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Chemical Analysis of Manures Used in Replicated Experiments, 1933

Rothamsted Research

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CHEMICAL ANALYSIS OF MANURES USED IN REPLICATED EXPERIMENTS, 1933.

Manures.	% N	% P ₂ O ₅	% K ₂ O
Sulphate of Amm.	20.8—21.1	—	—
Bicarbonate of Amm.	17.7	—	—
Nitrate of Soda	15.8—16.1	—	—
Nitrochalk	15.5	—	—
Poultry Manure (1)	3.85	3.22	1.67
Poultry Manure (2)	4.38	4.05	1.94
Poultry Manure (3)	3.58	2.89	1.63
Poultry Manure (4)	3.68	—	—
Poultry Manure (5)	4.37	—	—
Poultry Manure (fresh)	1.25	1.80	—
Guano	6.50	16.4	—
Dung	0.68	0.25	0.89
		% P ₂ O ₅	
		Total.	Soluble in Water.
			Soluble in Cit. Acid.
Basic Slag High Sol.	14.9	—	14.4
Basic Slag Low Sol.	15.1	—	3.5
Mineral Phosphate— (90% through 12 mesh)	25.9	—	—
Superphosphate (6)	16.1	—	—
Superphosphate	17.5	16.4	—
Sulphate of Potash	49.2	} % K ₂ O	
Potash Manure Salt 30%	30.9		
Muriate of Potash	52.3		

Poultry Manures Nos. 1-5 were obtain in a dried, ground form.

- (1) Used in all poultry manure experiments except at Rothamsted, Woburn, Portobello, Honeydon.
- (2) Used at Rothamsted.
- (3) Used at Woburn.
- (4) Used at Portobello.
- (5) Used at Honeydon.
- (6) Used only in experiments testing basic slags.

Three Course Rotation, 1933

Manures.	% Organic Matter.	% N	% P ₂ O ₅	% K ₂ O
Chaffed Straw	77.3	0.301	0.097	1.053
Adco	14.1	0.302	0.265	0.160
Superphosphate	—	—	17.0 ⁽¹⁾ 17.5 ⁽²⁾	—
Sulphate of Ammonia	—	21.2 ⁽¹⁾ 21.2 ⁽²⁾	—	—
Muriate of Potash	—	—	—	52.1 ⁽¹⁾ 52.3 ⁽²⁾
Sulphate of Potash	—	—	—	49.2
Nitrate of Soda	—	15.8	—	—

¹ Applied in Autumn. ² Applied in Spring.

Four Course Rotation, 1933

Manures.	% Organic Matter.	% N	% P ₂ O ₅	% K ₂ O
Chaffed Straw	77.3	0.301	0.097	1.053
Dung	18.6	0.507	0.203	0.859
Adco	14.1	0.302	0.265	0.160
Superphosphate	—	—	17.0	—
Mineral Phosphate— 90% through 120 mesh	—	—	26.7	—
Muriate of Potash	—	—	—	52.1
Sulphate of Ammonia	—	21.2	—	—

Six Course Rotation, 1933

Sulphate of Ammonia 21.2% N.
 Muriate of Potash 52.1% K₂O
 Superphosphate 17.0% P₂O₅

AVERAGE WHEAT YIELDS OF VARIOUS COUNTRIES

Country.	Mean yield per acre, 1923-32. cwt.	Country.	Mean yield per acre, 1923-32. cwt.
Great Britain	17.5	Denmark	22.5
England and Wales	17.3	Argentina	6.7
Hertfordshire	16.1	Australia	6.4
France	11.4	Canada	9.2
Germany	15.8	United States	7.7
Belgium	20.4	U.S.S.R. (Europe and Asia)	5.6*

Note.—Figures for Great Britain, England and Hertfordshire are taken from the Ministry of Agriculture's "Agricultural Statistics," Vol. 67. Other figures from "International Year Book of Agricultural Statistics," 1925-33.

*1924-32, excluding 1931.