

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 1965

[Full Table of Content](#)



65/W/C/32 K and Protein Synthesis - Grass

Rothamsted Research

Rothamsted Research (1966) *65/W/C/32 K and Protein Synthesis - Grass ; Yields Of The Field Experiments 1965*, pp 233 - 235 - DOI: <https://doi.org/10.23637/ERADOC-1-159>

65/C/32.1

GRASS

Effect of K on protein synthesis - Woburn Stackyard Series C 1965.

Design: 4 randomised blocks of 10 plots.

Area of each plot: 0.0138. Area harvested: 1st, 2nd and 4th cuts - 0.0008, 3rd cut - 0.0007.

Treatments: All combinations of:-

1. Species: Cocksfoot S37 (C), Meadow Fescue S215 (M).
2. Levels of K: None (K0), 60 (K1), 120 (K2), 180 (K3), 240 lb K (K4) as muriate of potash.

Basal applications: 0.3 cwt N as 'Nitro-Chalk', 0.5 cwt P as granular superphosphate rotary cultivated into seedbed. 100 lb N as ammonium nitrate in spring and after every cut except the last.

Cultivations, etc.: Chisel ploughed: Sept 7, 1964. Basal superphosphate and 'Nitro-Chalk' applied, seed sown at 25 lb: Sept 17. Ammonium nitrate and first half dressing of K applied: Apr 1, 1965. Second half dressing of K applied: May 21. Cut four times: May 21, July 2, Aug 11 and Oct 11. Ammonium nitrate applied after first 3 cuts. Previous crops: Fallow 1963 and 1964.

NOTE: After each cut samples were analysed for total N and protein N and for K.

Standard errors per plot. Dry matter:

1st cut:	1.92 or 8.7% (27 d.f.)
2nd cut:	1.97 or 8.7% (27 d.f.)
3rd cut:	1.46 or 6.4% (27 d.f.)
4th cut:	1.44 or 6.5% (27 d.f.)
Total of 4 cuts:	3.47 or 3.9% (27 d.f.)

65/G/32.2

SUMMARY OF RESULTS

DRY MATTER

	K0	K1	K2	K3	K4	Mean
1ST CUT						
	(±0.96)					(±0.43)
C	20.3	21.3	23.6	21.9	21.6	21.7
M	21.9	22.7	22.5	21.7	22.9	22.3
Mean (±0.68)	21.1	22.0	23.0	21.8	22.3	22.0
2ND CUT						
	(±0.99)					(±0.44)
C	23.6	22.3	24.2	23.4	24.3	23.6
M	22.3	24.6	23.1	20.1	19.6	21.9
Mean (±0.70)	22.9	23.4	23.7	21.8	21.9	22.7
3RD CUT						
	(±0.73)					(±0.33)
C	21.7	21.4	23.1	22.5	23.6	22.4
M	22.1	23.5	23.3	22.9	23.3	23.0
Mean (±0.51)	21.9	22.4	23.2	22.7	23.4	22.7

Mean D.M. %: 1st cut: 20.1
 2nd cut: 25.2
 3rd cut: 21.6

65/C/32.3

DRY MATTER						
	K0	K1	K2	K3	K4	Mean
4TH CUT						
	(±0.72)					(±0.32)
C	21.6	22.1	21.7	22.3	23.9	22.3
M	21.3	22.5	21.0	20.9	22.2	21.6
Mean (±0.51)	21.5	22.3	21.3	21.6	23.1	21.9
TOTAL OF 4 CUTS						
	(±1.74)					(±0.78)
C	87.2	87.0	92.6	90.0	93.4	90.1
M	87.6	93.3	89.9	85.6	88.0	88.9
Mean (±1.23)	87.4	90.1	91.2	87.8	90.7	89.5
Mean D.M. %: 4th cut: 18.6						
Total of 4 cuts: 21.4						