

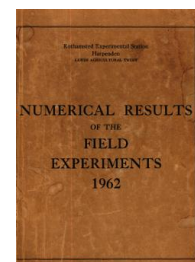
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Yields of the Field Experiments 1962

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62/R/C/2 One Year Leys for Wheat - Winter Wheat

Rothamsted Research

Rothamsted Research (1963) *62/R/C/2 One Year Leys for Wheat - Winter Wheat* ; Yields Of The Field Experiments 1962, pp 102 - 103 - DOI: <https://doi.org/10.23637/ERADOC-1-164>

62/C/2.1

WINTER WHEAT

The comparison of different one year leys as a preparation for wheat - Stackyard 1962 - the 2nd year.

Design: 4 randomised blocks of 18 plots each, each plot split into 3 for the application of nitrogen.

Area of each sub plot: 0.0053 acres. Area harvested: 0.0046 acres.

Treatments. All combinations of:-

Whole plots:

Leys undersown 1960 and cut 1961, with nitrogen as follows:-

Clover: None (Co).

Ryegrass: None (Ro); 1 cwt (R1); 2 cwt (R2) N per acre.

Clover-ryegrass: None (CRo); 1 cwt (CR1) N per acre.

Potassium to wheat: None; 1.2; 2.4 cwt K_2O per acre, half ploughed in as muriate of potash, half combine drilled as compound fertilisers (16% P_2O_5 , 16% K_2O or 14% P_2O_5 , 28% K_2O) - in order to include basal P_2O_5 described below.

Sub plots:

Nitrogen to wheat: None; 0.5; 1.0 cwt N per acre as 'Nitro-Chalk' applied in 2 equal dressings.

Basal dressings per acre:

To barley nurse crop 1960: 3 cwt compound fertiliser (16% N, 9% P_2O_5 , 9% K_2O) combine drilled.

To leys, combine drilled in seedbed 1960: $1\frac{1}{2}$ cwt superphosphate.

To wheat 1962: 0.6 cwt P_2O_5 combine drilled, either as granular superphosphate, or as compound fertilisers (16% P_2O_5 , 16% K_2O or 14% P_2O_5 , 28% K_2O).

Cultivations, etc.: Ploughed: Sept 28, 1961. Seed drilled at 150 lb per acre: Oct 4. 1st dressing of 'Nitro-Chalk' applied: Mar 23, 1962. Sprayed with CMFP at 6 pints in 40 gallons per acre: Apr 24. 2nd dressing of 'Nitro-Chalk' applied: May 1. Green crop samples taken: June 13. Combine harvested: Sept 10. Variety: Cappelle.

Note: For details of the previous year's results see 'The Numerical Results of the Field Experiments' 61/C/2.

Standard errors per plot. Grain (at 85% dry matter):

Whole plot: 2.38 cwt per acre or 5.1% (51 d.f.)

Sub plot: 3.08 cwt per acre or 6.6% (108 d.f.)

62/C/2.2

Summary of Results

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

N to leys 1961

| | C ₀ | R ₀ | R ₁ | R ₂ | CR ₀ | CR ₁ | Mean |
|--|----------------|------------------------|----------------|------------------------|-----------------|-----------------|---------|
| <u>K₂O: cwt per acre 1962</u> | | | (±1.19) | | | | (±0.49) |
| None | 53.5 | 42.5 | 43.0 | 39.1 | 45.0 | 44.8 | 44.6 |
| 1.2 | 53.0 | 46.2 | 45.2 | 44.9 | 49.6 | 45.9 | 47.5 |
| 2.4 | 54.3 | 44.8 | 44.5 | 45.0 | 47.8 | 47.4 | 47.3 |
| <u>N: cwt per acre 1962</u> | | (±0.89) ⁽¹⁾ | | (±1.00) ⁽²⁾ | | | (±0.36) |
| None | 47.3 | 31.2 | 33.3 | 33.6 | 38.4 | 35.8 | 36.6 |
| 0.5 | 55.9 | 46.3 | 45.7 | 43.6 | 49.7 | 47.4 | 48.1 |
| 1.0 | 57.6 | 56.0 | 53.8 | 51.7 | 54.3 | 55.0 | 54.7 |
| Mean (±0.69) | 53.6 | 44.5 | 44.2 | 43.0 | 47.5 | 46.0 | 46.5 |

K₂O: cwt per acre 1962

None 1.2 2.4

| <u>N: cwt per acre 1962</u> | (±0.63) ⁽¹⁾ | | (±0.71) ⁽²⁾ | |
|-----------------------------|------------------------|------|------------------------|--|
| None | 35.1 | 37.9 | 36.8 | |
| 0.5 | 45.9 | 49.5 | 48.9 | |
| 1.0 | 52.9 | 55.0 | 56.2 | |

- (1) For use in vertical and interaction comparisons
 (2) For use in horizontal and diagonal comparisons

Mean dry matter % as harvested: 73.9

Ley 1961

N: cwt per acre 1961

| | | |
|-------------------|-----------------|------|
| C ₀ = | Clover | None |
| R ₀ = | Ryegrass | None |
| R ₁ = | " | 1 |
| R ₂ = | " | 2 |
| CR ₀ = | Clover-ryegrass | None |
| CR ₁ = | " " | 1 |