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## Yields of the Field Experiments 1959

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### 59/R/CA/3 Spring Wheat - Row Spacing, Seed Rates and N

#### Rothamsted Research

Rothamsted Research (1960) *59/R/CA/3 Spring Wheat - Row Spacing, Seed Rates and N* ; Yields Of The Field Experiments 1959, pp 71 - 72 - DOI: <https://doi.org/10.23637/ERADOC-1-179>

59/Ca/3.2

Summary of Results

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

Row spacing: inches	7	7	14	14	7B	Mean
Seed rate: bushels per acre	2	4	1	2	3	
Mean ( $\pm 0.68$ )	33.0	33.6	29.9	30.0	31.8	31.7
<u>Drill</u>						
Standard ( $\pm 0.95$ )	33.1	32.7	29.6	27.7	33.1	31.2
Precision	33.0	34.5	30.3	32.4	30.5	32.1
Difference ( $\pm 1.35$ )	-0.1	+1.8	+0.7	+4.7	-2.6	$\pm 0.9$ ( $\pm 0.60$ )
<u>N cwt per acre</u>						
0.6 ( $\pm 1.16$ )*	31.2	31.7	29.0	29.6	31.9	30.7
1.2	34.9	35.5	30.8	30.5	31.7	32.7
Difference ( $\pm 1.90$ )	+3.7	+3.8	+1.8	+0.9	-0.2	+2.0 ( $\pm 0.85$ )

	Standard	Drill Precision	Difference
<u>N cwt per acre</u>		( $\pm 0.74$ )**	( $\pm 1.04$ )
0.6	30.6	30.7	+0.1
1.2	31.9	33.5	+1.6
Difference ( $\pm 1.20$ )	+1.3	+2.8	+1.5 ( $\pm 1.69$ )

\* For use only in horizontal and diagonal comparisons.

\*\* For use only in diagonal comparisons.

B = every 4th row blank.

### SPRING WHEAT

Combine drilling of nitrogen - Rothamsted (R) Deacons Field and Woburn (W) Lansome Field 1959.

Design (each field): 4 randomized blocks of 7 plots each.

Area of each plot:

Deacons Field (R): 0.0212 acres. Area harvested: 0.0141 acres.  
Lansome Field (W): 0.0186 acres. Area harvested: 0.0124 acres.

Treatments: None and all combinations of:-

Nitrogen: 0.2; 0.5; 0.8 cwt N per acre.

Method of application: Broadcast as sulphate of ammonia; combine drilled as compound fertilizer:

N<sub>1</sub>: 6% N, 15% P<sub>2</sub>O<sub>5</sub>, 15% K<sub>2</sub>O.

N<sub>2</sub>: 8% N, 8% P<sub>2</sub>O<sub>5</sub>, 8% K<sub>2</sub>O.

N<sub>3</sub>: 12% N, 9% P<sub>2</sub>O<sub>5</sub>, 9% K<sub>2</sub>O.

Basal dressing per acre (each field): 0.54 cwt P<sub>2</sub>O<sub>5</sub> and 0.54 cwt K<sub>2</sub>O combine drilled

(a) as compound 16% P<sub>2</sub>O<sub>5</sub>, 16% K<sub>2</sub>O on the no nitrogen and broadcast nitrogen plots;

(b) as compounds N<sub>1</sub>, N<sub>2</sub>, N<sub>3</sub> on the plots receiving drilled nitrogen.

Cultivations, etc.:

Deacons Field (R): Ploughed: Nov 17, 1958. Seed combine drilled at 3 bushels per acre; balance of compound fertilizer (16% P<sub>2</sub>O<sub>5</sub>, 16% K<sub>2</sub>O) and sulphate of ammonia applied: Mar 19, 1959. Sprayed with TCB/MCPA at 4 pints in 40 gallons per acre: May 6. Combine harvested: Aug 21. Variety: Koga II. Previous crop: Winter wheat.

Lansome Field (W): Ploughed: Nov 5, 1958. Seed combine drilled at 3 $\frac{1}{3}$  bushels per acre: Mar 21, 1959. Sulphate of ammonia applied: Mar 23. Combine harvested: Aug 21. Variety: Peko. Previous crop: Spring Wheat.

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

Deacons Field (R): 0.90 cwt per acre or 3.8% (18 d.f.)

Lansome Field (W): 1.34 cwt per acre or 5.9% (18 d.f.)

Note: Plant counts at germination were made.