ROTHAMSTED RESEARCH

# Yields of the Field Experiments 1955

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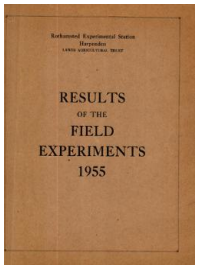


## 55/W/CA/4 Winter Wheat - Varieties, Seed Rates, Levels and Times of N

### Rothamsted Research

Rothamsted Research (1956) *55/W/CA/4 Winter Wheat - Varieties, Seed Rates, Levels and Times of N ;* Yields Of The Field Experiments 1955, pp 75 - 76 **- DOI: https://doi.org/10.23637/ERADOC-1-175**

# WINTER WHEAT

Varieties, seed rates, levels and times of application of N - Woburn, Roadpiece 1955, the 2nd year.

Design: 4 randomized blocks of 8 plots each, certain high order interactions being confounded with block differences. In addition each block contained 2 plots with no nitrogen, the variety x seed rate interaction being confounded.

Area of each plot: 0.0159 acre. Area harvested: 0.0140 acre.

Treatments: All combinations of:-
Varieties: Holdfast; Cappelle.
Seed rates: Holdfast, 1½; 3 bushels per acre.
Cappelle, 2; 4 bushels per acre.
Nitrogen: 0.5; 1.0 cwt N per acre as nitrochalk.
Time of application of N: half dressing in March and again in May; whole dressing mid March; mid April; mid May.

Basal dressing: 1 cwt per acre compound granular fertilizer (12% N, 12% $P_2O_5$, 15% $K_2O$) combine drilled with seed.

Cultivations, etc.: Ploughed: Sept 28, 1954. Combine drilled: Oct 25. March top dressing applied: Mar 15, 1955. April top dressing applied: Apr 20. All plots sprayed with D.N.O.C. at 1½ gallons in 80 gallons: May 19. May top dressing applied: May 24. Combine harvested: Aug 22. Varieties: Holdfast and Cappelle. Previous crop: Wheat.

Note (1) The experiment is a repetition on the same plots of the one carried out in 1954 (see "Results of the Field Experiments 1954", Section 54/Ca/7). There were minor changes in the treatments but the same randomization was used.

(2) Records of incidence of disease (Take-all and Eyespot) and weeds, and counts of plant, shoot and ear numbers were made.

Standard error per plot.
Grain: 3.95 cwt per acre or 26.9% (12 d.f.)

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## Summary of Results

### Grain: cwt per acre

| | $T_1$ | $T_2$ | $T_3$ | $T_4$ | Mean | |
|---|---|---|---|---|---|---|
| Mean (±1.40) | 16.5 | 16.9 | 18.9 | 12.2 | 16.1 | |
| | | | (±1.97) | | (±0.99) | |
| $V_1$ | 17.0 | 15.6 | 18.3 | 12.4 | 15.8 | |
| $V_2$ | 16.0 | 18.3 | 19.6 | 12.0 | 16.5 | |
| Difference (±2.79) | -1.0 | +2.7 | +1.3 | -0.4 | +0.7 | (±1.40) |
| $R_1$ | 14.1 | 16.3 | 16.8 | 9.6 | 14.2 | |
| $R_2$ | 18.9 | 17.6 | 21.1 | 14.8 | 18.1 | |
| Difference (±2.79) | +4.8 | +1.3 | +4.3 | +5.2 | +3.9 | (±1.40) |
| $N_1$ | 14.9 | 11.9 | 15.2 | 12.2 | 13.6 | |
| $N_2$ | 18.1 | 22.0 | 22.6 | 12.1 | 18.7 | |
| Difference (±2.79) | +3.2 | +10.1 | +7.4 | -0.1 | +5.1 | (±1.40) |

| | $R_1$ | $R_2$ | $N_0$ | $N_1$ | $N_2$ | Mean |
|---|---|---|---|---|---|---|
| | | | (±1.40) | (±0.99) | | |
| Mean (±0.99) | | | 8.8 | 13.6 | 18.7 | 14.7 |
| | (±1.40) | | (±1.97) | (±1.40) | | (±0.88) |
| $V_1$ | 13.7 | 18.0 | 8.8 | 13.6 | 18.0 | 14.4 |
| $V_2$ | 14.7 | 18.2 | 8.8 | 13.5 | 19.4 | 14.9 |
| $R_1$ | | | 8.9 | 11.9 | 16.5 | 13.1 |
| $R_2$ | | | 8.6 | 15.3 | 20.9 | 16.2 |

Mean dry matter % as harvested: 85.5

### Treatments

$V_1$ Holdfast
$V_2$ Cappelle

$R_1$, $R_2$ 1½, 3 bushels per acre
$R_1$, $R_2$ 2, 4 bushels per acre

$N_0$ No N
$N_1$ 0.46 cwt N per acre
$N_2$ 0.93 cwt N per acre

$T_1$ Nitrochalk half in March half in May
$T_2$ Nitrochalk all in mid March
$T_3$ Nitrochalk all in mid April
$T_4$ Nitrochalk all in mid May

The V × R table does not include the plots receiving no nitrogen.

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