Tree fruits and nuts / Arbres fruitiers et noix

Crop/Culture: Apple

Location/Emplacement: Ontario

Name and Agency / Nom et Organisation:
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Title / Titre: DISEASE SURVEY OF COMMERCIAL APPLE ORCHARDS IN SOUTHERN ONTARIO

METHODS: Fruit harvest assessments were carried out in Southern Ontario in 96 different commercial orchards. Four hundred fruit were examined from each orchard with 11 exceptions as noted below. Fruit from four trees per orchard were sampled at/or just prior to harvest maturity. From standard-sized trees, 33 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, 33 fruit from each of the top, middle and bottom portions of the tree were checked. One extra apple was picked from each tree to bring the sample size to 100 apples per tree.

In one orchard in each of Essex-Kent, Durham and Northumberland, a sample of 100 apples was taken. Two hundred apples were sampled from one orchard in each of Middlesex, Durham and Hastings. In Kemptville, 300 apples were sampled from each of three orchards. In Prince Edward County, 434 apples were examined at one orchard.

Forty apples from an abandoned orchard in Durham were sampled 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) and insect injury. These were reported by area as to the presence or absence of disease or insect injury. Observations on blister spot (Pseudomonas syrinnae pv papulans (Rose) Dhanvantari), fire blight (Erwinia amylovora (Burr.) Winsl. et al.) and powdery mildew (Podosphaera leucotricha Ell. & Ev.) were made during the growing season.

RESULTS AND COMMENTS: Fruit damage from disease was considerably less than injury from insects in all areas surveyed in 1988.

The incidence of apple scab, fly speck, and sooty b otch was low in 1988. See table below.

Precipitatioa in most parts of southern Ontario was below the 10-year normal during the growing season.

Blister spot and fire blight were not reported as severe in 1988. Powdery mildew, however, was prevalent in 1988, especially in the Georgian Bay area (Simcoe and Qrey counties).

Powdery mildew infections were severe on the terminals and were present on varieties not typically ptone to severe infections, such as McIntosh. There was no economic loss of fruit due to russetting, however. In the Essex-Kent area mildew was prevalent on terminals, but did not cause significant fruit infection.

Incidence of apple scab, flyspeck and sooty blotch in apple orchards in southern Ontario, 1988.

Area	Number of Orchards	Number of Apples	Scab	Fly Speck	Sooty Blotch
Essex, Kent	9	3300	33	0	0
Elgin	6	2400	27[a]	0	0
Middlesex	2	600	0	0	0
Norfolk, Brant	34	13600	42	7	2
Niagara	10	4000	30	0	0
Halton, Peel	4	1600	2	0	0
Simcoe, Grey	7	2800	13	0	0
Durham (Commercial)	8	2700	4	6	0
Durham (Abandoned)	1	40	12	9	25
Northumberland	6	2100	6	13b	2
Hastings	1	200	0	0	0
Prince Edward	4	1634	47c	1	0
Kemptville	5	1700	12	0	0
TOTAL [1]	96	36634	216	27	4

[1] Does not include abandoned site
[a] 26 apples from 1 orchard
[b] 13 apples from 1 orchard (Red Delicious)
[c] 45 apples from 1 orchard

Crop / Culture: Hazelnut

Location/Emplacement: British Columbia

Name and Agency / Nom et Organisation:
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Title / Titre: **SURVEY FOR EASTERN FILBERT BLIGHT (*Anisogramma* anomala) IN BRITISH COLUMBIA**

METHODS: A survey of hazelnut orchards for Eastern filbert blight (caused by *Anisograma anomala*) was conducted in the fall in the lower Fraser Valley of British Columbia. Hazelnut production in B.C. is centered in the Langley, Chilliwack, Agassiz and Rosedale area, and totals 283 ha (700 acres). Agriculture Canada and the B.C. Hazelnut Growers Association cooperated in the survey to visually inspect hazelnut orchards. Orchards were surveyed by walking along transects (rows) representing 10 % of the total acreage. Hazelnut trees were checked for branch dieback and close inspection was made to determine the cause of damage. Hazelnut trees infected with Eastern filbert blight develop perennial cankers distinguished by relatively large (3 x 6 mm) black, oval-shaped perithecia that protrude in rows along the canker surface.

RESULTS AND COMMENTS: Eastern filbert blight is not known to occur in British Columbia, and this was substantiated by the 1988 survey. Limited branch die-back observed during the survey was caused by tent caterpillars, Lecanium scale, winter injury and shading. A low incidence of bacterial blight (tentatively identified as *Pseudomonas syringae*) was also recorded. Other minor pests included aphids, leafhoppers, leafrollers and powdery mildew (*Phyllactinia corylea*). Deer damage was severe in one, newly planted hazelnut orchard.

British Columbia hazelnut growers are concerned that Eastern filbert blight could be introduced on imported hazelnut planting stock from Washington and Oregon. Currently, there is no effective control for Eastern filbert blight. Hazelnut growers in B.C. strongly support implementation of a ban against further importation of hazelnut planting stock.