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# Yields of the Field Experiments 1948

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## 48/BE/2 Market Garden - Second Crops

### Rothamsted Research

Rothamsted Research (1949) *48/BE/2 Market Garden - Second Crops* ; Yields Of The Field Experiments 1948, pp 54 - 56

48/Be/2.1

WOBURN MARKET GARDEN EXPERIMENT

Leeks and Winter Cabbage. 2nd crops for 7th year

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

JLE and JU - Lancaster 1948 - 9

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

Area of each plot:  $\frac{1}{80}$  acre.

Treatments:

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.

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

Basal manuring: None.

Cultivations, etc:

Series A. Winter Cabbage.

Ploughed and harrowed: July 15, 16. Rolled, sulphate of ammonia applied, cabbages planted: July 19, 20. Cabbages replanted where necessary: Aug 3 - 7. Hoed: Aug 24 - Sept 29. Cut: Jan 11, Feb 8, 15, 22. Variety: January King. Previous crop: Globe beet.

Series B. Leeks.

Ploughed: July 26, 27. Harrowed, rolled: July 27. Sulphate of ammonia applied, plots 48, 51, 72, 78 receiving only half dressings: July 30. Leeks planted: Aug 3 - 5. Hoed: Aug 24 - Sept 29. Second dressing of sulphate of ammonia to plots 48, 51, 72, 78: Sept 27. Harvested: Mar 16 - 29. Variety: Musselburgh. Previous crop: Peas.

Standard errors per plot:

Winter cabbages, marketable weight, 40.828 tons per acre or 11.8% total number, 0.372 thousands per acre or 2.1%

Leeks, total weight 14.40 cwt. per acre or 12.0% total number, 0.879 thousands per acre or 2.1%

48/Be/2.2

Summary of Results

Organic manures	Level of manuring tons per acre	Sulphate of Ammonia cwt N per acre				Mean
		None	0.4	0.8	1.2	
Cabbages, Marketable Weight: tons per acre						
( $\pm 0.586$ Means $\pm 0.414$ )						
None		2.41	5.98	7.59	7.49	4.20*
Dung	15	3.36	6.66			5.01
Dung	30	8.14	7.86			8.00
Composted	15	4.98	6.91			5.94
sewage sludge	30	5.88	8.05			6.96
Sewage	15	8.34	9.66			9.00
sludge	30	9.77	9.88			9.82
Vegetable	15	5.68	6.99			6.33
compost	30	6.95	8.26			7.61
Cabbages, Total Number: thous. per acre						
( $\pm 0.263$ Means $\pm 0.166$ )						
None		17.6	17.9	18.0	18.2	17.8*
Dung	15	16.7	18.3			17.5
Dung	30	18.3	18.0			18.1
Composted	15	17.8	18.2			18.0
sewage sludge	30	18.1	17.8			17.9
Sewage	15	17.8	17.8			17.8
sludge	30	17.4	18.0			17.7
Vegetable	15	17.9	17.5			17.7
compost	30	18.0	18.3			18.2

\* These means are for 0.0 and 0.4 cwt N. per acre only.



48/Be/2.3

Organic Manures	Level of manuring tons per acre	Sulphate of Ammonia cwt. N per acre			Mean
		None	0.4	0.8	

Leeks, Total Weight: cwt per acre

( $\pm 10.2$  Means  $\pm 7.20$ )

None		66.3	113.7	107.3	116.2	90.0*
Dung	15	114.4	113.6			114.0
Dung	30	139.6	143.7			141.6
Composted	15	103.8	124.1			114.0
sewage sludge	30	120.5	113.2			116.8
Sewage	15	127.6	125.5			126.5
sludge	30	131.8	163.5			147.6
Vegetable	15	109.0	106.2			107.6
compost	30	124.4	126.8			125.6

Leeks, Total Number: thous. per acre

( $\pm 0.622$  Means  $\pm 0.440$ )

None		40.9	42.6	38.7	41.1	41.8*
Dung	15	41.8	41.9			41.9
Dung	30	42.8	40.6			41.7
Composted	15	41.5	41.9			41.7
sewage sludge	30	41.1	40.6			40.8
Sewage Sludge	15	40.9	39.9			40.4
" "	30	41.5	42.4			41.9
Vegetable compost	15	43.5	40.5			42.0
" "	30	42.3	42.1			42.2

\* These means are for 0.0 and 0.4 cwt N per acre only.