

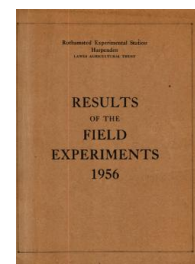
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Yields of the Field Experiments 1956

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56/R/CD/4 Beans and 56/W/CD/4 - Autumn and Spring Sowing , Spraying, P and K

Rothamsted Research

Rothamsted Research (1957) *56/R/CD/4 Beans and 56/W/CD/4 - Autumn and Spring Sowing ,
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56/Ca/4.1

BEANS

Time of sowing, spraying, P and K - Rothamsted (R) Great Harpenden II and Woburn (W) Broadmead I 1956.

Design: 3 blocks of 4 whole plots each split into 3, with spraying on pairs of whole-plots and PK partially confounded.

Area of each sub-plot: Rothamsted, 0.0283 acres; Woburn, 0.0337 acres.
Area harvested: Rothamsted, 0.0088 acres; Woburn, 0.0105 acres.

Treatments. All combinations of:

Time of sowing: Autumn; spring.

Spray: None; "Metasystox" at 2 pints in 80 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.

Note. At Woburn the autumn sown beans failed because of bird damage.

Cultivations, etc.:

Rothamsted. Ploughed: Oct 3, 1955. Fertilizers applied for autumn beans, seed drilled at 300 lb per acre: Oct 18. Fertilizers applied for spring beans: Mar 7, 1956. Spring beans sown at 200 lb per acre: Mar 10. Appropriate plots sprayed: June 23. Combine harvested: Oct 4. Previous crop: Barley.

Woburn. Ploughed: Oct 21, 1955. Fertilizers applied for winter beans: Nov 1. Ground chalk at 18 cwt per acre applied: Nov 14. Seed drilled at 275 lb per acre: Nov 15. Fertilizers applied for spring beans: Mar 20, 1956. Seed drilled at 200 lb per acre: Mar 22. Appropriate plots sprayed: June 26. Combine harvested: Oct 23. Variety: Winter-S.Q.Giant, Spring-Albyn.

Standard errors per plot. Grain (at 85% dry matter): cwt per acre.

Great Harpenden II (R), whole plot: 3.06 cwt per acre or 17.3%
(4 d.f.)

sub plot: 2.59 cwt per acre or 14.6%
(12 d.f.)

Broadmead I (W),

Spring beans sub plot: 2.28 cwt per acre or 13.7%
(4 d.f.)

Summary of Results

Great Harpenden II (Rothamsted)

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

	Sown		Diff- erence	F205: cwt per acre		K20: cwt per acre		Mean
	Autumn	Spring		None	1.0	None	1.0	
<u>Spray</u>								
None	17.9	16.1	-1.8	17.5	17.6	15.7	17.6	17.0
Metasystox	19.0	17.8	-1.2	17.9	18.8	15.6	20.6	18.4
Difference	+1.1	+1.7	+0.6	+0.4	+1.2	-0.1	+3.0	+1.4
			(± 3.53)				(± 1.06)*	
							(± 1.49)**	
<u>Sown</u>							(1) & (2)	
Autumn	17.8	19.6		17.8	17.8	15.0	20.4	18.4
Spring	17.6	16.8		16.5	16.5	16.3	17.8	17.0
Mean	17.7	18.2		17.2	17.2	15.7	19.1	17.7
Difference							(± 0.75)	
(± 2.15)	-0.2	-2.8		-1.3	-1.3	+1.3	-2.6	-1.4
								(± 1.77)

Mean dry matter % as harvested: 72.2

*For use in horizontal comparisons only

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

(1) ±1.52 for use in diagonal comparisons only

(2) ±1.06 for use in horizontal comparisons only

Broadmead I (Woburn)

56/Oa/4.3

Spring beans

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

Spray	P ₂ O ₅ : cwt per acre			K ₂ O: cwt per acre			Mean
	None	0.5	1.0	None	1.0	2.0	
	(± 1.32)*			(± 1.32)*			
None	15.4	15.7	15.0	10.9	15.4	19.9	15.4
Metasystox	20.6	17.5	15.6	14.0	17.0	22.7	17.9
Mean	(±0.93)	18.0	16.6	15.3	12.5	16.2	21.3
Difference	(±1.86)**	5.2	1.8	0.6	3.1	1.6	2.8

*For use in horizontal comparisons only

**For use only in testing the difference of 2 differences

Mean dry matter % as harvested: 66.5