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Yields of the Field Experiments 1962

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62/R/C/1 Cereal-bean Rotations -winter Wheat (Test Crop)

Rothamsted Research

Rothamsted Research (1963) *62/R/C/1 Cereal-bean Rotations -winter Wheat (Test Crop)* ; Yields Of The Field Experiments 1962, pp 100 - 101 - DOI: <https://doi.org/10.23637/ERADOC-1-164>

62/C/1.1

CEREALS AND BEANS ROTATIONS

The effect of crop sequences on the incidence of cereal foot and root rot diseases - Great Field I 1962 - the 6th and last year.

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

Area of each plot: 0.0305 acres. Area harvested (sub plot): 0.0096 acres.

Treatments:

Crop sequences for each series:

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

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

In the 4th year the plots are split for N and all cropped with winter wheat, the series starting in 1959 falling due for this treatment this year, and receiving N at 0.5, 1.0 cwt per acre in 2 doses, in March and May, as 'Nitro-Chalk'.

Basal dressing: 1.6 cwt compound fertiliser (20% P₂O₅, 20% K₂O) per acre combine drilled; all blocks received 23 cwt ground chalk per acre in Nov 1956 and 54 cwt per acre in Oct 1960.

Cultivations, etc.: Ploughed: Sept 14, 1961. Seed drilled at 2½ bushels per acre: Oct 10. 'Nitro-Chalk' applied: Mar 2 and May 4, 1962. Sprayed with CMPP/2,4-D at 7 pints in 40 gallons per acre: Apr 25. Combine harvested: Sept 3. Variety: Cappelle.

Note: Estimates of plant height, % area lodged, incidence of Eyespot (*Cercospora herpotrichoides*) and Take-all (*Ophiobolus graminis*) and counts of plants and shoots were made.

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

Whole plot: 2.44 cwt per acre or 5.9% (10 d.f.)
Sub plot: 3.78 cwt per acre or 9.1% (12 d.f.)

62/C/1.2

Summary of Results

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

Crop in 1959	WW	SW	O	WW	B	WW	Mean
1960	WW	WW	WW	O	WW	O	
1961	SW	SW	SW	SW	B	Be	
N cwt per acre	(±2.09)*						
0.5	41.0	37.7	31.9	29.5	38.6	52.9	38.6
1.0	48.8	42.1	39.8	36.5	40.6	56.1	44.0
Mean (±1.40)	44.9	39.9	35.8	33.0	39.6	54.5	41.2
Diff. (±3.09)	7.8	4.4	7.9	7.0	2.0	3.2	5.4 (±1.26)

Mean dry matter % as harvested: 84.2

*For use only in horizontal and diagonal comparisons.

Crops

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