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Yields of the Field Experiments 1955

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55/W/CA/4 Winter Wheat - Varieties, Seed Rates, Levels and Times of N

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55/Ca/4.1

WINTER WHEAT

Varieties, seed rates, levels and times of application of N: - Woburn, Roadpiece 1955, the 2nd year.

Design: 4 randomized blocks of 8 plots each, certain high order interactions being confounded with block differences. In addition each block contained 2 plots with no nitrogen, the variety $\times$ seed rate interaction being confounded.

Area of each plot: 0.0159 acre. Area harvested: 0.0140 acre.

Treatments: All combinations of:-

Varieties: Holdfast; Cappelle.

Seed rates: Holdfast, $1\frac{1}{2}$; 3 bushels per acre.

Cappelle, 2; 4 bushels per acre.

Nitrogen: 0.5; 1.0 cwt N per acre as nitrochalk.

Time of application of N: half dressing in March and again in May; whole dressing mid March; mid April; mid May.

Basal dressing: 1 cwt per acre compound granular fertilizer (12% N, 12% P_2O_5 , 15% K_2O) combine drilled with seed.

Cultivations, etc.: Ploughed: Sept 28, 1954. Combine drilled: Oct 25. March top dressing applied: Mar 15, 1955. April top dressing applied: Apr 20. All plots sprayed with D.N.O.C. at $1\frac{1}{2}$ gallons in 80 gallons: May 19. May top dressing applied: May 24. Combine harvested: Aug 22. Varieties: Holdfast and Cappelle. Previous crop: Wheat.

Note (1) The experiment is a repetition on the same plots of the one carried out in 1954 (see "Results of the Field Experiments 1954", Section 54/Ca/7). There were minor changes in the treatments but the same randomization was used.

(2) Records of incidence of disease (Take-all and Eyespot) and weeds, and counts of plant, shoot and ear numbers were made.

Standard error per plot.

Grain: 3.95 cwt per acre or 26.9% (12 d.f.)

55/Ca/4.2

Summary of Results

Grain: cwt per acre

	T ₁	T ₂	T ₃	T ₄	Mean
Mean (± 1.40)	16.5	16.9	18.9	12.2	16.1
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	(± 1.97)				(± 0.99)
V ₁	17.0	15.6	18.3	12.4	15.8
V ₂	16.0	18.3	19.6	12.0	16.5
Difference (± 2.79)	-1.0	+2.7	+1.3	-0.4	+0.7 (± 1.40)
R ₁	14.1	16.3	16.8	9.6	14.2
R ₂	18.9	17.6	21.1	14.8	18.1
Difference (± 2.79)	+4.8	+1.3	+4.3	+5.2	+3.9 (± 1.40)
N ₁	14.9	11.9	15.2	12.2	13.6
N ₂	18.1	22.0	22.6	12.1	18.7
Difference (± 2.79)	+3.2	+10.1	+7.4	-0.1	+5.1 (± 1.40)
	R ₁	R ₂	N ₀	N ₁	N ₂
			(± 1.40)	(± 0.99)	
Mean (± 0.99)			8.8	13.6	18.7
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	(± 1.40)		(± 1.97)	(± 1.40)	(± 0.88)
V ₁	13.7	18.0	8.8	13.6	18.0
V ₂	14.7	18.2	8.8	13.5	19.4
R ₁			8.9	11.9	16.5
R ₂			8.6	15.3	20.9

Mean dry matter % as harvested: 85.5

Treatments

V ₁	Holdfast	R ₁ , R ₂	1½, 3 bushels per acre	N ₀	No N
V ₂	Cappelle	R ₁ , R ₂	2, 4 bushels per acre	N ₁	0.46 cwt N per acre
				N ₂	0.93 cwt N per acre

T ₁	Nitrochalk half in March half in May	T ₃	Nitrochalk all in mid April
T ₂	Nitrochalk all in mid March	T ₄	Nitrochalk all in mid May

The V × R table does not include the plots receiving no nitrogen.