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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	
Seed rate: bushels per acre	2	4	1	2	3	Mean
Mean (± 0.68)	33.0	33.6	29.9	30.0	31.8	31.7
<u>Drill</u>						
Standard (± 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 (± 1.35)	-0.1	+1.8	+0.7	+4.7	-2.6	± 0.9 (± 0.60)
<u>N cwt per acre</u>						
0.6 (± 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 (± 1.90)	+3.7	+3.8	+1.8	+0.9	-0.2	+2.0 (± 0.85)

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

N₁: 6% N, 15% P₂O₅, 15% K₂O.

N₂: 8% N, 8% P₂O₅, 8% K₂O.

N₃: 12% N, 9% P₂O₅, 9% K₂O.

Basal dressing per acre (each field): 0.54 cwt P₂O₅ and 0.54 cwt K₂O combine drilled

(a) as compound 16% P₂O₅, 16% K₂O on the no nitrogen and broadcast nitrogen plots;

(b) as compounds N₁, N₂, N₃ 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% P₂O₅, 16% K₂O) 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.