

FIELD EXPERIMENTS 1956

Crop: Potatoes. (King Edwards)

Field: outside Trial at:-

Experiment: Level of Manuring
(N x P x K)J.J.A. Kendall, Esq.,
The Grove,
Ingham, Stalham,
'Twenty Acres'

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

Nitrogen:- 3 cwt per acre of Sulphate of Ammonia (20.6%N)
4¹ " " " " " " " "
6 " " " " " " " "Phosphate:- 4 cwt per acre of superphosphate (18% P₂O₅)
6 " " " " " " "
8 " " " " " " "Potash:- 2 cwt per acre of Muriate of Potash (50% K₂O)
3 " " " " " " "
4 " " " " " " "Plot size:- Treatment:- 10^x x 8 rows at 28"Harvest:- 6 rows at 8^x

Manuring with dates of:

11th April:- Treatment fertilizer applied.

Date of drilling: 11th April Variety: King Edward

Seed Rate: 16"
spacing between
Tubers.

Date of Harvest. 1st October, 1956.

Date of

Remarks (previous cropping, cultivations, etc.)

Harvested by Spinner.

~~See~~ previous crop Barley.

Soil Analysis:-

N.H.	7.5
P ₂ O ₅	low
K ₂ O	low
0.3M.	2.1

Note Book No.

Results of King Edward Trial 1956

Total Yield in Tons/acre

Nitrogen S/A in cwt./acre	Superphosphate in cwt./acre			Nitrogen Means
	4	6	8	
3	14.7	14.4	14.7	14.6
4½	15.6	14.2	15.4	15.1
6	15.6	15.4	17.1	16.0 N.S.

	Muriate of Potash in cwt/acre			Flourish Means
	2	3	4	
3	13.9	14.7	15.2	
4½	13.8	16.1	15.3	
6	14.2	17.3	16.6	

Superphosphate in cwt./acre	Muriate of Potash in cwt/acre			Flourish Means
	2	3	4	
4	13.4	16.6	15.9	15.3
6	13.8	15.4	14.8	14.7
8	14.7	16.1	16.2	15.7 N.S.

Flourish Means	14.0	16.0	15.7	Sig. Diff. for Potash 1.3%
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Mean yield of control plots = 10.9 tons/acre
Coefficient of variation = 8.5%

Yield of Vase only in tons/acre (Top Middle Size 1½")

Nitrogen S/A in cwt./acre	Superphosphate in cwt./acre			Nitrogen Means
	4	6	8	
3	13.5	13.1	13.4	13.3
4½	14.5	13.0	14.1	13.9
6	14.4	14.5	15.9	14.9 N.S.

	Muriate of Potash in cwt/acre			Flourish Means
	2	3	4	
3	12.7	13.5	13.8	
4½	12.5	15.0	14.2	
6	13.0	16.3	15.3	

Superphosphate in cwt./acre	Muriate of Potash in cwt/acre			Flourish Means
	2	3	4	
4	12.0	15.6	14.9	14.2
6	12.7	14.2	13.7	13.5
8	13.5	14.9	15.0	14.5 N.S.

Flourish Means	12.7	14.9	14.9	Sig. Diff. for Potash 1.1%
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Mean yield of control plots = 10.4 tons/acre
Coefficient of variation = 9.2%

Results of Analysis for Linear and Curvature Effects.

Linear effects in tons per acre

Factor	Total Yield	Ware Only.
N	+ 1.3	+ 1.6
P	+ 0.4	+ 0.3
K	+ 1.5	+ 1.8
value required for significance	1.0 ^{**}	1.12 ^{**}

Curvature effects in tons per acre

Factor	Total Yield
N	+ 0.4
P	+ 1.5
K	- 2.2 ^{**}
Value required for significance	1.9

Curvature effects in yields of ware were only significant at the 10% level. No linear interactions were significant.