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# Yields of the Field Experiments 1951



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# 51/CI/1 Sugar Beet - Control of Virus Yellows - Rothamsted

#### **Rothamsted Research**

Rothamsted Research (1952) 51/CI/1 Sugar Beet - Control of Virus Yellows - Rothamsted; Yields Of The Field Experiments 1951, pp 91 - 93 - DOI: https://doi.org/10.23637/ERADOC-1-171

#### SUGAR BEET

control of Virus Yellows - Long Hoos I, II and III 1951.

System of replication: 5 randomized blocks of 2 plots; each plot being split into three for singling dates.

Area of each sub-plot: 0.0278 acre.

Treatments:

Whole plots: Sowing date. 1 - As early as possible. 2 - As soon as previous sowing above ground.

Sub plots: Singling date. A - Early (cotyledons and first leaf less than 1"); B - Normal (cotyledon and 4 leaves); C - Late (8-12 leaves).

Basal manuring: 3 cwt nitrate of soda, 4 cwt superphosphate and 2 cwt muriate of potash per acre.

Cultivations, etc.: Ploughed: Oct 21. Basal fertilizers applied:
Apr 19. Seed drilled at 18 lb per acre: '1' plots - May 2;
'2' plots - May 21. Singled: Plots 1A - June 8, 1B and 2A June 14, 1C and 2B - June 22, 2C - June 29. Lifted: Nov 15.
Variety: Klein E. Previous crop: Theat.

Standard errors per plot:

Total sugar: whole plot, 1.70 cwt per acre or 5.8% (4 d.f.) sub plot, 4.35 cwt per acre or 14.9% (16 d.f.)

Percentage Virus Yellows
(transformed values) whole plot, 2.53 or 10.8% (4 d.f.) sub plot, 4.25 or 18.1% (16 d.f.)

Note. The analysis of the incidence of Virus Yellows has been carried out on percentages transformed to degrees, and all tests of significance should be applied to the transformed values.

## Summary of Results

Sowing Date		ngling Dat		V
Source Date	Early	Normal	Late	Mean
2	Total Su	gar: cwt p	er acre	
2nd May	35.9	34.0	22.7	30.8
21st May	32.1	26.4	24.0	27.5
Mean (±1.38)	34.0	30.2	23.4	29.2
Diff. (±2.49)	-3.8	-7.6	+1.3	-3.3 (±1.07)

<sup>(</sup>a) =  $\pm 1.94$  for use in horizontal comparisons only. (b) =  $\pm 1.76$  for use in all other comparisons.

				51/Ci/1	
	S	ingling Date			
Sowing Date	Early	Normal	Late	Mean	
	Roots (was	hed): tons pe	r acre		
2nd May	10.95	10,05	6,91	9.30	
21st May	9.58	8.08	7.29	8.32	
Mean	10.27	9.07	7.10	8,81	
Diff.	-1.37	<b>-1.</b> 97	+0.38	-0.98	
	Sug	ar Percentage			
2nd May	16.5	16.9	16.5	16.6	
21st May	16.8	16.4	16.5	16.5	
Mean	16,6	16,6	16.5	16.6	
Diff.	+0.3	-0.5	0,0	-0.1	
	Plant No:	thousands pe	r acre		
2nd May	25.9	23,9	17.4	22.4	
21st May	21,9	22.0	20.5	21.5	
Mean	23.9	23.0	19.0	21.9	
Diff.	-4.0	-1.9	+3.1	-0.9	
	Nox	ious Nitrogen	: Mg %		
2nd May	15.0	16.0	19.0	16.7	
21st May	17.0	21.0	20.0	19.3	
Mean	16.0	18,5	19.5	18,0	
Diff.	+2.0	+5.0	+1.0	+2.6	

51/Ci/1.3

### Singling Date

Sowing Date	Early	Normal	Late	Mean
(me		ntage Virus Ye ted from trans		3)
2nd May	12.5	17.6	15.6	15.1
21st May	17.0	21.9	11.3	16.5
Mean	D <sub>1</sub> .8	19.6	13.4	15.9
Diff.	+4.5	+43	-4.3	+1.4-
		ntage Virus Ye Ensformed valu		
		(a and b)	*	ř.
2nd May	20.7	24.8	23.3	22,9
21st May	24.4	27.9	19.6	22,0
Mean (±1.34)	22.6	26.3	21.5	23.5
Diff. (±2,72)	+3.7	+3.1	-3.7	+1,1 (±1,60)

 $<sup>\</sup>binom{a}{b} = \pm 1.90$  for use in horizontal comparisons only.  $\binom{a}{b} = \pm 1.92$  for use in all other comparisons.