

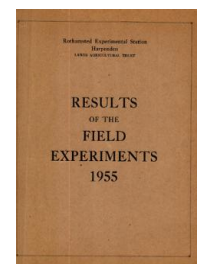
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Yields of the Field Experiments 1955

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55/R/A/4 Barnfield - Mangolds and Sugar Beet

Rothamsted Research

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55/A/4.1

MANGOLDS AND SUGAR BEET - BARNFIELD 1955

The 80th and 10th years

For history, details of treatments etc., see "Results of the Field Experiments 1939-47" Vol. 1, Section A/5.

Because of a serious infestation of couch grass (Agropyron repens) it was decided to apply trichloroacetic acid to the following plots: all the O series, 1N. In 1955 half of each plot was sprayed at half the standard rate. No damage to the crops was noted, and the halves were not harvested separately.

Cultivations, etc.: Dung applied: Dec 30, 1954. Ploughed: Jan 3, 1955. Certain plots sprayed with trichloroacetic acid, sodium salt: at 20 lb. in 40 gallons per acre: Apr 9. Fertilizers applied: Apr 22. Seed drilled, Mangolds - 9 lb; Sugar beet - 16 lb per acre. Calcium chloride applied to 4NB only: June 2. Sprayed with miscible D.D.T. 3 pints per acre: June 11. Singling started: July 19. Top dressings applied; nitrate of soda - July 20, sulphate of ammonia - July 22. Lifting started: Mangolds, - Nov 13, Sugar beet - Nov 16. Varieties Mangolds - Yellow Globe, Sugar beet - Klein E.

Erratum to "Results of the Field Experiments" 1951, p. 51/A/4.2.
Sugar Beet: Tops. Cross Dressing - 0. Yields for strips 4-8 should read "1.65, 1.49, 1.57, 1.63, 1.79", NOT "6.61, ..., 7.14"

Summary of Results

Strip	Cross Dressing				
	O	N	A	AC	C
Mangolds, Roots: tons per acre					
1	3.55	11.93	10.20	7.44	10.34
2	5.04	9.95	7.98	7.95	10.26
4	1.75	(a) 7.34 (b) 7.29*	5.38	7.95	8.04
5	1.03	6.01	2.50	3.99	6.07
6	1.01	4.30	4.67	7.98	8.72
7	0.89	7.22	6.97	8.18	9.38
8	0.44	2.22	2.47	4.32	4.05
9	5.66				
Mangolds, Leaves: tons per acre					
1	1.47	3.64	3.27	3.00	2.69
2	1.71	3.00	3.10	3.42	2.20
4	0.94	(a) 3.40 (b) 3.13*	2.05	2.86	2.00
5	0.74	3.44	1.81	2.03	2.25
6	0.81	2.81	1.88	2.54	1.81
7	0.72	3.96	2.49	3.69	2.54
8	0.60	1.66	2.34	2.91	2.64
9	3.42				
Mangolds, Plant Number: thousands per acre					
1	19.8	23.2	21.4	16.2	22.0
2	22.2	21.5	19.8	17.6	21.4
4	22.8	(a) 24.7 (b) 23.5*	19.0	17.8	21.3
5	22.6	24.1	20.3	16.8	22.0
6	22.1	22.6	21.5	19.2	22.5
7	21.3	23.1	21.5	18.9	21.9
8	21.0	21.2	20.2	20.9	23.0
9	22.5				

*No nitrate of soda. Nitrogen applied as calcium and potassium nitrates.

55/A/4.3

Strip	Cross Dressing				
	O	N	A	AC	C
Sugar Beet, Roots (washed): tons per acre					
1	2.67	7.83	7.96	6.78	8.46
2	3.03	4.78	3.02	2.86	6.92
4	1.32	(b) 4.67*	3.33	6.56	6.59
5	1.31	3.55	2.82	4.37	6.07
6	1.27	3.10	3.29	6.14	6.66
7	1.04	4.46	4.24	6.61	5.14
8	0.90	3.04	2.58	4.76	4.04
9	2.94				
Sugar Beet, Tops: tons per acre					
1	2.39	9.28	8.94	5.96	4.93
2	3.32	7.03	4.54	3.91	5.42
4	1.15	(b) 5.67*	4.40	5.52	4.69
5	1.06	6.94	3.61	6.30	5.52
6	1.27	4.93	4.25	6.55	5.42
7	1.05	6.74	4.20	8.40	4.25
8	0.93	4.54	3.27	6.74	5.52
9	3.52				
Sugar Beet, Plant Number: thousands per acre					
1	19.6	22.3	21.5	19.6	21.9
2	22.4	22.8	23.0	17.5	22.0
4	23.1	(b) 21.4*	22.1	20.8	20.5
5	23.9	24.3	22.4	22.0	23.4
6	23.1	23.1	21.4	20.8	23.5
7	24.2	23.5	23.4	21.5	22.8
8	22.8	24.2	24.2	22.8	24.0
9	23.2				
Sugar Beet, Sugar Percentage					
1	16.1	14.9	15.3	16.0	16.2
2	15.5	13.9	14.0	14.1	15.8
4	15.8	(b) 14.3*	14.8	15.7	16.2
5	16.0	14.2	15.5	15.6	16.4
6	15.4	14.6	15.3	15.7	16.1
7	15.9	15.6	16.0	15.6	16.1
8	15.3	14.9	15.9	14.9	15.5
9	15.4				

*No nitrate of soda. Nitrogen applied as calcium and potassium nitrates.