

Leaf rust (Puccinia recondita), accompanied by hot, dry weather, caused reductions in yield and quality of wheat in the Prairie Provinces. Late-seeded fields in particular were affected, Stripe rust (Puccinia striiformis) was unusually common and caused losses in winter wheat crops in south-west Alta. Crown rust of oats (Puccinia cirsinata) occurred generally in Man, and Sask, with heavy infections occurring south of Winnipeg. There was an alarming increase in the prevalence of races virulent to Rodney and Garry. These races threaten the value of the oat-breeding program in western Canada in which the Landhafer and Santa Fe sources of resistance play a predominant role. Heavy infections of stem rust (Puccinia graminis f. sp. avenae) were also common on Rodney in Man,

The most serious outbreak of wheat streak mosaic ever to occur in southern Alta, developed on winter wheat in the fall of 1963. Losses are predicted to be heavy. The incidence of common root rots (Bipolaris sorokiniana, Fusarium spp.) of both wheat and barley was at a comparatively high level in Sask. Barley was also severely affected in P.E.I. Infection of barley by net blotch (Drechslera teres) was heavy in central Alta., Sask. and northwestern Man. Scald (Rhynchosporium secalis) also affected barley crops in central Alta. Aster yellows infections were severe in some barley fields in southern Man.

Anthracnose (Colletotrichum destructivum) of alfalfa was reported for the first time from western Canada. The incidence of bacterial wilt (Corynebacterium insidiosum) increased in alfalfa crops in Alta. Witches' broom virus was commonly encountered in alfalfa fields in northern B.C. and winter killing was responsible for considerable damage to both alfalfa and sweet clover crops in northern Sask.

Very severe infections of sooty blotch (Cymadothea trifolii) caused damage to white and alsike clovers in P.E.I. and northern anthracnose (Kabatiella caulivora) was destructive in red clover seed fields in central Alta. Rust (Uromyces nerviphilus) was collected on Ladino clover in Que. A survey revealed the presence of white clover mosaic, clover yellow mosaic, bean yellow mosaic and alfalfa mosaic viruses in clovers in B.C. Ladino clover was heavily infected with clover phyllody virus in northeastern Que, and phyllody was commonly seen in red and white clovers in N.S. and P.E.I.

Aster yellows was more commonly seen in flax, rape and sunflower crops in western Canada than at any time since 1957. White rust (Albugo cruciferarum) and ring spot (Mycosphaerella brassicicola) were more than normally prevalent on rape in the parkbelt areas of Sask. Rapeseed from northern Sask, carried unusually high amounts of Alternaria brassicae. Leaf mottle (Verticillium albo-atrum) was widespread in sunflower plantings in Man,

Severe infections of leaf spot (Cercospora beticola) occurred in many sugar beet fields in Man, whereas the disease was much less severe than usual in western Ont. Symptoms of boron deficiency were prominent in many Ont, plantings. The incidence of northern leaf blight (Bipolaris turcicum) on field corn in western Ont, was exceptionally low. Leaf spots caused by Alternaria spp. and others of undetermined origin were the most serious field diseases of tobacco in Ont, although some losses were caused by sore shin (Rhizoctonia solani) and black root rot (Thielaviopsis basicola).

Leaf blotch (Drechslera bromf) and leaf spot caused by Selenophoma bromigena were common and occasionally severe on brome grass in Alta. and Sask. Stripe blight (Xanthomonas translucens f. sp. cerealis) on brome grass was reported, for the first time in Canada, from Sask. Crazy top (Sclerophthora macrospora) was also reported, for the first time on brome in Canada, from Alta.

Gall nematode (Anguina graminophila) was collected, for the first time in Canada, on Calamagrostis canadensis at two localities in Que. Anthracnose (Colletotrichum graminicola) was widespread and sometimes serious on Festuca rubra in Sask. Melting out, caused by Bipolaris sorokiniana and Drechslera poae caused considerable damage to lawns and turf in the Prairie Provinces. Fairy rings (Marasmius oreades) were destructive in lawns in southern Alta. and snow mold caused by species of Typhula and other low-temperature organisms caused widespread damage to lawns in eastern Ont.

Pod spot (Bipolaris sorokiniana) of beans, previously unreported in Canada, was serious in N.B. and stem canker (Rhizoctonia solani) caused extensive losses in canning beans in the same province. Leaf blights (Alternaria dauci, Cercospora carotae) caused losses in carrot crops in Que. and N.S. Carrots in Que. were sometimes seriously damaged by root-knot nematode (Meloidogyne hapla). Aster yellows affected carrots, celery, lettuce and onions in Man. Losses in unsprayed lettuce fields were high.

Brown spot (Cephalosporium apii) rendered some celery crops in Man. unfit for processing and bacterial blight, particularly on the variety Utah-IOB, continues to cause losses in celery in Que. Stem canker (Botrytis cinerea) was serious in fall greenhouse crops of cucumbers and tomatoes in western Ont. Scab (Cladosporium cucumerinum) caused heavy losses in greenhouse cucumber crops in western Ont. and in field crops in Que., N.B. and N.S. Losses in Que. were particularly heavy. Angular leaf spot (Pseudomonas lachrymans) was severe in Que. Losses in lettuce crops from bottom rot (Rhizoctonia solani) were moderate in Ont. and heavy in N.B.

Stored onions in Man. were affected by purple blotch (Alternaria porri) and neck rot (Botrytis allii). Bulb rot (Fusarium oxysporum f. cepae) has become prevalent on hybrid onions in B.C. where smut (Urocystis cepulae) also was very destructive. Pea crops were damaged by powdery mildew (Erysiphe polygoni) in Sask., N.B. and P.E.I. Verticillium wilt (V. dahliae) was more serious and widespread than usual in pepper crops in western Ont.

The incidence of both bacterial ring rot (Corynebacterium sepedonicum) and blackleg (Erwinia atroseptica) in potatoes decreased in Que. and the Maritime Provinces. Dry rot (Fusarium caeruleum) caused some losses in stored potatoes in N.S. and leak (Pythium ultimum) caused heavy losses in B.C. and Alta. Despite widespread infections of late blight (Phytophthora infestans) in all the major potato-producing areas, losses were kept to a minimum by the efficient use of fungicides. Development of potato wart (Synchytrium endobioticum) was extensive in Nfld.

Late plantings of sweet corn in western Ont. suffered heavily from northern leaf blight (Bipolaris turcicum). Early blight (Alternaria solani) was a problem in tomato crops in B.C., Que. and the Maritime Provinces. Gray mold (Botrytis cinerea) was severe in field-grown tomatoes in N.S. and P.E.I. Some tomatoe fields in Que. were seriously affected by bacterial speck (Pseudomonas tomato). Damage to tomatoes from wilt (Verticillium dahliae) was less than usual! in western Ont.

Surveys in western Ont. showed that many orchards of both apples and pears were infected with fire blight (Erwinia amylovora). Pears in B.C. were also seriously affected, Phyllosticta solitaria was reported from N.B. for the first time in Canada, as causing a twig and trunk canker of apple trees. Apple scab (Venturia inaequalis), despite favorable conditions for development, caused little damage as the result of vigorous spray programs. Some pin-point scab developed in Que. and N.S. Symptoms of virus diseases of apple, with the exception of dapple apple, were generally mild in B.C. Losses to stored pears were caused by Rhizopus nigricans in B.C. and by Phytophthora cactorum in Ont. The condition known as freckle pit in pears in B.C. was shown to be of a virus nature,

Monilinia demissa, previously reported only on Prunus demissa, caused an early-seaam. blight of leaves, petioles and twigs of apricot in B.C. Fruit infection of apricot by coryneum blight (Stigmina carpophila) was common in the same province. Unusually heavy infections of brown rot (Monilinia fructicola) occurred in sweet cherries in B.C. where both brown rot and Rhizopus rot (R. nigricans) caused losses in harvested peaches that had not been treated with a fungicidal dip. Bacterial spot (Xanthomonas pruni) affected peaches, plums and prunes in the Niagara Peninsula, Ont.

Anthracnose (Elsinoë veneta) was widespread on raspberry in N.B. where the virus diseases mosaic and leaf curl were also prominent. Blossom and twig blight (Botrytis cinerea) was common in lowbush blueberry fields in N.B. Two virus diseases of grape, fan leaf and leaf curl, previously unreported in Canada, were recognized in B.C.

Gray mold (Botrytis cinerea) was responsible for heavy losses of strawberry fruit in the Maritime Provinces. Leaf spot (Mycosphaerella fragariae) was general and occasionally severe in the same area. Powdery mildew (Sphaerotheca macularis) caused injury in strawberry plantings in P.E.I.

Wilt (Verticillium albo-atrum) was reported affecting maples in Ont. and Que. and Catalpa in Que. Apioportha corni was reported for the first time on Cornus aha, in Ont. Hawthorns in a nursery in B.C. were severely infected with powdery mildew (Podosphaera oxycanthae). Severe infections of rust (Cumminsia mirabilissima) were seen on Mahonia in Ont. Fire blight (Erwinia amylovora) was destructive on ornamental! species of Malus and Pyrus in western Canada,

Septomyxa tulasnei, previously unreported in Canada, caused moderate damage to mulberry trees in Que. Yellow leaf blister (Taphrina populina) was common on Lombardy poplars in B.C. Black hot (Dibotryon morbosum) was widespread on native cherries in the Atlantic Provinces. Bacterial blight (Pseudomonas syringae) continues to cause damage to ornamental cherry trees in B.C. Myxosporium lanceolata was reported, for the first time in Canada, as the cause of twig canker of oak in Ont.

Heavy infections of willow scab and blight (Venturia saliciperda, Physalospora miyabeana) occurred in Que. Spot anthracnose (Sphaceloma symphoricarpi) caused defoliation of Symphoricarpos in N. S. Further range extensions of Dutch elm disease (Ceratocystis ulmi) were recorded in Ont., Que. and N.B.

Stem rot (Phytophthora cactarum) killed potted sngpdragon plants in Ont. Smut (Entyloma polysparum) was destructive on Calendula in N.S. This occurrence represents a first report from Canada. Aster yellows was serious on late-planted China asters in Sask, and N.S. Root-knot nematode (Meloidogyne incognita) affected Alternanthera, Coleus, Cyclamen, Impatiens, and Peperomia in various parts of Canada. Crown gall (Agrobacterium tumefaciens) damaged dahlias in Man. and Que.

Corn rot (Fusarium oxysporum f. gladioli) and dry rot (Stromatinia gladioli) caused losses in gladiolus in Que. and N.S. Botrytis elliptica was severe on lilies in Sask, and scorch (Stagonospora curtisii) was prevalent on narcissus in B.C. as were the virus diseases mosaic and white streak, Bacterial leaf spot (Xanthomonas pelargonii) caused damage to florists geraniums in B. C. Blight (Alternaria zinniae) developed on zinnias late in the season in N. S.