

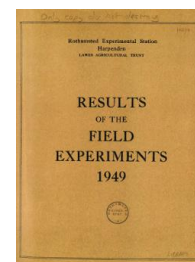
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED  
RESEARCH

## Yields of the Field Experiments 1949

[Full Table of Content](#)



---

### 49/CA/1 Wheat - Eyespot

49/CA/1 *Wheat - Eyespot*, Rothamsted Research (1950) Yields Of The Field Experiments 1949, pp 64 - 66

WHEAT

49/Ca/1.1

Control of "Eyespot"

The effects of rates and times of application of sulphate of ammonia, of rates of sowing and of spraying, with sulphuric acid.

RW - Little Knott 1949

System of replication: 4 x 3 x 3 x 2 design in 6 blocks of 12 plots each, certain three factor interactions and the effect of spraying being confounded with block differences.

Area of each plot: 0.0146 acre

Treatments:

Sulphate of ammonia: Rates, None,  $1\frac{3}{4}$ ,  $3\frac{1}{2}$ ,  $5\frac{1}{4}$  cwt per acre ( $N_0, N_1, N_2, N_3$ ).  
Times of application, March, April, May, ( $T_0, T_1, T_2$ ).  
Rates of sowing:  $1\frac{1}{2}$ ,  $2\frac{1}{2}$ ,  $3\frac{1}{2}$  bushels per acre ( $R_0, R_1, R_2$ ).  
Spraying: 3 blocks sprayed with sulphuric acid (12% by volume).  
B.O.V. at 100 gallons per acre in March.

Basal Manuring: 2 cwt superphosphate and  $\frac{1}{2}$  cwt muriate of potash drilled across the plots.

Cultivations, etc.: Ploughed: Sept 30. Disc harrowed: Oct 11. Harrowed: Oct 12. Seed drilled: Oct 13. Basal manures drilled: Oct 15. Harrowed in: Oct 21. Sprayed 3 blocks with sulphuric acid: Mar 2. 1st application of sulphate of ammonia: Mar 5. 2nd application of sulphate of ammonia: Apr 5. Ring rolled: Apr 13. 3rd application of sulphate of ammonia: May 4. Sprayed whole experiment with Denocate to kill weeds: May 12. Harvested: Aug 3. Variety: Squareheads Master 13/4. Previous crop: Kale.

Standard errors per plot:

Grain: unsprayed blocks: 3.46 cwt per acre or 22.5% (12 d.f.)  
          sprayed blocks: 6.26 cwt per acre or 32.8% (12 d.f.)  
Straw: unsprayed blocks: 6.42 cwt per acre or 18.0% (12 d.f.)  
          sprayed blocks: 10.04 cwt per acre or 29.4% (12 d.f.)

Note: No counts of 'Eyespot' or 'Take-all' were made.

49/Ca/1.2

Grain: cwt per acre

	Unsprayed				Mean	Sprayed				Mean	Effect of Spraying
	R <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>			R <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>			
				(±1.76)	(±1.00)				(±3.18)	(±1.81)	(±2.06) <sup>(1)</sup>
T <sub>0</sub>	14.5	14.3	15.7		14.9	22.3	16.0	21.1		19.8	4.9
T <sub>1</sub>	19.0	15.6	15.4		16.7	21.1	22.4	19.8		21.1	4.4
T <sub>2</sub>	14.1	15.2	14.6		14.6	14.7	16.5	17.8		16.3	1.7
Mean	15.9	15.1	15.2	(±1.00)	15.4	19.4	18.3	19.5	(±1.81)	19.1	
	N <sub>0</sub>	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>		N <sub>0</sub>	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>		
				(±2.00)					(±3.61)		
T <sub>0</sub>		13.9	15.3	17.0			20.9	20.9	22.0		
T <sub>1</sub>		16.3	17.9	20.8			17.9	23.7	22.7		
T <sub>2</sub>		19.0	14.1	13.0			24.0	15.8	16.9		
				(±2.00)					(±3.61)		
R <sub>0</sub>	15.7	15.8	15.5	16.5	15.9	15.4	23.3	17.3	21.6	19.4	3.5
R <sub>1</sub>	11.8	19.1	15.0	14.4	15.1	14.5	11.5	23.1	24.0	18.3	3.2
R <sub>2</sub>	10.1	14.3	16.7	19.9	15.2	14.0	28.1	20.2	16.0	19.5	4.3
Mean	12.6	16.4	15.7	16.9	15.4	14.6	20.9	20.2	20.6	19.1	
		(±1.15)					(±2.09)				
Effect of Spraying					(±2.38) <sup>(1)</sup>	2.0	4.5	4.5	3.7		

(1) Standard error for comparisons between main effects only.

49/Ca/1.3

Straw: cwt per acre

	Unsprayed				Mean	Sprayed				Mean	Effect of Spraying
	R <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>			R <sub>0</sub>	R <sub>1</sub>	R <sub>2</sub>			
		(±3.26)			(±1.85)		(±5.10)			(±2.90)	(±3.44) <sup>(1)</sup>
T <sub>0</sub>	32.2	35.4	38.3		35.3	39.9	32.9	40.6	37.8	2.5	
T <sub>1</sub>	37.8	33.0	35.4		35.4	38.9	42.5	39.4	40.3	4.9	
T <sub>2</sub>	29.8	31.1	34.4		31.8	25.3	29.5	31.2	28.7	-3.1	
Mean	33.3	33.2	36.0		34.2	34.7	35.0	37.1	35.6		
		(±1.85)					(±2.90)				
		N <sub>0</sub>	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>		N <sub>0</sub>	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>	
			(±3.71)					(±5.80)			
T <sub>0</sub>		32.1	38.5	41.3			39.3	42.5	42.8		
T <sub>1</sub>		33.4	42.1	42.5			34.2	47.4	44.0		
T <sub>2</sub>		39.5	29.6	28.7			37.3	31.1	30.6		
		(±3.71)					(±5.80)			(±2.90)	
R <sub>0</sub>	31.1	32.4	35.6	34.0	33.3	27.3	38.1	33.6	39.8	34.7	1.4
R <sub>1</sub>	26.2	40.4	34.1	32.0	33.2	27.2	22.2	43.4	47.1	35.0	1.8
R <sub>2</sub>	25.1	32.1	40.4	46.4	36.0	23.3	50.5	44.1	30.4	37.1	1.3
Mean	27.5	35.0	36.7	37.5	34.2	25.9	36.9	40.4	39.1	35.6	
		(±2.14)					(±3.35)				
	Effect of Spraying (±3.97) <sup>(1)</sup>					-1.6	1.9	3.7	1.6		

(1) Standard error for comparisons between main effects only.