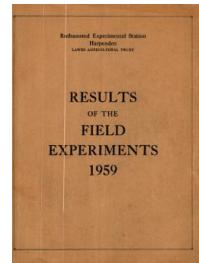


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Yields of the Field Experiments 1959

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59/R/A/4 Agdell - Grass and Multiple Crops

Rothamsted Research

Rothamsted Research (1960) *59/R/A/4 Agdell - Grass and Multiple Crops ; Yields Of The Field Experiments 1959*, pp 10 - 12 - DOI: <https://doi.org/10.23637/ERADOC-1-179>

59/A/4.3

Manure to turnips until 1948 Plot Rotation	Mineral manure*		Mineral* and nitrogenous manure†		Mean
	None since 1848	no nitrogen	1	2	
	5 Fallow	6 Clover	3 Fallow	4 Clover	

Sugar Beet: Total Sugar cwt per acre

P ₂ O ₅ cwt per acre	2.5	None	26.2	30.1	52.5	45.4	37.8	28.0	36.7
		0.25	33.4	30.0	53.7	41.6	37.5	30.8	37.8
		1.00	34.1	31.6	50.9	43.7	38.5	34.1	38.8
		Mean	31.2	30.6	52.4	43.6	37.9	31.0	37.8

Sugar Beet: Tops tons per acre

None	7.43	8.59	8.91	10.49	10.24	8.79	9.08
0.25	9.04	9.32	9.51	10.21	9.12	9.19	9.40
1.00	9.89	11.25	10.16	10.71	10.43	10.37	10.47
Mean	8.79	9.72	9.53	10.47	9.93	9.45	9.65

Barley grain(at 85% dry matter): cwt per acre

None	15.5	12.8	34.1	28.7	21.4	26.1	23.1
0.25	20.2	20.9	34.1	30.7	22.5	27.6	26.0
1.00	26.9	32.0	34.5	35.5	21.5	23.9	29.0
Mean	20.9	21.9	34.2	31.6	21.8	25.9	26.0

Barley straw(at 85% dry matter): cwt per acre

None	18.4	18.9	30.6	29.2	19.3	19.5	22.6
0.25	21.2	22.0	30.1	29.4	20.0	22.5	24.2
1.00	24.2	31.8	32.6	31.8	20.4	20.8	26.9

Mean dry matter % as harvested: Grass 1st cut 23.4
 2nd cut 35.9
 3rd cut 56.7
 Total of 3 cuts 38.7

Barley grain 79.0
 straw 63.1

* P, K, Na, Mg.

+ Rape dust (or castor meal + ammonium sulphate)

59/A/5.1

MANGOLDS AND SUGAR BEET - BARNFIELD

The 84th and 14th years

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

Cultivations, etc.: Dung applied: Nov 24 - 27, 1958. Dung ploughed in: Dec 3, remainder ploughed: Feb 10, 1959. Fertilizers applied: May 4 - 6. Sugar beet drilled at 19 lb per acre, mangolds drilled at 8 lb per acre: May 11. Singled: June 26 - July 9. Top dressings applied: July 14. Lifted: Oct 22 - Nov 12. Varieties: Mangolds - Yellow Globe, sugar beet - Klein E.

Summary of Results

Strip	Cross dressing				
	O	N	A	AC	C
<u>Mangolds, roots: tons per acre</u>					
1	11.13	20.75	20.26	21.48	15.26
2	10.89	16.99	14.46	16.41	12.29
4	3.82	(a) 10.83*	11.40	17.79	12.97
		(b) 13.02			
5	2.77	11.91	5.42	6.31	6.95
6	2.38	9.87	9.78	14.87	10.91
7	3.02	12.18	11.83	14.42	11.89
8	3.00	7.24	5.04	6.66	6.60
9	11.65				
<u>Mangolds, leaves: tons per acre</u>					
1	2.08	2.96	3.25	3.44	2.74
2	1.93	2.69	3.08	3.03	2.44
4	1.39	(a) 2.08*	2.27	3.59	2.37
		(b) 2.76			
5	1.24	2.27	1.95	2.00	2.44
6	1.18	2.76	2.39	3.54	2.12
7	1.37	3.42	3.27	4.45	2.42
8	0.85	2.88	2.15	2.83	2.61
9	2.88				
<u>Mangolds, plant number: thousands per acre</u>					
1	18.5	20.8	20.4	21.0	19.8
2	21.3	22.0	20.7	20.9	20.8
4	20.8	(a) 19.1*	20.8	20.0	20.5
		(b) 19.8			
5	18.2	21.7	17.3	17.2	19.2
6	15.7	19.4	20.6	20.6	21.2
7	17.8	23.0	20.6	21.7	21.1
8	16.1	20.0	19.5	20.0	20.6
9	21.4				

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

59/A/5.2

Strip	Cross dressing				
	O	N	A	AC	C
<u>Sugar beet, roots (washed): tons per acre</u>					
1	6.63	9.54	9.34	10.82	8.93
2	5.54	7.44*	8.34	8.54	8.57
4	2.05	(b) 6.64	6.44	9.66	7.79
5	2.47	6.63	4.63	5.48	5.58
6	1.60	4.80	6.68	7.80	6.06
7	2.44	6.90	7.05	8.27	6.80
8	2.70	5.84	4.09	5.79	4.92
9	7.14				
<u>Sugar beet, tops: tons per acre</u>					
1	4.30	7.96	7.47	10.75	7.03
2	4.01	6.74*	8.50	8.70	6.89
4	1.71	(b) 5.76*	5.03	8.11	4.89
5	2.04	6.40	3.86	7.62	5.76
6	1.47	2.39	4.64	7.86	6.20
7	1.62	8.40	5.18	8.06	7.23
8	1.84	6.06	4.01	5.08	7.08
9	5.81				
<u>Sugar beet, plant number: thousands per acre</u>					
1	22.1	22.2	21.2	22.0	22.8
2	20.1	23.2*	24.3	24.0	24.2
4	19.7	(b) 22.0*	22.7	22.0	23.1
5	22.5	21.5	19.7	20.6	22.1
6	18.6	19.1	18.9	20.4	20.8
7	16.6	20.7	20.9	23.7	24.2
8	21.2	22.5	19.1	22.6	19.8
9	19.9				
<u>Sugar beet, sugar percentage</u>					
1	18.0	16.3	16.0	17.1	16.6
2	17.0	15.8*	16.1	16.1	16.7
4	17.0	(b) 16.5*	17.4	16.8	17.4
5	16.7	15.8	17.0	15.5	16.4
6	16.9	16.2	17.7	16.9	16.7
7	17.6	15.8	17.6	17.0	16.6
8	17.2	16.2	16.7	15.7	15.7
9	17.1				

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