

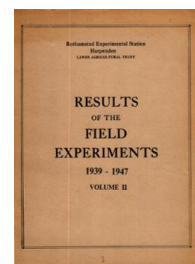
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Yields of the Field Experiments 1939-1947 Volume 2

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N Potatoes - Including Fertilizer Placement Series

Rothamsted Research

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M/12

Beans - Long Hoos 1946

		Differential Responses					
		Variety	Seed rate	Sowing		Mean	
		Giant Essex Lincs. Fa7	2 cwt.	Late	Early		
			3 cwt.				
		± 1.14	± 0.81	± 0.81	± 0.81	± 0.57	
Broadcast - ploughed in		-1.5	0.0	-1.2	0.7	-0.2	
Seed rate, 3 cwt. - 2 cwt.		-0.9	-	1.7	1.8	1.8	
Early - late sowing		4.6	1.4	-	-	1.5	
Mean ± 0.57		21.3	19.7	21.8	20.3	20.8	
		Grain, cwt. per acre					
		± 1.58	± 1.12	± 1.12	± 1.12	± 0.79	
Broadcast - ploughed in		0.3	1.2	2.7	1.7	2.0	
Seed rate, 3 cwt. - 2 cwt.		2.5	-	-	3.6	3.7	
Early - late sowing		9.2	7.2	7.4	-	7.3	
Mean ± 0.79		42.2	41.0	44.6	40.4	42.0	
		Straw, cwt. per acre					

N/1

POTATOES

From 1940 onwards, regular observations were made on aphid populations on potato experiments by the Plant Pathology Department.

POTATOES AND BARLEY

Long Hoos II, 1939-40

Effect in the first year of fresh and stored dungs made with normal and with additional litter, of sulphate of ammonia, superphosphate and sulphate of potash on potatoes, and in the second year the residual effects on barley of the previous year's manuring.

Design: 4 randomized blocks of 12 plots each, plots split into 3 for sulphate of ammonia. In 1940 the sub-plots were not harvested separately.

1939 - Potatoes

Area of each sub-plot, neglecting edge rows: 0.0125 acre.

Treatments

Dung: None,

4 kinds of dung, each derived from an equal weight of feeding stuffs, but with differences in the quantity of litter and time of storage.

Fresh dung, normal litter (6 lb. per head per day) 15.0 tons per acre

Fresh dung, double litter 14.5 " " "

Stored dung (4 months), normal litter 9.3 " " "

Stored dung (4 months), double litter 12.0 " " "

Sulphate of ammonia: None, 0.4 cwt., 0.8 cwt. N per acre

Superphosphate: None, 0.8 cwt. P_2O_5 per acre

Sulphate of potash: None, 1.6 cwt. K_2O per acre.

Crop Notes

Planted: May 18. Lifted: Sept. 22. Variety: Ally. Previous crop: Wheat.

Standard errors, total tubers:

Per whole plot, 0.942 tons per acre or 9.7%, 29 d.f.

Per sub-plot, 0.899 tons per acre or 9.3%, 56 d.f.

1940 - Barley

Area of each plot: 0.0482 acre.

Residual effects of dungs, superphosphate and muriate of potash applied to previous crop of potatoes.

Sown: April 8. Harvested: Aug. 20. Variety: Plumage Archer.

Standard error per plot, grain, 2.71 cwt. per acre or 8.7%, 29 d.f.

N/2

Potatoes and Barley - Long Hoos

Potatoes, 1939

	Super-phosphate		Sulphate of potash		Sulphate of ammonia			Mean
	Absent	Present	Absent	Present	0	0.4	0.8	
Total Tubers, tons per acre								
Yields	±0.192		±0.192		±0.130			
Mean	9.28	10.07	9.46	9.89	8.45	10.08	10.50	9.68
Sulphate of ammonia (cwt. N per acre)	±0.183 ^a		±0.183 ^a					
0	8.31	8.59	8.56	8.35				
0.4	9.74	10.41	9.72	10.43				
0.8	9.78	11.22	10.10	10.89				
Responses to:	±0.408		±0.408		±0.275 ^a			±0.288
Presence of dung	4.48	2.86	4.59	2.75	3.75	3.22	4.03	3.67
	±0.471		±0.471		±0.318 ^a			±0.333
Fresh-stored dung	0.24	0.22	0.36	0.09	0.90	-0.11	-0.11	0.23
Double-single litter	0.12	-0.03	-0.50	0.60	0.65	-0.30	-0.19	0.05
Percentage Ware								
Mean	88.5	89.5	88.7	89.3	87.4	89.6	90.0	89.0
Sulphate of ammonia (cwt. N per acre)								
0	87.3	87.6	87.4	87.4				
0.4	89.4	89.9	89.3	89.9				
0.8	89.0	91.0	89.5	90.5				
Responses to								
Presence of dung	4.2	2.9	5.1	2.0	4.2	2.9	3.6	3.5
Fresh-stored dung	-0.2	0.5	-0.3	0.5	0.3	0.1	0.0	0.2
Double-single litter	-0.2	0.1	-0.3	0.1	0.3	0.0	-0.4	0.0

(a) For use in comparisons involving differences between levels of nitrogen.

N/3

Barley, 1940

Residual effects

	Superphosphate		Sulph. potash		Litter with dung		Mean
	Absent	Present	Absent	Present	Normal	Add'l	
Grain; cwt. per acre							
	± 0.55		± 0.55				
Mean	32.3	30.1	31.4	30.9			31.2
	± 1.17		± 1.17				± 0.83
Response to dung	3.0	3.2	4.1	2.2			3.1
Dung:	± 0.96		± 0.96		± 0.96		± 0.68
Fresh	34.3	32.1	33.9	32.5	33.2	33.2	33.2
Stored	32.2	30.2	31.6	30.8	31.0	31.5	31.2
Litter with dung:							
Normal	33.3	30.8	33.1	31.1			32.1
Additional	33.2	31.5	32.5	32.2			32.4
Straw; cwt. per acre							
Mean	38.5	37.3	38.1	37.6			37.9
Response to dung	4.2	4.6	5.4	3.3			4.4
Dung:							
Fresh	40.3	40.7	41.6	39.4	40.4	40.6	40.5
Stored	39.4	36.8	38.3	38.0	38.0	38.2	38.1
Litter with dung:							
Normal	40.4	38.1	40.0	38.5			39.2
Additional	39.4	39.4	39.8	39.0			39.4

N/4

POTATOES

Great Harpenden 1940

Effects of normal, intensive cultivation before and after planting, intensive hoeing and grubbing, of low level and high level manuring, and of applying artificials in the bouts or broadcast before bouting.

Design: 6 randomized blocks of 8 plots each, certain interactions partially confounded with block differences.

Area of each plot: 0.0200 acre

Treatments

Cultivations: Normal, intensive cultivation before and after planting, intensive hoeing and grubbing.

Levels of Manuring: Low - 0.3 cwt. N per acre as sulphate of ammonia
0.3 cwt. P_2O_5 per acre as superphosphate
0.5 cwt. K_2O per acre as muriate of potash
High - 15 tons per acre dung, and artificials as for the low level but at twice the rate.

The artificials were applied with seed in the bouts or broadcast before bouting.

Crop Notes

Potatoes planted: May 2. Lifted: Sept 25. Variety: Arran Banner.
Previous crop: Wheat.

Standard error per plot: Total tubers: 0.731 tons per acre or 8.6%, 27 d.f.

N/5

Cultivation	Artificially applied		Level of manuring		Mean
	With seed	Broadcast	Low	High	
Total tubers: tons per acre					
	± 0.298				± 0.211
Normal	8.82	9.08	7.66	10.23	8.95
Intensive cultivation	8.32	7.72	7.19	8.86	8.02
Intensive hoeing	8.68	8.56	7.62	9.62	8.62
Intensive cultivation and hoeing	8.52	7.88	6.92	9.48	8.20
	± 0.211				
Low manuring	7.54	7.16			
High manuring	9.63	9.46			
Mean ± 0.149	8.58	8.31	7.35	9.55	8.45
Percentage Ware					
Normal	94.0	94.4	93.6	94.8	94.2
Intensive cultivation	94.2	94.6	93.8	95.0	94.4
Intensive hoeing	93.6	94.3	93.9	94.0	94.0
Intensive cultivation and hoeing	94.0	93.6	93.5	94.2	93.8
Low manuring	93.5	93.9			
High manuring	94.4	94.6			
Mean	94.0	94.2	93.7	94.5	94.1

N/6

POTATOES

Great Harpenden, 1940

Design: Variety Trial. 4 x 4 Latin square.

Area of each plot (only 3 rows out of 10 harvested): 0.0075 acre.

Varieties: Ally, Arran Banner, Dunbar Rover, Gladstone.

Basal Manuring: 16 tons dung per acre, 0.6 cwt. N per acre as sulphate of ammonia, 0.6 cwt. P₂O₅ per acre as superphosphate and 1.0 cwt. K₂O per acre as muriate of potash.

Crop Notes

Planted: May 1. Lifted: Oct. 2. Previous crop: Wheat.

Potatoes were passed through a 1 $\frac{3}{4}$ inch riddle to determine percentage ware.

Standard Error per plot: Total tubers, 0.907 tons per acre or 9.7%, 6 d.f.

Variety	Total tubers, tons per acre	Percentage ware
	±0.454	
Ally	9.73	92.0
Arran Banner	10.51	95.1
Dunbar Rover	8.27	92.8
Gladstone	9.06	91.9
Mean	9.39	93.0

N/7

POTATOES

Foster's 1942 and Sawyer's 1943

Effects of autumn and spring ploughing, of intensity of cultivation, of dung, of sulphate of ammonia and of muriate of potash and in 1943 of superphosphate.

Design: 4 randomized blocks of 12 plots each. Three interactions were confounded with block differences.

Area of each plot: 1942 0.0167 acre
1943 0.0150 acre

Treatments

Time of ploughing: Autumn, spring.

Cultivations: Shallow (6") ploughing followed by minimum grubbing and ridges appropriate to 6" ploughing depth, deep (9") ploughing followed by minimum grubbing and ridges appropriate to 6" ploughing depth, and deep (9") ploughing followed by intensive grubbing and ridges appropriate to 9" ploughing depth.

Dung: None, 16 tons per acre.

Sulphate of ammonia: None, 0.6 cwt. N per acre.

Muriate of potash: None, 1.0 cwt. K_2O per acre. In 1943 only, 0.6 cwt. P_2O_5 per acre as superphosphate was applied to the plots which received this potash, and the combined treatment is referred to as "minerals".

Basal Manuring: 0.6 cwt. P_2O_5 per acre as superphosphate in 1942 only.

Crop Notes

	1942	1943
Potatoes planted	April 24	April 16
Lifted	Oct. 10	Sept. 22.
Variety	Arran Banner	Majestic.

Standard errors per plot:

Total tubers, tons per acre.

1942, 0.712 or 4.6%, 11 d.f.

1943, 0.712 or 8.6%, 11 d.f.

N/8

Potatoes - Foster's and Sawyer's

Total tubers, tons per acre

1942 - Foster's

Ploughing	6" deep	9" deep	9" + deep intensive grubbing	Mean
Mean yields:	± 0.252			
Autumn	15.77	16.16	15.03	15.66
Spring	15.24	15.16	14.76	15.05
Mean ± 0.178	15.50	15.66	14.90	15.35
Resp. to nitrogen:	± 0.503			
Autumn	2.99	2.24	2.28	2.50
Spring	4.34	2.10	1.55	2.66
Mean ± 0.356	3.66	2.17	1.92	2.58 ± 0.206
Resp. to potash:	± 0.503			
Autumn	1.47	1.78	1.01	1.42
Spring	0.83	-0.18	1.38	0.68
Mean ± 0.356	1.15	0.80	1.20	1.05 ± 0.206
Resp. to dung:	± 0.503			
Autumn	2.55	2.68	3.22	2.82
Spring	1.10	1.84	2.13	1.69
Mean ± 0.356	1.82	2.26	2.68	2.25 ± 0.206

	No nitrogen	Nitrogen	No potash	Potash
No dung	12.93	15.53	13.37	15.10
Dung	15.19	17.77	16.30	16.67

Total tubers, tons per acre 1943 - Sawyer's				N/9
Floughing	6" deep	9" deep	9" + deep intensive grubbing	Mean
Mean Yields:	± 0.252			
Autumn	8.02	8.56	7.85	8.14
Spring	8.53	8.20	8.43	8.39
Mean ± 0.178	8.28	8.38	8.14	8.26
Resp. to nitrogen:	± 0.504			
Autumn	0.94	2.82	1.30	1.69
Spring	0.64	1.78	1.72	1.38
Mean ± 0.356	0.79	2.30	1.51	1.53 ± 0.206
Resp. to minerals	± 0.504			
Autumn	3.25	1.88	1.95	2.36
Spring	1.41	1.48	1.09	1.33
Mean ± 0.356	2.33	1.68	1.52	1.84 ± 0.206
Resp. to dung:	± 0.504			
Autumn	2.74	3.98	3.89	3.54
Spring	3.88	3.18	3.21	3.42
Mean ± 0.356	3.31	3.58	3.55	3.48 ± 0.206
	No nitrogen	Nitrogen	No dung	Dung
No minerals	6.75	7.94	5.04	9.65
Minerals	8.25	10.12	8.01	10.36

N/10

POTATOES

Sawyers III 1945

Effect of time of planting, chitted seed, dung and sulphate of ammonia.

Design: 4 randomized blocks of 8 plots each, certain interactions being confounded with block differences.

Area of each plot: 0.0188 acre.

Treatments

Times of planting: March 30, April 20, May 11, June 1.

Seed: Not chitted, chitted.

Dung: None, 15 tons per acre at first planting, adjusted for change in weight of dung at subsequent plantings.

Sulphate of ammonia: None, 0.6 cwt. N per acre.

Actual rates of application of dung per acre were 15 tons March 30, 12.5 tons April 20, 9.5 tons May 11, 7.0 tons June 1.

In spite of the basal dressing of 2 cwt. per acre of muriate of potash the 4 plots of the 1st planting where no dung was applied showed severe symptoms of potash deficiency at the end of July. This led to the early death of the haulm and may partially account for the lower yield of these plots. Corresponding plots of the second planting showed similar though less severe symptoms later in the season.

One tuber infected with severe Mosaic virus was planted in the Southern half of each plot, and one tuber infected with Leaf Roll virus in the Northern half. Samples of tubers from plants near these infected tubers were taken on two occasions to measure the rate of spread of this virus infection.

This and the next two experiments, and similar ones in later years, are discussed by Broadbent, Gregory and Tinsley, "The influence of Planting Date and Manuring on Virus Diseases," *Ann. Appl. Biol.* 39 (1952), 509.

Basal manuring 0.6 cwt. P_2O_5 per acre as superphosphate
1.0 cwt. K_2O per acre as muriate of potash.

Crop Notes

Lifted: Oct 2. Variety: Majestic. Previous crop: Barley.

Standard error per plot: Total tubers, 0.670 tons per acre or 7.1%, 11 d.f.

N/11

Total tubers, tons per acre

Differential responses

	Mean	Chitting		Dung		Sulph. amm.	
		Absent	Present	Absent	Present	Absent	Present
	± 0.237	± 0.335					
Chitting	0.70	-	-	0.42	0.98	0.86	0.54
Dung	4.16	3.88	4.44	-	-	4.45	3.87
Sulph. amm.	1.50	1.66	1.34	1.79	1.21	-	-

Time of planting	30 March	20 April	11 May	1 June	Mean	
	± 0.335				± 0.168	
Not chitted	10.02	10.85	8.96	6.63	9.12	
Chitted	10.27	10.90	10.11	7.99	9.82	
No dung	7.24	8.64	7.54	6.13	7.40	
Dung	13.05	13.11	11.53	8.49	11.54	
No sulph. amm.	9.08	9.80	8.84	7.15	8.72	
Sulph. amm.	11.21	11.95	10.23	7.47	10.22	
Mean	± 0.237	10.15	10.87	9.54	7.31	9.47

N/12

POTATOES

Great Knott II. 1946

Effects of dung, sulphate of ammonia, superphosphate and muriate of potash, and of time of planting.

Design: 8 randomized blocks of 8 plots each, certain high order interactions being confounded with block differences.

Area of each plot: 0.0133 acre.

Treatments

Times of planting: April 10, April 30, May 20, June 7.

Dung: None, 15 tons per acre at first planting and reduced amounts for the later plantings to allow for wastage on storage.

Sulphate of ammonia: None, 0.6 cwt. N per acre.

Superphosphate: None, 0.6 cwt. P_2O_5 per acre.

Muriate of potash: None, 1.0 cwt. K_2O per acre.

One tuber infected with Severe Mosaic virus was planted in the northern half of each plot, and one tuber infected with Leaf Roll virus in the southern half. Samples of tubers from plants near these infected tubers were taken to measure the rate of spread of the virus infection (see previous experiment for reference).

Crop Notes

Lifted: Oct. 12-14. Variety: Majestic. Previous crop: Linseed.

Standard error per plot: Total tubers, 1.03 tons per acre or 9.8%, 32 d.f.

Time of planting	Mean	Dung		Sulphate of ammonia		Super-phosphate		Muriate of potash	
		Abs.	Pres.	Abs.	Pres.	Abs.	Pres.	Abs.	Pres.
		Total tubers: tons per acre							
	± 0.26	± 0.37							
1	11.56	9.62	13.49	10.62	12.50	11.47	11.64	10.79	12.32
2	10.64	8.84	12.44	10.03	11.26	10.36	10.91	10.25	11.04
3	10.35	8.94	11.76	9.60	11.11	10.12	10.59	9.89	10.81
4	9.43	7.87	10.98	9.19	9.67	9.15	9.71	9.24	9.60
		± 0.18							
Mean	10.49	8.81	12.46	9.85	11.13	10.27	10.70	10.04	10.93

N/13

POTATOES

Great Harpenden II, 1947

Effects of dung, sulphate of ammonia, muriate of potash and time of planting.

Design: 4 randomized blocks of 8 plots each, the third order interaction being confounded with block differences.

Area of each plot: 0.0133 acre.

Treatments

Times of planting: May 5, May 27.

Dung: None, 15 tons per acre.

Sulphate of ammonia: None, 0.6 cwt. N per acre.

Muriate of potash: None, 1.0 cwt. K₂O per acre.

One tuber infected with Severe Mosaic virus and one tuber infected with Leaf Roll virus were planted in different halves of each plot. Samples of tubers from plants near these infected tubers were taken to measure the rate of spread of infection (see previous experiment but one, for reference).

Basal manuring: 0.6 cwt. P₂O₅ per acre as superphosphate.

Crop notes.

Lifted: Oct 8. Variety: Majestic. Previous crop: Barley.

Standard error per plot: Total tubers, 0.490 tons per acre or 6.6%, 18 d.f.

Total tubers, tons per acre. Mean yield, 7.44

Differential Responses.

	Mean	Dung		Sulphate of ammonia		Muriate of potash		Time of planting	
		Abs.	Pres.	Abs.	Pres.	Abs.	Pres.	Early	Late
	±0.173								
Dung	0.75	-	-	1.07	0.43	1.58	-0.08	+1.57	-0.07
Sulphate of ammonia	0.61	0.93	0.29	-	-	0.35	0.87	0.74	0.48
Muriate of potash	-0.03	0.80	-0.86	-0.29	0.23	-	-	-0.04	-0.02
Time of planting (Early-Late)	0.36	-0.46	1.18	0.23	0.49	0.35	0.37	-	-

N/14

POTATOES

Great Knott II 1946

Effects of deep and shallow tillage between rows, of earthing up and of mulching with straw. Notes on the development of the crop and its condition at harvest were made by the Physics Dept.

Design: 4 randomized blocks of 5 plots each.

Area of each plot: 0.0111 acre.

Treatments.

All four combinations of deep (4-6 inches) and shallow tillage between rows, with and without earthing up; also shallow cultivation until the crop was well through ground, then mulching with 3 tons per acre of chaffed straw between the rows.

Basal manuring: 5 cwt. superphosphate, 2 cwt. muriate of potash and 4 cwt. sulphate of ammonia per acre.

Crop Notes.

Planted: April 15. Lifted: Oct. 15. Variety, Majestic. Previous crop: Linseed.

Standard errors per plot:

Total tubers, tons per acre 0.692 or 5.6%, 12 d.f.
 % ware 2.518 12 d.f.

		Shallow intertillage			Deep intertillage		Mean
		Mulched	Not earthed up	Earthed up	Not earthed	Earthed up	
Total tubers, tons per acre	± 0.346	12.45	11.66	12.96	12.44	12.40	12.38
% Ware,	± 1.26	83.4	79.7	82.1	82.0	80.4	81.5

The following figures are % of Ware.

Green	26.7	39.3	15.5	24.0	19.0	24.9
Blight	3.5	5.0	8.6	12.8	6.3	7.0
Scurf	3.2	6.2	7.8	4.4	13.3	7.0
Scab	44.6	42.9	36.2	34.9	34.2	38.6

N/15

POTATOES

Great Harpenden I, 1947

Effects of deep and shallow intertillage between rows, of earthing up, of mulching with straw and of applying artificials before and after ridging.

Design: 4 randomized blocks of 10 plots each.

Area of each plot: 0.0098 acre.

Treatments.

Cultivations: All four combinations of deep (4-6 inches) and shallow intertillage between rows, with and without earthing up; also shallow cultivation until crop was well through ground, then mulching with 3 tons per acre of chaffed straw between the rows.

Application of fertilizers: Broadcast before ridging, applied in the bouts.

It was intended to treat two of the four blocks with sulphuric acid spray before lifting to kill haulm, but since no blight was present this year this treatment comparison was not made.

Planted: May 6. Lifted: October 7. Variety: Majestic. Previous crop: Barley.

Crop Notes

Standard errors per plot:
Total tubers, 0.607 tons per acre or 7.2%, 27 d.f.
Percentage ware, 0.372, 27 d.f.

N/16

Potatoes - Gt. Harpenden 1947

	Shallow intertillage		Deep intertillage		Mean	
	Mulched	Not earthed up	Not earthed up	Earthed up		
Total tubers, tons per acre						
Artificials applied:	± 0.304					± 0.136
before ridging	8.63	8.64	8.15	7.10	8.71	8.24
after ridging	8.03	8.82	9.11	8.63	8.15	8.55
Mean ± 0.215	8.33	8.73	8.63	7.86	8.43	8.39
Percentage Ware						
Artificials applied:	± 0.19					± 0.08
before ridging	98.0	97.4	98.0	97.5	98.2	97.8
after ridging	97.9	97.4	98.2	97.6	98.0	97.8
Mean ± 0.13	98.0	97.4	98.1	97.6	98.1	97.8
Light greening, % of ware						
Artificials applied:						
before ridging	20.5	16.0	19.0	24.0	20.2	20.0
after ridging	16.2	24.2	17.5	22.8	16.2	19.4
Mean	18.4	20.1	18.2	23.4	18.2	19.7
Severe greening, % of ware						
Artificials applied:						
before ridging	12.5	15.5	5.2	20.8	10.2	12.8
after ridging	9.8	19.2	13.2	13.5	17.5	14.6
Mean	11.1	17.4	9.2	17.1	13.9	13.8

N/17

POTATOES

Sawyers III, 1945

Fertilizer Placement. One of a country-wide series of about 60 similar experiments. A report on the whole series has been published by G.W.Cooke, Placement of Fertilizer for potatoes and row crops, *J.Agric.Sci.* 39 (1950), 96 and 359.

Design: 6 randomized blocks of 8 plots each, certain high order interactions being partially confounded with block differences.

Area of each plot: 0.0143 acres.

Treatments

Levels of fertilizer: None, 4.26, 8.36, 11.68 cwt per acre of National Compound No.1.

Methods of placement: Broadcast over ridges, applied in band in contact with seeds, in band 2 inches below seed, in bands 2 inches on either side of seed.

Crop Notes

Potatoes planted: May 12. Lifted: Oct. 3. Variety: Majestic.
Previous crop: Barley.

Standard error per plot: Total tubers, 1.15 tons per acre of 12.9%, 39 d.f.

Total tubers: tons per acre

Compound fertilizer cwt. per acre	Total tubers: tons per acre				Mean
	Broadcast	Band contact with seed	Band 2" below seed	Bands 2" either side of seed	
	± 0.67				± 0.33
None					4.93
4.26	8.73	8.95	7.80	8.14	8.41
8.36	10.95	11.44	9.67	11.46	10.88
11.68	12.22	10.50	11.76	11.17	11.41
Mean ± 0.38	10.64	10.30	9.75	10.26	8.91

N/18

POTATOES

Great Knott II. 1946

Fertilizer Placement Series.

Design: 6 randomized blocks of 8 plots each, certain high order interactions being partially confounded with block differences.

Area of each plot: 0.0133 acre.

Treatments.

Levels of fertilizer: None, 4.60, 9.96, 13.84 cwt. per acre of National Compound No.1. (7% N; 7% P₂O₅; 9% K₂O).

Methods of placement: Broadcast before bouting, broadcast after bouting, drilled in band in contact with seed, drilled in two bands, 2 inches on either side of, and 2 inches below, seed.

The plots receiving no fertilizer but due for drilling in two bands received one stroke with cultivator tines.

Crop Notes

Potatoes planted: April 15. Lifted: Oct. 12-14. Variety: Majestic. Previous crop; Linseed.

Standard error per plot: Total tubers, 0.77 tons per acre or 7.0%, 29 d.f.

Total tubers: tons per acre

Compound fertilizer cwt. per acre.	Broadcast before ridging	Broadcast after ridging	Band contact with seed	Side bands	Mean
					±0.44
None		7.02 ^a		7.93	7.25
4.60	9.52	10.28	10.05	10.36	10.05
9.96	11.91	12.40	13.30	13.04	12.66
13.84	12.74	14.84	14.11	14.45	14.04
Mean ±0.26	11.39 [‡]	12.51 [‡]	12.49 [‡]	12.62 [‡]	11.00

Standard error (a) 0.26

[‡]Mean excluding yield at zero level of fertilizer.