SURVEY FOR VERTICILLIUM WILT IN ONTARIO

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In August 1964, a survey was made of tomato, pepper, and strawberry fields in Ontario, Of 39 strawberry plantations examined, Verticillium wilt was found in 24. Twenty-one out of 29 tomato fields and five out of nine pepper plantations contained at least a few plants infected with Verticillium wilt. Soil samples were taken from fields and plants exhibiting wilt symptoms were collected and these were examined for presence of the fungus. Out of 105 isolations, 101 were identified as Verticillium dahliae and 4 as V. albo-atrum. The results of this survey are given in Table 1.

Table 1. - Verticillium wilt incidence in strawberry. tomato and pepper plantations in Ontario.

county	Crop	No.of fields infected	No.of samples taken	No.of samples positive	Estimated % infection
Carleton	Strawberry	3	12	11	7
	Tomato	3	9	9	22
	Pepper	1	2	2	4
Northumber-	Strawbsrry	2	4	2	8
land	Tomato	2	6	6	13
Wellington	Strawberry	5	10	6	5
	Tomato	2	6	6	10
Peel	Tomato	2	8	6	16
	Pepper	2	5	5	6
Halton	Tomato	3	6	5	12
Lincoln	Strawberry	5	10	6	8
	Tomato	2	6	6	15
Norfolk	Strawberry	6	12	10	3
	Tomato	2	6	6	8
	Pepper	1	3	3	3
Elgin	Strawberry	3	6	5	2
	Tomato	2	4	4	8
Essex	Tomato	3	6	6	S
	Pepper	1	3	3	3

It was quite apparent from this survey that the visual signs of Verticillium wilt have increased greatly over the last few years. Although the percentage of diseased plants, especially in strawberry and pepper, was not high, the presence of the fungus in the soil provides a potential for much greater losses in future years, For the most part, a higher percentage of tomato plants were infected by the diaease, but the damage to the individual plants was less.

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