

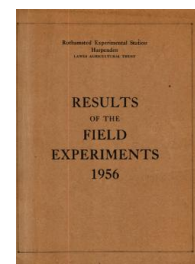
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Yields of the Field Experiments 1956

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56/R/CA/5 and 56/W/CA/5 Spring Wheat - Levels and Time of N

Rothamsted Research

Rothamsted Research (1957) *56/R/CA/5 and 56/W/CA/5 Spring Wheat - Levels and Time of N ; Yields Of The Field Experiments 1956*, pp 76 - 78 - DOI: <https://doi.org/10.23637/ERADOC-1-176>

Summary of Results

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

	T ₁	T ₂	T ₃	T ₄	Mean	
Mean (±0.65)	12.1	12.8	14.7	6.9	11.6	
	(±0.91)					
V ₁	10.7	10.2	12.8	6.8	10.1	
V ₂	13.5	15.5	16.5	6.9	13.1	
Difference (±1.29)	+2.8	+5.3	+3.7	+0.1	+3.0 (±0.65)	
R ₁	10.1	12.0	11.9	4.7	9.7	
R ₂	14.0	13.7	17.5	9.0	13.6	
Difference (±1.29)	+3.9	+1.7	+5.6	+4.3	+3.9 (±0.65)	
N ₁	11.2	10.9	10.6	7.8	10.1	
N ₂	12.9	14.8	18.7	5.9	13.1	
Difference (±1.29)	+1.7	+3.9	+8.1	-1.9	+3.0 (±0.65)	
	R ₁	R ₂	N ₀	N ₁	N ₂	Mean
Mean			(±0.65)	(± 0.46)		
			5.3	10.1	13.1	10.3
	(± 0.65)		(±0.91)	(± 0.65)		(±0.41)
V ₁	9.0	11.2	5.1	8.7	11.6	9.1
V ₂	10.3	15.9	5.5	11.6	14.6	11.6
R ₁			5.3	8.4	10.9	8.8
R ₂			5.3	11.8	15.3	11.9

Mean dry matter % as harvested: 78.7

Treatments

V₁ Holdfast
V₂ Cappelle

R₁, R₂ 1½, 3 bushels per acre
R₁, R₂ 2, 4 bushels per acre

N₀ No N
N₁ 0.46 cwt N per acre
N₂ 0.93 cwt N per acre

T₁ 'Nitro-Chalk' half in March half in May
T₂ 'Nitro-Chalk' all in mid March
T₃ 'Nitro-Chalk' all in mid April
T₄ 'Nitro-Chalk' all in mid May

The V × R table does not include the plots receiving no nitrogen.

56/Ca/5.1

SPRING WHEAT

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 of the 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: 0.3; 0.6; 0.9 cwt N per acre 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:

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

Woburn: 1 cwt compound fertilizer (16% P₂O₅, 16% K₂O) per acre combine drilled with seed.

Cultivations, etc.:

Little Hoos (R). Ploughed: Oct 14, 1955 and Jan 24, 1956. Seed bed 'Nitro-Chalk' applied, seed combine drilled at 2 $\frac{3}{4}$ bushels per acre: Mar 17. 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: Koga II. Previous crop: Potatoes.

Stackyard (W). Ploughed: Nov 12, 1955. Seed bed 'Nitro-Chalk' applied: Mar 14, 1956. Seed combine drilled at 3 bushels per acre: Mar 16. Early 'Nitro-Chalk' top dressing applied: Apr 16. Late 'Nitro-Chalk' top dressing applied: May 16. Sprayed with MCPA, 3 pints in 20 gallons per acre: May 31. Combine harvested: Sept 12. Variety: Peko. Previous crop: Wheat.

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

Little Hoos (R): 1.87 cwt per acre or 5.7% (27 d.f.)

Stackyard (W): 1.53 cwt per acre or 7.1% (27 d.f.)

56/Ca/5.2

Summary of Results

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

Rothamsted Little Hoos

N: cwt per acre	S	E	Time of application				$\frac{1}{3}S\frac{1}{3}E\frac{1}{3}L$	Mean
			L	$\frac{1}{2}S\frac{1}{2}E$	$\frac{1}{2}S\frac{1}{2}L$	$\frac{1}{2}E\frac{1}{2}L$		
			(±1.41)				(±0.94)	(±0.47)
None								26.3 ⁽¹⁾
0.3	32.6	31.0	33.1	33.7	33.1	30.7	31.6	32.2
0.6	35.6	36.4	34.4	31.0	33.4	32.6	34.3	34.0
0.9	34.2	33.3	32.9	34.4	33.5	32.5	36.0	34.1
Mean (±0.78)	34.1	33.6	33.5	33.0	33.3	31.9	34.0 ⁽²⁾	32.9

(1) ±0.94 (2) ±0.54

Mean dry matter % as harvested: 80.2

Woburn Stackyard Field

N: cwt per acre	S	E	Time of application				$\frac{1}{3}S\frac{1}{3}E\frac{1}{3}L$	Mean
			L	$\frac{1}{2}S\frac{1}{2}E$	$\frac{1}{2}S\frac{1}{2}L$	$\frac{1}{2}E\frac{1}{2}L$		
			(±1.15)				(±0.77)	(±0.38)
None								11.4 ⁽¹⁾
0.3	19.6	18.0	18.3	19.4	18.5	20.7	20.6	19.4
0.6	23.6	21.6	20.7	24.9	24.0	22.4	25.0	23.4
0.9	23.0	22.0	22.8	25.8	25.0	23.8	25.1	24.1
Mean (±0.64)	22.1	20.5	20.6	23.4	22.5	22.3	23.5 ⁽²⁾	21.5

(1) ±0.77 (2) ±0.44

Mean dry matter % as harvested: 68.0

Time of application

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