

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 1967

[Full Table of Content](#)



67/R/EAB/C/32 IbdU - Grass

Rothamsted Research

Rothamsted Research (1968) *67/R/EAB/C/32 IbdU - Grass* ; Yields Of The Field Experiments 1967, pp 223 - 226 - DOI: <https://doi.org/10.23637/ERADOC-1-157>

67/C/32.1

GRASS

(EAB)

The effect of granule size on the rate of release of N from IBDU (Iso-butyridene di-urea), Fosters O and E I, 1967.

Design: 3 randomised blocks of 18 plots.

Area of each plot: 0.0009. Area harvested: 0.0005.

Treatments: None (0) (3 plots per block), and all combinations of:-

1. N fertiliser:

Ammonium nitrate (prilled)

IBDU powder

IBDU, small granules (0.5 - 0.8 mm)

IBDU, medium granules (0.8 - 1.5 mm)

IBDU, large granules (1.5 - 2.4 mm)

2. Levels of N: 100 lb (N1), 200 lb (N2), 300 lb (N3).

A
P
S
M
L

Basal application: 4 cwt (0:14:28).

Cultivations, etc.: Ploughed: Nov 8, 1966. Rotary cultivated, fertilisers applied, seed drilled at 30 lb: Mar 29. Cut four times: June 21, July 21, Sept 5 and Nov 11. Variety: S22 Italian ryegrass. Previous crops: Potatoes 1965, barley 1966.

NOTE: % N in grass was determined and N uptakes calculated.

Standard errors per plot. Dry matter:

1st cut	4.21 or 24.6% (34 d.f.)
2nd cut:	1.81 or 8.7% (34 d.f.)
3rd cut:	2.72 or 18.3% (34 d.f.)
4th cut:	0.96 or 16.3% (34 d.f.)
Total of 4 cuts:	7.64 or 13.0% (34 d.f.)

67/c/32.2

SUMMARY OF RESULTS

DRY MATTER

	O	A	P	S	M	L	Mean
1ST CUT							
	(±2.43)						(±1.09)
N1		20.2	18.8	18.7	15.0	8.2	16.2
N2		24.9	22.6	22.1	20.1	13.6	20.7
N3		23.1	24.0	22.5	22.3	17.2	21.8
Mean (±1.40)	5.1	22.7	21.8	21.1	19.1	13.0	17.2*
2ND CUT							
	(±1.05)						(±0.47)
N1		22.4	20.4	21.0	17.4	14.5	19.2
N2		28.4	24.4	25.2	22.5	19.6	24.0
N3		25.4	27.2	27.4	24.4	22.5	25.4
Mean (±0.60)	10.3	25.4	24.0	24.5	21.4	18.9	20.8*

* General mean

Mean D.M. %: 1st cut: 21.3
2nd cut: 22.4

67/C/32.3

DRY MATTER

	O	A	P	S	M	L	Mean
3RD CUT							
				(±1.57)			(±0.70)
N1		9.4	12.5	12.6	10.1	11.6	11.2
N2		17.3	17.9	18.1	17.5	14.0	17.0
N3		24.8	21.1	20.8	21.5	16.2	20.9
Mean (±0.91)	7.2	17.2	17.2	17.2	16.4	13.9	14.8*
4TH CUT							
				(±0.55)			(±0.25)
N1		2.5	4.0	4.5	4.7	4.8	4.1
N2		3.9	5.9	7.5	8.6	7.9	6.8
N3		7.3	8.3	9.0	11.6	9.4	9.1
Mean (±0.32)	2.0	4.6	6.1	7.0	8.3	7.4	5.9*

* General mean

Mean D.M. %: 3rd cut: 24.2
4th cut: 20.8

67/C/32.4

DRY MATTER							
	O	A	P	S	M	L	Mean
TOTAL OF 4 CUTS							
	(±4.41)						(±1.97)
N1		54.5	55.7	56.9	47.2	39.0	50.7
N2		74.5	70.8	72.7	68.7	55.2	68.4
N3		80.6	80.7	79.7	79.8	65.4	77.2
Mean (±2.55)	24.6	69.9	69.1	69.8	65.3	53.2	58.6*

* General mean

Mean D.M. %: 22.2