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Yields of the Field Experiments 1961

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61/R/DI/1 Carrots - Motley Dwarf Virus

Rothamsted Research

Rothamsted Research (1962) *61/R/DI/1 Carrots - Motley Dwarf Virus* ; Yields Of The Field Experiments 1961, pp 140 - 142 - DOI: <https://doi.org/10.23637/ERADOC-1-182>

61/Di/1.1

CARROTS

The effect of a systemic insecticide on yield through control of motley dwarf virus - Woburn Lansome Field 1961.

Design: A plaid rectangle of 4 rows and 8 columns.

Area of each sub plot: 0.0048 acres. Area harvested: 0.0030 acres.

Treatments. All combinations of:-

Sowing dates (to columns): Apr 13 (D1); May 16 (D2).

Times of spraying with demeton methyl at 12 fluid oz in 40 gallons per acre:

To treatment D1: None (0); May 15 (S1); May 29 (S2);
June 19 (S3).

To treatment D2: None (0); June 5 (S1); June 19 (S2);
July 7 (S3).

Infection dates: To treatment D1: May 23 (I1); June 14 (I2).

To treatment D2: June 15 (I1); July 3 (I2).

Basal dressing: 10 cwt per acre compound fertiliser (10% N, 10% P₂O₅, 18% K₂O).

Cultivations, etc.: Sprayed with dalapon at 8 lb in 20 gallons per acre: Oct 13, 1960; and at 4 lb in 20 gallons per acre: Nov 9. Ploughed: Dec 5. Basal dressing applied: Apr 10, 1961. Seed drilled at 5 lb per acre: Apr 13 and May 16. Thinned: 1st sowing - June 19; 2nd sowing - July 24. Lifted: Sept. 26. Variety: Scarlet Intermediate. Previous crop: Spring wheat.

Note: Aphid counts and estimates of virus infection were made.

Standard error per plot.

Saleable roots: 1.210 tons per acre or 20.4% (10 d.f.)

Tops from saleable roots: 0.467 tons per acre or 18.4% (10 d.f.)

61/Di/1.2

Summary of Results

	<u>Time of spraying</u>				Mean
	S ₀	S ₁	S ₂	S ₃	
<u>Saleable roots: tons per acre</u>					
Mean (± 0.428)	6.85	6.42	5.71	4.79	5.94
<u>Sowing date</u>					
Apr 13	7.14	6.85	6.83	6.14	6.74
May 16	6.56	5.98	4.60	3.45	5.15
Diff. (± 0.856)**	-0.58	-0.87	-2.23	-2.69	-1.59
<u>Infection date</u>					
I ₁	6.75	6.45	6.02	4.40	5.90
I ₂	6.95	6.38	5.41	5.19	5.98
Diff. (± 0.856)	+0.20	-0.07	-0.61	+0.79	+0.08 (± 0.428)

Infection date	Sowing date	
	Apr 13	May 16
	(± 0.428)*	
I ₁	6.56	5.25
I ₂	6.93	5.04

<u>Tops from saleable roots: tons per acre</u>					
Mean (± 0.165)	2.76	2.83	2.45	2.09	2.53
<u>Sowing date</u>					
Apr 13	1.95	1.96	1.98	1.80	1.92
May 16	3.57	3.70	2.93	2.39	3.14
Diff. (± 0.330)**	+1.62	+1.74	+0.95	+0.59	+1.22
<u>Infection date</u>					
I ₁	2.88	2.84	2.62	1.92	2.57
I ₂	2.64	2.81	2.29	2.26	2.50
Diff. (± 0.330)	-0.24	-0.03	-0.33	+0.34	-0.07 (± 0.165)

Infection date	Sowing date	
	Apr 13	May 16
	(± 0.165)*	
I ₁	1.91	3.23
I ₂	1.94	3.06

* For use in vertical and interaction comparisons only

** For use only in testing the difference of 2 differences

61/Di/1.3

	<u>Time of spraying</u>				Mean
	S ₀	S ₁	S ₂	S ₃	
<u>Saleable numbers: thousands per acre</u>					
Mean	109.9	113.6	111.6	104.5	109.9
<u>Sowing date</u>					
Apr 13	107.7	115.8	115.0	107.3	111.5
May 16	112.0	111.5	108.3	101.7	108.4
Diff.	+4.3	-4.3	-6.7	-5.6	-3.1
<u>Infection date</u>					
I ₁	107.7	115.8	112.9	96.6	108.2
I ₂	112.1	111.5	110.4	112.4	111.6
Diff.	+4.4	-4.3	-2.5	+15.8	+3.4

Infection date	Sowing date	
	Apr 13	May 16
I ₁	109.9	106.6
I ₂	113.0	110.1