain 1034	(3)
Strain 1038	(4)
Strain DP	(5)

Basal applications:

Stackyard (R): 360 lb (0:14:28) injected by 'Tume' drill.

Horsepool (W): 450 lb (0:14:28) placement drilled.

Weedkiller (both fields): Simazine at 1 lb in 20 gals (25 gals on Horsepool (W)).

Insecticide (both fields): Demeton-s-methyl at 3.5 oz in 37 gals (30 gals on Horsepool (W)).

Cultivations, etc.:

Stackyard (R): Ploughed: 25 Oct, 1968. Basal PK compound injected: 10 Mar, 1969. Seed drilled at 200 lb, weedkiller applied: 27 Mar. Insecticide applied: 25 June. Combine harvested: 10 Sept. Variety: Tarvin. Previous crops: Barley 1967, fallow 1968.

Horsepool (W): Ploughed: 2 Dec, 1968. Seed drilled at 200 lb: 1 Apr, 1969. Weedkiller applied: 4 Apr. Insecticide applied: 19 June. Combine harvested: 8 Sept. Variety: Maris Bead. Previous crops: Potatoes 1967, winter wheat 1968.

NOTE: Counts of *Rhizobium leguminosarum* in soil were made in March before sowing and in June from the rhizosphere. Nodules on roots were also counted.

Standard errors per plot. Grain, cwt:

Stackyard (R): 1.04 or 3.5% (15 d.f.)

Horsepool (W): 1.13 or 5.4% (15 d.f.)

SUMMARY OF RESULTS

GRAIN:CWT

0	1	2	3	4	5	Mean
STACKYARD (R)						
(± 0.52)						
30.2	29.9	30.0	30.1	29.6	29.5	29.9

Mean D.M.%: 83.8

HORSEPOOL (W)

(± 0.56)

21.7	20.0	21.6	20.3	20.9	21.8	21.1
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Mean D.M.%: 81.2