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Yields of the Field Experiments 1953

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53/CF/1 Sugar Beet - Control of Virus Yellows - Rothamsted

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53/Cf/1.1

SUGAR BEET

Control of Virus Yellows - Long Hoos VII 1953.

System of replication: 4 randomized blocks of 9 plots each.

Area of each plot: 0.0300 acre.

Treatments: All combinations of:-

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

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

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

Cultivations, etc.: Ploughed: Jan 21. Basal fertilizers except nitrate of soda applied: Mar 17. Seed drilled at 18 lb per acre, nitrate of soda applied: '1' plots - Mar 17, '2' - Apr 9, '3' - May 4. Sprayed with D.D.T. emulsion: May 11. Singled: '1A' plots - May 18; '1B', '2A' - May 26; '2B', '2C' - May 29; '3A', '2B', '1C' - June 1; '2C', '2B' - June 10; '3C' - June 24. Lifted: Nov 30. Variety: Klein E. Previous crop: Cauliflower.

Standard errors per plot:

Total sugar: 3.55 cwt per acre or 6.3% (24 d.f.)

Percentage Virus Yellows (transformed values): 6.53 or 66.1% (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 carried out on the transformed values.

Summary of Results

Sowing Date	Singling Date			Mean
	Early	Normal	Late	
	Roots (washed): tons per acre			
17th March	16.80	16.46	16.36	16.54
9th April	16.40	15.81	16.31	16.17
4th May	13.66	13.91	13.23	13.60
Mean	15.62	15.39	15.30	15.44

53/cf/1.2

Sowing Date	Singling Date			Mean
	Early	Normal	Late	
Sugar Percentage				
17th March	17.95	18.27	18.06	18.09
9th April	18.25	18.62	18.22	18.36
4th May	18.32	18.18	18.38	18.29
Mean	18.17	18.35	18.22	18.25
Total Sugar: cwt per acre				
		(±1.78)		(±1.03)
17th March	60.4	60.2	59.2	59.9
9th April	59.8	58.9	59.6	59.4
4th May	50.1	50.7	48.7	49.8
Mean (±1.03)	56.8	56.6	55.8	56.4
Plant Number: thousands per acre				
17th March	31.2	29.0	26.8	29.0
9th April	29.4	27.2	27.9	28.2
4th May	26.0	26.6	25.0	25.9
Mean	28.9	27.6	26.6	27.7
Noxious Nitrogen: mg per 100 g.				
17th March	17.5	16.2	16.2	16.7
9th April	22.5	18.8	20.0	20.4
4th May	22.5	21.2	23.8	22.5
Mean	20.8	18.7	20.0	19.9

53/Cf/1.3

Sowing Date	Singling Date			Mean
	Early	Normal	Late	
Percentage Virus Yellows (means calculated from transformed values)				
17th March	3.5	2.2	1.7	2.4
9th April	0.9	2.9	4.6	2.6
4th May	1.0	8.2	4.2	3.9
Mean	1.6	4.1	3.4	3.0

Percentage Virus Yellows (transformed values)				
	(± 3.27)			(± 1.89)
17th March	10.8	8.6	7.6	9.0
9th April	5.4	9.8	12.4	9.2
4th May	5.7	16.6	11.8	11.4
Mean (± 1.89)	7.3	11.7	10.6	9.9