Small fruits / Petits fruits

CROP: Strawberry

LOCATION: Manitoba

NAME AND AGENCY:
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TITLE: BERRY ROT DISEASE OF DAY NEUTRAL STRAWBERRIES 1995

METHODS: Diseased strawberry fruit was collected from four different locations in Manitoba. The survey was conducted during September 1995. Berries showing evidence of disease were collected by participating growers and submitted to the Crop Diagnostic Centre. They were cultured on potato dextrose agar and incubated at room temperature under grow lights for seven days or until fungal identification was possible. Resulting cultures were examined and identified using dissecting and compound microscopes. A culture of *Coniella fragariae* was sent to Biosystematics in Ottawa for confirmation. The berries collected from St. Pierre, Notre Dame des Lourdes, and Shellmouth were from the variety Fern. Tristar berries were collected from the Carman location. Five berries were submitted from Notre Dame des Lourdes, twelve from St. Pierre, twenty-two from Carman and twenty-four from Shellmouth.

RESULTS AND DISCUSSION: Ten different diseases were isolated from the berries submitted. The most frequently encountered fungi were *Alternaria* and *Rhizopus* which were isolated from fruit from all four locations. *Alternaria* was found at an incidence of 25-100% and *Rhizopus* at an incidence of 8-60%. *Botrytis* and *Fusarium* were found in three locations at incidences of 9-75% and 4-25%. *Cladosporium* was found in two locations at incidences of 5% and 25%. *Epicoccum*, *Coniella fragariae*, *Rhizoctonia*, *Trichoderma*, and *Phytopthora cactorum* were found at one location each at incidences of 5%, 50%, 20%, 8%, and 4%, (see table 1).

TABLE 1. Presence and incidence of berry rot diseases in day neutral strawberries in Manitoba in 1995.

	LOCATION (% BERRIES AFFECTED)			
DISEASES	Carman	St. Pierre	Notre Dame	Shellmouth
Alternaria	100	42	20	25
Rhizopus	23	8	60	21
Botrytis	9	33		75
Fusarium	9	25		4
Epicoccum	5			
Coniella fragariae		50		
Cladosporium	5			25
Rhizoctonia			20	
Trichoderma		8		
Phytopthora cactorum				4

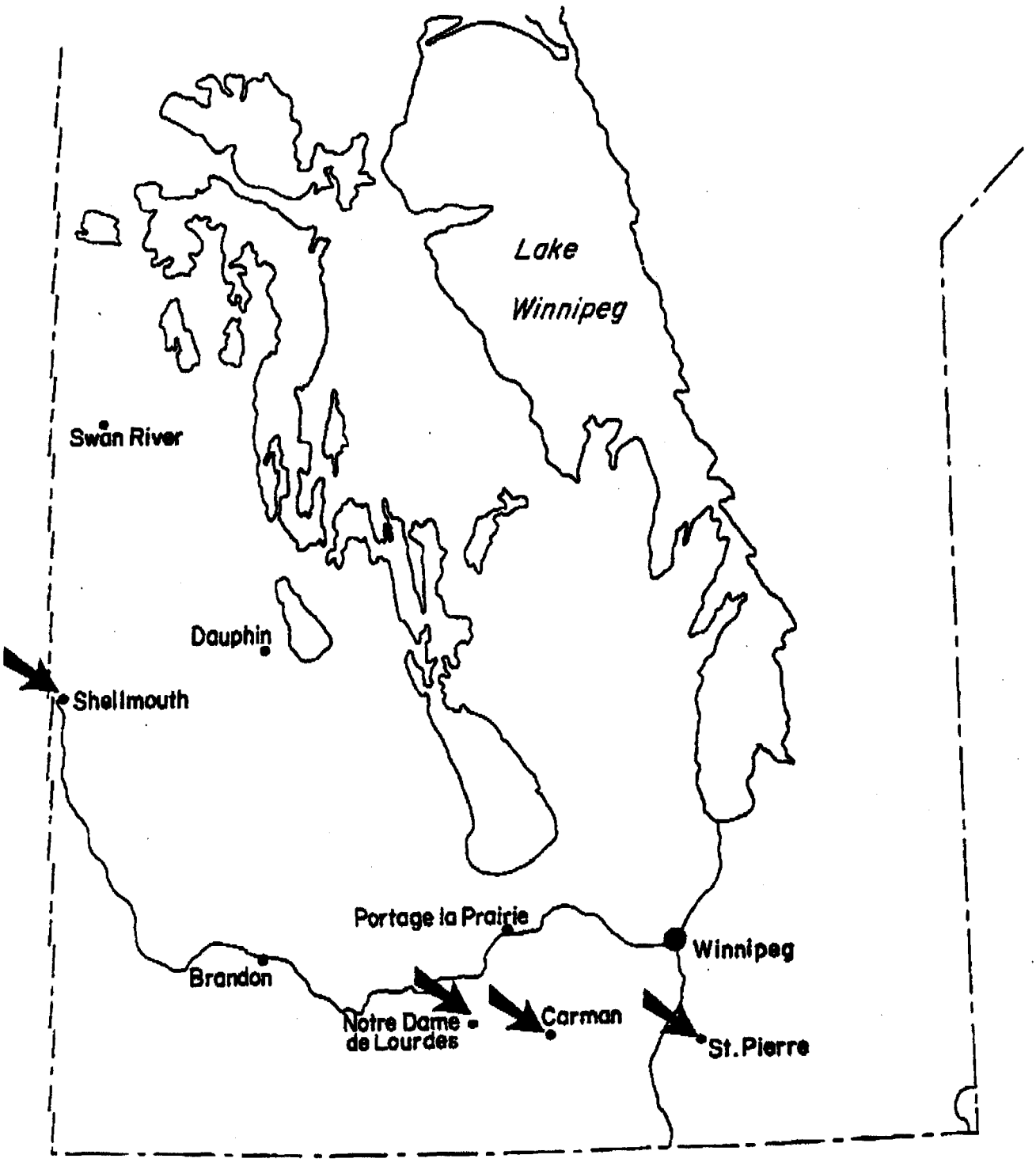

Figure 1. Location of strawberry fields surveyed for the presence of fruit rot diseases in Manitoba, 1995.

TABLE 1. Prevalence and incidence of strawberry diseases in Manitoba in 1995.

Disease	No. fields surveyed	No. fields affected	Disease rating* Mean	Disease rating* Range
Foliar disease				
Leaf scorch	9	7	0.32	0.06-0.9
Leaf spot	9	6	0.52	0.02-1.6
Leaf blotch	9	2	0.23	0.12-0.34
Fruit rot				
Leak	13	13	36.1%	2.1-73%
Anthracnose	13	12	7.1%	2.1-23%
Alternaria	13	9	6.4%	2.1-42%
Gray mould	13	8	13.5%	2.1-40%
Penicillum	13	2	3.1%	2.1-4.2%

* Foliar diseases were rated on 50 leaves per field using a scale of 0 to 4 where 0 = no disease symptoms and 4 = >50% leaf area diseased; Fruit rots were rated as percent of disease incidence on 96 fruits per field.

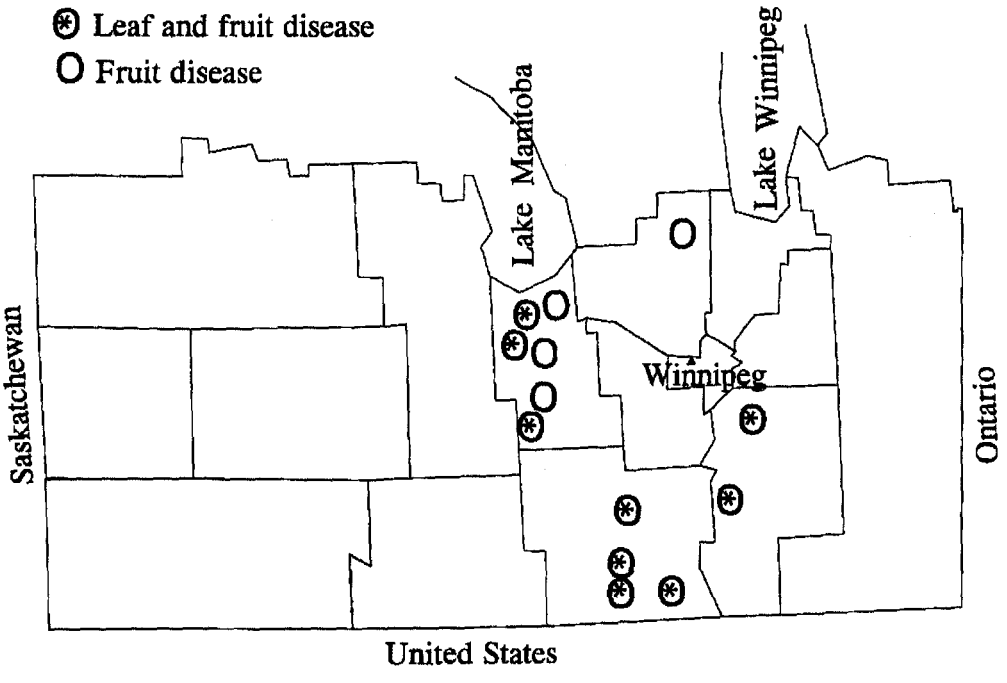

Figure 1. Locations of 13 strawberry fields surveyed for diseases in southern Manitoba in 1995.