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Yields of the Field Experiments 1958

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58/R/CE/2 Beans - Time of Sowing, Spraying P and K

Rothamsted Research

Rothamsted Research (1959) *58/R/CE/2 Beans - Time of Sowing, Spraying P and K* ; Yields Of The Field Experiments 1958, pp 107 - 108 - DOI: <https://doi.org/10.23637/ERADOC-1-181>

58/Ce/2.1

BEANS

Time of sowing, spraying, P and K - Little Knott I 1958.

Design: 3 blocks of 4 whole plots each, plots being split into 3 for P and K with spraying on pairs of whole plots, time of sowing on whole plots, and PK partially confounded.

Area of each sub plot: 0.0337 acres. Area harvested: 0.0105 acres.

Treatments. All combinations of:-

Time of sowing: Autumn; spring.

Spray: None; demeton-methyl (new formulation) at 6 fluid oz of 50% active ingredient in 60 gallons per acre.

Phosphate: None; 0.5; 1.0 cwt P_2O_5 per acre as superphosphate.

Potash: None; 1.0; 2.0 cwt K_2O per acre as muriate of potash.

Basal dressing: None.

Cultivations, etc.: Floughed: Sept 12, 1957. Fertilizers applied for autumn beans, seed drilled at 275 lb per acre: Oct 8. Fertilizers applied for spring beans: Feb 22, 1958. Seed drilled at 200 lb per acre: Mar 7. Appropriate plots sprayed with demeton-methyl: June 18. Combine harvested: Sept 25. Variety: Winter beans - S.Q.Giant, spring beans - Albion Tick. Previous crop: Spring wheat.

Note. A similar experiment at Woburn was abandoned due to bird damage.

Standard errors per plot, Grain (at 85% dry matter):

Whole plot: 1.24 cwt per acre or 9.5% (4 d.f.)

Sub plot: 1.51 cwt per acre or 11.5% (12 d.f.)

58/Ce/2.2

Summary of Results

Grain (at 85% dry matter): cwt per acre

	Sown			P ₂ O ₅ : cwt per acre			K ₂ O: cwt per acre			Mean
	Autumn	Spring	Diff.	None	0.5	1.0	None	1.0	2.0	
<u>Spray</u>				(±0.62)*			(±0.62)*			
None	12.8	14.4	+1.6	14.8	14.1	11.9	14.3	14.0	12.6	13.6
Demeton-methyl	10.6	14.5	+3.9	13.6	11.6	12.5	13.5	12.8	11.3	12.6
Diff.	-2.2	+0.1	+2.3	-1.2	-2.5	+0.6	-0.8	-1.2	-1.3	-1.0
			(±1.43)	(±0.87)**			(±0.87)**			
<u>Sown</u>				(1) & (2)			(1) & (2)			
Autumn				12.9	11.0	11.2	12.3	11.5	11.3	11.7
Spring				15.4	14.7	13.2	15.5	15.3	12.6	14.5
Mean (±0.44)				14.2	12.8	12.2	13.9	13.4	12.0	13.1
Diff. (±1.01)				+2.5	+3.7	+2.0	+3.2	+3.8	+1.3	+2.8 (±0.72)

Mean dry matter % as harvested: Autumn sown, 70.7; spring sown, 72.6.

(1) ±0.71 for use in diagonal comparison only.

(2) ±0.62 for use in horizontal and interaction comparisons only.

* For use in horizontal comparisons only.

** For use only in testing the difference of two differences.