

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

Numerical Results of the Field Experiments 1968

[Full Table of Content](#)



68/DF/2 Nitrogen and Damage to Sward by Ammonia-injectors - Grass

Rothamsted Research

Rothamsted Research (1970) *68/DF/2 Nitrogen and Damage to Sward by Ammonia-injectors - Grass ; Numerical Results Of The Field Experiments 1968*, pp 377 - 380 - DOI:

<https://doi.org/10.23637/ERADOC-1-58>

68/Df/2.1

GRASS

(RG 201)

Nitrogen and damage to sward by ammonia-injectors - Parklands 1968.

Design: 1 randomised block of 18 plots.

Area of each plot: 0.0092. Area harvested: 0.0054.

Treatments: All combinations of:-

1. Mechanical damage by injector: None (IO), damage by 'Anhydrous' injector (IA), by 'Aqua' injector (IQ).
2. Time of damage: In autumn (A), in spring (S).
3. Nitrogen per cut: 0.3 (N1), 0.6 (N2), 1.0 (N3) cwt as 'Nitro-Chalk' broadcast by hand.

Basal applications: 900 lb (0:14:28) applied in winter.

Cultivations, etc.: Autumn injector slits made - 'aqua': 8 Nov, 1967, 'anhydrous': 21 Nov. Basal PK compound applied: 23 Jan, 1968.

Spring injector slits made - 'aqua': 12 Mar, 'anhydrous': 14 Mar. 'Nitro-Chalk' applied: 15 Mar. Cut three times: 22 May, 9 July, 14 Sept. 'Nitro-Chalk' applied after first two cuts. Previous crop: Grassland for at least 35 years.

NOTE: Grass samples were taken for dry matter and percentage of N.

Standard errors per plot.

Dry matter:

1st cut:	1.73 or 5.2% (4 d.f.)
2nd cut:	2.72 or 10.4% (4 d.f.)
3rd cut:	5.38 or 23.4% (4 d.f.)
Total of 3 cuts:	8.01 or 9.8% (4 d.f.)

68/Df/2.2

SUMMARY OF RESULTS

DRY MATTER

	IA	IQ	N1	N2	N3	Mean
	1ST CUT					
	(±1.00)			(±1.22)		(±0.71)
A	33.0	33.0	29.3	34.7	35.1	33.0
S	30.8	34.6	31.8	33.9	32.4	32.7
				(±1.22)		(±0.71)
	0		28.9	35.9	34.2	33.0
	IA		28.8	34.7	32.1	31.9
	IQ		32.2	33.8	35.4	33.8
Mean (±0.71)			30.0	34.8	33.9	32.9

	2ND CUT					
	(±1.57)			(±1.92)		(±1.11)
A	25.4	25.9	26.3	24.7	25.9	25.6
S	26.2	26.6	27.5	25.3	26.5	26.4
				(±1.92)		(±1.11)
	0		26.8	26.5	26.2	26.5
	IA		25.5	25.1	26.9	25.8
	IQ		28.3	24.9	25.5	26.3
Mean (±1.11)			26.9	25.5	26.2	26.2

Mean D.M. %: 1st cut: 15.2
2nd cut: 15.8

68/Df/2.3

		DRY MATTER					
		IA	IQ	N1	N2	N3	Mean
		3RD CUT					
		(±3.11)			(±3.81)		(±2.20)
A		20.3	24.3	23.3	20.3	23.4	22.3
	S	22.9	26.6	27.1	25.5	21.7	24.8
					(±3.81)		(±2.20)
		0		25.2	17.7	22.4	21.8
		IA		25.3	19.2	20.3	21.6
		IQ		25.1	26.6	24.8	25.5
Mean (±2.20)				25.2	21.2	22.5	23.0
		TOTAL OF 3 CUTS'					
		(±4.62)			(±5.66)		(±3.27)
A		78.7	83.2	78.8	79.7	84.4	81.0
	S	79.9	87.9	86.4	84.7	80.7	83.9
					(±5.66)		(±3.27)
		0		80.9	80.2	82.7	81.3
		IA		79.6	79.1	79.3	79.3
		IQ		85.7	85.3	85.8	85.6
Mean (±3.27)				82.0	81.5	82.6	82.0

Mean D.M. %: 3rd cut: 17.7
 Total of 3 cuts: 16.2

