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Yields of the Field Experiments 1948

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48/CB/1 Spring Sown Cereals

Rothamsted Research

Rothamsted Research (1949) *48/CB/1 Spring Sown Cereals ; Yields Of The Field Experiments 1948*, pp 72 - 73

48/Cb/1.1

SPRING SOWN CEREAL EXPERIMENT

Comparison of barley, oats and two varieties of wheat, and of the effects on them of four levels of sulphate of ammonia, of superphosphate, and of muriate of potash.

RV - Long Hoos III, 1948

System of replication: 4 randomized blocks of four plots each, each plot being split into 4, certain first-order interactions of artificials being confounded with whole plots.

Area of each sub-plot: 0.0191 acre.

Treatments:

Whole plots: Crops:- Oats (S.84), wheat (Atle and Bersce) and barley (Plumage Arthur)

Sub-plots: Sulphate of ammonia: None, 0.3, 0.6, 0.9, cwt N per acre

Superphosphate: None, 0.6 cwt. P_2O_5 per acre

Muriate of potash: None 0.6 cwt. K_2O per acre

Basal manuring: None.

Cultivations, etc.: Ploughed Sept.30 - Oct.2. Rolled and Springtime harrowed: Mar.10. Artificials applied: Mar.13. Harrowed: Mar.15. All seed drilled and harrowed in: Mar.17. Rolled: Mar.20. Hand weeded: June 7-8. All crops harvested: Aug. 23-24. Previous crop: Barley.

Standard errors: (grain):

per whole plot, 1.49 cwt. per acre or 6.9% (6.d.f.)

per sub-plot, 2.82 cwt. per acre or 13.0% (24 d.f.)

48/Cb/1.2

	Grain: cwt. per acre			Straw: cwt. per acre			
	Oats	Wheat (Atle)	Wheat (Bersee)	Oats	Wheat (Atle)	Wheat (Bersee)	Barley
Mean	19.0	21.6 (±0.75)	19.1	46.1	46.0	43.8	36.4
Sulphate of ammonia		(a) and (b)					
None	14.6	18.2	13.4	44.2	37.4	33.5	27.4
0.3 cwt. N per acre	19.6	20.8	20.0	48.6	44.0	41.2	35.2
0.6 cwt. N per acre	20.9	23.4	20.8	47.3	50.3	50.6	40.6
0.9 cwt. N per acre	20.9	24.1	22.2	44.4	52.5	49.9	42.6
Superphosphate		(±1.03) [‡]					
Absent	18.3	22.3	19.1	46.5	46.1	42.9	35.7
Present	19.7	20.9	19.1	45.8	46.0	44.7	37.1
Response	1.4	-1.4	0.0	-0.7	-0.1	1.8	1.4
Muriate of Potash		(±1.03) [‡]					
Absent	19.5	21.8	17.8	46.7	45.2	43.9	35.8
Present	18.5	21.4	20.4	45.6	46.9	43.7	37.1
Response	-1.0	-0.4	2.6	-1.1	1.7	-0.2	1.3

Standard errors: (a) ± 1.41 (for vertical comparisons only)
 (b) ± 1.43 (for all other comparisons)

[‡] Standard error for use in horizontal comparisons only