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Yields of the Field Experiments 1959

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59/R/CG/1 Grass - N Fertilizers

Rothamsted Research

Rothamsted Research (1960) *59/R/CG/1 Grass - N Fertilizers* ; Yields Of The Field Experiments 1959, pp 100 - 102 - DOI: <https://doi.org/10.23637/ERADOC-1-179>

59/Cg/1.2

Summary of Results

Rate of application of N: cwt per acre	Dry matter: cwt per acre		Fertilizer		Nitro-Chalk' applied		Mean
	Ureaformaldehyde applied		As		As divided dressing		
	1958	1959	1958 & 1959	single dressing spring 1959	1958	1959	
None							
1.0	8.6	13.1	16.9	30.2	9.6	18.6	17.1 (± 0.33)
2.0	9.7	16.7	24.5	33.7	15.3	26.7	22.7
Mean (± 0.62)	9.2	14.9	20.7	32.0	12.4	22.6	18.1
Diff. (± 1.23)	+1.1	+3.6	+7.6	+3.5	+5.7	+8.1	+5.6 (± 0.47)
			<u>1st cut</u>	(± 0.87)			
			<u>2nd cut</u>	(± 1.42)			
1.0	13.1	17.2	14.3	19.5	12.8	26.4	19.1 (± 0.53)
2.0	13.5	22.5	23.1	34.6	13.1	36.7	25.7
Mean (± 1.00)	13.3	19.8	18.7	27.0	12.9	31.5	20.9
Diff. (± 2.00)	+0.4	+5.3	+8.8	+15.1	+0.3	+10.3	+6.6 (± 0.76)

Mean dry matter % as cut:
 1st cut: 17.3
 2nd cut: 32.5

59/Cg/1.3

Rate of appli- cation of N: cwt per acre	Dry matter: cwt per acre						Mean
	Ureaformaldehyde applied		Fertilizer		'Nitro-Chalk' applied		
	1958	1959	1958 & 1959	As single dressing spring 1959	1958	1959	
None							
1.0	6.9	7.9	9.0	7.3	6.0	14.1	9.5
2.0	8.4	10.7	13.2	11.0	7.2	22.0	13.5
Mean (± 0.45)	7.7	9.3	11.1	9.2	6.6	18.0	10.7
Diff. (± 0.89)	+1.5	+2.8	+4.2	+3.7	+1.2	+7.9	+4.0 (± 0.34)
	<u>3rd cut</u>						
				(± 0.63)			9.5
				7.3			15.3
				11.0			22.2
				9.2			18.7
				+3.7			+6.9
	<u>Total of 3 cuts</u>						
				(± 2.47)			45.7
1.0	28.6	38.2	40.2	57.0	28.3	59.0	68.6
2.0	31.6	49.8	60.9	79.3	35.6	85.3	90.8
Mean (± 1.75)	30.1	44.0	50.5	68.1	31.9	72.2	49.8
Diff. (± 3.49)	+3.0	+11.6	+20.7	+22.3	+7.3	+26.3	+16.2 (± 1.32)

Mean dry matter \bar{x} as cut:
3rd cut: 33.4
Total of 3 cuts: 27.7

59/Cg/2.1

GRASS

Levels of N and K - Harwoods Piece 1959 - the 2nd year.

Design: 4 randomized blocks of 12 plots each.

Area of each plot: 0.0087 acres. Area harvested: 0.0035 acres.

Treatments: None and all combinations of:-

Nitrogen: 0.3; 0.6; 0.9 cwt N per acre as 'Nitro-Chalk'.

Potash: None; 0.3; 0.6 cwt K_2O per acre as muriate of potash.

All treatments in the presence of 0.6 cwt P_2O_5 per acre as superphosphate.

In addition 2 plots per block, receiving 0.9 N and 0.6 K, also received phosphate at either None or 1.2 cwt P_2O_5 per acre as superphosphate.

Note (1): N and K dressings are applied for each cut. All P dressings are applied once annually.

Basal dressing: None.

Cultivations, etc.: 1st dressing of fertilizers applied: Mar 10.

2nd and 3rd dressings of N and K applied: Apr 28 and June 22.

Cut 3 times: Apr 27, June 17 and Aug 18. Variety: S22 Italian Ryegrass.

Standard errors per plot. Dry matter:

1st cut: 1.48 cwt per acre or 5.8% (33 d.f.)

2nd cut: 2.38 cwt per acre or 6.2% (33 d.f.)

3rd cut: 2.48 cwt per acre or 12.3% (33 d.f.)

Total of 3 cuts: 5.26 cwt per acre or 6.3% (33 d.f.)

Note (2): For details of the previous year's results see 'Results of the Field Experiments' 58/Cg/2 to which should be added note (1) and the asterisks and footnote in the summary.