New and Noteworthy Diseases

In 1959 as in 1958, wheat leaf rust (Puccinia secondita) was the most prevalent cereal rust in Western Canada. It is estimated that this rust caused a yield loss of 1,000,000 bushels in areas of Manitoba planted to Thatcher and other leaf-rust susceptible varieties. Wheat stem rust (Puccinia graminis tritici) infections were extremely light, as has been the case for several years.

Speckled leaf blotch (Septooia avenae f. sp. avenae) was widespread and severe on oats in Eastern Canada, There was a high incidence of barley yellow dwarf virus in some oat crops near Montreal, Quebec. Twist (Dilophospora alopecuri) was reported on oats from Quebec.

Soybean seed in Ontario was infected with Diaporthe phaseolorum var. sojae resulting in a seriously low germination rate in many lots of seed, Phytophthora stalk-and root rot (Phytophthora megasperma var. sojae) was also widespread and was serious in some districts, Purple seed-stain (Cercospora kikuchii) caused widespread injury.

Downy mildew (Plasmopara halstedii) was more prevalent on sunflowers in Manitoba than in 1958. Some affected fields were plowed under in June. Leaf spot (Septoria helianthi) was found for the first time since 1947.

Ring spot (Mycosphaerella brassicicola) was identified for the first time on rape stubble and rape seed in Saskatchewan, Leaf spot of sugar beets (Cercospora beticola) continued to increase in prevalence in southwestern Ontario:,, due apparently to the increased use of monogerm seed which lacks resistance.

Root-and stalk rot of field corn (Gibberella zeae, Fusarium moniliforme) was extremely severe in Southwestern Ontario and caused heavy losses+ Leaf spots (Alternaria longipes and Cercospora nicotianae) combined with the non-parasitic leaf spot, weather fleck, were responsible for losses in the tobacco crops in Ontario and Quebec.

Bacterial ring rot (Corynebacterium sepedonicum) and blackleg (Erwinia atroseptica) continue to be the principal causes of rejection of seed potato fields in Eastern Canada. Leaf roll reached epidemic proportions in British Columbia, primarily in the variety Netted Gem, and resulted in heavy losses in both seed and table stocks, Losses from late blight (Phytophthora infestans) were serious in Quebec and the Atlantic Provinces.

Black rot (Xanthomonas campestris) continued to cause considerable damage to cabbage crops in Manitoba. Cercospora carotae in association with Alternaria dauci caused damage to carrots in Quebec and Nova Scotia. Wilt (Verticillium albo-atrum) was severe in eggplant, pepper and tomato crops in southwestern Ontario,

Black mold (Aspergillus niger) reached serious proportions in stored onions in southwestern Ontario. White rot (Sclerotium cepivorum) was found in a planting of onions in Manitoba. This disease is new to Canada. Onion smut (Urocystis cepulae) was general and, in some cases, serious in Manitoba and the Okanagan Valley in British Columbia.

Parsnip canker (Itersonilia perplexans) was fonnd, for the second time in Canada, in fields in New Brunswick. Anthracnose (Colletotrichum atramentarium) occurred on pepper fruits in Ontario. Skin rot (Rhizoctonia solani) is increasing in importance on swede turnips in Nova Scotia.

Leaf mold (Cladosporium fulvum) caused considerable damage to greenhouse tomato crops in Ontario, Anthracnose (Colletotrichum atramentarium) reached serious proportions in canning tomatoes in the same province. Bacterial canker (Corynebacterium michiganense) caused losses to tomatoes in Ontario and British Columbia, Double-virus streak was generally present in canning crops in Ontario.

Fire blight (Erwinia amylovora) is increasing in importance in most of the apple producing districts of Quebec. Heavy infections of Bull's-eye rot (Gloeosporium perennans) developed in apples in storage in British Columbia. Scab (Venturia inaequalis) was generally well controlled but all districts reported a considerable amount of late pin-point scab. The presence of the rubbery-wood and stem-pitting viruses was demonstrated in commercial orchard trees of a number of varieties in British Columbia.

Monilinia padi was recorded, for the first time in Canada, on sour cherry in Prince Edward Island. Powdery mildew (Podosphaera oxyacanthae) infections were heavy on sour cherry in British Columbia and Ontario.

Gray mold rot (Botrytir cinerea) caused appreciable losses in strawberry plantings in New Brunswick and Nova Scotia. Leaf spot (Septoria aciculosa) was more prevalent on strawberries in Nova Scotia than in any previous season. Wilt (Verticillium albo-atrum) is becoming a serious factor in strawberry production in the Niagara Peninsula, Ontario. Green petal of strawberry was reported for the first time in Ontario,

Heavy infections of powdery mildew (Sphaerotheca pannosa) developed on roses in greenhouses in Ontario, Anthracnose (Marssonina kriegeriana) was general and destructive on willows on Vancouver Island, British Columbia. Powdery mildew (Microsphaera alni) was very common on lilacs in western Nova Scotia.