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Yields of the Field Experiments 1964

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64/R/RW101/DA/1 and 64/W/RW101/DA/1 Winter Wheat - N-Serve

Rothamsted Research

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64/Da/1.1

WINTER WHEAT

(RW 101 and WW 101)

N-serve - Rothamsted (R) Great Knott II and Woburn (W) Lansome Field 1964.

Design (each field): 3 randomised blocks of 14 plots each.

Area of each plot:

Great Knott II (R): 0.0161
Lansome Field (W): 0.0116

Area harvested:

0.0133
0.0077

Treatments: No nitrogen (0) (2 plots per block) and all combinations of:-

1. Materials and time of application: Sulphate of ammonia treated with 'N-serve' at none (A), 1% (AS1), 2% (AS2) of N applied, placement drilled in autumn (P)
Sulphate of ammonia treated with N-serve at none (A) or 1% (AS1) of N, broadcast in spring (B)
Calcium nitrate broadcast in spring (CB).
2. Levels of N: (R) 50 (1) and 100 (2) lb per acre
(W) 75 (1) and 150 (2) lb per acre.

Basal dressing: Great Knott II (R): 2.5 cwt 0:20:20 broadcast
Lansome Field (W): 3.0 cwt 0:20:20 broadcast.

Cultivations, etc.:

Great Knott II (R): Chisel ploughed 3 times: Oct 24, 1963. Seed drilled, basal dressing applied: Oct 28. Spring nitrogen applied: Apr 27, 1964. Sprayed with mecoprop/2,4-D (Methoxone Extra at 7 pints in 40 gals): Apr 30. Combine harvested: Aug 27. Variety: Cappelle. Previous crops: Spring beans 1962, potatoes 1963.

Lansome Field (W): Ploughed: Oct 7, 1963. Seed drilled, basal dressing applied: Oct 17. Spring nitrogen applied: Apr 24, 1964. Sprayed with mecoprop/2,4-D (Methoxone Extra at 7 pints in 40 gals): Apr 30. Combine harvested: Aug 29. Variety: Cappelle. Previous crops: Sugar beet 1962, carrots 1963.

NOTE: Plant samples were taken during growth of the crop in order to measure N uptake.

Standard errors per plot. Grain:

Great Knott II (R): 2.660 or 5.1% (27 d.f.)
Lansome Field (W): 1.536 or 4.1% (27 d.f.)

64/Da/1.2

SUMMARY OF RESULTS

	ROTHAMSTED		WOBURN	
	Mean	Increase	Mean	Increase
O	45.8 (± 1.09)	(± 1.88)	16.9 (± 0.63)	(± 1.09)
A1 P	51.0	+5.2	25.7	+8.8
A1 S1 P	50.8	+5.0	28.4	+11.5
A1 S2 P	55.0	+9.2	299.9	+13.0
A2 P	53.7	+7.9	37.5	+20.6
A2 S1 P	53.9	+8.1	43.3	+26.4
A2 S2 P	55.4 (± 1.54)	+9.6	42.3 (± 0.89)	+25.4
A1 B	52.3	+6.5	38.2	+21.3
A1 S1 B	52.4	+6.6	36.7	+19.8
C1 B	52.4	+6.6	45.7	+28.8
A2 B	56.0	+10.2	54.0	+37.1
A2 S1 B	56.9	+11.1	51.5	+34.6
C2 B	55.6	+9.8	51.9	+35.0
Mean	52.6		37.1	
Mean D.M. %:	86.9		86.9	