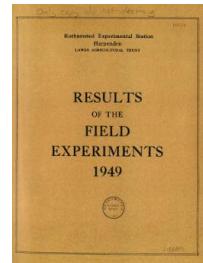


Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



Yields of the Field Experiments 1949

[Full Table of Content](#)



49/DA/2 Irrigation - Milford - Sugar Beet

49/DA/2 Irrigation - Milford - Sugar Beet, Rothamsted Research (1950) Yields Of The Field Experiments 1949, pp 94 - 97

49/Da/1.4

Cwt N per acre including basal	Irrigation: inches						Mean	
	0	6½	8½	13	12 plus pot. nitrate			
Plant number: thousands per acre								
(1) and (2)		(3) and (4)				(±0.23)		
0.4	37.8	39.0	37.7	37.1	37.7	37.9		
0.7	38.1	38.0	37.9	37.1	37.0	37.7		
1.0	37.9	37.6	37.7	35.8	37.6	37.4		
1.3	37.5	37.7	36.7	35.7	35.9	36.8		
Mean	37.8 (±0.23)	38.1	37.5 (±0.33)	36.4	37.1	37.5		
Noxious Nitrogen								
(1) and (2)		(3) and (4)				(±1.72)		
0.4	75.0	58.3	51.7	58.3	60.0	63.1		
0.7	79.2	55.0	53.3	55.0	65.0	64.4		
1.0	86.7	73.3	63.3	61.7	65.0	72.8		
1.3	85.0	66.7	70.0	61.7	75.0	73.9		
Mean	81.5 (±2.30)	63.3	59.6 (±3.26)	59.2	66.2	68.5		

Standard errors:

Plant number Noxious nitrogen

1 for vertical comparisons	±0.40	±2.97
2 for all others	±0.41	±3.45
3 for vertical comparisons	±0.56	±4.20
4 for all others	±0.59	±4.89

49/Da/2.1

SUGAR BEET

The comparison of three levels of irrigation and the effect on them of three levels of nitrogen.

Kesgrave, Suffolk - 1949

System of replication: 4 randomized blocks of 3 plots each, plots being split into 3 for the application of nitrogen.

Area of each sub-plot: 0.0180 acre. Area harvested: 0.0138 acre.

Treatments:

Whole plots. Irrigation: None; as decided by farmer (4"); based on weather data ($5\frac{1}{2}$ ").

Sub-plots. None, 0.45, 0.9 cwt N per acre applied as nitrochalk.

Basal manuring: Compound fertilizer (4% N, 10% P₂O₅, 8% K₂O): 11 cwt per acre.

Salt: $3\frac{1}{2}$ cwt per acre.

Cultivations, etc.: Ploughed: Early spring. Salt applied: Mar 8.

Compound fertilizer applied: Mar 9. Nitrochalk applied: Mar 25.

Seed drilled: Apr 5. Singled: Early May. Harvested: Oct 25.

Variety: Klein E. Previous crop: Potatoes followed by rye as autumn cover.

Standard errors per plot:

Total sugar whole plot, 2.51 cwt per acre or 6.0%
 sub-plot, 2.51 cwt per acre or 6.0%

Roots (washed), whole plot, 0.696 tons per acre or 4.8%
 sub-plot, 0.790 tons per acre or 5.5%

Sugar percentage, whole plot, 0.369
 sub-plot, 0.285

Tops, whole plot, 0.571 tons per acre or 5.6%
 sub-plot, 0.881 tons per acre or 8.7%

Plant number, whole plot, 0.67 thousands per acre or 2.5%
 sub-plot, 1.13 thousands per acre or 4.3%

Noxious Nitrogen, whole plot, 7.22
 sub-plot, 6.20

All whole plot standard errors estimated from 6 d.f.

All sub-plot standard errors estimated from 18 d.f.

49/Da/2.2

cwt N per acre including basal	Irrigation: inches			Mean
	None	4	5½	

Total sugar: cwt per acre				
	(1) and (2)			(±0.72)
0.4	30.2	49.8	53.6	44.5
0.85	30.9	45.5	49.8	42.1
1.3	31.4	42.7	44.3	39.5
Mean (±1.25)	30.8	46.0	49.3	42.0

Roots (washed): tons per acre				
	(1) and (2)			(±0.228)
0.4	10.93	15.72	17.23	14.63
0.85	11.31	15.05	16.58	14.31
1.3	11.75	15.10	15.52	14.12
Mean (±0.348)	11.33	15.29	16.45	14.36

Sugar percentage				
	(1) and (2)			(±0.082)
0.4	13.80	15.82	15.55	15.06
0.85	13.62	15.12	15.05	14.60
1.3	13.35	14.15	14.28	13.92
Mean (±0.180)	13.59	15.03	14.96	14.53

Standard errors:

	Total Sugar	Roots (washed)	Sugar percentage
(1) for vertical comparisons	1.26	0.395	0.142
(2) for all others	1.62	0.474	0.214

49/Da/2.3

cwt N per acre including basal	Irrigation: inches			Mean
	None	4	5½	
Tops: tons per acre				
0.4	(1) 8.72 and (2) 8.94	10.14		(±0.254) 9.26
0.85	9.78	9.72	11.65	10.38
1.3	9.88	10.48	12.09	10.81
Mean (±0.286)	9.46	9.71	11.29	10.15
Plant number: thousands per acre				
0.4	(1) 28.2 and (2) 27.3	27.5		(±0.327) 27.7
0.85	27.5	27.6	26.8	27.3
1.3	25.0	24.6	24.7	24.8
Mean (±0.335)	26.9	26.5	26.4	26.6
Noxious nitrogen				
0.4	(1) 71.5 and (2) 53.2	54.0		(+1.79) 59.6
0.85	82.0	67.0	63.8	70.9
1.3	81.5	77.5	75.8	78.2
Mean (±3.61)	78.3	65.9	64.5	69.6

Standard errors:

	Tops	Plant number	Noxious nitrogen
(1) for vertical comparisons	0.441	0.566	3.10
(2) for all others	0.459	0.571	4.41