

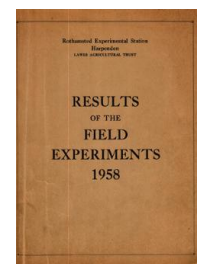
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1958

[Full Table of Content](#)



58/R/CG/1 Grass - N Fertilizers

Rothamsted Research

Rothamsted Research (1959) *58/R/CG/1 Grass - N Fertilizers* ; Yields Of The Field Experiments 1958, pp 113 - 114 - DOI: <https://doi.org/10.23637/ERADOC-1-181>

GRASS

Slow acting nitrogenous fertilizers - Harwoods Piece 1958.

Design: 4 randomized blocks of 16 plots each.

Area of each plot: 0.0087 acres. Area harvested: 0.0050 acres.

Treatments: None (6 plots per block) together with all combinations of:-

Materials and methods of application

'Nitro-Chalk' (15.5% N): all in seed bed.

Ureaformaldehyde (37.2% N): all in seed bed (2 plots per block).

'Nitro-Chalk' (15.5% N): $\frac{1}{3}$ in seed bed; $\frac{1}{3}$ after 1st and 2nd cuts (2 plots per block).

Rates of application

1.0; 2.0 cwt N per acre.

Basal dressing: 5 cwt compound fertilizer (10% P_2O_5 , 10% K_2O) per acre applied in seed bed.

Cultivations, etc.: Ploughed: Oct 28 - Nov 22, 1957. Basal fertilizer and seed bed nitrogen applied: Apr 23, 1958. Seeds sown: Apr 24. Sprayed with MCPA at 4 pints in 40 gallons per acre: May 27. 2nd and 3rd dressings of 'Nitro-Chalk' applied: July 15 and Aug 14. Cut three times: July 8, Aug 13, Oct 23. Variety: S22 Italian Ryegrass. Previous crop: Spring wheat.

Standard errors per plot. Dry matter:

1st cut: 1.69 cwt per acre or 7.9% (54 d.f.)

2nd cut: 1.26 cwt per acre or 10.4% (54 d.f.)

3rd cut: 1.28 cwt per acre or 10.1% (54 d.f.)

Total of 3 cuts: 2.96 cwt per acre or 6.4% (54 d.f.)

58/Cg/1.2

Summary of Results

Dry matter: cwt per acre

	Fertilizer						Mean	
	None	Single dressing		Divided dressing				
		N1	N2	U1	U2	N1	N2	
<u>1st cut</u>								
Mean	(±0.35) 13.2	(±0.85) 29.9	32.1	22.4	(±0.60) 27.6	22.1	27.4	21.3
Increase		16.7	18.9	9.2	14.4	8.9	14.2	
		(±0.91)			(±0.69)			
<u>2nd cut</u>								
Mean	(±0.26) 7.7	(±0.63) 12.4	15.7	9.0	(±0.44) 12.2	17.2	21.4	12.1
Increase		4.7	8.0	1.3	4.5	9.5	13.7	
		(±0.68)			(±0.51)			
<u>3rd cut</u>								
Mean	(±0.26) 7.9	(±0.64) 11.4	16.4	10.7	(±0.45) 12.9	18.7	21.1	12.6
Increase		3.5	8.5	2.8	5.0	10.8	13.2	
		(±0.69)			(±0.52)			
<u>Total of 3 cuts</u>								
Mean	(±0.60) 28.9	(±1.48) 53.8	64.2	42.1	(±1.05) 52.7	58.1	69.9	46.0
Increase		24.9	35.3	13.2	23.8	29.2	41.0	
		(±1.60)			(±1.21)			

Fertilizers:

- N 'Nitro-Chalk' 15.5% N
- U Ureaformaldehyde 37.2% N

Levels of N in fertilizer: cwt per acre

- 1 1.0
- 2 2.0

Mean dry matter % as cut:

- 1st cut: 15.9
- 2nd cut: 15.9
- 3rd cut: 16.6
- Total of 3 cuts: 16.1