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# Numerical Results of the Field Experiments 1970

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## 70/R/CS/13 N and Mg Levels to Old Grass

### Rothamsted Research

Rothamsted Research (1971) *70/R/CS/13 N and Mg Levels to Old Grass* ; Numerical Results Of The Field Experiments 1970, pp 143 - 146 - DOI: <https://doi.org/10.23637/ERADOC-1-59>

N AND Mg LEVELS TO OLD GRASS

(70/R/CS/13)

Old grass, Park Grass plot 6, 1970, the sixth year.

For previous years' results see 'Results' 65/C/33, 66/C/14, 67/C/10, 68/C/8 and 69/R/CS/13.

Area of each plot: 0.0045. Area harvested: 0.0021.

Additional treatments: A test of 25 (M1) v 50 lb (M2) Mg as magnesium sulphate applied in spring has been added in combination with the other residual treatments. A certain high order interaction is confounded with block differences. All plots are now cut 4 times a year and the 'Nitro-Chalk' is applied in equal dressings for each cut. Total N rates per year are unchanged. Basal applications of sodium and magnesium have been discontinued.

Basal application: 23 cwt ground chalk.

Cultivations, etc.: Basal PK applied: 20 Feb, 1970. Test Mg applied: 23 Feb. N applied: 16 Mar. Ground chalk applied: 16 Apr. S plots sprayed with mecoprop at 45 oz a.e. in 40 gals: 1 May. S plots spot-sprayed with mecoprop at the same rate: 1 Sept. Plots cut: 20 May, 16 July, 4 Sept, 23 Oct. N applied after each cut except the last.

Standard errors per plot. Dry matter, cwt:

1st cut:	1.78 or 7.8% (14 d.f.)
2nd cut:	2.10 or 19.6% (14 d.f.)
3rd cut:	1.71 or 10.7% (14 d.f.)
4th cut:	1.16 or 13.9% (14 d.f.)
Total of all 4 cuts:	3.81 or 6.6% (14 d.f.)

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SUMMARY OF RESULTS

DRY MATTER: CWT

	NO	N1	N2	N3	Mean	SNO
1ST CUT						
1969	(±0.89)				(±0.45)	
C3	10.4	15.7	29.6	35.7	22.8	1.9
C6	9.4	16.6	30.1	35.7	22.9	1.7
1970						
M1	9.7	15.9	29.8	35.7	22.8	1.8
M2	10.1	16.3	29.8	35.7	23.0	1.8
Mean (±0.63)	9.9	16.1	29.8	35.7	22.9	1.8
2ND CUT						
1969	(±1.05)				(±0.53)	
C3	12.7	11.6	12.1	7.5	11.0	3.9
C6	11.4	11.6	11.3	7.5	10.4	3.5
1970						
M1	12.7	11.6	12.4	8.0	11.2	3.7
M2	11.4	11.6	11.0	6.9	10.2	3.7
Mean (±0.74)	12.0	11.6	11.7	7.5	10.7	3.7
1st cut:	General mean:		Mean D.M. %:			
2nd cut:	18.7		19.6			
	9.3		28.0			

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DRY MATTER: CWT

	NO	N1	N2	N3	Mean	SNO
3RD CUT						
1969	( $\pm 0.85$ )				( $\pm 0.43$ )	
C3	11.1	12.2	20.2	19.9	15.9	3.2
C6	9.9	12.9	19.5	21.6	16.0	3.8
1970						
M1	10.5	13.0	20.4	21.1	16.3	3.2
M2	10.4	12.1	19.3	20.4	15.6	3.8
Mean ( $\pm 0.60$ )	10.5	12.6	19.9	20.8	15.9	3.5
4TH CUT						
1969	( $\pm 0.58$ )				( $\pm 0.29$ )	
C3	4.1	6.7	11.6	10.7	8.3	3.0
C6	4.1	6.5	11.0	12.0	8.4	2.2
1970						
M1	4.4	7.2	11.4	11.5	8.6	2.7
M2	3.8	6.0	11.3	11.2	8.1	2.4
Mean ( $\pm 0.41$ )	4.1	6.6	11.3	11.4	8.4	2.6
3rd cut:	General mean:		Mean D.M. %:			
4th cut:	13.4		22.8			
	7.2		25.0			



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DRY MATTER: CWT

	NO	N1	N2	N3	Mean	SNO
TOTAL OF 4 CUTS						
1969	(±1.90)				(±0.95)	
C3	38.2	46.3	73.6	73.8	58.0	12.0
C6	34.8	47.6	71.9	76.9	57.8	11.1
1970						
M1	37.3	47.8	74.1	76.4	58.9	11.5
M2	35.7	46.1	71.5	74.3	56.9	11.7
Mean (±1.35)	36.5	47.0	72.8	75.3	57.9	11.6

General mean: 48.6

Mean D.M. %: 23.8