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Numerical Results of the Field Experiments 1968

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The Rothamsted Experiment, the largest continuous field experiment in the world, is situated on the Rothamsted Estate, Rothamsted, Herts, UK. The Rothamsted Experiment is a unique resource for the study of soil fertility and the effects of fertilizers on crop production. The Rothamsted Experiment is a unique resource for the study of soil fertility and the effects of fertilizers on crop production. The Rothamsted Experiment is a unique resource for the study of soil fertility and the effects of fertilizers on crop production.

68/C/7 Park Grass Microplots - Plots 5/1 and 5/2

Rothamsted Research

Rothamsted Research (1970) *68/C/7 Park Grass Microplots - Plots 5/1 and 5/2* ; Numerical Results Of The Field Experiments 1968, pp 155 - 163 - DOI: <https://doi.org/10.23637/ERADOC-1-58>

68/C/7.1

PARK GRASS MICROPLOTS

(EPG 81 - 160)

Plots 5/1 and 5/2, 1968, the fourth year

For details of treatments etc., and for previous years' results see 'Results' 65/C/22, 66/C/13 and 67/C/9.

Treatments K1P2 and K6P2 were applied in 1965 only. In each season these plots received N at current rates.

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

Cultivations, etc.: Ground chalk applied to plot 5/1 at 5490 lb and to plot 5/2 at 4930 lb: 28 Dec, 1967. P and K applied: 19 Jan, 1968. 'Nitro-Chalk' applied: 18 Mar. Cut 3 times: 29 May, 22 July, 7 Oct. 'Nitro-Chalk' applied after first 2 cuts.

Standard errors per plot. Dry matter:

Plot 5/1.	1st cut:	2.75 or 19.0% (11 d.f.)
	2nd cut:	3.51 or 21.1% (11 d.f.)
	3rd cut:	1.69 or 7.5% (11 d.f.)
	Total of 3 cuts:	6.12 or 11.4% (11 d.f.)
Plot 5/2.	1st cut:	2.16 or 6.8% (11 d.f.)
	2nd cut:	2.24 or 10.3% (11 d.f.)
	3rd cut:	2.06 or 7.6% (11 d.f.)
	Total of 3 cuts:	2.83 or 3.5% (11 d.f.)

68/C/7.2

SUMMARY OF RESULTS

PLOT 5/1: DRY MATTER

1ST CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.97)	7.2	17.0	20.7	19.6	16.1
		(± 1.94)			(± 0.97)
K0	4.5	12.3	15.0	9.9	10.4
K2	10.3	21.4	24.0	22.0	19.4
K4	7.3	20.1	22.9	22.7	18.2
K8	6.7	14.2	20.8	23.8	16.4
		(± 1.38)			(± 0.69)
N1	8.2	14.3	15.6	16.2	13.6
N2	6.2	19.7	25.8	23.0	18.7
	K0	K2	K4	K8	
		(± 1.38)			
N1	11.6	16.2	13.5	13.0	
N2	9.3	22.6	23.0	19.7	

K1 and K6 plots

	K1P2*	K6P2*	Mean
		(± 1.94)	(± 1.38)
N1	7.6	9.2	8.4
N2	7.2	7.7	7.5
Mean (± 1.38)	7.4	8.5	8.0

* Applied 1965

General mean: 14.5
 Mean D.M. %: 22.5

68/C/7.3

PLOT 5/1: DRY MATTER

2ND CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 1.24)	18.4	17.0	18.5	18.3	18.0
		(± 2.48)			(± 1.24)
K0	11.4	16.2	11.5	15.9	13.8
K2	19.4	18.1	20.4	16.5	18.6
K4	22.1	18.8	21.6	19.7	20.6
K8	20.6	15.0	20.5	21.1	19.3
		(± 1.76)			(± 0.88)
N1	18.0	14.5	17.1	16.5	16.5
N2	18.8	19.6	19.9	20.2	19.6

	K0	K2	K4	K8	
		(± 1.76)			
N1	13.8	16.5	18.8	16.9	
N2	13.7	20.7	22.4	21.7	

K1 and K6 plots

	K1P2*	K6P2*	Mean
		(± 2.48)	(± 1.76)
N1	11.9	11.1	11.5
N2	10.2	11.2	10.7
Mean (± 1.76)	11.1	11.1	11.1

* Applied 1965

General mean: 16.6
 Mean D.M. %: 22.7

68/C/7.4

PLOT 5/1: DRY MATTER

3RD CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.60)	20.0	23.4	24.5	24.5	23.1
		(± 1.20)			(± 0.60)
K0	20.6	21.8	22.5	21.1	21.5
K2	19.6	24.3	24.7	24.1	23.2
K4	19.0	23.9	24.8	27.6	23.8
K8	21.0	23.6	26.1	25.1	23.9
		(± 0.84)			(± 0.42)
N1	17.8	22.7	24.0	23.8	22.1
N2	22.3	24.1	25.0	25.2	24.1
	K0	K2	K4	K8	
		(± 0.84)			
N1	20.5	22.3	22.4	23.0	
N2	22.5	24.0	25.2	24.9	
	K1 and K6 plots				
	K1P2*	K6P2*	Mean		
		(± 1.20)	(± 0.84)		
N1	20.1	18.6	19.4		
N2	20.9	21.3	21.1		
Mean (± 0.84)	20.5	20.0	20.2		

* Applied 1965

General mean: 22.5

Mean D.M. %: 20.4

68/c/7.5

PLOT 5/1: DRY MATTER

TOTAL OF 3 CUTS

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 2.16)	45.6	57.4	63.7	62.4	57.3
		(± 4.33)			(± 2.16)
K0	36.5	50.4	49.0	46.9	45.7
K2	49.3	63.8	69.1	62.5	61.2
K4	48.4	62.8	69.4	70.0	62.6
K8	48.3	52.7	67.4	70.0	59.6
		(± 3.06)			(± 1.53)
N1	43.9	51.4	56.7	56.4	52.1
N2	47.3	63.4	70.7	68.3	62.4

	K0	K2	K4	K8	
		(± 3.06)			
N1	45.9	55.0	54.7	52.9	
N2	45.5	67.3	70.6	66.3	

K1 and K6 plots

	K1P2*	K6P2*	Mean
	(± 4.33)		(± 3.06)
N1	39.6	38.9	39.3
N2	38.4	40.2	39.3
Mean (± 3.06)	39.0	39.6	39.3

* Applied 1965

General mean: 53.7

Mean D.M. %: 21.9

68/c/7.6

PLOT 5/2: DRY MATTER

1ST CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.76)	31.9	32.7	32.6	30.8	32.0
		(± 1.53)			(± 0.76)
K0	26.6	29.7	31.2	31.9	29.8
K2	34.2	34.5	34.6	32.1	33.8
K4	31.3	32.9	33.8	31.8	32.5
K8	35.6	33.8	30.6	27.4	31.9
		(± 1.08)			(± 0.54)
N1	22.4	22.0	22.8	18.1	21.3
N2	41.4	43.5	42.3	43.5	42.7
	K0	K2	K4	K8	
		(± 1.08)			
N1	19.7	22.2	22.5	20.9	
N2	40.0	45.5	42.4	42.8	
	K1 and K6 plots				
	K1P2*	K6P2*	Mean		
		(± 1.53)	(± 1.08)		
N1	22.6	22.7	22.7		
N2	39.4	40.7	40.1		
Mean (± 1.08)	31.0	31.7	31.4		

* Applied 1965

General mean: 31.9
 Mean D.M. %: 20.6

68/c/7.7

PLOT 5/2: DRY MATTER

2ND CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.79)	22.0	20.8	21.4	20.5	21.2
		(± 1.58)			(± 0.79)
K0	22.1	21.8	21.9	20.1	21.5
K2	21.1	19.1	23.0	22.1	21.3
K4	21.9	21.1	20.8	20.5	21.1
K8	23.1	21.4	20.1	19.4	21.0
		(± 1.12)			(± 0.56)
N1	20.7	18.4	19.7	17.1	19.0
N2	23.4	23.3	23.2	24.0	23.5

	K0	K2	K4	K8
		(± 1.12)		
N1	18.9	19.6	18.9	18.5
N2	24.0	23.1	23.2	23.5

K1 and K6 plots

	K1P2*	K6P2*	Mean
	(± 1.58)		(± 1.12)
N1	19.3	21.8	20.5
N2	26.4	29.0	27.7
Mean (± 1.12)	22.8	25.4	24.1

* Applied 1965

General mean: 21.8
 Mean D.M. %: 22.9

68/c/7.8

PLOT 5/2: DRY MATTER

3RD CUT

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 0.73)	26.4	27.5	27.3	26.7	27.0
		(± 1.46)			(± 0.73)
K0	25.2	26.9	26.2	28.3	26.6
K2	26.3	27.3	26.1	27.4	26.8
K4	25.5	29.4	30.0	24.5	27.4
K8	28.8	26.4	26.9	26.5	27.1
		(± 1.03)			(± 0.52)
N1	25.0	25.5	24.5	22.5	24.4
N2	27.8	29.6	30.0	30.9	29.6
	K0	K2	K4	K8	
		(± 1.03)			
N1	23.6	23.9	25.7	24.3	
N2	29.7	29.7	29.0	30.0	
	K1 and K6 plots				
	K1P2*	K6P2*	Mean		
		(± 1.46)	(± 1.03)		
N1	24.8	23.9	24.3		
N2	30.7	31.5	31.1		
Mean (± 1.03)	27.8	27.7	27.7		

* Applied 1965

General mean: 27.1

Mean D.M. %: 19.3

68/C/7.9

PLOT 5/2: DRY MATTER

TOTAL OF 3 CUTS

Excluding K1 and K6 plots

	P0	P1	P2	P4	Mean
Mean (± 1.00)	80.4	81.1	81.3	78.0	80.2
		(± 2.00)			(± 1.00)
K0	73.9	78.4	79.3	80.3	78.0
K2	81.6	80.9	83.8	81.6	82.0
K4	78.8	83.5	84.6	76.8	80.9
K8	87.4	81.6	77.5	73.3	80.0
		(± 1.42)			(± 0.71)
N1	68.2	65.9	67.0	57.7	64.7
N2	92.6	96.3	95.6	98.4	95.7
	K0	K2	K4	K8	

N1	62.3	65.6	67.1	63.7
N2	93.6	98.3	94.7	96.2

K1 and K6 plots

	K1P2*	K6P2*	Mean
	(± 2.00)		(± 1.42)
N1	66.7	68.4	67.5
N2	96.6	101.2	98.9
Mean (± 1.42)	81.6	84.8	83.2

* Applied 1965

General mean: 80.8

Mean D.M. %: 20.9