

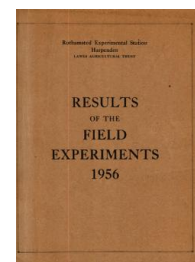
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Yields of the Field Experiments 1956

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

Rothamsted Research

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56/A/4.1

MANGOLDS AND SUGAR BEET - BARNFIELD

The 81st and 11th years

For history, treatments etc., see "Details of the Classical and Long Term Experiments" 1956.

A corrective chalk dressing was applied to Series A and AC (excluding plot 9) at 5 tons of CaCO_3 per acre under the new liming scheme introduced in spring 1956.

The following areas were sprayed with trichloroacetic acid:

First application to S half of plot 1N, S half of series O.
1st and 2nd applications: to N half of plot 1N, N half of series O.
3rd application to plot 9.

In June the plant was very irregular and backward on certain plots owing to the spring drought. It was decided to abandon these plots (no yields were recorded) and keep the land free of weeds by surface cultivations.

Cultivations, etc.: Dung applied: Nov 15 - 17, 1955. Ploughed: Nov 29 - Dec 1. Sprayed with TCA, sodium salt, at 20 lb in 90 gallons per acre: Mar 8 and again Mar 24, 1956. Ground chalk applied: Mar 29 and Apr 7. Fertilizers applied: Apr 11 - 17. Sugar beet seed drilled at 16 - 20 lb per acre: Apr 18. Mangolds seed drilled at 8 lb per acre: Apr 19. Singled: June 5 - 19. Abandoned crop on part of field: June 26. Top dressed remaining plots: June 29. 3rd application of TCA, sodium salt, at 20 lb in 80 gallons per acre: July 16. Lifted: Mangolds, Nov 22 - 26. Sugar beet, Nov 26 - 29. Varieties: Mangolds - Yellow Globe, Sugar beet - Klein E.

Cultivations to discarded areas after June 26:-

Thistle bar: June 26 - 28, July 6 - 7, July 13, Aug 9, Aug 22.
Springtine: Sept 25.

56/A/4.2

Summary of Results

Strip	Cross Dressing				
	0	N	A	AC	C
Mangolds, roots: tons per acre					
1	19.75	32.23	30.78	30.69	25.22
2	19.89	34.54	30.26	31.40	26.27
4		(a) 21.39*			
		(b) 22.28*			
5		19.05			
6		17.44			
7		20.18			
8					
9					
Mangolds, leaves: tons per acre					
1	2.88	4.32	6.03	5.59	3.93
2	3.74	4.89	4.64	5.59	3.66
4		(a) 2.76*			
		(b) 3.52*			
5		2.39			
6		1.98			
7		2.49			
8					
9					
Mangolds, plant number: thousands per acre					
1	18.0	19.8	18.2	17.4	16.4
2	21.4	19.8	18.9	17.6	19.2
4		(a) 20.9*			
		(b) 20.9*			
5		21.2			
6		20.9			
7		21.2			
8					
9					

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

56/A/4.3

Strip	Cross Dressing				
	O	N	A	AC	C
Sugar Beet, roots (washed): tons per acre					
1	9.50	12.18	12.80	12.57	12.96
2	10.25	13.48	13.36	14.64	13.47
4		(b) 8.02*			
5		7.58			
6		5.84			
7		8.46			
8					
9					
Sugar Beet, tops: tons per acre					
1	7.43	12.11	13.14	14.80	9.09
2	8.60	13.92*	12.16	14.95	10.36
4		(b) 8.16*			
5		7.23			
6		6.40			
7		6.79			
8					
9					
Sugar Beet, plant number: thousands per acre					
1	21.1	21.6	22.3	20.7	22.1
2	25.8	23.2*	22.5	20.5	22.2
4		(b) 22.5*			
5		24.5			
6		23.3			
7		23.1			
8					
9					
Sugar Beet, sugar percentage					
1	18.7	18.3	18.3	17.5	18.7
2	18.0	18.0*	17.7	16.7	18.4
4		(b) 18.6*			
5		17.9			
6		18.4			
7		18.3			
8					
9					

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