ROTHAMSTED RESEARCH

Yields of the Field Experiments 1955

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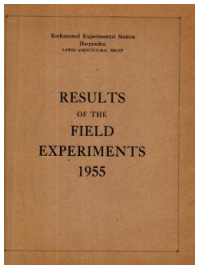

55/R/CA/6 and 55/W/CA/6 Spring Wheat - Levels and Time of N

Rothamsted Research

Rothamsted Research (1956) *55/R/CA/6 and 55/W/CA/6 Spring Wheat - Levels and Time of N ;* Yields Of The Field Experiments 1955, pp 78 - 79 **- DOI: https://doi.org/10.23637/ERADOC-1-175**

SPRING WHEAT

Rates and times of application of nitrogen - Rothamsted (R) Great Field I and Woburn (W) Butt Close.

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 acre. Area harvested: 0.0140 acre.

Treatments: None, and all combinations of:-
Nitrogen: 0.3; 0.6; 0.9 cwt N per acre applied as 'Nitro-Chalk'.
Times of application: All in seed bed (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.

Basal dressing: 1.15 cwt per acre compound fertilizer (13% P_2O_5; 13% K_2O) combine drilled with the seed.

Cultivations, etc.:
Great Field I (R). Ploughed: Nov - Dec 1954. Seed bed 'Nitro-Chalk' applied: Mar 31, 1955. Seed drilled at $2\frac{3}{4}$ bushels per acre with basal fertilizer: Apr 4. Early 'Nitro-Chalk' top dressing applied: Apr 30. Sprayed with D.N.C. 8 lb active material at 80 gallons per acre: May 11. Late 'Nitro-Chalk' top dressing applied: May 19. Combine harvested: Sept 1. Variety: Koga II. Previous crop: Potatoes.
Butt Close (W). Ploughed: Dec 23-28, 1954. 2 tons ground chalk per acre applied: Feb 3, 1955. Seed bed 'Nitro-Chalk' applied, seed drilled at $2\frac{3}{4}$ bushels per acre with basal fertilizer: Mar 22. Early 'Nitro-Chalk' top dressing applied: Apr 20. Late 'Nitro-Chalk' top dressing applied: May 16. Sprayed with MCPA amine at low volume: May 22. Combine harvested: Aug 23. Variety: Koga II. Previous crop: Potatoes.

Standard errors per plot. Grain: cwt per acre.
Great Field I (R): 2.01 cwt per acre or 4.5% (27 d.f.)
Butt Close (W): 2.87 cwt per acre or 11.1% (27 d.f.)

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Summary of Results

Grain: cwt per acre

Rothamsted Great Field I

	Time of application							
	S	E	L	½S½E	½S½L	½E½L	⅓S⅓E⅓L	Mean
			(±1.52)				(±1.01)	(±0.50)
N: cwt per acre								
None								41.5(1)
0.3	44.1	42.9	44.5	46.0	45.9	44.9	44.1	44.6
0.6	45.9	45.0	43.7	43.7	45.8	44.1	46.4	45.1
0.9	46.1	44.4	45.7	45.8	44.3	45.9	45.0	45.3
Mean (±0.84)	45.3	44.1	44.7	45.2	45.3	44.9	45.2(2)	44.7

(1) ±1.01 (2) ±0.58

Mean dry matter % as harvested: 84.5

Woburn Butt Close

	Time of application							
	S	E	L	½S½E	½S½L	½E½L	⅓S⅓E⅓L	Mean
			(±2.16)				(±1.43)	(±0.72)
N: cwt per acre								
None								12.2(1)
0.3	26.4	21.0	24.0	21.0	21.3	22.4	20.8	22.2
0.6	32.7	29.1	22.9	28.7	29.9	29.9	29.0	28.9
0.9	33.4	25.9	26.4	30.8	30.6	23.7	33.5	29.7
Mean (±1.20)	30.8	25.3	24.4	26.8	27.3	25.4	27.7(2)	25.8

(1) ±1.43 (2) ±0.83

Mean dry matter % as harvested: 84.1

Time of application

S In Seedbed.
E Early top dressing.
L Late top dressing.

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