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# Yields of the Field Experiments 1961

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## 61/R/DB/1 Barley - Forms and Application of N

### Rothamsted Research

Rothamsted Research (1962) *61/R/DB/1 Barley - Forms and Application of N* ; Yields Of The Field Experiments 1961, pp 115 - 116 - DOI: <https://doi.org/10.23637/ERADOC-1-182>

61/Db/1.1

BARLEY

Forms and methods of application of nitrogen - Great Knott I 1961.

Design: 3 randomised blocks of 20 plots each.

Area of each plot: 0.0194 acres.

Treatments: No nitrogen (2 plots per block) and all combinations of:-

Forms of N: Ammonium sulphate 21% N (S);  
Calcium nitrate 15.5% N (C);  
Urea 45.6% N (U)

Levels of N: 0.35; 0.70 cwt N per acre.

Methods of application: Broadcast (B); combine drilled (D);  
side band placed (P).

Basal dressing: 2 cwt granular compound fertiliser (14%  $P_2O_5$ , 28%  $K_2O$ )  
per acre.

Cultivations, etc.: Ground chalk applied at 45 cwt per acre:

Oct 17, 1960. Ploughed: Nov 29. Seed drilled at  $2\frac{1}{2}$  bushels  
per acre and seedbed fertilisers applied: Mar 14, 1961. Sprayed  
with CMFP at 6 pints in 40 gallons per acre: May 11. Combine  
harvested: Aug 16. Variety: Proctor. Previous crop: Winter wheat.

Standard error per plot.

Grain (at 85% dry matter): 1.61 cwt per acre or 4.1% (37 d.f.)



61/Db/1.2

Summary of Results

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

	Form of N			Mean
	S	C	U	
Mean ( $\pm 0.38$ )	39.2	39.6	38.1	39.0 ( $\pm 0.22$ )
N: cwt per acre				
0.35 ( $\pm 0.54$ )	36.4	36.3	36.0	36.2
0.75	42.1	42.8	40.2	41.7
Diff. ( $\pm 0.76$ )	+5.7	+6.5	+4.2	+5.5 ( $\pm 0.44$ )
Method of application				
B	38.0	41.1	38.0	39.0
D ( $\pm 0.66$ )	40.3	38.3	37.1	38.5 ( $\pm 0.38$ )
P	39.5	39.4	39.2	39.3
	Method of application			
	B	D	P	
N: cwt per acre				
0.35 ( $\pm 0.54$ )	35.8	36.5	36.3	
0.70	42.2	40.6	42.3	
Diff. ( $\pm 0.76$ )	+6.4	+4.1	+6.0	

No N: 25.0 ( $\pm 0.66$ )

General mean: 37.6

Mean dry matter % as harvested (all plots): 82.5

Form of N

S = Ammonium sulphate 21% N

C = Calcium nitrate 15.5% N

U = Urea 45.6% N

Method of application

B = Broadcast

D = Combine drilled

P = Side band placed