ROTHAMSTED RESEARCH

# Yields of the Field Experiments 1958

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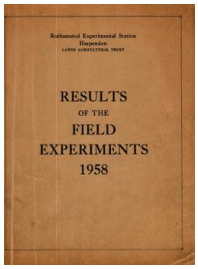


## 58/R/CD/1 Cereals and Beans - Rotations

### Rothamsted Research

Rothamsted Research (1959) *58/R/CD/1 Cereals and Beans - Rotations ;* Yields Of The Field Experiments 1958, pp 104 - 105 **- DOI: https://doi.org/10.23637/ERADOC-1-181**

# CEREALS AND BEANS ROTATIONS

The effect of crop sequences on the incidence of cereal foot and root rot diseases - Great Field I 1958 - the 2nd year.

Design: Three series each of 3 randomized blocks of 6 plots, starting in each of the years 1957, 1958 and 1959.

Area of each plot: 0.0305 acres. Area harvested: 0.0200 acres.

Treatments:

Crop sequences for each series:

| | | | | | | |
|---|---|---|---|---|---|---|
| 1st year: | WW | WW | WW | SW | O | B |
| 2nd year: | WW | O | O | WW | WW | WW |
| 3rd year: | SW | SW | Be | SW | SW | B |

WW = Winter wheat, SW = Spring wheat, O = Oats, B = Barley, Be = Beans.

In the 4th year the plots will be split for N, and all cropped with winter wheat.

Basal dressing: All blocks received 23 cwt per acre ground chalk in Nov 1956; 2 cwt compound fertilizer (16% $P_2O_5$, 16% $K_2O$) per acre combine drilled with seed.

Nitrogen for cereals: 3 cwt 'Nitro-Chalk' per acre to spring wheat and 2 cwt 'Nitro-Chalk' per acre to oats and barley, all in seedbed. 6 cwt 'Nitro-Chalk' per acre to winter wheat as spring top dressing, half applied in March and half in May.

Cultivations, etc.: Ploughed: Sept 13, 1957. Winter wheat combine drilled at $2\frac{1}{2}$ bushels per acre: Oct 10. 1st application of 'Nitro-Chalk' to winter wheat: Mar 10, 1958. 'Nitro-Chalk' applied for barley, oats and spring wheat and seed combine drilled at 2, 4 and 3 bushels per acre respectively: Mar 20. 2nd application of 'Nitro-Chalk' to winter wheat: May 12. Sprayed with CMPP at 6 pints in 40 gallons per acre: May 15. Combine harvested: Oats and barley: Sept 1; winter and spring wheat: Sept 3. Varieties: Winter wheat - Heine 7; spring wheat - Koga II; oats - Sun II; barley - Proctor. Previous crop: Series starting in 1958: spring wheat.

Note. Estimates of % area lodged, weed infestation and incidence of Eyespot (*Cercosporella herpotrichoides*) and Take-all (*Ophiobolus graminis*), and counts of plant shoot and ear number were made.

For details of the previous year's results etc. see 'Results of the Field Experiments ' 57/Cd/1.

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## Summary of Results

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

### Series starting in 1957

| Crop in 1957<br>1958 | WW<br>WW | SW<br>WW | B<br>WW | O<br>WW | WW<br>O |
|---|---|---|---|---|---|
| Mean dry matter<br>% as harvested | 18.7 | 19.5<br>78.5 | 20.2 | 19.8* | 25.1<br>85.0 |

### Series starting in 1958

| Crop in 1958 | WW | SW | B | O |
|---|---|---|---|---|
| Mean dry matter<br>% as harvested | 12.3<br>75.2 | 13.3<br>70.2 | 29.4<br>81.5 | 26.7<br>85.1 |

*All three plots were badly damaged by birds.