ROTHAMSTED RESEARCH

Yields of the Field Experiments 1956

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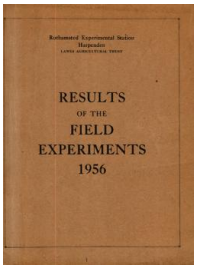

56/R/CB/1 and 56/W/CB/1 Barley - Levels and Time of N

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**

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.)

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Summary of Results

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

Rothamsted Little Hoos

N: cwt per acre	Time of application S	E	L	½S½E	½S½L	½E½L	⅓S⅓E⅓L	Mean
			(±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 S	E	L	½S½E	½S½L	½E½L	⅓S⅓E⅓L	Mean
			(±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

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