

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/14 N P K to Old Grass - Old Grass

Rothamsted Research

Rothamsted Research (1972) *71/R/CS/14 N P K to Old Grass - Old Grass* ; Yields Of The Field Experiments 1971, pp 143 - 149 - DOI: <https://doi.org/10.23637/ERADOC-1-97>

71/R/CS/14

NPK TO OLD GRASS

Object: To study the effects of a range of P and K levels on yields of permanent pasture on sites with much or little P and K in the soil - Park Grass old plots 5/1 and 5/2.

The seventh year, old grass.

For previous years see 65/C/22(t), 66/C/13(t), 67/C/9(t), 68/C/7, 69 - 70/R/CS/14.

Whole plot dimensions: 1.83 x 10.1. Area harvested: 0.00086.

Cultivations, etc.: P and K applied: 8 Dec, 1970. N applied: 9 Mar, 1971. Cut twice: 7 June and 4 Oct. N applied after 1st cut.

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

Plot 5/1: 1st cut:	0.394 or 12.2% (11 d.f.)
2nd cut:	0.302 or 9.9% (11 d.f.)
Total of 2 cuts:	0.538 or 8.5% (11 d.f.)
Plot 5/2: 1st cut:	0.549 or 13.3% (11 d.f.)
2nd cut:	0.287 or 8.8% (11 d.f.)
Total of 2 cuts:	0.564 or 7.6% (11 d.f.)

71/R/CS/14

SUMMARY OF RESULTS

PLOT 5/1: DRY MATTER, TONNES/HECTARE

1ST CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.139)	2.41	3.69	4.08	3.88	3.51
		(± 0.279)			(± 0.139)
K0	2.13	3.19	3.21	2.84	2.84
K2	2.78	4.48	4.41	4.32	4.00
K4	2.46	3.70	4.42	4.27	3.71
K8	2.26	3.38	4.27	4.07	3.50
		(± 0.197)			(± 0.098)
N1	2.24	3.17	3.43	3.40	3.06
N2	2.58	4.20	4.73	4.35	3.96
	K0	K2	K4	K8	
		(± 0.197)			
N1	2.85	3.44	2.99	2.95	
N2	2.84	4.55	4.43	4.04	
	K1 and K6 plots				
	K1*	K6*	Mean		
		(± 0.279)	(± 0.197)		
N1	2.13	1.50	1.82		
N2	2.57	2.41	2.49		
Mean (± 0.197)	2.35	1.95	2.15		

* Applied 1965

General mean: 3.24

Mean D.M. %: 23.2

71/R/CS/14

PLOT 5/1: DRY MATTER, TONNES/HECTARE

2ND CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.107)	3.09	3.12	3.34	3.20	3.19
		(± 0.214)			(± 0.107)
K0	2.85	2.43	2.65	2.24	2.54
K2	2.92	3.13	3.53	2.90	3.12
K4	3.25	3.26	3.51	3.74	3.44
K8	3.35	3.66	3.66	3.91	3.64
		(± 0.151)			(± 0.076)
N1	2.67	2.67	2.65	2.95	2.73
N2	3.52	3.56	4.02	3.45	3.64
	K0	K2	K4	K8	
		(± 0.151)			
N1	2.34	2.65	2.82	3.13	
N2	2.74	3.59	4.07	4.15	

K1 and K6 plots

	K1*	K6*	Mean
		(± 0.214)	(± 0.151)
N1	2.57	1.92	2.25
N2	2.75	2.89	2.82
Mean (± 0.151)	2.66	2.41	2.53

* Applied 1965

General mean: 3.06
 Mean D.M. %: 28.3

71/R/CS/14

PLOT 5/1: DRY MATTER, TONNES/HECTARE

TOTAL OF 2 CUTS

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.190)	5.50	6.81	7.41	7.08	6.70
		(± 0.380)			(± 0.190)
K0	4.99	5.62	5.86	5.09	5.39
K2	5.69	7.61	7.94	7.22	7.12
K4	5.71	6.96	7.93	8.01	7.15
K8	5.61	7.04	7.92	7.98	7.14
		(± 0.269)			(± 0.134)
N1	4.90	5.85	6.08	6.35	5.79
N2	6.10	7.77	8.75	7.80	7.60
	K0	K2	K4	K8	
		(± 0.269)			
N1	5.19	6.09	5.81	6.08	
N2	5.58	8.14	8.49	8.19	
	K1 and K6 plots				
	K1*	K6*	Mean		
		(± 0.380)	(± 0.269)		
N1	4.70	3.42	4.06		
N2	5.32	5.30	5.31		
Mean (± 0.269)	5.01	4.36	4.69		

* Applied 1965

General mean: 6.30

Mean D.M. %: 25.8

71/R/CS/14

PLOT 5/2: DRY MATTER, TONNES/HECTARE

1ST CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.194)	4.02	4.19	4.19	3.82	4.06
		(± 0.388)			(± 0.194)
K0	3.76	3.59	3.59	3.45	3.60
K2	3.99	4.51	4.67	4.17	4.34
K4	4.63	4.39	4.58	4.03	4.41
K8	3.71	4.29	3.93	3.63	3.89
		(± 0.274)			(± 0.137)
N1	2.91	2.39	2.85	2.60	2.69
N2	5.14	5.99	5.54	5.04	5.43
	K0	K2	K4	K8	
		(± 0.274)			
N1	2.34	2.87	2.95	2.59	
N2	4.85	5.80	5.86	5.19	
K1 and K6 plots					
	K1*	K6*	Mean		
		(± 0.388)	(± 0.274)		
N1	3.04	3.31	3.17		
N2	5.31	5.94	5.63		
Mean (± 0.274)	4.18	4.63	4.40		

* Applied 1965

General mean: 32.9

Mean D.M. %: 25.6

71/R/CS/14

PLOT 5/2: DRY MATTER, TONNES/HECTARE

2ND CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.102)	3.27	3.12	3.21	3.31	3.23
		(± 0.203)			(± 0.102)
K0	3.46	3.49	2.91	3.46	3.33
K2	3.28	2.97	3.50	3.20	3.24
K4	3.35	2.90	3.30	3.27	3.20
K8	3.00	3.13	3.13	3.33	3.15
		(± 0.144)			(± 0.072)
N1	3.04	2.62	2.96	2.81	2.86
N2	3.50	3.62	3.46	3.82	3.60

	K0	K2	K4	K8
		(± 0.144)		
N1	2.94	3.12	2.76	2.62
N2	3.72	3.35	3.65	3.67

K1 and K6 plots

	K1*	K6*	Mean
		(± 0.203)	(± 0.144)
N1	3.30	2.97	3.14
N2	3.65	3.44	3.55
Mean (± 0.144)	3.48	3.21	3.34

* Applied 1965

General mean: 3.25
Mean D.M. %: 32.5

71/R/CS/14

PLOT 5/2: DRY MATTER, TONNES/HECTARE

TOTAL OF 2 CUTS

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.200)	7.29	7.31	7.40	7.14	7.29
		(± 0.399)			(± 0.200)
K0	7.22	7.08	6.50	6.92	6.93
K2	7.27	7.48	8.17	7.37	7.57
K4	7.98	7.29	7.88	7.30	7.61
K8	6.71	7.42	7.06	6.96	7.03
		(± 0.282)			(± 0.141)
N1	5.95	5.02	5.81	5.41	5.55
N2	8.63	9.61	8.99	8.87	9.03
	K0	K2	K4	K8	
		(± 0.282)			
N1	5.28	5.99	5.71	5.21	
N2	8.58	9.15	9.51	8.86	
	K1 and K6 plots				
	K1*	K6*	Mean		
		(± 0.399)	(± 0.282)		
N1	6.34	6.28	6.31		
N2	8.97	9.38	9.18		
Mean (± 0.282)	7.65	7.83	7.74		

* Applied 1965

General mean: 7.38
 Mean D.M. %: 25.6