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Yields of the Field Experiments 1957

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57/R/CB/5 and 57/W/CB/5 Barley - Combine Drilling of N

Rothamsted Research

Rothamsted Research (1958) *57/R/CB/5 and 57/W/CB/5 Barley - Combine Drilling of N* ; Yields Of The Field Experiments 1957, pp 83 - 84 - DOI: <https://doi.org/10.23637/ERADOC-1-177>

57/Cb/5.1

BARLEY

Combine drilling of nitrogen - Rothamsted (R) Little Hoos and Woburn (W) Lansome Field 1957.

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

Area of each plot: 0.0212 acres. Area harvested: 0.0141 acres.

Treatments: None and all combinations of:-

Nitrogen: 0.22 (N_1); 0.54 (N_2); 0.68 (N_3) cwt N per acre.

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

N_1 : 5% N, 12 $\frac{1}{2}$ % P_2O_5 , 12 $\frac{1}{2}$ % K_2O
 N_2 : 8% N, 8% P_2O_5 , 8% K_2O
 N_3 : 12% N, 9% P_2O_5 , 9% K_2O

Basal dressing per acre (each field): 0.54 cwt P_2O_5 and 0.54 cwt K_2O combine drilled

(a) as compound 16% P_2O_5 , 16% K_2O on the no nitrogen and broadcast nitrogen plots.

(b) as compounds N_1 , N_2 , N_3 on the plots receiving drilled nitrogen.

Cultivations, etc.:

Little Hoos (R). Ploughed: Oct 12, 1956 and Jan 23, 1957. Seed combine drilled at 2 $\frac{1}{4}$ bushels per acre: Apr 1. Sulphate of ammonia broadcast: Apr 3. Sprayed with MCPA at 2 pints in 40 gallons per acre: May 30. Combine harvested: Aug 31. Variety: Herta. Previous crop: Wheat and barley.

Lansome Field (W). Ploughed: Jan 28 - Feb 17, 1957. Sulphate of ammonia broadcast, seed combine drilled at 2 $\frac{1}{2}$ bushels per acre: Mar 23. Sprayed with MCPP at 6 pints in 40 gallons per acre: May 20. Combine harvested: Aug 20. Variety: Herta. Previous crop: Potatoes.

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

Little Hoos (R): 2.06 cwt per acre or 7.2% (18 d.f.)

Lansome Field (W): 2.17 cwt per acre or 7.7% (18 d.f.)

57/Cb/5.2

Summary of Results

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

N: cwt per acre

None	Broadcast			Combine drilled			Mean
	0.22	0.54	0.68	0.22	0.54	0.68	
Little Hoos, Rothamsted							
20.6	26.1	31.1	31.9	27.4	30.0	32.0	28.4
(±1.03)							

Mean dry matter % as harvested: 83.9

Lansome Field, Woburn							
21.6	24.6	31.6	34.2	24.8	30.7	30.5	28.3
(±1.08)							

Mean dry matter % as harvested: 82.2