

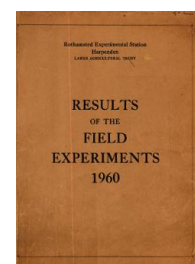
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# Yields of the Field Experiments 1960

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## 60/W/B/6 Market Garden Soil

### Rothamsted Research

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60/B/6.1

WOBURN MARKET GARDEN EXPERIMENT

Organic manures and nitrogen - Lansome Field 1960, the 19th year.

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

Note: The results for the 1960-61 leeks will be included in the 1961 report.

Area of each plot (acres): 0.0125. Area harvested: Leeks - 0.0104; globe beet - 0.0113; early potatoes - 0.0070.

Cultivations, etc.:

Leeks 1959-60. Organic manures applied: July 16, 1959. Ploughed: July 17. 'Nitro-Shell' and basal fertilisers applied: July 27. Planted: July 27 - 29. Second dressing of 'Nitro-Shell' applied: Oct 7. Harvested: Mar 4 - Apr 26, 1960. Variety: Musselburgh.  
Early potatoes. Ploughed: Sept 4, 1959. Organic manures applied, ploughed second time: Jan 8, 1960. Fertilisers applied on the flat: Apr 4. Machine planted: Apr 5. Earthed up: May 17. Lifted: July 12. Variety: Arran Pilot.  
Globe beet. Ground chalk applied at 18 cwt per acre: May 2, 1960. Organic manures applied, ploughed: May 3. 'Nitro-Chalk' and basal fertilisers applied: May 12. Seed drilled at 14 lb per acre: May 16. Sprayed with miscible DDT at 3 pints in 40 gallons per acre: May 30. Second dressing of 'Nitro-Chalk' applied: June 28. Harvested: Aug 4 - Sept 7. Variety: Detroit.  
There was no singling owing to poor stand.

Standard errors per plot:

|                 |                   |  |
|-----------------|-------------------|--|
| Leeks 1959-60.  | Saleable produce: | 0.476 tons per acre or 6.6% (17 d.f.)  |
| Early potatoes. | Total tubers:     | 0.565 tons per acre or 6.2% (17 d.f.)  |
| Globe beet.     | Saleable bulbs:   | 1.006 tons per acre or 14.7% (17 d.f.) |

60/B/6.2

Summary of Results

| Organic manures                                       | Level of manuring:<br>tons per acre | N: cwt per acre   |                   |      |      | Mean               |
|---|-------------------------------------|-------------------|-------------------|------|------|--------------------|
|   |                                     | None              | 0.3               | 0.6  | 0.9  |                    |
| <u>Leeks 1959-60. Saleable produce: tons per acre</u> |                                     |                   |                   |      |      |                    |
|   |                                     |                   | (±0.336)          |      |      | (±0.238)           |
| None  |                                     | 5.37              | 6.70              | 6.90 | 6.57 | 6.04*              |
| Dung  | 10                                  | 7.45              | 7.67              |      |      | 7.56               |
|   | 20                                  | 8.35              | 8.14              |      |      | 8.24               |
| Sludge compost  | 10                                  | 7.40              | 7.28              |      |      | 7.34               |
|   | 20                                  | 6.87              | 7.50              |      |      | 7.18               |
| Sludge  | 10                                  | 7.11              | 6.81              |      |      | 6.96               |
|   | 20                                  | 6.43              | 7.27              |      |      | 6.85               |
| Vegetable compost                                     | 10                                  | 7.69              | 7.98              |      |      | 7.84               |
|   | 20                                  | 7.81              | 7.62              |      |      | 7.72               |
| Mean (±0.119)   |                                     | 7.39 <sup>+</sup> | 7.54 <sup>+</sup> |      |      | 7.25 <sup>**</sup> |

Leeks 1959-60. Percentage saleable (by number)

|                   |    |                   |                   |      |      |                    |
|-------------------|----|-------------------|-------------------|------|------|--------------------|
| None              |    | 98.4              | 98.7              | 98.8 | 99.2 | 98.6*              |
| Dung              | 10 | 99.5              | 98.8              |      |      | 99.2               |
|                   | 20 | 98.9              | 99.1              |      |      | 99.0               |
| Sludge compost    | 10 | 98.9              | 99.2              |      |      | 99.1               |
|                   | 20 | 98.3              | 98.5              |      |      | 98.4               |
| Sludge            | 10 | 99.4              | 98.7              |      |      | 99.0               |
|                   | 20 | 98.5              | 98.8              |      |      | 98.6               |
| Vegetable compost | 10 | 99.5              | 99.6              |      |      | 99.6               |
|                   | 20 | 99.0              | 99.2              |      |      | 99.1               |
| Mean              |    | 99.0 <sup>+</sup> | 99.0 <sup>+</sup> |      |      | 99.0 <sup>**</sup> |

Early potatoes. Total tubers: tons per acre

|                   |    |                   |                   |      |      |                    |
|-------------------|----|-------------------|-------------------|------|------|--------------------|
|                   |    |                   | (±0.400)          |      |      | (±0.282)           |
| None              |    | 6.25              | 7.16              | 8.35 | 9.27 | 6.70*              |
| Dung              | 10 | 9.40              | 10.80             |      |      | 10.10              |
|                   | 20 | 10.39             | 10.69             |      |      | 10.54              |
| Sludge compost    | 10 | 8.68              | 8.96              |      |      | 8.82               |
|                   | 20 | 9.41              | 9.20              |      |      | 9.30               |
| Sludge            | 10 | 8.19              | 8.78              |      |      | 8.48               |
|                   | 20 | 9.22              | 9.25              |      |      | 9.23               |
| Vegetable compost | 10 | 8.87              | 10.78             |      |      | 9.83               |
|                   | 20 | 9.32              | 9.52              |      |      | 9.42               |
| Mean (±0.141)     |    | 9.19 <sup>+</sup> | 9.75 <sup>+</sup> |      |      | 9.12 <sup>**</sup> |

\* Mean over None and 0.3 cwt N per acre only.      \*\* General mean.  
<sup>+</sup> Excluding 'no organics'.

60/B/6.3

Globe beet

| Organic manures                                    | Level of manuring:<br>tons per acre | N: cwt per acre    |                    |       |       | Mean                |
|--|-------------------------------------|--------------------|--------------------|-------|-------|---------------------|
|  |                                     | None               | 0.3                | 0.6   | 0.9   |                     |
| <u>Saleable bulbs: tons per acre</u>               |                                     |                    |                    |       |       |                     |
|  |                                     |                    | (±0.711)           |       |       | (±0.503)            |
| None   |                                     | 1.46               | 3.31               | 5.60  | 4.23  | 2.39*               |
| Dung   | 10                                  | 5.62               | 8.66               |       |       | 7.14                |
|  | 20                                  | 10.64              | 11.01              |       |       | 10.82               |
| Sludge compost                                     | 10                                  | 4.98               | 6.93               |       |       | 5.95                |
|  | 20                                  | 7.20               | 7.75               |       |       | 7.47                |
| Sludge   | 10                                  | 6.42               | 5.19               |       |       | 5.80                |
|  | 20                                  | 5.20               | 8.14               |       |       | 6.67                |
| Vegetable compost                                  | 10                                  | 6.80               | 8.60               |       |       | 7.70                |
|  | 20                                  | 8.34               | 10.90              |       |       | 9.62                |
| Mean (±0.252)                                      |                                     | 6.90 <sup>+</sup>  | 8.40 <sup>+</sup>  |       |       | 6.85 <sup>**</sup>  |
| <u>Total produce (whole plants): tons per acre</u> |                                     |                    |                    |       |       |                     |
| None   |                                     | 3.61               | 7.04               | 10.52 | 8.34  | 5.33*               |
| Dung   | 10                                  | 8.86               | 14.39              |       |       | 11.62               |
|  | 20                                  | 17.45              | 17.52              |       |       | 17.49               |
| Sludge compost                                     | 10                                  | 9.31               | 13.18              |       |       | 11.24               |
|  | 20                                  | 13.79              | 13.54              |       |       | 13.66               |
| Sludge   | 10                                  | 11.57              | 10.33              |       |       | 10.95               |
|  | 20                                  | 11.47              | 15.89              |       |       | 13.68               |
| Vegetable compost                                  | 10                                  | 11.26              | 13.36              |       |       | 12.30               |
|  | 20                                  | 12.70              | 17.97              |       |       | 15.34               |
| Mean   |                                     | 12.05 <sup>+</sup> | 14.52 <sup>+</sup> |       |       | 12.10 <sup>**</sup> |
| <u>Plant number: thousands per acre</u>            |                                     |                    |                    |       |       |                     |
| None   |                                     | 86.6               | 116.8              | 119.3 | 113.5 | 101.7*              |
| Dung   | 10                                  | 80.4               | 126.2              |       |       | 103.3               |
|  | 20                                  | 117.8              | 105.7              |       |       | 111.8               |
| Sludge compost                                     | 10                                  | 83.7               | 137.5              |       |       | 110.6               |
|  | 20                                  | 133.9              | 68.4               |       |       | 101.2               |
| Sludge   | 10                                  | 92.3               | 92.1               |       |       | 92.2                |
|  | 20                                  | 131.7              | 134.5              |       |       | 133.1               |
| Vegetable compost                                  | 10                                  | 102.3              | 97.0               |       |       | 99.7                |
|  | 20                                  | 62.7               | 102.8              |       |       | 82.8                |
| Mean   |                                     | 100.6 <sup>+</sup> | 108.0 <sup>+</sup> |       |       | 105.3 <sup>**</sup> |

\* Mean over None and 0.3 cwt N per acre only.      \*\* General mean.  
<sup>+</sup> Excluding 'no organics'.