

FIELD EXPERIMENTS 19 54

Crop: Potatoes (Craig's Royal)

Field: Outside Trial at J.J.A. Kendall,  
The Grove,  
Ingham,  
Nr. Stalham.

Experiment: Level of Manuring.

Treatments &amp; Layout: 3 x 3 x 3 Factorial design, including 3 extra plots receiving no fertilizer, this giving a total of 30 plots.

Nitrogen:- 3 cwt per acre of Sulphate of Ammonia (20.6%N).  
 4 $\frac{1}{2}$  " " " " " " " "  
 6 " " " " " " " "

Phosphate:- 4 cwt per acre of Superphosphate (18% P<sub>2</sub>O<sub>5</sub>).  
 6 " " " " " " " "  
 8 " " " " " " " "

Potash:- 2 cwt per acre of Muriate of Potash (50% K<sub>2</sub>O).  
 3 " " " " " " " "  
 4 " " " " " " " "

Plot Size: Treatment :- 15' x 6 rows @ 28" . Harvest :- 15' x 4 rows .

Manuring with dates of: Fertilizer treatments applied on April 14th.

Date of Drilling: April 15th Variety: Craig's Royal Seed Rate:

Date of Harvest: November 3rd.

Date of

Remarks (previous cropping, cultivations, etc.)

The potatoes followed barley.

Note Book No.

Results of Graig's Royal Trial

Total Yield in Tons per acre

Nitrogen S/A in cwt/acre	Superphosphate in cwt/acre			Nitrogen Means
	4	6	8	
3	9.23	8.26	9.57	9.02
4½	8.98	10.39	10.24	9.87
6	9.80	10.58	10.81	10.40
				N.S.

  

	Muriate of Potash in cwt/acre			
	2	3	4	
3	8.03	9.05	9.99	
4½	8.29	9.29	12.03	
6	9.02	10.85	11.32	

  

Superphosphate in cwt/acre				Phosphate Means
4	8.00	9.88	10.14	9.34
6	9.17	8.85	11.21	9.74
8	8.17	10.47	11.98	10.20
				N.S.

  

Potash Means	8.44	9.73	11.11	■ ■
		Sig. Diff. for Potash Means = 1.24		

Coefficient of variation = 11.01%  
 Mean Yield of Control Plots = 2.45 tons per acre.

Yield of Ware only in Tons per acre

Nitrogen S/A in cwt/acre	Superphosphate in cwt/acre			Nitrogen Means
	4	6	8	
3	9.02	7.97	9.32	8.77
4½	8.71	10.08	9.90	9.56
6	9.57	10.36	10.47	10.13
				N.S.

  

	Muriate of Potash in cwt/acre			
	2	3	4	
3	7.76	8.75	9.79	
4½	7.92	9.02	11.75	
6	8.71	10.56	11.13	

  

Superphosphate in cwt/acre				Phosphate Means
4	7.72	9.60	9.97	9.10
6	8.86	8.62	10.93	9.47
8	7.81	10.11	11.76	9.90
				N.S.

  

Potash Means	8.13	9.44	10.89	■ ■
		Sig. Diff. for Potash Means = 1.20		

Coefficient of variation = 11.0%  
 Mean Yield of Control Plots = 2.30 Tons per acre.



Total Yield in Tons per acre

	<u>Effects</u>	
	<u>Linear</u>	<u>Curvature</u>
N	+ 1.37	- 0.32
P	+ 0.86	+ 0.06
K	+ 2.66	+ 0.09
Sig. Diff.	± 1.00	N.S.
NP	+ 0.33	
NK	+ 0.17	
PK	+ 0.83	
	N.S.	

Yield of Ware only in Tons per acre

	<u>Effects</u>	
	<u>Linear</u>	<u>Curvature</u>
N	+ 1.36	- 0.22
P	+ 0.80	+ 0.06
K	+ 2.76	+ 0.13
Sig. Diff	± 1.20	N.S.
NP	0.29	
NK	0.20	
PK	0.85	
	N.S.	

Significant Differences indicated refer to the significant linear responses between the high and low levels of each of the N, P and K treatments.

∴ the N + K treatments reached linear significance in total yield & yield of ware only

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