

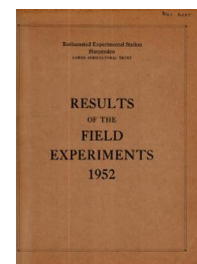
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52/CI/1 Sugar Beet - Control of Virus Yellows - Rothamsted

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52/Ci/1.1

SUGAR BEET

Control of Virus Yellows - Great Harpenden II 1952.

System of replication: 5 randomized blocks of 3 plots each, plots being split into 3 for singling dates.

Area of each sub plot: 0.0208 acre. Area harvested: 0.0181 acre.

Treatments:

Whole plots: Sowing date. 1 - As early as possible; 2 - As soon as first sowing above ground; 3 - As soon as second sowing above ground.

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

Basal dressing per acre: 3 cwt nitrate of soda; 4 cwt superphosphate; 2 cwt sulphate of potash; 5 cwt salt.

Cultivations, etc.: Ploughed: Oct 30, 1951. 2 tons ground chalk per acre applied: Mar 4, 1952. Basal fertilizers except nitrate of soda applied: Mar 15. Nitrate of soda applied, seed drilled at 18 lb per acre: '1' plots - Mar 17, '2' plots - Apr 17, '3' plots - May 6. DDT dust applied to '1' plots: Apr 15. Singled: Plots '1A' - May 13, '1B' and '2A' - May 22, '1C', '2B' and '3A' - May 29, '2C' and '3B' - June 6, '3C' - June 17. Lifted: Jan 5, 1953. Variety: Klein E. Previous crop: Oats.

Standard errors per plot:

Total sugar: whole plot, 4.18 cwt per acre or 9.5% (8 d.f.)
 sub plot, 6.18 cwt per acre or 14.0% (24 d.f.)

Percentage Virus Yellows (transformed values): whole plot, 3.17 or 14.7% (8 d.f.)
 sub plot, 5.14 or 23.9% (24 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	Singling Date			Mean
	Early	Normal	Late	
Roots (washed): tons per acre				
17th March	14.86	16.98	13.68	15.17
17th April	16.52	15.95	12.60	15.02
6th May	13.36	12.25	10.35	11.99
Mean	14.91	15.06	12.21	14.06

52/Ci/1.2

Sowing Date	Singling Date			Mean
	Early	Normal	Late	
Sugar Percentage				
17th March	15.70	15.96	15.68	15.78
17th April	15.94	15.84	15.15	15.64
6th May	15.54	15.27	15.21	15.34
Mean	15.73	15.69	15.35	15.59
Total Sugar: cwt per acre				
	(a and b)			(±1.87)
17th March	46.7	54.2	43.1	48.0
17th April	52.6	50.6	38.6	47.3
6th May	41.5	37.4	31.5	36.8
Mean (±1.60)	46.9	47.4	37.7	44.0
Plant Number: thousands per acre				
17th March	27.5	29.4	27.6	28.2
17th April	29.9	28.3	23.1	27.1
6th May	28.2	28.6	22.0	26.2
Mean	28.5	28.7	24.2	27.2
Noxious Nitrogen: mg per 100 g.				
17th March	15.0	15.0	19.0	16.3
17th April	18.0	17.0	22.0	19.0
6th May	17.0	21.0	22.0	20.0
Mean	16.7	17.7	21.0	18.4

- (a) - ±2.76 for use in horizontal comparisons only.
 (b) ±2.93 for use in all other comparisons.

52/Ci/1.3

Sowing Date	Singling Date			Mean
	Early	Normal	Late	
Percentage Virus Yellows (means calculated from transformed values)				
17th March	12.6	15.6	12.8	13.7
17th April	18.3	10.8	19.4	15.9
6th May	10.7	10.8	11.7	11.0
Mean	13.7	12.2	14.4	13.4

Sowing Date	Percentage Virus Yellows (transformed values)			Mean (±1.42)
	(a and b)			
17th March	20.8	23.3	20.9	21.7
17th April	25.3	19.2	26.1	23.5
6th May	19.1	19.2	20.0	19.4
Mean (±1.33)	21.7	20.5	22.3	21.5

- (a) ±2.30 for use in horizontal comparisons only.
 (b) ±2.35 for use in all other comparisons.