

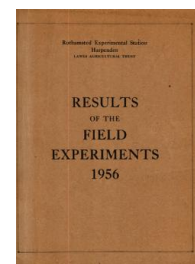
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1956

[Full Table of Content](#)



56/R/CB/1 and 56/W/CB/1 Barley - Levels and Time of N

Rothamsted Research

Rothamsted Research (1957) *56/R/CB/1 and 56/W/CB/1 Barley - Levels and Time of N* ; Yields Of The Field Experiments 1956, pp 80 - 81 - DOI: <https://doi.org/10.23637/ERADOC-1-176>

56/Cb/1.1

BARLEY

Rates and times of application of nitrogen - Rothamsted (R) Little Hoos and Woburn (W) Stackyard, Series C.

Design (each field): 22 treatments arranged in 4 blocks of 13 plots each, the control and 3 treatments occurring in every block, the other 18 treatments occurring in 2 blocks. The total amounts of N applied per block were equal.

Area of each plot: 0.0212 acres. Area harvested: 0.0141 acres.

Treatments: None and all combinations of:-

Nitrogen: N_1 ; N_2 ; N_3 applied as 'Nitro-Chalk'.

Times of application: All in seedbed (S); all as early top dressing (E); all as late top dressing (L); $\frac{1}{2}$ S & $\frac{1}{2}$ E; $\frac{1}{2}$ S & $\frac{1}{2}$ L; $\frac{1}{2}$ E & $\frac{1}{2}$ L; $\frac{1}{3}$ S, $\frac{1}{3}$ E & $\frac{1}{3}$ L.

Where N_1 ; N_2 ; N_3 =

Little Hoos (R): 0.23; 0.46; 0.69 cwt N per acre.

Stackyard (W): 0.3; 0.6; 0.9 cwt N per acre.

Basal dressing:

Rothamsted: 1 cwt superphosphate per acre combine drilled with seed.

Woburn: Ground chalk to part area. 1 cwt compound fertilizer (16% P_2O_5 , 16% K_2O) per acre combine drilled with seed.

Cultivations, etc.:

Little Hoos (R). Ploughed: Oct 14, 1955 and Jan 24, 1956. Seed combine drilled at 2 bushels per acre: Mar 17. Seed bed 'Nitro-Chalk' applied: Mar 19. Early 'Nitro-Chalk' top dressing applied: Apr 16. Sprayed with DNOC 6 lb in 90 gallons per acre: May 4. Late 'Nitro-Chalk' top dressing applied: May 17. Combine harvested: Sept 20. Variety: Herta. Previous crop: Potatoes.

Stackyard (W). Ploughed: Nov 12, 1955. Seed bed 'Nitro-Chalk' applied; seed combine drilled at 2 bushels per acre: Mar 16, 1956. Early 'Nitro-Chalk' top dressing applied: Apr 12. Late 'Nitro-Chalk' top dressing: May 16. Sprayed with MCPA, 3 pints in 20 gallons per acre: May 31. Combine harvested: Sept 8. Variety: Herta. Previous crop: Wheat.

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

Little Hoos (R): 2.50 cwt per acre or 6.3% (27 d.f.)

Stackyard (W): 2.56 cwt per acre or 11.8% (27 d.f.)

56/Cb/1.2

Summary of Results

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

Rothamsted Little Hoos

N: cwt per acre	Time of application							Mean
	S	E	L	$\frac{1}{2}S\frac{1}{2}E$	$\frac{1}{2}S\frac{1}{2}L$	$\frac{1}{2}E\frac{1}{2}L$	$\frac{1}{3}S\frac{1}{3}E\frac{1}{3}L$	
	(±1.88)						(±1.25)	(±0.63)
None								32.8 ⁽¹⁾
0.23	37.1	39.6	36.8	38.9	39.5	38.9	38.3	38.4
0.46	42.7	42.4	39.8	41.3	41.0	42.2	39.3	41.0
0.69	41.9	38.1	40.7	41.7	40.1	42.0	41.7	41.0
Mean (±1.05)	40.6	40.0	39.1	40.6	40.2	41.1	39.7 ⁽²⁾	39.6

(1) ±1.25 (2) ±0.72

Mean dry matter % as harvested: 79.8

Woburn Stackyard Field

N: cwt per acre	Time of application							Mean
	S	E	L	$\frac{1}{2}S\frac{1}{2}E$	$\frac{1}{2}S\frac{1}{2}L$	$\frac{1}{2}E\frac{1}{2}L$	$\frac{1}{3}S\frac{1}{3}E\frac{1}{3}L$	
	(±1.93)						(±1.28)	(±0.64)
None								9.6 ⁽¹⁾
0.3	16.4	17.2	19.0	17.7	18.5	18.9	19.8	18.4
0.6	22.2	24.9	21.4	20.8	24.4	26.2	22.4	23.1
0.9	26.7	26.8	28.6	27.0	25.6	23.2	28.1	26.8
Mean (±1.07)	21.8	23.0	23.0	21.8	22.9	22.8	23.4 ⁽²⁾	21.8

(1) ±1.28 (2) ±0.74

Mean dry matter % as harvested: 77.3

Time of application

- S In seedbed
- E Early top dressing
- L Late top dressing