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Yields of the Field Experiments 1966



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66/R/RW101/DA/1 and 66/W/WW101/DA/1 Winter Wheat - Row Spacing

Rothamsted Research

Rothamsted Research (1967) *66/R/RW101/DA/1* and *66/W/WW101/DA/1* Winter Wheat - Row Spacing ; Yields Of The Field Experiments 1966, pp 243 - 246 **- DOI:**

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WINTER WHEAT

(RW101 and WW101)

Row spacing, seed rates and N - Rothamsted (R) Great Knott I and Woburn (W) Workhouse 1966.

Design: 2 replicates of a $4 \times 2 \times 4$ factorial arranged in 4 blocks of 8 whole plots, with N on half plots. (4-3+2-1) on whole plots Great Knott I (R), 3-2+1-0 on Workhouse (W)).

Area of each sub plot: 0.0069. Area harvested: 0.0069.

Treatments: All combinations of:-

Whole plots.

- 1. Row spacing etc.:

 Seed broadcast, autumn fertiliser** broadcast
 Seed drilled, 4 inch rows, autumn fertiliser
 broadcast
 Seed drilled, 7 inch rows, autumn fertiliser
 broadcast
 Seed drilled, 7 inch rows, with autumn fertiliser
 combine drilled

 (W*)
- 2. Seed rates: 140 lb (L), 240 lb (H).

Sub plots:

- 3. Nitrogen in spring:
 Great Knott I (R): 0.4 (N1), 0.8 (N2), 1.2 (N3), 1.6 (N4)
 cwt N as 'Nitro-Chalk' broadcast.
 Workhouse (W): None (N0), 0.4 (N1), 0.8 (N2), 1.2 (N3)
 cwt N as 'Nitro-Chalk' broadcast.
- ** Great Knott I (R): (6:15:15) to all plots rate 340 lb. Workhouse (W): (8:20:16) to all plots rate 310 lb.
- NOTE: At Rothamsted because of a mistake in an instruction nitrogen was applied to the wrong plots: in order to achieve balance certain additions were made making the total applications listed.
- Basal applications: Great Knott I (R): Ioxynil/MCPA (Actril A at 2 pints in 40 gals).

Cultivations, etc.:

Great Knott I (R): Deep-tine cultivated twice: Nov 3 and 4, 1965.

Seed sown, NPK applied: Nov 5. 'Nitro-Chalk' applied: Apr 13, 1966,
completed: Apr 21. Sprayed: Apr 29. Combine harvested: Aug 24.
Variety: Cappelle. Previous crops: Barley 1964, potatoes 1965.
Workhouse (W): Deep-tine cultivated: Oct 27, 1965. Seed sown,
NPK applied: Nov 3. 'Nitro-Chalk' applied: Apr 27, 1966.
Combine harvested: Aug 27. Variety: Cappelle. Previous crops:
Grass 1964, potatoes 1965.

Standard errors per plot. Grain:

Great Knott I (R). Whole plot: 2.57 or 5.3% (14 d.f.)
Sub plot: 3.11 or 6.4% (16 d.f.)
Workhouse (W). Whole plot: 2.88 or 5.2% (14 d.f.)

Whole plot: 2.88 or 5.2% (14 d.f.) Sub plot: 3.98 or 7.1% (16 d.f.)

SUMMARY OF RESULTS

GREAT KNOTT I (R)

GRAIN

20.00	В	C	W	W*	Mean
Mean (±0.91)	49.2	48.7	48.9	46.4	48.3
6.88		(±0.64)			
L H	49.3 49.0	50.6 46.8	50.9 47.0	48.3 44.5	49.8 4 6. 8
	(1) and (2)				(3) and (4)
N1 N2 N3 N4	49.9 52.0 46.4 48.4	49.8 51.3 48.1 45.6	47.3 50.7 49.4 48.3	47.0 48.1 45.0 45.4	48.5 50.5 47.2 47.0
	L	H			
	(5) and (6)				
N1 N2 N3 N4	49.6 50.9 48.7 49.9	47.4 50.2 45.7 44.0			

 ^{(±1.56) (5) (±1.10)} For use in vertical and interaction comparisons involving N4-N2 or N3-N1
 (±1.69) (6) (±1.20) For use in all other comparisons
 (±0.78) For use in comparisons N4-N2 or N3-N1
 (±0.85) For use in all other comparisons

WORKHOUSE (W)

GRAIN

		В	C	W	W*	Mean
Mean ((±1.02)	55.9	56.7	55.4	55.3	55.8
		el. 34 9	(±0.72)			
L H (\$\delta_0.04)	56.5 55.4	57.7 55.8	56.1 54.6	54.9 55.6	56.3 55.3	
		(3) and (4)				
NO NI NO	52.8 57.4 59.6 53.9	55.3 60.1 58.8 52.6	53.7 59.8 56.2 52.0	53.0 57.5 56.7 53.8	53.7 58.7 57.8 53.1	
	L	н				
		(5) an	nd (6)			
NO Nl		52.4 57.8	55.0 59.6			
N2 N3		59 .3 55 . 8	56.4 50.3			

^{(1) (±1.99) (5) (±1.41)} For use in vertical and interaction comparisons involving N3-N1 or N2-NO
(2) (±2.02) (6) (±1.43) For use in all other comparisons

^{(3) (±1.00)} For use in comparisons N3-N1 or N2-N0

^{(4) (±1.01)} For use in all other comparisons