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58/W/BF/1 Market Garden Soil

Rothamsted Research

Rothamsted Research (1959) *58/W/BF/1 Market Garden Soil* ; Yields Of The Field Experiments 1958, pp 68 - 70 - DOI: <https://doi.org/10.23637/ERADOC-1-181>

58/Bf/1.1

WOBURN MARKET GARDEN EXPERIMENT

Organic manures and nitrogen - Lansome Field 1958, the 17th year.

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

Note: The results for the 1958-59 leeks will be included in the 1959 report.

Area of each plot (acres): 0.0125. Area harvested: Leeks - 0.0104; globe beet - 0.0106; early potatoes - 0.0085.

Cultivations, etc.:

Leeks 1957-58. Organic manures applied: July 19, 1957. Ploughed: July 22. 'Nitro-Chalk' and basal fertilizers applied: July 23. Planted: July 24. Second dressing of 'Nitro-Chalk' applied: Sept 9. Harvested: Mar 3 - Apr 10, 1958. Variety: Musselburgh.

Early potatoes. Organic manures applied: Dec 16, 1957. All plots ploughed: Dec 19. Fertilizers applied on the flat: Apr 14, 1958. Machine planted: Apr 14. Earthed up: June 18. Sprayed with copper fungicide at 5 lb in 80 gallons per acre: July 14. Lifted: July 22. Variety: Arran Pilot.

Globe beet. Ploughed, organic manures applied: Apr 25, 1958. Ground chalk at 23 cwt per acre applied: Apr 30. 'Nitro-Chalk' and basal fertilizers applied: May 8. Seed drilled at 14 lb per acre: May 9. Sprayed with miscible DDT at 3 pints in 40 gallons per acre: May 28. Singled: June 25 - July 9. Second dressing of 'Nitro-Chalk' applied: July 16. Harvested: Aug 11 - Sept 18. Variety: Detroit.

Standard errors per plot:

Leeks 1957-58.	Saleable produce:	0.423 tons per acre or 7.6% (17 d.f.)
Early potatoes.	Total tubers:	0.892 tons per acre or 12.3% (17 d.f.)
Globe beet.	Saleable bulbs:	1.45 tons per acre or 18.4% (17 d.f.)

58/Bf/1.2

Summary of Results

Organic manures	Level of manuring:	N: cwt per acre				Mean
	tons per acre	None	0.3	0.6	0.9	
Leeks 1957-58. Saleable produce: tons per acre						
		(±0.299)				(±0.211)
None		2.14	3.46	4.93	4.93	2.80*
Dung	10	3.58	4.98			4.28
	20	6.18	6.59			6.38
Sludge compost	10	5.37	6.02			5.70
	20	6.22	7.02			6.62
Sludge	10	6.52	5.90			6.21
	20	6.34	6.89			6.61
Vegetable compost	10	4.48	5.93			5.20
	20	6.06	7.24			6.65
Mean (±0.106)		5.59 ⁺	6.32 ⁺			5.54**
Leeks 1957-58. Percentage saleable (by number)						
None		78.2	92.5	98.5	99.5	85.4*
Dung	10	96.2	99.0			97.6
	20	98.1	98.8			98.4
Sludge compost	10	97.3	100.0			98.6
	20	100.0	97.7			98.9
Sludge	10	100.0	97.7			98.8
	20	97.8	100.0			98.9
Vegetable compost	10	98.3	99.4			98.8
	20	99.8	99.1			99.4
Mean		98.4 ⁺	99.0 ⁺			97.4**
Early potatoes. Total tubers: tons per acre						
		(±0.630)				(±0.446)
None		3.62	6.13	6.71	6.97	4.87*
Dung	10	6.68	6.91			6.80
	20	7.49	8.57			8.03
Sludge compost	10	6.85	7.56			7.20
	20	8.03	9.02			8.52
Sludge	10	6.91	7.84			7.37
	20	8.86	8.24			8.55
Vegetable compost	10	6.12	7.72			6.92
	20	7.33	7.29			7.31
Mean (±0.223)		7.28 ⁺	7.89 ⁺			7.24*

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

⁺Excluding 'no organics'.

**General mean.

58/Bf/1.3

Globe beet

Organic manures	Level of manuring:	N: cwt per acre				Mean
	tons per acre	None	0.3	0.6	0.9	
Saleable bulbs: tons per acre						
		(±1.024)				(±0.724)
None		1.12	2.28	4.41	4.20	1.70*
Dung	10	3.79	7.14			5.46
	20	11.66	11.88			11.77
Sludge compost	10	7.61	8.51			8.06
	20	10.62	12.72			11.67
Sludge	10	9.70	7.71			8.71
	20	9.06	11.58			10.32
Vegetable compost	10	5.86	6.60			6.23
	20	8.33	12.28			10.31
Mean (±0.362)		8.33 ⁺	9.80 ⁺			7.85**
Total produce (whole plants): tons per acre						
None		3.31	4.66	8.01	7.85	3.99*
Dung	10	7.06	11.83			9.44
	20	18.52	19.82			19.17
Sludge compost	10	12.70	13.83			13.27
	20	17.10	21.40			19.25
Sludge	10	15.99	13.28			14.64
	20	15.35	19.62			17.48
Vegetable compost	10	9.65	11.04			10.34
	20	13.73	19.48			16.60
Mean		13.76 ⁺	16.29 ⁺			13.21**
Plant number: thousands per acre						
None		101.2	88.8	99.3	98.6	95.0*
Dung	10	98.6	103.9			101.3
	20	102.2	99.6			100.9
Sludge compost	10	101.0	94.4			97.7
	20	95.6	101.2			98.4
Sludge	10	100.3	99.8			100.0
	20	97.3	91.2			94.2
Vegetable compost	10	101.4	92.6			97.0
	20	99.9	98.5			99.2
Mean		99.5 ⁺	97.6 ⁺			98.3**

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

⁺ Excluding 'no organics'.

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General mean.