symptoms were also observed in August, 1959 on spring-sown Cornell winter wheat that remained vegetative all summer and fall. Further experiments are needed to verify the presence of wheat striate mosaic in southeastern Ontario,

Virus-like symptoms, including severe rolling and stiffening of leaves, chlorotic streaks and blotches, and stunting developed on young Kent wheat plants that were infested with Brachycolus frequens, an aphid that often occurs on Agropyron in southeastern Ontario. After affected plants were sprayed repeatedly with Malathion to kill the aphids, they appeared to recover completely and grow normally, but the non-sprayed plants eventually died. It appears that the symptoms associated with these aphids are not caused by a virus but by toxic effects of aphid feeding.

Cereal Smuts in Western Canada - 1959

W. Popp

Loose smut of wheat was relatively scarce in Manitoba in 1959 (Table 3). Infection consisted of a maximum of 2 per cent in Lee wheat, less than 1 per cent in durum varieties, and none in Selkirk. Selkirk occupied over 83 per cent of the crop acreage.

Eighty-three per cent of the barley fields examined in Manitoba were found to be smut infected, There was an average of 1.5 per cent in the crop as a whole. As compared to 1958, there was a decline of loose smut and an increase of covered smut, This coincides with a change in the relative prevalence of Montcalm and Parkland barley. Montcalm is affected mainly by loose smut whereas Parkland is prone to infection by covered smut.

Practically no smut, either loose or covered, was found in oats.

All major classes of wheat inspected in 1959 by the Western Inspections Branch of the Board of Grain Commissioners were relatively free from bunt (Table 4). This is rather unusual for Alberta Red Winter wheat. The amount of bunt found in the 1958 crop is shown in Table 5.

Table 3. Cereal Smuts in Manitoba - 1959

Cereal	Kind of Smut	Per Cent smut in Fields	
		Range	Mean
Wheat	Loose	0 - 1	trace
	Bunt	---	0
Barley	Loose	0 - 6	0.4
	Covered	0 - 10	1.0
	False loose	0 - 3	0.1
Oats	Loose and covered	0 - trace	trace

Table 4. Bunt of Wheat in Western Canada
August 1, 1959 to October 31, 1959.

Class of Wheat	Cars Inspected	Cars graded "Smutty"	Percentage graded "Smutty"
Hard Red Spring	47269	21	0.04
Amber Durum	4379	0	0.00
White Spring	35	0	0.00
Alta, Red Winter	545	0	0.00
Garnet	70	2	2.86
Mixed Wheat	22	0	0.00
All classes	52320	23	0.04

Table 5. Bunt of Wheat in Western Canada
August 1, 1958 to July 31, 1959

Class of Wheat	Cars Inspected	Cars graded "Smutty"	Percentage graded "Smutty"
Hard Red Spring	175781	99	0.06
Amber Durum	8351	1	0.01
White Spring	272	0	0.00
Alta, Red Winter	248	2.	0.81
Garnet	4	0	0.00
Mixed Wheat	89	0	0.00
All **classes**	184745	102	0.06

The Occurrence of Surface-borne Smut Spores in Samples of Cereal Seed Produced in the Prairie Provinces in the Crop Years 1945 - 1958

Dr. F.J. Greaney has provided the data given in Table 6 from the results of tests of farmers' seed samples made by the Line Elevators Farm Service, Winnipeg, Man.