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Yields of the Field Experiments 1955

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55/R/CB/4 Barley - Residuals of P and K

Rothamsted Research

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55/Cb/4.1

BARLEY

Residual effects of phosphate and potash - Highfield V 1955.

Design: 8 randomized blocks of 8 plots each, the interaction PKS $\times$ placement being confounded with block differences.

Area of each plot: 0.00923 acre.

Treatments, applied to lucerne in 1952: All combinations of:-
Phosphate: None; 1.0 cwt $P_{2}O_{5}$ per acre applied as superphosphate.
Potash: None; 1.0 cwt $K_{2}O$ per acre applied as muriate of potash.
Method of placement: Broadcast on seedbed; ploughed in 10".
Starter: None; 2 cwt granular superphosphate per acre placed beneath seed.

Note: the division of each plot into sub plots in 1954 was ignored in 1955.

Basal dressing: 1 cwt nitrochalk per acre.

Cultivations, etc.: Ploughed: Mar 21, 1955. Seed drilled at $2\frac{3}{4}$ bushels per acre: Apr 6. Nitrochalk applied: Apr 7. Sprayed with 2, 4D, medium volume, $2\frac{1}{2}$ pints per acre: May 20. Combine harvested: Aug 17. Variety: Herta. Previous crop: Lucerne.

Standard error per plot.

Grain (at 85% D.M.): 1.81 cwt per acre or 3.9% (42 d.f.)

For previous years' results see 52/Cf/1, 53/Cg/1 and 54/Ce/1.

55/Cb/4.2

Summary of Results

Starter	Treatments applied 1952								Mean
	No ferti- lizer	Superphosphate		Muriate of Potash		Superphosphate and Muriate of Potash			
		Broad- cast	Ploughed in	Broad- cast	Ploughed in	Broad- cast	Ploughed in		
Grain (at 85% Dry Matter): cwt per acre									
	(± 0.64)				(± 0.90)				
None	44.4	45.3	46.8	45.7	46.5	47.5	45.2	45.7	
Super	44.9	45.8	44.2	47.2	46.9	47.8	45.7	45.9	
Mean	44.7 ⁽¹⁾	45.5	45.5	46.5	46.7	47.6	45.4	45.8	
(± 0.64)									
Difference	+0.5 ⁽²⁾	+0.5	-2.6	+1.5	+0.4	+0.3	+0.5	+0.2 ⁽¹⁾	
(± 1.28)									

(1) ± 0.45 (2) ± 0.90

Straw (at 85% Dry Matter): cwt per acre

None	34.5	36.7	38.8	35.9	37.7	42.2	38.9	37.4
Super	36.4	35.6	36.8	40.1	37.4	41.8	36.5	37.6
Mean	35.4	36.1	37.8	38.0	37.6	42.0	37.7	37.5
Difference	+1.9	-1.1	-2.0	+4.2	-0.3	-0.4	-2.4	+0.2

Mean dry matter % as harvested, Grain: 84.0
Straw: 82.6