

FIELD EXPERIMENTS 1956

Crop: Potatoes (Craig's Royal)

Field: outside trial at:-

J.J.A. Kendall, Esq.,
The Grove,
Ingham, Stalham.
'Twenty Acres'

Experiment: Level of Manuring
(N x P x K)

Treatments & Layout: 3 x 3 x 3 Factorial Design, including 3 extra control plots receiving no fertiliser: total 30 plots.

Nitrogen:-	3 owt. per acre of Sulphate of Ammonia (20.6% N)
	4½ " " " " " " " "
	6 " " " " " " " "
Phosphate:-	4 owt. per acre of superphosphate (18% P ₂ O ₅)
	6 " " " " " " " "
	8 " " " " " " " "
Potash:-	2 owt. per acre of muriate of potash (50% K ₂ O)
	3 " " " " " " " "
	4 " " " " " " " "

Plot Size: Treatment:- 10^I x 8 rows @ 28"
Harvest:- 6 rows x 8^I

Manuring with dates of:

11th April:- treatment fertiliser applied

Date of Drilling: 11th April Variety: Craig's Royal Seed Rate: 16"
Date of spacing between tubers

Date of Harvest:- 1st October, 1956.

Remarks (previous cropping, cultivations, etc.)

Harvested by Spinner.

Previous crop:- Barley.

Soil Analysis:- pH 7.5
P₂O₅ low
K₂O low
O.M. 2.1

Note Book No.



Results of Craig's Royal Trial 1956

Total Yield in Tons/acre

<u>Nitrogen N/A in cwt./acre</u>	<u>Superphosphate in cwt./acre</u>			<u>Nitrogen Means</u>
	4	6	8	
3	13.5	14.3	14.3	14.0
4½	15.1	14.7	15.4	15.0
6	15.2	15.3	14.9	15.1
<u>Levels of Potash in cwt./acre</u>				<u>Sig. Diff. 0.7%</u>
	2	3	4	
3	12.3	13.8	16.0	
4½	13.9	15.3	15.9	
6	14.2	16.0	15.2	
<u>Phosphate in cwt./acre</u>				<u>Phosphate Means</u>
4	13.5	14.8	15.6	14.6
6	13.5	14.4	16.3	14.7
8	13.3	15.9	15.3	14.8 N.S.
<u>Potash Means</u>	13.4	15.0	15.7	

Sig. Diff. for potash 0.7 % % %
 Sig. Diff. for NK interaction = 1.3%

Mean yield of control plots = 3.7 tons/acre
 Coefficient of variation = 4.3%

<u>Nitrogen N/A in cwt./acre</u>	<u>Field of Vars only in tons/acre (Top riddle size 1½")</u>			<u>Nitrogen Means</u>
	<u>Superphosphate in cwt./acre</u>			
	4	6	8	
3	13.1	13.8	13.9	13.6
4½	14.7	14.3	14.9	14.6
6	14.8	14.9	14.5	14.8
<u>Levels of Potash in cwt./acre</u>				<u>Sig. Diff. 0.7%</u>
	2	3	4	
3	11.9	13.4	15.5	
4½	13.4	14.9	15.6	
6	13.7	15.6	14.9	
<u>Phosphate Means in cwt./acre</u>				<u>Phosphate Means</u>
4	13.0	14.5	13.2	14.2
6	13.1	14.0	15.9	14.3
8	12.9	15.5	14.9	14.4 N.S.
<u>Potash Means</u>	13.0	14.6	15.3	Potash Sig. Diff. 0.7% % %

Mean field of control plots = 5.4 tons/acre
 Coefficient of variation = 4.1%
 Sig. Diff. for NK interaction = 1.2%

Results of Analysis for Linear and Curvature Effects

Linear Effects in tons per acre

<u>Factor</u>	<u>Total Yield</u>	<u>Ware only</u>
N	+ 1.0	+ 1.1
P	+ 0.23	+ 0.2
K	+ 2.27	+ 2.3
Value required for significance	0.86 XXXX	0.85 XXXX

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