

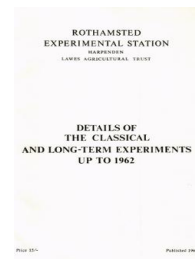
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## Details of the Classical and Long-term Experiments Up to 1962

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### Two- Course Rotation- Rothamsted

#### Rothamsted Research

Rothamsted Research (1966) *Two- Course Rotation- Rothamsted* ; Details Of The Classical And Long-Term Experiments Up To 1962, pp 38 - 38 - DOI: <https://doi.org/10.23637/ERADOC-1-191>

# TWO-COURSE ROTATION EXPERIMENT, EFFECT OF AGRICULTURAL SALT, LONG HOOS VII, 1942-1950

The crop rotation was sugar beet, barley. There were 96 plots arranged in randomised blocks of 12. The blocks were grouped in two series one in each crop each year. Treatments were first applied to sugar beet, in 1942 (Series I) and 1943 (Series II).

The treatments were all combinations of the following factors:-

Salt to sugar beet: 0,  $2\frac{1}{2}$ , 5,  $7\frac{1}{2}$  cwt. agricultural salt per acre

Muriate of potash to sugar beet: none, the equivalent of half the single dressing of salt, the equivalent of the single dressing of salt (i.e. 0, 1, 2 cwt.  $K_2O$  per acre approximately)

Time of application of salt: in seedbed at sowing time, before ploughing in winter (1942 and 1943; after ploughing, one month before sowing)

Salt to barley: none, at half rates applied to sugar beet.

Basal dressings, applied at sowing

Barley: 0.3 cwt. N per acre as sulphate of ammonia

Sugar beet: 0.8 cwt. N per acre as sulphate of ammonia

0.6 cwt.  $P_2O_5$  per acre as superphosphate.

For a summary of the results to 1949 see Rep. Rothamst. exp. Sta. for 1949, 101-104.

Table 22

## Two-Course Rotation.

Sugar beet, Total Sugar: cwt. per acre. Means over 8 years 1942-49.

| Salt to<br>sugar beet<br>cwt per acre | Muriate of potash:<br>cwt per acre |      |      | Mean |
|---------------------------------------|------------------------------------|------|------|------|
|                                       | None                               | 2    | 4    |      |
| None                                  | 40.9                               | 43.7 | 45.9 | 43.5 |
| $2\frac{1}{2}$                        | 50.0                               | 47.8 | 49.0 | 48.9 |
| 5                                     | 50.0                               | 50.2 | 49.5 | 49.9 |
| $7\frac{1}{2}$                        | 48.0                               | 49.4 | 50.0 | 49.1 |
| Mean                                  | 47.2                               | 47.8 | 48.6 | 47.9 |

Table 23

## Two-Course Rotation Experiment,

Barley, grain: cwt per acre. Means over 8 years 1943-1950.

| Salt to<br>barley :<br>cwt per acre | Muriate of potash:<br>cwt per acre |      |      | Mean |
|-------------------------------------|------------------------------------|------|------|------|
|                                     | None                               | 2    | 4    |      |
| None                                | 27.7                               | 28.4 | 27.4 | 27.8 |
| 1.25                                | 28.3                               | 28.7 | 28.3 | 28.4 |
| 2.50                                | 27.5                               | 27.8 | 27.3 | 27.5 |
| 3.75                                | 27.0                               | 28.7 | 28.2 | 27.9 |
| Mean                                | 27.6                               | 28.4 | 27.8 | 27.9 |