Tree fruits and nuts / Arbres fruitiers et noix

Crop / Culture: Appie

Location / Emplacement: Ontario

Title / Titre: DISEASE SURVEY OF COMMERCIAL APPLE ORCHARDS IN SOUTHERN ONTARIO

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NETWODS: Fruit harvest assessments were carried out in Southern Ontario in 79 different commercial orchards and 3 ahandoned orchards. At most sites, McIntosh or Red Delicious were checked, hut occasionally Empire, Spy and Cortland were assessed. Fruit were sampled at or just prior to harvest maturity.

From standard sized trees, four trees per orchard were examined. Thirty-three fruit from the top, skirt inside and skirt outside were checked. One extra apple was checked from each tree to bring the sample total to 100 apples per tree. From dwarf sized trees, 50 fruit from each of eight trees were checked.

Exceptions to this sampling procedure was the Essex-Kent area, where 200-1000 fruit per orchard were checked. In the ahandoned orchards, 100 fruits were checked from Durham and 200 fruits from Norfolk-Brant.

Observations from abandoned orchards in Durham and Norfolk-Brant are included for comparison.

Fruit was checked for apple scab (Venturia inaequalis (Cke.) Wint.), fly speck (Leptothyrium pomi (Mont. and Fr.) Sacc.), sooty blotch (Gloeodes pomigena (Schw.) Colby), quince rust (Gymnosporangium clavipes Cke., and Pk.), cedar apple rust (G. juniperi-virginianae Schw.), powdery mildew (Podosphaera leucotricha (Ell. & Ev.) Salm.), black rot (Botryosphaeria ohtusa (Schwein) Shoemaker), calyx end rot (causal organism not determined) and insect injury. These were reported by area as to the presence or absence of disease or insect. injury.

RESULTS AND COMMENTS: The incidence of disease, particularly scab, was generally higher in 1991 than in the past four years. No quince rust or cedar apple rust, however, was reported in the harvest assessments this year.

ACKNOWLEDGEMENTS: We thank the Horticultural Crop Advisors, Pest Management Advisors and others who collected the data for the apple harvest assessments.

COMPARISON OF DISEASE INCIDEHCE AND INSECT DAMAGE
IN COMMERCIAL AND ARANDONED ORCHARDS, 1991

Area	Number of Fruit	Percent Fruit Affected				
		Scab	Fly Speck	Sooty Blotch	Calyx End Rot	Black Rot
Ontario (Commercial)	31,150	4.4	0.2	0.03	0.1	0.03
Abandoned: Durham	100	17.0	39.0	34.0	1.0	1.0
Norfolk-Brant	200	82.0	6.5	31.0	0	0

APPLE HARVEST ASSESSMENT, SOUTHERN ONTARIO, 1991

Area	Number of Orchards	Number of Apples	Total Number of Fruit Affected (Range)[1]						Percent Damage	
			Scab	Fly Speck	Sooty Blotch	Calyx End Rot	Powdery Mildew	Black Rot	Insect	Disease
Essex-Kent	10	4550	78 (0-40)	0	2(0-2)	13(0-8)	0	0	4.9	2.0
Woodstock	5	2000	130(0-50)	0	0	2(0-2)	0	0	4.6	6.6
London	11	4400	170(0-148)	19(0-12)	2(0-1)	9(0-9)	1(0-1)	3(0-1)	1.3	4.6
Norfolk-Brant	20	8000	255(0-193)	52(0-42)	0	0	0	0	9.6	3.8
Hamilton-Wentworth	5	2000	214(0-100)	0	3(0-3)	0	0	3(0-3)	7.8	11.0
Niagara	4	1600	419(1-388)	1(0-1)	2(0-1)	0	0	3(1-2)	8.8	26.6
Georgian Bay	6	2400	66(0-18)	1(0-1)	0	0	0	0	5.5	2.8
Durham	5	2000	10(0-7)	1(0-1)	0	8(1-5)	0	0	5.8	1.0
Northumber. Prince Ed. Hastings	8	3200	83(1-46)	0	0	0	0	0	5.8	2.6
St. Lawrence Valley	5	2000	104(0-92)	0	0	0	0	0	8.4	5.2

Fruit: not necessarily nut of grade

APPLE HARVEST ASSESSMENT, SOUTHERN ONTARIO, 1991

Area	Number of Orchards	Number of Orchards Affected					
		Scab	Fly Speck	Sooty Blotch	Calyx End Rot	Powdery Mildew	Black Rot
Essex-Kent	10	8	0	1	5	0	0
Woodstock	5	4	0	0	1	0	0
London	11	7	4	2	1	1	3
Norfolk-Brant	20	7	10	0	0	0	0
Hamilton-Wentworth	5	3	0	1	0	0	1
Niagara	4	4	1	2	0	0	2
Georgian Bay	6	5	1	0	0	0	0
Durham	5	3	1	0	3	0	0
Northumberland Prince Edward Hastings	8	5	0	0	0	0	0
St. Lawrence Valley	5	4	0	0	0	0	0

Crop / Culture: Sweet Cherry

Location / Emplacement: Okanagan Valley
British Columbia

Title / Titre: LITTLE CHERRY VIRUS DISEASE SURVEY IN THE OKANAGAN VALLEY OF BRITISH COLUMBIA

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METHODS: The annual survey of sweet cherry trees in the Okanagan Valley of British Columbia was conducted between July 5 and July 19, 1991 for symptoms of little cherry disease. Two employees of the B.C. Ministry of Agriculture, Fisheries and Food examined orchards in districts with a history of the disease, including the areas around Penticton, Naramata, Summerland, Westbank, Kelowna and Oyama. Approximately 40 orchards and 40 residential yards were included in the survey. Diagnosis of little cherry disease was based on symptoms, including small, often pointed and angular fruit with poor colour and delayed maturity. Following diagnosis, tree owners were issued removal notices. Trees with questionable symptoms were indexed at the Agriculture Canada Research Station at Summerland by grafting buds on to indicator trees, including the varieties Sam and Canindex. Leaves of these varieties turn red in late summer of the following year if the disease is present.

RESULTS AND COMMENTS: Twenty-five diseased trees were identified in 1991, with the majority (twenty-three) located in the Penticton area. One diseased tree was found in Naramata, and one in Summerland. Budwood samples for indexing were taken from an additional 95 trees.

The number of little cherry infected trees in 1991 was the lowest since the early 1970's, when the disease was just beginning to spread in the Okanagan. However, the 1991 survey was severely hampered by winter damage to cherry trees. Winter injury tends to obscure the symptoms of little cherry virus, making it difficult to identify diseased trees. Winter injury occurred throughout the Okanagan, but was most extensive in the areas north of and including Westbank and Kelowna. Attempts to survey severely injured trees proved to be futile, and little time was devoted to them.