

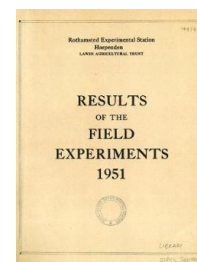
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51/CD/1 Spring Beans - Fertilizer Placement - Rothamsted

Rothamsted Research

Rothamsted Research (1952) *51/CD/1 Spring Beans - Fertilizer Placement - Rothamsted* ; Yields Of The Field Experiments 1951, pp 71 - 72 - DOI: <https://doi.org/10.23637/ERADOC-1-171>

51/Ca/1.1

SPRING BEANS

Fertilizer placement - West Barnfield I, 1951.

System of replication: 4 randomized blocks of 8 plots each, a high order interaction being confounded with block differences.

Area of each plot: 0.0152 acre. Area harvested: 0.0126 acre.

Treatments: None (quadruplicate plots) and all combinations of:
Granular compound fertilizer ($13\frac{3}{4}\%$ P_2O_5 , $13\frac{3}{4}\%$ K_2O): 2.65; 5.30
cwt per acre.

Methods of placement: Drilled 3" below surface and 2" to side of seed (duplicate plots); broadcast on the flat and ploughed in (E); broadcast on the seed bed and harrowed in (L); half broadcast on the flat and ploughed in, half drilled; half broadcast on the seed bed and harrowed in, half drilled.

Basal manuring: None

Cultivations, etc.: 'E' fertilizers applied: Mar 8. Ploughed all plots: Mar 8. 'L' fertilizers applied, beans drilled at 4 bushels per acre with placed fertilizers as above: Apr 16. Sprayed with 1% nicotine against blackfly: June 11 and again July 19. Harvested: Sept 8. Previous crop: Wheat.

Standard errors per plot:

Yield, dry matter: 1.32 cwt per acre or 10.1% (18 d.f.)

Plant number: 9.59 thousands per acre or 8.2% (18 d.f.)

51/ca/1.2

Summary of Results

Compound fertilizer cwt per acre	Method of Placement					Mean
	D	E	L	$\frac{1}{2}E\frac{1}{2}D$	$\frac{1}{2}L\frac{1}{2}D$	
Yield, dry matter: cwt per acre						
	(±0.66)	(±0.99)				
None						12.2 (±0.47)
2.65	13.7	13.4	12.8	14.9	13.0	13.6 (±0.38)
5.30	14.3	15.3	11.5	12.0	11.2	13.1
Mean (±0.66)	14.0 ⁽¹⁾	14.4	12.2	13.5	12.1	13.1

Standard error (1): 0.47.

Mean D.M. 79.0%

Plant number: thousands per acre						
	(±4.8)	(±7.2)				
None						118 (±3.4)
2.65	120	116	115	98	128	116
5.30	116	104	125	124	124	118 (±2.8)
Mean (±4.8)	118 ⁽²⁾	110	120	111	126	117

Standard error (2): 3.4

D - Drilled.

E - Broadcast on flat and ploughed in.

L - Broadcast on seed bed and harrowed in.

$\frac{1}{2}E\frac{1}{2}D$ - Half broadcast on flat and ploughed in, half drilled.

$\frac{1}{2}L\frac{1}{2}D$ - Half broadcast on seed bed and harrowed in, half drilled.