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Yields of the Field Experiments 1961

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61/R/DF/1 Sugar Beet - Control of Virus Spread (Insecticides)

Rothamsted Research

Rothamsted Research (1962) *61/R/DF/1 Sugar Beet - Control of Virus Spread (Insecticides)* ; Yields Of The Field Experiments 1961, pp 133 - 134 - DOI: <https://doi.org/10.23637/ERADOC-1-182>

61/Df/1.1

SUGAR BEET

Control of virus spread by insecticides - Fosters Corner 1961.

Design: 4 × 4 Latin square.

Area of each plot: 0.0560 acres. Area harvested: 0.0121 acres.

Treatments:

Unsprayed (0)

Granular systemic insecticide* harrowed into seedbed at 40 lb (2 lb active ingredient) per acre (D);

Sprayed with demeton methyl at 12 fluid oz in 60 gallons per acre on June 14,* 1961, after receipt of spray warning (M);

Foliar application at 30 lb (1½ lb active ingredient) per acre (F).

*O, O-diethyl-S-2-(ethylthio) ethylphosphorodithioate.

Basal dressing per acre: 3 cwt agricultural salt and 6 cwt compound fertiliser (16% N, 9% P₂O₅, 9% K₂O).

Cultivations, etc.: Ploughed: Sept 22, 1960. Salt applied: Feb 16, 1961. Ploughed 2nd time: Feb 17. Basal compound fertiliser applied: Mar 20. Granular systemic insecticide broadcast: Apr 11. Seed drilled at 9½ lb per acre: Apr 13. Singled: June 5. Lifted: Oct 23. Variety: Klein E. Previous crop: Spring wheat.

Note: Regular counts of aphids numbers and estimates of incidence of virus yellows were made.

Standard error per plot.

Roots (washed): 0.862 tons per acre or 5.3% (6 d.f.)

Total sugar: 3.03 cwt per acre or 5.7% (6 d.f.)

61/Df/1.2

Summary of Results

	Insecticide				Mean
	0	D	M	F	
<u>Roots (washed): tons per acre</u>					
Mean (± 0.431)	15.92	17.13	16.11	16.11	16.32
Increase (± 0.610)		1.21	0.19	0.19	
<u>Sugar percentage</u>					
Mean	16.2	16.4	16.0	16.6	16.3
Increase		+0.2	-0.2	+0.4	
<u>Total sugar: cwt per acre</u>					
Mean (± 1.52)	51.6	56.3	51.6	53.5	53.2
Increase (± 2.14)		4.7	0.0	1.9	

Insecticide

0 = Unsprayed

D = Granular systemic insecticide* harrowed into seedbed at 40 lb (2 lb active ingredient) per acre

M = Sprayed with demeton methyl at 12 fluid oz in 60 gallons per acre on June 14, 1961, after receipt of spray warning

F = Foliar application* at 30 lb (1½ lb active ingredient) per acre.

*O,O-diethyl-S-2-(ethylthio)ethylphosphorodithioate.