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Yields of the Field Experiments 1960

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60/R/CG/1 Sugar Beet - Control of Virus Spread (Sprays)

Rothamsted Research

Rothamsted Research (1961) *60/R/CG/1 Sugar Beet - Control of Virus Spread (Sprays)* ; Yields Of The Field Experiments 1960, pp 126 - 127 - DOI: <https://doi.org/10.23637/ERADOC-1-180>

60/0g/1.1

SUGAR BEET

Control of virus spread by insecticide spray - Fosters 1960.

Design: 4 × 4 Latin square.

Area of each plot: 0.0168 acres. Area harvested: 0.0084 acres.

Treatments.

Unsprayed (O);

Sprayed when the crop was 0.3% infested with Myzus persicae
(May 23, 1960) (E);

Sprayed on receipt of spray warning on May 30, 1960 (2 plots per
row or column*) (N);

The spray used was demeton-methyl at 12 fluid oz in 60 gallons of
water per acre.

*Note. One treatment was to include a second spray, depending on the
development of a sufficiently large aphid population; however, the
population remained very small, and the spray was omitted.

Basal dressing per acre: 5 cwt salt, 6 cwt compound fertiliser (16% N,
9% P₂O₅, 9% K₂O).

Cultivations, etc.: Ploughed: Jan 7, 1960. Salt applied: Feb 24.
Basal compound fertiliser applied: Apr 2. Seed drilled at 19 lb
per acre: Apr 7. Singled: May 25. Lifted: Nov 8. Variety:
Klein E. Previous crop: Kale and mangolds in strips with small
plots of potatoes.

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

Standard error per plot.

Total sugar: 5.90 cwt per acre or 8.4% (7 d.f.)

60/Cg/1.2

Summary of Results

	None	Spray E	N	Mean
<u>Roots (washed): tons per acre</u>				
Mean	19.50	20.61	21.96	21.01
Increase		1.11	2.46	
<u>Sugar percentage</u>				
Mean	16.8	16.6	16.6	16.7
Increase		-0.2	-0.2	
<u>Total sugar: cwt per acre</u>				
Mean	65.4 (±2.95)	68.6	73.2 (±2.09)	70.1
Increase		3.2 (±4.17)	7.8 (±3.61)	

Sprays

O = Unsprayed

E = Sprayed when the crop was 0.3% infested with Myzus persicae

N = Sprayed on receipt of spray warning on May 30, 1960 (2 plots per row or column)