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Numerical Results of the Field Experiments 1970

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70/R/CS/43 Aqua Ammonia - Grazed Grass

Rothamsted Research

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AQUA AMMONIA

(70/R/CS/43)

Grazed grass, Highfield IX 1970, the second year. For treatments and previous year's results see 'Results' 69/R/CS/43.

Area of each plot: 0.0161. Area harvested: 0.0002.

Cultivations, etc.: Basal PK applied: 18 Nov, 1969. Aqueous ammonia injected: 19 Mar, 1970. 'Nitro-Chalk' applied: 20 Mar. Sample cages placed: 23 Mar. Sample cuts taken: 7 May, 2 June, 8 July, 21 Aug, 10 Sept, 28 Oct. 'Nitro-Chalk' applied and sample cage moved after each of first five cuts.

- NOTES: (1) Visual estimates were made of the percentage surface area within each cage covered by clover leaves immediately before cutting.
(2) The percentage of N in the dry grass was calculated.

Standard errors per plot. Dry matter, cwt:

1st cut:	3.73 or 17.9% (21 d.f.)
2nd cut:	1.96 or 5.9% (21 d.f.)
3rd cut:	2.50 or 19.6% (20 d.f.)
4th cut:	2.43 or 10.7% (21 d.f.)
5th cut:	2.75 or 9.9% (21 d.f.)
6th cut:	2.87 or 14.8% (21 d.f.)
Total of 6 cuts:	7.34 or 5.4% (20 d.f.)

NOTE: 3rd cut. Part of the yield from 1 plot (B N4) was lost. An estimated value has been used in the analysis of the 3rd cut and total of 6 cuts.

70/R/CS/43

SUMMARY OF RESULTS

DRY MATTER: CWT

	N1	N2	N3	N4	Mean
1ST CUT					
(±1.86)					
I	18.6	25.0	23.7	19.8	21.8
B	17.8	20.7	21.9	19.3	19.9
Mean (±1.32)	18.2	22.8	22.8	19.6	20.9
NO:	12.6				
General mean:	19.9				
2ND CUT					
(±0.98)					
I	32.2	33.4	34.9	34.6	33.8
B	27.0	32.8	37.2	34.7	32.9
Mean (±0.69)	29.6	33.1	36.1	34.7	33.3
NO:	20.3				
General mean:	31.9				
3RD CUT					
(±1.25)					
I	9.5	11.9	14.9	14.7	12.7
B	10.9	13.6	14.8	12.0	12.8
Mean (±0.88)	10.2	12.7	14.8	13.3	12.8
NO:	9.7				
General mean:	12.4				

Mean D.M. %: 1st cut: 19.2
 2nd cut: 19.1
 3rd cut: 27.8

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DRY MATTER: CWT

	N1	N2	N3	N4	Mean
4TH CUT					
(±1.22)					(±0.61)
I	14.8	22.4	22.8	23.5	20.9
B	19.1	26.8	26.3	25.6	24.5
Mean (±0.86)	16.9	24.6	24.6	24.6	22.7

NO: 13.6
General mean: 21.7

	N1	N2	N3	N4	Mean
5TH CUT					
(±1.38)					(±0.69)
I	25.2	26.6	29.4	28.2	27.4
B	26.1	27.4	29.9	29.9	28.3
Mean (±0.97)	25.6	27.0	29.6	29.1	27.8

NO: 22.1
General mean: 27.2

	N1	N2	N3	N4	Mean
6TH CUT					
(±1.44)					(±0.72)
I	14.5	19.9	20.7	18.5	18.4
B	18.5	20.1	21.8	20.9	20.3
Mean (±1.02)	16.5	20.0	21.3	19.7	19.4

NO: 13.5
General mean: 18.7

Mean D.M. %: 4th cut: 14.7
5th cut: 27.0
6th cut: 21.1

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DRY MATTER: CWT

TOTAL OF 6 CUTS

	N1	N2	N3	N4	Mean
		(±3.67)			(±1.83)
I	114.7	139.1	146.5	139.4	134.9
B	119.4	141.4	151.9	141.0	138.4
Mean (±2.59)	117.1	140.2	149.2	140.2	136.7

NO: 91.8
 General mean: 131.4
 Mean D.M. %: 21.5