

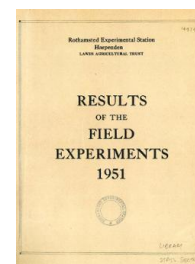
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51/CD/2 Winter Beans - Fertilizer Placement - Rothamsted

Rothamsted Research

Rothamsted Research (1952) *51/CD/2 Winter Beans - Fertilizer Placement - Rothamsted* ; Yields Of The Field Experiments 1951, pp 73 - 74 - DOI: <https://doi.org/10.23637/ERADOC-1-171>

51/Cd/2.1

WINTER 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: 0.0120 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, ploughed all plots: Sept 19. 'L' fertilizers applied: Sept 29. Beans drilled at $3\frac{1}{2}$ bushels per acre with placed fertilizers as above: Oct 6. Harvested: Aug 15. Previous crop: Wheat.

Standard errors per plot:

Yield, dry matter: 1.47 cwt per acre or 5.9% (18 d.f.)

Plant number: 7.69 thousands per acre or 8.9% (18 d.f.)

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						
	(±0.45)	(±0.68)				
None						12.3 (±0.32)
2.65	16.0	14.1	13.5	16.9	16.3	15.5 (±0.26)
5.30	18.9	16.3	14.0	16.6	16.9	16.9
Mean (±0.45)	17.5 ⁽¹⁾	15.2	13.8	16.7	16.6	15.2

Standard error (1): 0.32.
Mean D.M. 79.5%

Plant number: thousands per acre						
	(±3.8)	(±5.8)				
None						80 (±2.7)
2.65	97	86	75	87	97	90 (±2.2)
5.30	89	84	87	97	83	88
Mean (±3.8)	93 ⁽²⁾	85	81	92	90	87

Standard error (2): 2.7

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.