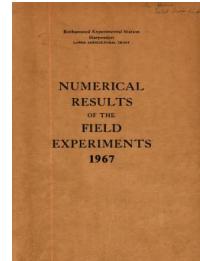


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Yields of the Field Experiments 1967

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67/R/LM/C/1 K, Mg and Na - Barley

Rothamsted Research

Rothamsted Research (1968) *67/R/LM/C/1 K, Mg and Na - Barley ; Yields Of The Field Experiments 1967*, pp 115 - 119 - DOI: <https://doi.org/10.23637/ERADOC-1-157>

67/C/1.1

LEVELS OF K AND Mg

(LM)

K and Mg - Rothamsted Sawyers I - the 9th year, barley.

For details of treatments, etc. see 'Results' 66/C/1, and for previous years' results see 'Results' 60/Ci/3, 61/C/7, 62/C/6, 63/C/1, 64/C/1, 65/C/1, 66/C/1.

Area of each plot: 0.0209. Area harvested: 0.0139.

Basal applications: 0.5 cwt P205 as triple superphosphate in seedbed, 0.5 cwt N as 'Nitro-Chalk' in seedbed. Weedkiller: Mecoprop/2,4-D (Methoxone Extra at 6 pints in 30 gals).

Cultivations, etc.: Ploughed: Jan 18, 1967. K, Mg and Na fertilisers applied: Feb 24. 'Nitro-Chalk' and triple superphosphate applied: Mar 3. Seed drilled at 140 lb: Mar 7. Weedkiller applied: May 12. Combine harvested: Aug 22. Variety: Maris Badger.

NOTE: On June 2 green crop samples were taken for determination of the percentages of K, Na, Ca and Mg. Soil samples were taken for pH and exchangeable cation measurements.

Standard error per plot (Pooled).
Grain: 4.96 or 17.1% (34 d.f.)

SUMMARY OF RESULTS

BARLEY. GRAIN

BLOCKS RECEIVING SODIUM TREATMENTS

	MgO	Mg1	Mg2	KO	K1	K2	NaO	NaCl	NaC	Mean
	18.5 30.6	22.8 32.6	26.4 35.2	12.5 25.0	25.3 37.2	29.8 36.2	24.7 33.2	24.3 33.1	18.7 32.1	22.6 32.8
Ca1	18.5 30.6	22.8 32.6	26.4 35.2	12.5 25.0	25.3 37.2	29.8 36.2	24.7 33.2	24.3 33.1	18.7 32.1	22.6 32.8
Ca2										
Mean (± 1.17)	24.6	27.7	30.8	18.8	31.3	33.0	29.0	28.7	25.3	27.7
	KO	K1	K2	NaO	NaCl	NaC	NaO	NaCl	NaC	
	16.9 18.4 21.1	26.7 32.5 34.6	30.1 32.2 36.8	24.5 29.6 32.8	26.8 29.5 29.8	22.4 23.8 29.8	KO K1 K2	21.2 31.0 34.7	19.4 31.8 34.8	15.6 31.0 29.5
	MgO	Mg1	Mg2	(± 2.02)	(± 2.02)	(± 2.02)			(± 2.02)	

* For use in horizontal and interaction comparisons

Mean D.M. %: 80.2

67/c/1.2

BARLEY. STRAW

BLOCKS RECEIVING SODIUM TREATMENTS										
MgO	Mg1	Mg2	K0	K1	K2	NaO	NaCl	NaC	Mean	
Ca1	11.9 18.3	12.2 19.6	12.9 20.9	7.8 14.7	13.3 21.6	15.9 22.4	13.4 20.8	12.7 19.8	10.8 18.1	12.3 19.6
Ca2										
Mean	15.1	15.9	16.9	11.3	17.5	19.2	17.1	16.3	14.5	16.0

BLOCKS RECEIVING SODIUM TREATMENTS										
K0	K1	K2	NaO	NaCl	NaC	NaO	NaCl	NaC	Mean	
MgO	11.2 10.3 12.3	15.8 17.9 18.7	18.4 19.6 19.6	14.7 18.0 18.7	16.2 16.4 16.4	14.4 13.4 15.6	K0 K1 K2	12.3 17.4 21.8	11.4 18.6 18.8	10.0 16.4 17.0
Mg1										
Mg2										

Mean D.M. %: 80.9

67/c/1.3

67/C/1.4

BARLEY. GRAIN

	KO	K1	K2	MgO	Mg1	Mg2	Mean
Ca1	20.9	(±2.86)*		25.8	(±2.86)*	34.6	30.8
	26.5	35.5 43.3	36.0 33.5	32.4	32.0 36.7	34.2	34.4
Ca2	KO			16.0	(±3.50)	26.8	(±2.02)
	K1			37.0	28.3 42.8	38.3	23.7
	K2			34.3	31.9	38.0	39.4 34.7
Mean	(±2.02)			29.1	34.3	34.4	32.6

* For use in horizontal and interaction comparisons

67/c/1.5

BARLEY. STRAW

BLOCKS NOT RECEIVING SODIUM TREATMENTS

	K0	K1	K2	MgO	Mg1	Mg2	Mean
Ca1	11.2	19.1	22.0	14.4	17.9	20.0	17.4
Ca2	16.1	27.8	21.1	21.9	23.2	19.9	21.7
	K0			9.0	17.6	14.3	13.6
	K1			21.1	25.3	24.0	23.5
	K2			24.3	18.8	21.6	21.6
Mean				18.1	20.6	20.0	19.5