

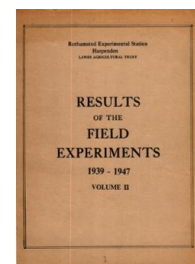
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Yields of the Field Experiments 1939-1947 Volume 2

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L Barley

Rothamsted Research

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BARLEY AND HAY

Roadpiece 1944-1945

Effects in the first year of sulphate of ammonia, superphosphate, compound fertilizer of equivalent composition and methods of fertilizer placement; and in the second year the residual effects of the previous year's cropping and manuring.

Design; 4 randomized blocks of 10 plots each.

Area of each plot; 1944, 0.0250 acre
1945, 0.0274 acre

First Season 1944

Barley

Treatments

Sulphate of ammonia; None, 0.3 cwt. N per acre
Superphosphate; None, 0.6 cwt P₂O₅ per acre
Compound fertilizer; None, 0.3 cwt. N and 0.6 cwt. P₂O₅ per acre
Method of fertilizer placement; Drilled or broadcast.

Crop Notes

Seed sown; March 16. Harvested; August 17
Variety; Plumage Archer. Previous crop; Permanent Grass

Standard errors per plot:

Grain: 1.02 cwt. per acre or 4.4%, 28 d.f.
Straw: 0.88 cwt. per acre or 3.4%, 28 d.f.

Second Season 1945

Hay

Basal manuring; Sulphate of ammonia, 0.4 cwt. N per acre

Seed sown in barley: April 27, 1944. Cut: June 27.

Standard error per plot:

Hay: 2.40 cwt. per acre or 3.3%, 28 d.f.

L/2

Barley and Hay - Roadpiece

	Barley					Mean
	None	Sulph. amm.	Super.	Sulph. amm. & Super.	Equivalent compd. fert.	
Grain: cwt. per acre						
						±0.26
						±0.51
Broadcast		19.9	21.6	23.4	24.8	22.4
Drilled		18.8	25.4	27.1	28.0	24.8
Mean ±0.36	20.5	19.4	23.5	25.2	26.4	23.0
Effect of drilling ±0.72		-1.1	3.8	3.7	3.2	2.4 ^a
Straw: cwt. per acre						
						±0.22
						±0.44
Broadcast		23.6	24.8	25.8	27.4	25.4
Drilled		24.1	26.2	28.6	29.3	27.0
Mean ±0.31	23.5	23.8	25.5	27.2	28.4	25.7
Effect of drilling ±0.62		0.5	1.4	2.8	1.9	1.6 ^b
Residual effects						
Hay: cwt. per acre						
						±0.60
						±1.20
Broadcast		69.7	71.7	74.2	74.1	72.4
Drilled		70.4	72.1	73.4	74.0	72.5
Mean ±0.85	72.8	70.0	71.9	73.8	74.0	72.5
Effect of drilling ±1.70		0.7	0.4	-0.8	-0.1	0.1 ^c

Standard errors (a) 0.36 (b) 0.31 (c) 0.85

BARLEY

L/3

Long Hoos V, 1945

Effects of sulphate of ammonia, nitrate of soda, and ammonium nitrate at 4 levels, and method of placement of fertilizer.

Design; 3 randomized blocks of 12 plots each, plots split for method of placement.

Area of each sub-plot; 0.0154 acre.

Treatments

Nitrogenous fertilizers: None, sulphate of ammonia, nitrate of soda, ammonium nitrate.

Levels of fertilizer: 0.3, 0.6, 0.9 cwt. N per acre.

Methods of placement: Broadcast before sowing, drilled with seed.

Basal manuring: Superphosphate, 0.5 cwt. P₂O₅ per acre drilled.

Crop Notes

Seed sown: March 24. Harvested: August 9.

Variety: Plumage Archer. Previous crop: Barley.

Standard errors:

Grain, per whole plot: 1.20 cwt. per acre or 3.9%, 24 d.f.

per sub plot: 1.56 cwt. per acre or 5.1%, 27 d.f.

Straw, per whole plot: 1.47 cwt. per acre or 4.4%, 24 d.f.

per sub plot: 1.79 cwt. per acre or 5.3%, 27 d.f.

	Grain: cwt. per acre				Mean	Method of placement	
	None	0.3	0.6	0.9		Drilled	Broadcast
		±0.69			±0.40	±0.54	
Sulphate of ammonia		30.1	34.6	36.0	33.6	33.3	33.8
Nitrate of soda	22.9	30.4	32.6	33.6	32.2	31.5	33.0
Ammonium nitrate		31.4	33.7	34.1	33.1	32.7	33.4
Mean	22.9	30.6	33.6	34.6	30.4	32.5	33.4
		±0.40				±0.31	
Drilled		30.2	33.7	33.6	32.5		
Broadcast		31.0	33.6	35.5	33.4		
		±0.54			±0.31		
		Straw: cwt. per acre					
		±0.85			±0.49	±0.65	
Sulphate of ammonia		31.5	39.5	40.4	37.1	37.6	36.7
Nitrate of soda	22.5	33.6	37.8	40.4	37.3	36.7	37.8
Ammonium nitrate		34.7	38.4	40.8	38.0	38.7	37.2
Mean	22.5	33.3	38.6	40.5	33.7	37.7	37.2
		±0.49				±0.37	
Drilled		33.3	39.3	40.5	37.7		
Broadcast		33.3	37.9	40.6	37.2		
		±0.65			±0.37		