

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/68 Ammonium Phosphates - Ryegrass

Rothamsted Research

Rothamsted Research (1972) *71/R/CS/68 Ammonium Phosphates - Ryegrass ; Yields Of The Field Experiments 1971*, pp 210 - 212 - DOI: <https://doi.org/10.23637/ERADOC-1-97>

71/R/CS/68

AMMONIUM PHOSPHATES

Object: To study the residual P effects of different forms of NP fertilisers, applied in 1970 to grass - West Barnfield II.

The second year, ryegrass.

For previous year see 70/R/M/4(t).

Whole plot dimensions: 1.5 x 2.7. Area harvested: 0.00022.

The area in barley 1970 was abandoned. The area in ryegrass was continued

Treatments:

To the four plots per block which did not receive N or P in 1970, all combinations of:-

1. 'Nitro-Chalk': None (0), 112 kg N (N) for each cut.

2. Superphosphate: None (0), 11.2 kg P (P) in spring.

Remaining plots received 'Nitro-Chalk' only at 112 kg N for each cut.

Basal applications: 112 kg K as potassium chloride.

Cultivations, etc.: Basal K and first N applied: 8 Mar, 1971.

Cut 3 times: 12 May, 28 June, 7 Sept. N applied after first 2 cuts. Variety: S22 Italian Ryegrass.

NOTE: Crop samples were taken for determination of nitrogen percentage.

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

1st cut: 0.276 or 5.8% (22 d.f.)

2nd cut: 0.205 or 6.5% (22 d.f.)

3rd cut: 0.168 or 9.2% (22 d.f.)

Total of 3 cuts: 0.527 or 5.4% (22 d.f.)

71/R/CS/68

SUMMARY OF RESULTS

DRY MATTER: TONNES/HECTARE

	A	M	D	T	Mean
1ST CUT					
	(±0.159)				(±0.080)
1+N	4.98	4.93	4.72	4.73	4.84
2+N	4.88	4.88	5.16	5.25	5.04
2	4.55	4.49	4.67	4.40	4.53
Mean (±0.092)	4.81	4.77	4.85	4.79	4.80

O 0.89
 N 4.07 (±0.159)
 P 1.02
 NP 4.53

General mean: 4.26
 Mean D.M. %: 19.6

2ND CUT

	(±0.118)				(±0.059)
1+N	2.94	3.03	3.06	2.90	2.98
2+N	3.00	2.90	3.36	2.93	3.05
2	3.59	3.22	3.47	3.26	3.39
Mean (±0.068)	3.18	3.05	3.30	3.03	3.14

O 0.97
 N 3.11 (±0.118)
 P 1.08
 NP 3.50

General mean: 2.90
 Mean D.M. %: 19.7

71/R/CS/68

DRY MATTER: TONNES/HECTARE

	A	M	D	T	Mean
3RD CUT					
	(±0.097)				(±0.048)
1+N	2.03	1.78	1.67	1.89	1.84
2+N	1.67	1.88	1.99	1.81	1.84
2	1.75	1.90	1.85	1.73	1.81
Mean (±0.056)	1.82	1.85	1.84	1.81	1.83

O 0.67
 N 1.63 (±0.097)
 P 0.73
 NP 1.78

General mean: 1.67
 Mean D.M. %: 39.2

TOTAL OF 3 CUTS

	(±0.304)				(±0.152)
1+N	9.95	9.74	9.45	9.52	9.66
2+N	9.55	9.66	10.51	9.99	9.93
2	9.89	9.61	10.00	9.38	9.72
Mean (±0.176)	9.80	9.67	9.98	9.63	9.77

O 2.53
 N 8.81 (±0.304)
 P 2.83
 NP 9.81

General mean: 8.83
 Mean D.M. %: 26.2