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## Yields of the Field Experiments 1957

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### 57/W/BF/1 Market Garden Soil

#### Rothamsted Research

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57/Bf/1.1

WOBURN MARKET GARDEN EXPERIMENT

Organic manures and nitrogen - Lansome 1957, the 16th year.

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

Note: The results for the 1957-58 leeks will be included in the 1958 report.

Area of each plot: 0.0125 acres. Area harvested: Leeks and globe beet - 0.0104 acres; early potatoes - 0.0085 acres.

Cultivations, etc.:

Leeks 1956-57. Organic manures applied: July 27, 1956. Ploughed: July 28 - 30. 'Nitro-Chalk' and basal fertilizers applied: July 31. Planted: Aug 1 - 4. Second dressing of 'Nitro-Chalk' applied: Nov 12. Harvested: Mar 28, 1957 - May 2. Variety: Musselburgh.

Early potatoes. Organic manures applied, all plots ploughed: Jan 15, 1957. Fertilizers applied on the flat: Mar 29. Machine planted: Apr 1. Earthed up: Apr 26. Sprayed with dieldrin at  $2\frac{1}{2}$  pints in 20 gallons per acre: June 14 (to act as bird deterrent). Lifted: July 15. Variety: Arran Pilot.

Globe beet. Ploughed: Aug 31, 1956. Organic manures applied, all plots ploughed: May 13, 1957. Ground chalk at 20 cwt per acre, 'Nitro-Chalk' and basal fertilizers applied: May 14. Seed drilled at 14 lb per acre: May 15. Sprayed with miscible DDT at 3 pints in 20 gallons per acre: June 6. Singled: June 24 - July 6. Second dressing of 'Nitro-Chalk' applied: July 10. Harvested: July 31 - Sept 5. Variety: Detroit.

Standard errors per plot:

Leeks 1956-57.	Saleable produce:	1.36 tons per acre or 30.5% (17 d.f.)
Early potatoes.	Total tubers:	0.425 tons per acre or 9.2% (17 d.f.)
Globe beet.	Saleable bulbs:	1.08 tons per acre or 12.9% (17 d.f.)

57/Bf/1.2

Summary of Results

Leeks 1956-57

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						
		(±0.961)				(±0.679)
None		3.37	4.19	4.91	2.41	3.78*
Dung	10	2.38	5.43			3.91
	20	4.29	4.09			4.19
Sludge compost	10	5.38	4.57			4.97
	20	3.69	4.37			4.03
Sludge	10	5.50	5.01			5.25
	20	5.52	4.56			5.04
Vegetable compost	10	5.51	4.29			4.90
	20	5.25	4.47			4.86
Mean (±0.340)		4.69 <sup>+</sup>	4.60 <sup>+</sup>			4.46

Percentage saleable (by number)

None		95.1	88.9	97.5	88.2	92.0*
Dung	10	90.6	98.3			94.5
	20	96.7	95.9			96.3
Sludge compost	10	100.0	97.9			99.0
	20	97.1	99.4			98.2
Sludge	10	98.2	99.6			98.9
	20	99.8	98.0			98.9
Vegetable compost	10	99.2	96.9			98.1
	20	98.5	96.5			97.5
Mean		97.5 <sup>+</sup>	97.8 <sup>+</sup>			96.6

Early potatoes

Total tubers: tons per acre

		(±0.300)				(±0.212)
None		2.21	3.24	4.26	3.15	2.72*
Dung	10	4.13	5.29			4.71
	20	5.81	5.70			5.76
Sludge compost	10	3.93	4.71			4.32
	20	5.06	5.32			5.19
Sludge	10	4.29	3.54			3.92
	20	4.51	5.50			5.00
Vegetable compost	10	4.81	4.77			4.79
	20	5.19	6.58			5.88
Mean (±0.106)		4.72 <sup>+</sup>	5.18 <sup>+</sup>			4.60

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

<sup>+</sup> Excluding 'no organics'.

57/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						
(±0.762)						(±0.539)
None		2.26	3.33	5.57	6.08	2.80*
Dung	10	8.52	8.75			8.64
	20	11.38	13.76			12.57
Sludge compost	10	7.37	9.31			8.34
	20	10.95	11.78			11.36
Sludge	10	5.91	6.83			6.37
	20	7.99	7.37			7.68
Vegetable compost	10	8.06	10.60			9.33
	20	10.21	11.30			10.76
Mean (±0.270)		8.80 <sup>†</sup>	9.96 <sup>†</sup>			8.37
Total produce (whole plants): tons per acre						
None		5.00	6.39	10.06	11.39	5.69*
Dung	10	13.43	14.32			13.88
	20	17.96	21.05			19.51
Sludge compost	10	12.55	15.83			14.19
	20	18.93	20.24			19.59
Sludge	10	11.00	12.46			11.73
	20	14.15	13.53			13.84
Vegetable compost	10	12.54	16.50			14.52
	20	15.34	17.20			16.27
Mean		14.49 <sup>†</sup>	16.39 <sup>†</sup>			13.99
Plant number: thousands per acre						
None		84.8	81.5	91.4	85.1	83.1*
Dung	10	99.9	95.1			97.5
	20	91.9	92.2			92.0
Sludge compost	10	89.1	87.4			88.2
	20	92.4	100.3			96.3
Sludge	10	85.9	87.0			86.4
	20	89.1	82.7			85.9
Vegetable compost	10	92.0	84.9			88.5
	20	91.7	95.9			93.8
Mean		91.5 <sup>†</sup>	90.7 <sup>†</sup>			90.0

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

<sup>†</sup>Excluding no organics'.