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Yields of the Field Experiments 1960



Full Table of Content

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 × 2 × 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:
Forms of N: 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% P205, 28% K20) 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 Results

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

	Form	of N		
S	C	A	Ū	Mean
34.6	36.0	35.4	35•4	35.4 (±0.21)
33.8 35.3	35.3 36.8	34·4 36·4	34·9 35·9	34.6 36.1
+1.5	+1.5	+2.0	+1.0	+1.5 (±0.41)
tion				
34.0 34.5 36.3 33.4	34.2 36.4 37.5 36.0	34.1 36.2 35.4 36.0	35,2 35,9 34,9 35,8	34.4 35.7 36.0 35.3
Method of application				
	В	D	P	T
	33.1 35.6 +2.5	35•3 36•2 +0•9	35.4 36.7 +1.3	34.6 36.0 +1.4
	34.6 33.8 35.3 +1.5 tion 34.0 34.5 36.3	S C 34.6 36.0 33.8 35.3 36.8 +1.5 +1.5 tion 34.0 34.2 34.5 36.4 36.3 37.5 33.4 36.0 Me	34.6 36.0 35.4 33.8 35.3 34.4 35.3 36.8 36.4 +1.5 +1.5 +2.0 tion 34.0 34.2 34.1 34.5 36.4 36.2 36.3 37.5 35.4 36.0 36.0 Method of a B D	S C A U 34.6 36.0 35.4 35.4 33.8 35.3 34.4 34.9 35.3 36.8 36.4 35.9 +1.5 +1.5 +2.0 +1.0 tion 34.0 34.2 34.1 35.2 34.5 36.4 36.2 35.9 36.3 37.5 35.4 34.9 33.4 36.0 36.0 35.8 Method of applicatio B D P 33.1 35.3 35.4 35.6 36.2 36.7

Control: 29.9 (±0.58)

General Mean 34.8

Mean dry matter 7 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