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Yields of the Field Experiments 1964

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64/S/SA/A/10 Saxmundham - Rotation 1

Rothamsted Research

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64/A/10.1

SAXMUNDHAM

ROTATION I

(SA)

The long term effects of manuring on a poor clay-loam soil - Harwoods Field 1964, the sixty fifth year. See Rothamsted Report for 1964, pp 228-232.

Rotation: Mangolds and sugar beet, barley, peas, winter wheat.

Design: 4 blocks of 10 plots each, one block for each crop.

Area of each plot: 0.0546. Area harvested: Wheat and barley - 0.0500, sugar beet and mangolds - 0.0114.

Treatments: 6 tons dung (D), 4 cwt bone meal (B) and all combinations of:-

1. Nitrate of soda (N): None, 2 cwt
2. Superphosphate (P): None, 2 cwt
3. Muriate of potash (K): None, 1 cwt.

Basal dressing: None.

Cultivations, etc.:-

Mangolds and sugar beet. Dung applied: Sept 17, 1963. Ploughed: Oct 11. Bone meal applied: Mar 2, 1964. Superphosphate applied: Mar 12. Seed drilled at 7 lb per acre: Apr 13. Nitrate of soda applied: Apr 30. DDT applied at 14 lb powder: May 6. Muriate of potash applied: May 7. Singled: May 22. Sugar beet sprayed (no details): June 27. Sugar beet sprayed with demeton methyl: July 24. Harvested: Sept 30. Varieties: Mangolds - Golden Tankard, sugar beet - Klein E.

Barley. Dung applied: Oct 28, 1963. Ploughed: Oct 29. Bone meal applied: Mar 2, 1964. Superphosphate applied, seed drilled at 2.75 bushels: Mar 11. Nitrate of soda applied: Apr 30. Muriate of potash applied: May 7. Harvested: Aug 13. Variety: Proctor.

Peas. Dung applied: Oct 28, 1963. Ploughed: Oct 29. Bone meal applied: Mar 2, 1964. Superphosphate applied: Mar 12. Nitrate of soda applied: Mar 23. Seed drilled at 12 stones: Apr 9. Muriate of potash applied: Apr 30. Peas ploughed up because of bird damage: June 23. Variety: Lincoln Blue.

Winter wheat. Dung applied: Sept 15, 1963. Ploughed: Sept 16. Bone meal, superphosphate and muriate of potash applied: Sept 26. Seed drilled: Sept 27. Nitrate of soda applied: Mar 23, 1964. Harvested: Aug 5. Variety: Cappelle.

64/A/10.2

SUMMARY OF RESULTS

Former Treatment plot no.	1964	Mangolds Roots + tops	Sugar beet Roots	Sugar %	Total sugar	Tops	Barley		Wheat	
							Grain	Straw	Grain	Straw
1	D	11.86	9.78	19.9	39.0	3.02	21.3	25.4	25.3	62.6
2	B	3.97	3.20	18.9	12.1	1.26	7.4	8.2	18.2	33.0
3	N	1.65	0.71	17.5	2.5	0.65	11.7	13.2	21.3	33.8
4	P	3.85	3.10	19.0	11.8	1.10	5.2	6.1	19.7	28.5
5	K	0.98	0.65	18.5	2.4	0.43	2.0	3.6	9.9	16.4
6	O	1.41	1.10	18.5	4.1	0.67	2.8	5.9	13.9	21.6
7	PK	2.55	2.28	19.6	8.9	0.94	3.1	6.1	18.1	27.9
8	NK	1.10	0.92	19.6	3.6	0.47	11.1	20.2	20.8	36.3
9	NP	7.62	5.48	19.5	21.4	1.49	14.4	15.5	27.4	38.4
10	NPK	8.25	7.13	20.0	28.5	2.51	16.1	22.4	25.2	43.3
Mean		4.33	3.44	19.1	13.4	1.26	9.5	12.7	20.0	34.2
Mean D.M.%:							84.1	89.3	83.5	87.0