

CROP: Apple cv McIntosh and Delicious

NAME AND AGENCY:

LOCATION: Ontario

Andrea Meresz
O.M.A.F.
Bowmanville, ON L1C 1P5
Pam Fisher and
Chris Thorpe,
O.M.A.F.
Simcoe, Ontario N3Y 4N5

TITLE: DISEASE SURVEY OF COMMERCIAL APPLE ORCHARDS IN SOUTHERN ONTARIO.

METHODS: Fruit harvest assessments were carried out in southern Ontario in 108 different commercial orchards. 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. In two orchards (one from the St. Lawrence Valley, one from Prince Edward) which had a light crop load 300 apples were checked.

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.

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. Disease data from the Norfolk-Haldimand, Brant area from 1979 to 1987 was included for comparison. Observations on blister spot (*Pseudomonas syringae* pv *papulans* van Hall), 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 diseases was considerably less than injury from insects in all areas surveyed in 1987. Apple scab and fly speck was less prevalent in the Norfolk-Haldimand, Brant area during 1987 than in previous years due to dry weather in 1987. In the Durham region in 1987, 45 of the scab infested fruit were from one orchard where a high inoculum pressure was present from the previous year. Sooty blotch has only shown up in large, poorly managed trees. The sooty blotch reported in the St. Lawrence Valley all occurred in one orchard.

In all areas of Southern Ontario, blister spot and fire blight were less severe, while foliar powdery mildew was more prevalent during 1987 than in 1986. Powdery mildew did not cause any economic loss of fruit due to russetting in 1987.

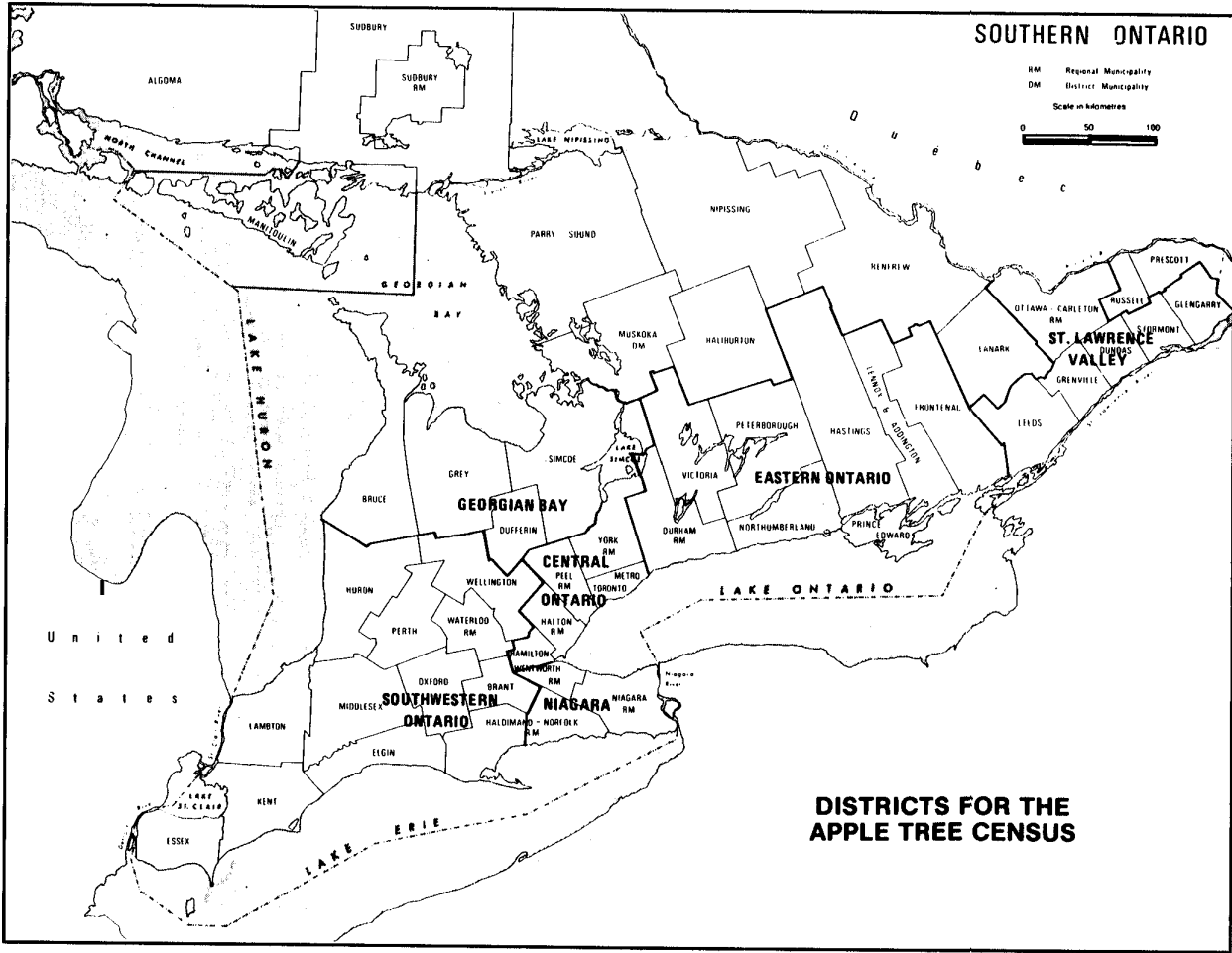
Harvest Assessment, Southern Ontario, 1987

Area	Number of Orchards	Number of Apples	Number of Fruit Affected			Total Insect
			Scab	Fly Speck	Sooty Blotch	
Norfolk-Haldimand, Brant	52	20700	26	3	1	1983
Halton, Peel	5	2000	14	13	0	97
Georgian Bay	7	2800	36	0	0	166
Niagara	8	3200	13	0	0	125
Essex, Kent	6	2400	10	0	0	32
Elgin	2	800	0	0	0	20
Middlesex, Lambton	4	1600	6	1	0	33
Durham	9	3600	49	27	1	110
Northumb'ld, Prince Edward, Hastings	10	3900	8	2	0	432
St. Lawrence Valley	5	1900	37	0	18	66

Harvest Assessment, Norfolk-Haldimand, Brant Area 1979-1987

Year	Number of Orchards	Number of Apples	Per Cent Fruit Affected		
			Scab	Fly Speck	Sooty Blotch
1979	43	17200	1.9	-	-
1980	44	17600	2.5	1.4	0.03
1981	48	19400	0.8	2.9	0
1982	54	23600	0.9	0.1	0.03
1983	60	24400	3.0	0.7	0
1984	60	24100	0.7	1.3	0
1985	64	25600	0.6	0.2	0
1986	57	22800	1.8	0.3	0
1987	52	20700	0.1	0.01	0.005

- indicates records not available



Vertical line on the left side of the page.

Vertical line on the right side of the page.

Vertical line on the right side of the page.

Vertical line on the right side of the page.

Horizontal line at the bottom of the page.