

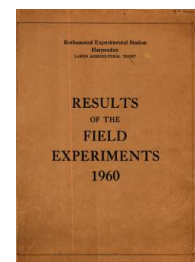
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# Yields of the Field Experiments 1960

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## 60/R/CB/1 Barley - N and Residual N Fertilisers

### Rothamsted Research

Rothamsted Research (1961) *60/R/CB/1 Barley - N and Residual N Fertilisers* ; Yields Of The Field Experiments 1960, pp 96 - 98 - DOI: <https://doi.org/10.23637/ERADOC-1-180>

60/Cb/1.1

BARLEY

Direct and residual effects of N fertilisers - Harwoods Piece 1960.

Design:  $2 \times 8 \times 2$  factorial in 4 randomised blocks of 16 plots each, with certain high order interactions partially confounded with block differences.

Area of each plot: 0.0087 acres. Area harvested: 0.0078 acres.

Treatments. All combinations of:-

N (applied 1960): None; 0.5 cwt per acre applied as 'Nitro-Chalk'.  
Residuals of N fertilisers applied in 1958 and 1959 to grass. See  
'Results of the Field Experiments' 58/Cg/1 and 59/Cg/1.

Basal manuring per acre: 2 cwt compound fertiliser (14%  $P_2O_5$ , 28%  $K_2O$ )  
combine drilled.

Cultivations, etc.: Ploughed: Dec 2, 1959. N applied, seed combine  
drilled at 2 bushels per acre: Mar 28, 1960. Sprayed with CMFP  
at 6 pints in 40 gallons per acre: May 24. Combine harvested:  
Aug 18. Variety: Proctor. Previous crop: Italian ryegrass.

Standard error per plot.

Grain (at 85% dry matter): 2.59 cwt per acre or 8.0% (29 d.f.)

60/Cb/1.2

Summary of Results

Grain (at 85% dry matter): cwt per acre

|                                | Ureaformaldehyde applied |      | Fertiliser  |                                | Nitro-Chalk' applied |      | Mean                |
|--------------------------------|--------------------------|------|-------------|--------------------------------|----------------------|------|---------------------|
|                                | 1958                     | 1959 | 1958 & 1959 | As single dressing spring 1959 | 1958                 | 1959 |                     |
| None                           |                          |      |             |                                |                      |      |                     |
|                                | 29.6                     | 32.4 | 33.0        | 32.0                           | 32.1                 | 33.2 | 32.3                |
| Mean ( $\pm 0.91$ )            |                          |      |             |                                |                      |      |                     |
| <u>N: cwt per acre in 1960</u> |                          |      |             | ( $\pm 1.29$ )                 |                      |      |                     |
| None                           | 22.6                     | 27.5 | 29.4        | 26.5                           | 28.8                 | 28.6 | 27.8                |
| 0.5                            | 36.7                     | 37.2 | 36.7        | 37.4                           | 35.4                 | 37.8 | 36.8                |
| Diff. ( $\pm 1.83$ )           | +14.1                    | +9.7 | +7.3        | +10.9                          | +6.6                 | +9.2 | +9.0 ( $\pm 0.65$ ) |
| <u>N: cwt per acre in 1959</u> |                          |      |             | ( $\pm 1.29$ )                 |                      |      |                     |
| 1.0                            | 32.4                     | 32.1 | 31.8        | 30.9                           | 32.1                 | 31.8 | 32.0 ( $\pm 0.49$ ) |
| 2.0                            | 31.7                     | 32.6 | 34.3        | 33.0                           | 32.1                 | 34.6 | 33.3                |
| Diff. ( $\pm 1.83$ )           | -0.7                     | +0.5 | +2.5        | +2.1                           | 0.0                  | +2.8 | +1.3 ( $\pm 0.69$ ) |

Mean dry matter % as harvested: 80.2

60/Cb/1.3

Straw (at 85% dry matter): cwt per acre

|                         | Ureaformaldehyde applied |      | Fertiliser                     |                                   | Mean |
|-------------------------|--------------------------|------|--------------------------------|-----------------------------------|------|
|                         | 1958                     | 1959 | As single dressing spring 1959 | 'Nitro-Chalk' applied 1958 & 1959 |      |
| None                    | 23.2                     | 24.7 | 21.9                           | 22.8                              | 23.8 |
| Mean                    | 21.2                     | 24.7 | 21.9                           | 22.8                              | 22.7 |
| <hr/>                   |                          |      |                                |                                   |      |
| N: cwt per acre in 1960 |                          |      |                                |                                   |      |
| None                    | 16.1                     | 20.9 | 19.3                           | 19.4                              | 19.6 |
| 0.5                     | 26.4                     | 28.5 | 24.5                           | 26.1                              | 25.8 |
| Diff.                   | +10.3                    | +7.6 | +5.2                           | +6.7                              | +6.2 |
| <hr/>                   |                          |      |                                |                                   |      |
| N: cwt per acre in 1959 |                          |      |                                |                                   |      |
| 1.0                     | 22.6                     | 22.4 | 20.9                           | 22.1                              | 22.2 |
| 2.0                     | 23.9                     | 26.9 | 22.9                           | 23.4                              | 23.7 |
| Diff.                   | +1.3                     | +4.5 | +2.0                           | +1.3                              | +1.5 |

Mean dry matter % as harvested: 81.9