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Yields of the Field Experiments 1960

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60/R/CA/6 Spring Wheat - Forms and Application of N

Rothamsted Research

Rothamsted Research (1961) *60/R/CA/6 Spring Wheat - Forms and Application of N* ; Yields Of The Field Experiments 1960, pp 92 - 93 - DOI: <https://doi.org/10.23637/ERADOC-1-180>

60/Ca/6.1

SPRING WHEAT

Forms of N and methods of application - Little Knott I 1960.

Design: $4 \times 2 \times 4$ in 6 blocks of 16, with certain high order interactions partially confounded with block differences, plus 2 control plots per block.

Area of each plot: 0.0097 acres.

Treatments: No nitrogen and all combinations of:-

<u>Forms of N:</u> Ammonium sulphate 21% N	(S)
Calcium nitrate 15.5% N	(C)
Ammonium nitrate 23% N	(A)
or Urea 45.6% N	(U)

Levels of N: 0.4; 0.8 cwt N per acre.

Methods of application: Broadcast (B), combine drilled (D), side band placed (P), top dressed (T).

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

Cultivations, etc.: Ploughed: Nov 11, 1959. Ground chalk applied at 23 cwt per acre: Feb 24 - Mar 2, 1960. Seed drilled at 3 bushels per acre and seedbed fertilisers applied: Mar 22. Nitrogen top dressings applied: May 2. Sprayed with TCB/MCPA at 4 pints in 40 gallons per acre: May 10. Combine harvested: Sept 13. Variety: Jufy II Previous crop: Oats.

Standard error per plot.

Grain (at 85% dry matter): 2.01 cwt per acre or 5.8% (67 d.f.)

60/Ca/6.2

Summary of ResultsGrain (at 85% dry matter): cwt per acre

	Form of N				Mean
	S	C	A	U	
Mean (± 0.41)	34.6	36.0	35.4	35.4	35.4 (± 0.21)
N: cwt per acre					
0.4 (± 0.58)	33.8	35.3	34.4	34.9	34.6
0.8	35.3	36.8	36.4	35.9	36.1
Diff. (± 0.82)	+1.5	+1.5	+2.0	+1.0	+1.5 (± 0.41)
Method of application					
B	34.0	34.2	34.1	35.2	34.4
D (± 0.82)	34.5	36.4	36.2	35.9	35.7 (± 0.41)
P	36.3	37.5	35.4	34.9	36.0
T	33.4	36.0	36.0	35.8	35.3

	Method of application			
	B	D	P	T
N: cwt per acre				
0.4 (± 0.58)	33.1	35.3	35.4	34.6
0.8	35.6	36.2	36.7	36.0
Diff. (± 0.82)	+2.5	+0.9	+1.3	+1.4

Control: 29.9 (± 0.58)

General Mean 34.8

Mean dry matter % as harvested (all plots): 84.4

Form of N

S = Ammonium sulphate 21% N

C = Calcium nitrate 15.5% N

A = Ammonium nitrate 23% N

U = Urea 45.6% N

Method of application

B = Broadcast

D = Combine drilled

P = Side band placed

T = Top dressed