

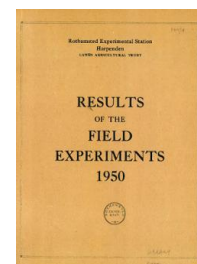
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## Yields of the Field Experiments 1950

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### 50/CG/1 Lucerne - Fertilizer Placement - Rothamsted

#### Rothamsted Research

Rothamsted Research (1951) *50/CG/1 Lucerne - Fertilizer Placement - Rothamsted* ; Yields Of The Field Experiments 1950, pp 81 - 82 - DOI: <https://doi.org/10.23637/ERADOC-1-185>

50/Cg/1.1

LUCERNE

Fertilizer placement - Long Hoos IV 1950

System of replication: 3 randomized blocks of 12 plots each.

Area of each plot: 0.00798 acre. Area harvested: 0.00644 acre.

Treatments: No fertilizer (duplicate plots); no fertilizer but plots drilled over (duplicate plots); and all combinations of:

Granular PK compound fertilizer (10% P<sub>2</sub>O<sub>5</sub>, 20% K<sub>2</sub>O): 2.5, 5.0 cwt per acre.

Method of placement: Broadcast during preparation of seed bed, drilled in bands 3" below soil surface and 2" to side of seed; half broadcast during preparation of seed bed and half to be broadcast on surface next year; half drilled beside seed, and half to be drilled beside rows of plants next year.

It will be noted that for 1950 there are duplicate plots per block with 2.5 cwt per acre fertilizer broadcast or drilled.

Basal dressing: 10 cwt ground chalk per acre

Cultivations, etc.: Springtined: Mar 8 and again Mar 11. Ground chalk applied: Mar 10. Fertilizers broadcast: Mar 23. Harrowed, seed and fertilizers drilled: Mar 27. Rolled: Mar 28. Ring rolled: Mar 29. Dusted with B.H.C.: May 4. Weeded: June 21-23. First cut: Aug 9. Second cut: Oct 12. Variety: Du Puits. Previous crop: Wheat.

Standard errors per plot:

Dry Matter, 1st cut: 2.43 cwt per acre or 10.5% (26 d.f.)  
2nd cut: 1.13 cwt per acre or 7.3% (26 d.f.)

50/Cg/1.2

Summary of Results

Lucerne, Dry Matter: cwt per acre

| Method of placement | Compound Fertilizer: cwt per acre |                     |                     |                     | Mean                 |
|---------------------|-----------------------------------|---------------------|---------------------|---------------------|----------------------|
|                     | None                              | 1.25                | 2.5                 | 5.0                 |                      |
| 1st cut             |                                   |                     |                     |                     |                      |
|                     | (a)                               | (b)                 | (a)                 | (b)                 | (c)                  |
| Broadcast           | 22.5 <sup>+</sup>                 | 27.3                | 25.0                | 25.8                | 25.8*                |
| Drilled             | 21.4 <sup>+</sup>                 | 22.8                | 20.1                | 23.4                | 21.6*                |
| Mean                | 22.0 <sup>(c)</sup>               | 25.0 <sup>(a)</sup> | 22.5 <sup>(c)</sup> | 24.6 <sup>(a)</sup> | 23.1                 |
| Difference          | -1.1 <sup>(b)</sup>               | -4.5 <sup>(d)</sup> | -4.9 <sup>(b)</sup> | -2.4 <sup>(d)</sup> | -4.2 <sup>(a)*</sup> |
| 2nd cut             |                                   |                     |                     |                     |                      |
|                     | (a)                               | (b)                 | (a)                 | (b)                 | (c)                  |
| Broadcast           | 15.5 <sup>+</sup>                 | 15.2                | 15.7                | 16.5                | 15.8*                |
| Drilled             | 14.9 <sup>+</sup>                 | 15.6                | 15.0                | 16.2                | 15.5*                |
| Mean                | 15.2 <sup>(c)</sup>               | 15.4 <sup>(a)</sup> | 15.4 <sup>(c)</sup> | 16.3 <sup>(a)</sup> | 15.5                 |
| Difference          | -0.6 <sup>(b)</sup>               | 0.4 <sup>(d)</sup>  | -0.7 <sup>(b)</sup> | -0.3 <sup>(d)</sup> | -0.3 <sup>(a)*</sup> |

| Standard errors | 1st cut | 2nd cut |
|-----------------|---------|---------|
| (a)             | 0.99    | 0.46    |
| (b)             | 1.41    | 0.65    |
| (c)             | 0.70    | 0.33    |
| (d)             | 1.99    | 0.92    |

<sup>+</sup> See Treatment descriptions.

\* Excluding no fertilizer.