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## Yields of the Field Experiments 1965

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### 65/R/RW201/DA/2 Winter Wheat and Spring Wheat - Varieties and N

#### Rothamsted Research

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65/Da/3.1

# WINTER WHEAT

(RW 401 and WW 101)

Row spacing, seed rates and N - Rothamsted (R) Whittlocks and Woburn (W) Broadmead III 1965.

Design: 4 randomised blocks of 8 plots, split into 3 for N.

Area of each sub plot: 0.0045.

Treatments: All combinations of:-

Whole plots:

## 1. Row spacing etc.:

- Seed broadcast, autumn fertiliser\*\* broadcast (B)
- Seed drilled, 4 inch rows, autumn fertiliser broadcast (C)
- Seed drilled, 7 inch rows, autumn fertiliser broadcast (W)
- Seed drilled, 7 inch rows, with autumn fertiliser combine drilled. (W\*)

## 2. Seed rates:

- Whittlocks (R): 128 lb (L), 236 lb (H)
- Broadmead I (W): 139 lb (L), 231 lb (H).

Sub plots:

- 3. Nitrogen: 0.4 (N1), 0.8 (N2), 1.2 (N3) cwt N as 'Nitro-Chalk' broadcast in spring.

\*\* (6:15:15) to all plots - rate 330 lb.

Basal application: Weedkiller: Mecoprop/2,4-D (Methoxone Extra at 7 pints in 40 gals).

Cultivations, etc.:-

Whittlocks (R): Chisel ploughed: Oct 5, 1964. Seed sown, autumn fertiliser applied: Oct 27. 'Nitro-Chalk' applied: Apr 14, 1965. Sprayed: Apr 30. Combine harvested: Sept 14. Variety: Cappelle. Previous crops: Spring wheat 1963, potatoes 1964.

Broadmead III (W): Chisel ploughed: Oct 17, 1964. Autumn fertiliser applied, seed sown: Oct 23. 'Nitro-Chalk' applied: Apr 7. Sprayed: May 6. Combine harvested: Sept 15. Variety: Cappelle. Previous crops: Barley 1963, potatoes 1964.

NOTE: Whittlocks (R)

- (1) Plant counts were made on Mar 18, 1965.
- (2) Owing to a fault in the combine harvester the yields from two adjacent sub plots (WL N2 and WL N3) were bulked. Estimated yields were used in the analysis.

65/Da/3.2

Standard errors per plot. Grain:

Whittlocks (R) Whole plot: 2.24 or 5.6% (20 d.f.)  
 Sub plot: 2.13 or 5.3% (47 d.f.)  
 Broadmead III (W) Whole plot: 2.07 or 5.5% (21 d.f.)  
 Sub plot: 5.80 or 15.4% (48 d.f.)

## SUMMARY OF RESULTS

## GRAIN

## ROTHAMSTED

|              | B           | C    | W    | W*   | Mean    |
|--------------|-------------|------|------|------|---------|
|              | (±1.12)     |      |      |      | (±0.56) |
| L            | 44.3        | 42.7 | 44.0 | 42.8 | 43.5    |
| H            | 37.6        | 36.4 | 35.2 | 36.7 | 36.5    |
|              | (1) and (2) |      |      |      | (±0.38) |
| N1           | 44.6        | 44.1 | 42.9 | 43.7 | 43.8    |
| N2           | 39.4        | 39.2 | 39.9 | 40.2 | 39.7    |
| N3           | 38.8        | 35.3 | 36.1 | 35.4 | 36.4    |
| Mean (±0.79) | 40.9        | 39.6 | 39.6 | 39.8 | 40.0    |
|              | L           | H    |      |      |         |
|              | (3) and (4) |      |      |      |         |
| N1           | 46.4        | 41.2 |      |      |         |
| N2           | 43.6        | 35.8 |      |      |         |
| N3           | 40.4        | 32.5 |      |      |         |

Mean D.M. %: 78.5

(1) ±0.75 (3) ±0.53 For use in vertical and interaction comparisons.  
 (2) ±1.00 (4) ±0.71 For use in horizontal and diagonal comparisons.

65/Da/3.3

| GRAIN        |             |      |      |      |         |
|--------------|-------------|------|------|------|---------|
| WOEBURN      |             |      |      |      |         |
|              | B           | C    | W    | W*   | Mean    |
|              | (±1.04)     |      |      |      | (±0.52) |
| L            | 42.4        | 38.9 | 37.8 | 39.8 | 39.7    |
| H            | 38.0        | 35.5 | 35.3 | 34.1 | 35.7    |
|              | (1) and (2) |      |      |      | (±1.03) |
| N1           | 45.3        | 39.0 | 39.3 | 39.8 | 40.8    |
| N2           | 40.0        | 37.8 | 39.4 | 35.3 | 38.1    |
| N3           | 35.3        | 34.7 | 31.0 | 35.8 | 34.2    |
| Mean (±0.73) | 40.2        | 37.2 | 36.6 | 37.0 | 37.7    |
|              | L           | H    |      |      |         |
|              | (3) and (4) |      |      |      |         |
| N1           | 41.6        | 40.1 |      |      |         |
| N2           | 41.1        | 35.1 |      |      |         |
| N3           | 36.4        | 32.0 |      |      |         |

Mean D.M. %: 80.7

(1) ±2.05 (3) ±1.45 For use in vertical and interaction comparisons.  
 (2) ±1.83 (4) ±1.29 For use in horizontal and diagonal comparisons.