

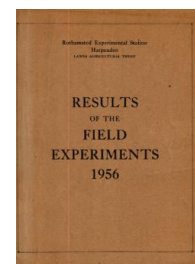
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Yields of the Field Experiments 1956

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56/W/BF/1 Market Garden Soil

Rothamsted Research

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56/Bf/1.1

WOBURN MARKET GARDEN EXPERIMENT

Organic manures and nitrogen - Lansome 1956 the 15th year.

For treatments etc. see "Details of the Classical and Long Term Experiments" 1956.

In 1956 the spring cabbages failed because of bird damage and were replaced by early potatoes; in future early potatoes will take the place of spring cabbages in the rotation. The treatments are unaltered except that early potatoes receive N in one dose only.

Note: the results for the 1956-57 leeks will be included in the 1957 report.

Area of each plot: 0.0125 acre.

Cultivations, etc.:

Leeks 1955-56.

Organic manures applied, all plots ploughed: July 22, 1955.
'Nitro-Chalk' and basal fertilizers applied: Aug 15. Planted: Aug 17. Second dressing of 'Nitro-Chalk' applied: Oct 21.
Harvested: Mar 8 - Apr 11, 1956. Variety: Musselburgh.

Early potatoes (replacement for spring cabbage).

Organic manures spread and ploughed in: Sept 20, 1955. Aldrin (for cutworm) at $1\frac{1}{2}$ cwt per acre, basal fertilizers applied: Sept 22. Spring cabbages (Durham Early) planted: Sept 27.
Crop remnants ploughed in: Mar 6, 1956. All 'Nitro-Chalk' applied: Mar 20. Planted: Mar 23. Ridged: May 19. Lifted: July 24. Variety: Arran Pilot.

Globe beet.

Organic manures applied: Apr 25, 1956. Ploughed: Apr 26.
Ground chalk at 20 cwt per acre, basal fertilizers and 'Nitro-Chalk' applied: Apr 27. Seed drilled at 14 lb per acre: Apr 28.
5% DDT dust at 20 lb per acre applied: May 9. Sprayed with DDT, 3 pints in 20 gallons per acre: May 23. Singled: June 6 - 18.
Second dressing of 'Nitro-Chalk' applied: June 18. Harvested: July 30 - Aug 28. Variety: Detroit.

Standard errors per plot:

Leeks 1955-56.	Saleable produce: 0.262 tons per acre or 10.6% (17 d.f.)
Early potatoes.	Total tubers: 0.609 tons per acre or 7.5% (17 d.f.)
Globe beet.	Saleable bulbs: 1.97 tons per acre or 31.3% (17 d.f.)

56/Bf/1.2

Summary of Results

Leeks 1955-56

Organic manures	Level of manuring: tons per acre	N: cwt per acre				Mean
		None	0.3	0.6	0.9	
Saleable produce: tons per acre						
		(±0.185)			(±0.131)	
None		1.75	1.80	2.03	1.35	1.77*
Dung	10	2.57	2.81			2.69
	20	3.35	3.71			3.53
Sludge compost	10	2.51	2.19			2.35
	20	2.35	2.88			2.61
Sludge	10	1.85	1.97			1.91
	20	1.80	2.23			2.02
Vegetable compost	10	2.51	2.59			2.55
	20	3.28	3.73			3.50
Mean (±0.065)		2.53 [†]	2.76 [†]			2.46

Percentage saleable, (by number)

None		93.7	93.9	95.4	85.6	93.8*
Dung	10	96.2	95.0			95.6
	20	96.1	96.4			96.2
Sludge compost	10	97.5	95.2			96.3
	20	95.3	98.0			96.6
Sludge	10	93.1	95.8			94.4
	20	94.7	93.2			94.0
Vegetable compost	10	95.1	94.8			95.0
	20	97.7	97.1			97.4
Mean		95.7 [†]	95.7 [†]			95.0

Early Potatoes

Total tubers: tons per acre

		(±0.431)			(±0.305)	
None		5.23	6.04	7.89	8.03	5.64*
Dung	10	8.76	8.70			8.73
	20	8.86	10.06			9.46
Sludge compost	10	7.84	8.15			8.00
	20	8.69	7.96			8.32
Sludge	10	7.60	8.29			7.94
	20	7.32	7.41			7.36
Vegetable compost	10	7.78	8.98			8.38
	20	9.42	8.72			9.07
Mean (±0.152)		8.28 [†]	8.53 [†]			8.09

*Mean over None and 0.3 cwt N per acre only.

[†]Excluding 'No organics'.

56/Bf/1.3

Globe beet

Organic manures	Level of manuring: tons per acre	N: cwt per acre				Mean
		None	0.3	0.6	0.9	
Saleable bulbs: tons per acre						
		(±1.392)			(±0.984)	
None		1.75	2.20	3.32	0.92	1.98*
Dung	10	5.82	7.26			6.54
	20	10.27	11.11			10.69
Sludge compost	10	6.65	4.00			5.32
	20	8.28	9.18			8.73
Sludge	10	4.44	3.25			3.84
	20	5.42	6.47			5.95
Vegetable compost	10	5.98	8.12			7.05
	20	10.14	11.23			10.68
Mean (±0.492)		7.12 ⁺	7.58 ⁺			6.29
Total produce (whole plants): tons per acre						
None		4.60	4.24	6.26	3.06	4.42*
Dung	10	9.84	12.38			11.11
	20	17.28	19.47			18.38
Sludge compost	10	11.87	9.01			10.44
	20	15.60	17.60			16.60
Sludge	10	9.21	8.05			8.63
	20	12.22	13.26			12.74
Vegetable compost	10	9.61	14.21			11.91
	20	17.12	18.56			17.84
Mean		12.84 ⁺	14.07 ⁺			11.67
Plant number: thousands per acre						
None		77.7	69.1	76.4	93.6	73.4*
Dung	10	64.4	80.4			72.4
	20	92.4	100.6			96.5
Sludge compost	10	79.8	105.4			92.6
	20	82.5	83.4			83.0
Sludge	10	93.9	114.9			104.4
	20	97.6	110.6			104.1
Vegetable compost	10	66.2	94.8			80.5
	20	82.6	81.4			82.0
Mean		82.4 ⁺	96.4 ⁺			87.4

*Mean over None and 0.3 cwt N per acre only.

⁺Excluding 'No organics'.