

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 1971

[Full Table of Content](#)



71/R/CS/43 Aqua Ammonia - Old Grass

Rothamsted Research

Rothamsted Research (1972) 71/R/CS/43 Aqua Ammonia - Old Grass ; Yields Of The Field Experiments 1971, pp 174 - 177 - DOI: <https://doi.org/10.23637/ERADOC-1-97>

71/R/CS/43

AQUA AMMONIA

Object: To study the effects of injecting large single dressings of aqueous ammonia on the yield of grazed grassland - Highfield IX.

The third year, grazed grass.

For previous years see 69/R/CS/43(t) and 70/R/CS/43.

Whole plot dimensions: 4.27 x 15.2. Area harvested: 0.00008.

Cultivations, etc.: Basal PK applied: 9 Nov, 1970. Aqueous ammonia injected: 11 Feb, 1971. N applied, sample cages placed: 24 Feb. Sample cuts taken: 27 Apr, 1 June*, 28 June, 4 Aug, 6 Sept, 1 Nov. 'Nitro-Chalk' applied and sample cage moved after each of first 5 cuts.

* Grass cut with shears because it was too long to cut with mower.

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 determined.

Standard errors per plot. Dry matter, tonnes/hectare:

1st cut:	0.581 or 23.9% (21 d.f.)
2nd cut:	0.376 or 7.8% (21 d.f.)
3rd cut:	0.335 or 11.9% (21 d.f.)
4th cut:	0.437 or 10.5% (21 d.f.)
5th cut:	0.546 or 15.4% (21 d.f.)
6th cut:	0.260 or 11.0% (21 d.f.)
Total of 6 cuts:	1.535 or 7.6% (21 d.f.)

71/R/CS/43

SUMMARY OF RESULTS

DRY MATTER: TONNES/HECTARE

	N1	N2	N3	N4	Mean
1ST CUT					
(±0.290)					(±0.145)
I	2.38	2.54	2.99	2.01	2.48
B	2.26	2.57	2.16	2.50	2.37
Mean (±0.205)	2.32	2.55	2.58	2.25	2.43
NO:	1.27				
General mean:	2.30				
2ND CUT					
(±0.188)					(±0.094)
I	4.54	5.31	5.27	5.40	5.13
B	3.73	4.79	4.61	4.81	4.49
Mean (±0.133)	4.14	5.05	4.94	5.11	4.81
NO:	2.43				
General mean:	4.54				
3RD CUT					
(±0.167)					(±0.084)
I	2.76	2.98	3.00	3.01	2.94
B	2.16	2.86	2.88	2.93	2.71
Mean (±0.118)	2.46	2.92	2.94	2.97	2.82
NO:	1.98				
General mean:	2.73				

Mean D.M. %: 1st cut: 17.4
 2nd cut: 15.9
 3rd cut: 18.6

71/R/CS/43

DRY MATTER: TONNES/HECTARE

	N1	N2	N3	N4	Mean
4TH CUT					
(±0.219)					
I	3.47	4.05	4.76	4.64	4.23
B	3.86	4.09	4.57	3.94	4.12
Mean (±0.155)	3.67	4.07	4.67	4.29	4.17

NO: 3.03
General mean: 4.05

	5TH CUT				
	(±0.273)				(±0.136)
I	3.20	3.69	3.75	4.08	3.68
B	3.17	3.54	3.26	3.62	3.40
Mean (±0.193)	3.19	3.62	3.50	3.85	3.54

NO: 2.82
General mean: 3.46

	6TH CUT				
	(±0.130)				(±0.065)
I	2.45	2.17	2.53	2.21	2.34
B	2.33	2.55	2.42	2.29	2.40
Mean (±0.092)	2.39	2.36	2.48	2.25	2.37

NO: 2.43
General mean: 2.38

Mean D.M. %: 4th cut: 20.1
5th cut: 24.3
6th cut: 24.5

71/R/CS/43

DRY MATTER: TONNES/HECTARE

	N1	N2	N3	N4	Mean
	TOTAL OF 6 CUTS				
	(±0.767)				(±0.384)
I	18.81	20.75	22.31	21.37	20.81
B	17.51	20.41	19.90	20.09	19.48
Mean (±0.543)	18.16	20.58	21.10	20.73	20.14

NO: 13.97

General mean: 19.46

Mean D.M. %: 20.1