

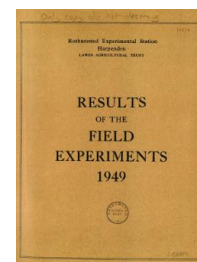
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49/BF/2 Market Garden - Second Crops

49/BF/2 Market Garden - Second Crops, Rothamsted Research (1950) Yields Of The Field Experiments 1949, pp 59 - 63

49/Bf/2.1

WOBURN MARKET GARDEN EXPERIMENT

Leeks and Winter Cabbage 2nd Crops of 8th year

The use of heavy dressings of organic manures for making a market garden soil, and the effects of sulphate of ammonia.

JLE and JULL-Lansome 1949-50

System of replication: 2 series, one of each crop, each consisting of 4 randomized blocks of 10 plots each, certain interactions being confounded with block differences.

Area of each plot: 0.0125 acre.

Treatments:

Sulphate of ammonia: None, 0.4 cwt per acre to organic manure plots. None, 0.4, 0.8, 1.2 cwt per acre to plots without organic manure.

Organic manures applied to previous crops: Dung, sewage sludge compost, sewage sludge (West Middlesex), and vegetable compost, each at 15 and 30 tons per acre.

Basal manuring: None.

Cultivations, etc.:

Series A. Leeks.

Ploughed and harrowed: July 6-8. Rolled: July 20.
Sulphate of ammonia applied, plots having 0.8 and 1.2 cwt N receiving only half their dressing: July 29.
Leeks planted: July 30. Replanted where necessary: Various days in Aug and Sept. Hood: Various days, Aug 27-Sept 5. Second dressing of sulphate of ammonia applied to plots having 0.8 and 1.2 cwt N: Sept 9.
Weeded: Dec 1-7. Harvested: Feb 7-Mar 20.
Variety: Musselburgh. Previous crop: Peas.

Series B. Winter Cabbages.

Ploughed: Aug 6-8. Harrowed, sulphate of ammonia applied, plots having 0.8 and 1.2 cwt N receiving only half dressing: Aug 9. Cabbages planted, blocks Ia and Ib: Aug 9. Replanted blocks Ia and Ib where necessary: various days Aug and Sept. Cabbages planted, blocks IIa and IIb: Aug 9. Hood: Sept 3-5. Second dressing of sulphate of ammonia applied to plots having 0.8 and 1.2 cwt N: Sept 9. Sprayed with nicotine: Sept 27. Hood: Oct 6-10. Weeded: Dec 8 and 16-20.
Harvested: Feb 9-Mar 7. Variety: Blocks Ia and Ib - January King, blocks IIa and IIb - Savoy. Previous crop: Globe Beet.

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Notes Leeks: As replanting was necessary on several plots, the total weight was corrected to allow for this.

Winter Cabbages: As most of blocks Ia and Ib had to be replanted the means for each pair of blocks are shown separately.

Standard errors per plot:

Leeks, total weight: 6.86 cwt per acre or 12.0%
plant number: 0.877 thousands per acre or 2.0%

Summary of Results

49/Bf/2.3

Leeks

Organic manures	Level of manuring (tons per acre)	Salphate of ammonia, cwt N per acre				Mean
		None	0.4	0.8	1.2	
Total weight: cwt per acre (± 4.85 Means ± 3.43)						
None		52.0	48.9	53.0	44.6	50.4*
Dung	15	57.9	59.4			58.6
	30	70.6	69.8			70.2
Sludge compost	15	59.2	51.0			55.0
	30	59.0	62.1			60.5
Sludge	15	57.0	57.8			57.4
	30	59.4	48.4			53.9
Vegetable compost	15	53.6	58.7			56.1
	30	58.1	66.0			62.1

Plant number: thousands per acre
(± 0.620 Means ± 0.438)

None		43.7	42.1	43.0	42.0	42.9*
Dung	15	44.2	43.1			43.7
	30	43.6	43.3			43.4
Sludge compost	15	43.7	41.7			42.7
	30	44.7	43.3			44.0
Sludge	15	42.5	44.1			43.3
	30	44.0	43.6			43.8
Vegetable compost	15	43.4	43.2			43.3
	30	42.6	43.4			43.0

* Mean over None and 0.4 cwt N per acre only.

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Summary of Results

Cabbages

Organic manures	Level of manuring (tons per acre)	Sulphate of Ammonia cwt N per acre				Mean
		None	0.2	0.4	0.6	
Blocks Ia and Ib: January King, Marketable weight: tons per acre						
None		2.12	3.37	3.12	2.58	2.74*
Dung	15	3.32	2.63			2.97
	30	3.34	3.66			3.50
Sludge compost	15	3.72	2.78			3.25
	30	2.80	3.54			3.17
Sludge	15	2.93	3.36			3.15
	30	3.46	2.76			3.11
Vegetable compost	15	3.39	2.66			3.02
	30	2.40	2.10			2.26

Blocks IIa and IIb: Savoy, Marketable weight: tons per acre

None		2.08	2.11	2.48	2.33	2.10*
Dung	15	2.38	2.44			2.41
	30	2.67	2.38			2.53
Sludge compost	15	2.05	2.31			2.18
	30	2.18	2.16			2.17
Sludge	15	2.59	2.16			2.37
	30	2.06	1.56			1.82
Vegetable compost	15	2.54	2.41			2.47
	30	2.04	2.36			2.20

* Mean over None and 0.2 cwt N per acre only.

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Summary of Results

Cabbages

Organic manures	Level of manuring (tons per acre)	Sulphate of ammonia cwt N per acre				Mean
		None	0.2	0.4	0.6	

Blocks Ia and Ib: January King Plant number: thousands per acre

None		16.2	18.3	16.9	16.6	17.2*
Dung	15	17.6	17.7			17.6
	30	17.7	16.4			17.0
Sludge compost	15	17.5	17.0			17.2
	30	17.8	16.9			17.4
Sludge	15	17.0	17.0			17.0
	30	17.0	17.6			17.3
Vegetable compost	15	17.4	16.6			17.0
	30	16.2	16.5			16.4

Blocks IIa and IIb: Savoys, Plant number: thousands per acre

None		17.4	15.4	15.9	17.9	16.4*
Dung	15	17.2	17.1			17.2
	30	17.4	18.8			18.1
Sludge compost	15	15.9	17.0			16.4
	30	15.8	17.2			16.5
Sludge	15	17.1	15.7			16.4
	30	17.2	16.2			16.7
Vegetable compost	15	17.1	17.2			17.2
	30	15.6	16.1			15.8

* Means over None and 0.2 cwt N per acre only.