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Numerical Results of the Field Experiments 1970

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70/R/CS/14 NPK to Old Grass

Rothamsted Research

Rothamsted Research (1971) *70/R/CS/14 NPK to Old Grass ; Numerical Results Of The Field Experiments 1970*, pp 147 - 153 - DOI: <https://doi.org/10.23637/ERADOC-1-59>

NPK TO OLD GRASS

(70/R/CS/14)

Park Grass Old Plots 5/1 and 5/2, 1970, the sixth year.

For details of treatments etc. see 'Results' 65/C/22, 66/C/13, 67/C/9,
68/C/7 and 69/R/CS/14.

Area of each plot: 0.0045. Area harvested: 0.0021.

Treatments KLP2 and K6P2 were applied in 1965 only. In each season
these plots received N at current rates.

Basal application: 70 cwt ground chalk.

Cultivations, etc.: P and K applied: 15 Jan, 1970. N applied:
16 Mar. Ground chalk applied: 16 Apr. Cut twice: 5 June and
9 Oct. N applied after first cut.

Standard errors per plot. Dry matter, cwt:

Plot 5/1: 1st cut: 2.47 or 13.6% (11 d.f.)

2nd cut: 2.21 or 10.4% (11 d.f.)

Total of 2 cuts: 4.07 or 10.4% (11 d.f.)

Plot 5/2: 1st cut: 3.18 or 10.7% (11 d.f.)

2nd cut: 1.50 or 7.8% (11 d.f.)

Total of 2 cuts: 3.48 or 7.1% (11 d.f.)

70/R/CS/14

SUMMARY OF RESULTS

PLOT 5/1: DRY MATTER, CWT

1ST CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.87)	10.0	23.1	26.2	23.1	20.6
K0	8.5	(± 1.74)			(± 0.87)
K2	11.4	16.5	19.4	14.1	14.6
K4	9.9	24.9	27.5	23.6	21.8
K8	10.1	25.2	28.3	27.5	22.7
		25.9	29.6	27.1	23.2
N1	9.0	(± 1.23)			(± 0.62)
N2	11.0	18.8	18.6	18.7	16.3
		27.5	33.8	27.4	24.9

	K0	K2	K4	K8
N1	13.9	(± 1.23)		
N2	15.3	17.5	15.1	18.5
		26.1	30.4	27.8

K1 and K6 plots

	K1P2*	K6P2*	Mean
	(± 1.74)		(± 1.23)
N1	8.1	4.9	6.5
N2	10.9	9.0	9.9
Mean (± 1.23)	9.5	7.0	8.2

* Applied 1965

General mean: 18.1
Mean D.M. %: 25.5

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PLOT 5/1: DRY MATTER, CWT

2ND CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.78)	19.0	20.4	23.2	23.8	21.6
K0			(± 1.56)		(± 0.78)
K2	20.6	19.6	19.6	21.0	20.2
K4	18.1	21.2	28.1	22.5	22.5
K8	19.1	21.1	23.0	25.3	22.1
	18.1	19.7	22.0	26.5	21.6
N1			(± 1.10)		(± 0.55)
N2	16.6	16.8	19.3	22.5	18.8
	21.4	24.1	27.0	25.2	24.4
	K0	K2	K4	K8	
N1			(± 1.10)		
N2	18.1	18.5	19.2	19.5	
	22.3	26.4	25.1	23.7	
K1 and K6 plots					
	K1P2*	K6P2*	Mean		
N1		(± 1.56)	(± 1.10)		
N2	20.2	17.2	18.7		
	20.5	21.0	20.7		
Mean (± 1.10)	20.3	19.1	19.7		

* Applied 1965

General mean: 21.2
Mean D.M. %: 29.4

70/R/CS/14

PLOT 5/1: DRY MATTER, CWT

TOTAL OF 2 CUTS

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 1.44)	29.0	43.6	49.4	46.9	42.2
K0	29.1	36.1	38.9	35.1	(± 1.44) 34.8
K2	29.5	46.1	55.6	46.1	44.3
K4	29.0	46.4	51.3	52.7	44.9
K8	28.2	45.7	51.7	53.6	44.8
N1	25.6	35.6	37.9	41.2	(± 1.02) 35.1
N2	32.3	51.5	60.8	52.6	49.3
	K0	K2	K4	K8	
N1	32.0	36.1	34.2	38.0	
N2	37.6	52.6	55.5	51.6	
K1 and K6 plots					
	K1P2*	K6P2*	Mean		
N1	28.3	22.1	(± 2.04) 25.2		
N2	31.4	30.0	30.7		
Mean (± 2.04)	29.8	26.1	27.9		

* Applied 1965

General mean: 39.3
Mean D.M. %: 27.4

5.10 tonnes harvested
4.98 t/ha M.D. yield

70/R/CS/14

PLOT 5/2: DRY MATTER, CWT

1ST CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 1.13)	30.6	30.4	29.7	27.7	29.6
K0	28.0	28.6	28.6	26.2	(± 1.13) 27.8
K2	32.0	33.1	30.6	27.7	30.8
K4	31.4	29.9	30.7	27.3	29.8
K8	31.1	30.0	29.0	29.6	29.9
N1	18.9	18.2	18.0	15.0	(± 0.80) 17.5
N2	42.3	42.6	41.5	40.4	41.7
	K0	K2	K4	K8	
N1	16.8	18.6	17.5	17.2	
N2	38.9	43.1	42.1	42.7	

K1 and K6 plots

	K1P2*	K6P2*	Mean
N1	(± 2.25) 19.6	20.3	(± 1.59) 19.9
N2	37.4	42.6	40.0
Mean (± 1.59)	28.5	31.4	30.0

* Applied 1965

General mean: 29.7
Mean D.M. %: 27.4

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PLOT 5/2: DRY MATTER, CWT

2ND CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.53)	19.3	18.6	18.7	20.2	19.2
K0	20.4	19.0	20.5	20.1	(± 0.53) 20.0
K2	18.8	17.8	19.0	20.2	18.9
K4	19.0	19.8	18.4	19.4	19.2
K8	19.0	18.0	16.8	21.0	18.7
N1	17.1	16.4	17.1	17.2	(± 0.38) 16.9
N2	21.5	20.8	20.3	23.2	21.4
	K0	K2	K4	K8	
N1	18.1	18.2	15.7	15.7	(± 0.75)
N2	21.9	19.6	22.6	21.7	
K1 and K6 plots					
	K1P2*	K6P2*	Mean		
N1	20.0	18.6	19.3	(± 0.75)	
N2	19.3	21.3	20.3		
Mean (± 0.75)	19.6	19.9	19.8		

* Applied 1965

General mean: 19.3

Mean D.M. %: 33.9

70/R/CS/14

PLOT 5/2: DRY MATTER, CWT

TOTAL OF 2 CUTS

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 1.23)	49.9	49.0	48.4	47.9	48.8
K0	48.3	47.5	49.1	46.4	(± 1.23) 47.8
K2	50.7	50.9	49.6	47.9	49.8
K4	50.4	49.8	49.1	46.7	49.0
K8	50.2	48.0	45.7	50.6	48.6
N1	36.0	34.7	35.0	32.2	(± 0.87) 34.5
N2	63.8	63.4	61.7	63.6	63.1
	K0	K2	K4	K8	
N1	34.9	36.8	33.2	32.9	(± 1.74)
N2	60.8	62.7	64.8	64.3	
K1 and K6 plots					
	K1P2*	K6P2*	Mean		
N1	39.6	38.8	39.2	(± 2.46)	
N2	56.7	63.9	60.3		
Mean (± 1.74)	48.1	51.4	49.7		

* Applied 1965

General mean: 49.0
Mean D.M. %: 30.6