

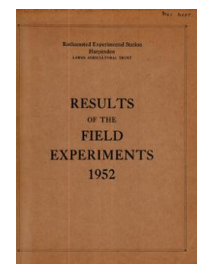
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52/CA/2 Wheat - Control of Eyespot - Rothamsted

Rothamsted Research

Rothamsted Research (1953) *52/CA/2 Wheat - Control of Eyespot - Rothamsted* ; Yields Of The Field Experiments 1952, pp 70 - 72 - DOI: <https://doi.org/10.23637/ERADOC-1-178>

52/Ca/2.1

WHEAT

Control of Eyespot (*Cercospora Herpotrichoides*) - Great Field I 1952.

System of replication: 8 randomized blocks of 8 plots each, certain high order interactions and the effect of spraying being confounded with block differences. In addition each block contained two extra plots with no nitrogen. The variety x seed rate interaction being confounded.

Area of each plot: 0.0197 acre.

Treatments: All combinations of

Variety: Squareheads Master 13/4; Bersee (V_1 ; V_2).

Seedrate: $1\frac{1}{2}$; 3 bushels per acre (R_1 ; R_2).

Nitrogen: 0.4; 0.8 cwt per acre applied as sulphate of ammonia (N_1 ; N_2).

Time of application of N: At time of sowing; early March; mid-April; 3rd week May (T_1 ; T_2 ; T_3 ; T_4).

Spraying: 4 blocks sprayed with 12 $\frac{1}{2}$ % sulphuric acid at 100 gallons per acre.

Basal manuring: None.

Cultivations, etc.: Ploughed: Oct 8. Seed drilled, T_1 applied: Oct 25. T_2 applied: Mar 13. Sprayed 4 blocks: Mar 14. T_3 applied: Apr 16. Sprayed all plots with D.N.O.C.: Apr 18. T_4 applied: May 22. Harvested: Aug 19. Previous crop: Linseed.

Standard error per plot:

Grain: 2.92 cwt per acre or 10.9% (24 d.f.)

- NB. (1) Counts of incidence of Eyespot were made and are available.
(2) In the Summary of Results:-
(a) The standard errors given are not valid for testing the effects of spraying for any particular treatment level; the interactions of spraying with treatments may however be tested.
(b) The V x R tables do not include the plots receiving no nitrogen.

Summary of Results

Grain: cwt per acre

	Unsprayed				Mean	Sprayed				Mean
	T ₁	T ₂	T ₃	T ₄		T ₁	T ₂	T ₃	T ₄	
	(±1.46)					(±1.46)				
V ₁	23.6	20.0	21.7	24.5	22.5	32.7	31.0	33.7	33.4	32.7
V ₂	37.9	33.0	31.7	31.7	33.6	46.4	45.5	45.7	42.9	45.1
Diff. (±2.06)	14.3	13.0	10.0	7.2	11.1 (±1.03)	13.7	14.5	12.0	9.5	12.4 (±1.03)
R ₁	34.1	28.2	28.6	30.2	30.3	39.4	36.8	40.9	41.3	39.6
R ₂	27.4	24.8	24.7	26.1	25.8	39.7	39.7	38.5	34.9	38.2
Diff. (±2.06)	-6.7	-3.4	-3.9	-4.1	-4.5 (±1.03)	+0.3	+2.9	-2.4	-6.4	-1.4 (±1.03)
N ₁	32.1	25.5	25.8	27.8	27.8	37.9	38.7	38.0	38.3	38.2
N ₂	29.4	27.5	27.5	28.4	28.2	41.2	37.8	41.4	38.0	39.6
Diff. (±2.06)	-2.7	+2.0	+1.7	+0.6	+0.4 (±1.03)	+3.3	-0.9	+3.4	-0.3	+1.4 (±1.03)
Mean (±1.03)	30.7	26.5	26.7	28.1	28.0	39.6	38.2	39.7	38.1	38.9

	Unsprayed		Diff. (±1.46)	Sprayed		Diff. (±1.46)
	R ₁	R ₂		R ₁	R ₂	
	(±1.03)			(±1.03)		
V ₁	24.8	20.1	-4.7	33.3	32.1	-1.2
V ₂	35.7	31.4	-4.3	45.9	44.4	-1.5
Diff. (±1.46)	+10.9	+11.3	+0.4	+12.6	+12.3	-0.3

	Unsprayed			Mean	Sprayed			Mean
	N ₀	N ₁	N ₂		N ₀	N ₁	N ₂	
	(±1.46)	(±1.03)			(±1.46)	(±1.03)		
V ₁	22.4	22.0	22.9	22.4	31.2	33.5	31.9	32.4
V ₂	28.9	33.6	33.6	32.6	36.8	42.9	47.3	43.5
Diff. (±1.46)	+6.5 ⁽¹⁾	+11.6	+10.7	+10.2 (±0.84)	+5.6 ⁽¹⁾	+9.4	+15.4	+11.1 (±0.84)
R ₁	28.7	29.9	30.7	30.0	36.6	39.4	39.8	39.0
R ₂	22.6	25.7	25.8	25.1	31.5	37.0	39.4	36.9
Diff. (±1.46)	-6.1 ⁽¹⁾	-4.2	-4.9	-4.9 (±0.84)	-5.1 ⁽¹⁾	-2.4	-0.4	-2.1 (±0.84)
Mean (±0.73)	25.7 ⁽²⁾	27.8	28.2	27.5	34.0 ⁽²⁾	38.2	39.6	37.9

(1) ±2.06 (2) ±1.03

52/Ca/2.3

Straw: cwt per acre

	Unsprayed					Sprayed				
	T ₁	T ₂	T ₃	T ₄	Mean	T ₁	T ₂	T ₃	T ₄	Mean
V ₁	67.5	67.4	68.3	61.6	66.2	69.5	73.4	69.2	68.9	70.3
V ₂	59.4	61.0	59.4	48.5	57.1	57.0	61.3	56.2	49.8	56.1
Diff.	-8.1	-6.4	-8.9	-13.1	-9.1	-12.5	-12.1	-13.0	-19.1	-14.2
R ₁	62.7	62.9	62.7	55.9	61.0	61.0	66.1	62.9	57.7	61.9
R ₂	64.2	65.5	65.0	54.2	62.2	65.5	68.7	62.5	61.0	64.4
Diff.	+1.5	+2.6	+2.3	-1.7	+1.2	+4.5	+2.6	-0.4	+3.3	+2.5
N ₁	61.6	63.4	61.9	56.2	60.8	62.8	65.9	61.4	60.9	62.7
N ₂	65.3	65.0	65.7	53.9	62.5	63.7	68.9	64.0	57.8	63.6
Diff.	+3.7	+1.6	+3.8	-2.3	+1.7	+0.9	+3.0	+2.6	-3.1	+0.9
Mean	63.4	64.2	63.8	55.1	61.6	63.2	67.4	62.7	59.3	63.2

	R ₁	R ₂	Diff.	R ₁	R ₂	Diff.
V ₁	65.9	66.5	+0.6	68.7	71.8	+3.1
V ₂	56.2	58.0	+1.8	55.1	57.0	+1.9
Diff.	-9.7	-8.5	+1.2	-13.6	-14.8	-1.2

	N ₀	N ₁	N ₂	Mean	N ₀	N ₁	N ₂	Mean
V ₁	58.5	65.3	67.0	64.7	59.6	69.7	70.8	68.1
V ₂	46.0	56.2	57.9	54.9	47.3	55.8	56.4	54.3
Diff.	-12.5	-9.1	-9.1	-9.8	-12.3	-13.9	-14.4	-13.8
R ₁	53.5	60.7	61.4	59.5	52.3	61.0	62.8	60.0
R ₂	51.0	60.9	63.6	60.0	54.7	64.4	64.4	62.5
Diff.	-2.5	+0.2	+2.2	+0.5	+2.4	+3.4	+1.6	+2.5
Mean	52.3	60.8	62.5	59.8	53.5	62.7	63.6	61.2