

DISEASES OF FRUIT CROPS.

APPLE

SCAB - Venturia inaequalis (Cke.) Wint.

B. C. -

In the Kootenay Lake area observations were made on the percentage of fruit infected on unsprayed trees. The results were as follows:-

Gravenstein	76.7	per cent	scabby
Northern Spy	64.6	"	"
McIntosh	98.7	"	"

Ascospores were found on spore traps on May 1st and they continued to be discharged intermittently for a period of 39 days when observations were discontinued, conidia then being plentiful. (J.W. Eastham).

In the Okanagan Valley the commercial loss from scab was negligible. The disease is confined almost entirely to the northern sections of the Valley.

Man. -

Only a trace of apple scab was found at the Horticultural Station, Morden. The disease is sometimes fairly common, but no spraying is done to control it.

Ont. -

Apple scab was of considerably less importance than in the previous year. Although the infection was general the season was unfavourable and where the present programme of spraying was carried out the disease was held in check. In the experimental orchard of young trees at St. Catharines the percentage of foliage infection on the unsprayed trees on Sept. 19th was 3 to 24 per cent, while on the sprayed trees infection ranged from $\frac{1}{2}$ to 9 per cent. Infection was first observed on May 13 in Lincoln county. It made its first appearance on the leaves in York, Peel and Walton counties on May 19, and on the fruit (McIntosh) on May 25. Forty per cent of the leaves on unsprayed trees were badly disfigured by scab at Guelph by June 18. In general dry weather in June held the disease in check.

Que. -

In the 20 to 25 orchards visited in the Mount St. Hilaire district 5 to 10 per cent of the fruits were scabby, infection being light, in well sprayed orchards. On the other hand 90 to 100 per cent of the fruits were scabby, being lightly or severely infected, in a few unsprayed orchards. In poorly sprayed orchards the figures ranged between these two extremes.

Apple.

Average infection for all Fameuse and McIntosh apples in this district would be about 50 to 60 per cent.

At Ste. Anne de la Pocatière observations were made on varietal susceptibility. In Fameuse 80 per cent of the fruit were infected, in McIntosh 90 per cent, in Wealthy 55 per cent, and in Duchess 10 per cent. Average infection of all varieties was 55-60 per cent.

The disease was very prevalent in unsprayed orchards along the south shore of the St. Lawrence River in the Montreal region. It was less abundant on the north shore.

N. B. -

Scab was fairly prevalent in unsprayed orchards, but it was of less importance than it has been in the past few years.

N. S. -

Apple scab caused moderate infection on all varieties except Baldwin and Greening, on which severe infection of storage spot developed. In many orchards spray applied between July 15 to 31 prevented the development of storage spot. Scab was found to be general on leaf and fruit in several small farm orchards where the trees were not cared for. The fruit was small and cracked.

P. E. I. -

Apple scab was widespread and, except in a few orchards where they were faithfully sprayed, the apples were unsaleable.

FIRE BLIGHT - Bacillus amylovorus (Burr.) Trev.

B. C. -

Fire blight was not as severe as in 1928 in the Okanagan Valley although conditions were ideal for its spread. It is thought that control measures carried out by the growers was largely responsible for its decrease.

Man. -

Of the diseases of apple, which occur on the Horticultural Station at Morden, fire blight is the most destructive. It was not very abundant or destructive this year. Prince and Yellow Transparent were the most susceptible of the varieties grown. Bad cankers occurred on these varieties. In several others spur blight was considerable. In still other varieties no blight was seen. Large cankers only are removed; the small diseased twigs are allowed to remain. Considerable fire blight also occurred at the Agricultural College, Winnipeg.

Ont. -

Fire blight was very bad on some varieties of apples, especially Kings, in Kent and Essex counties. Considerable

Apple.

loss of fruit resulted.

Que. -

Very heavy damage from Fire blight was reported in Montreal district, chiefly on Alexander. The disease was found to be prevalent on two or three varieties at Abbotsford. About 25 to 30 twigs per tree were blighted and about 250-300 trees were affected. Minor outbreaks were reported from several other parts of the province.

P. E. I. -

The disease is quite serious in uncared for orchards. Ornamental mountain ash trees at Charlottetown were also affected with fire blight.

BLACK ROT - Physalospora Malorum Shear.

Que. -

The disease was prevalent on some trees of Alexander at Abbotsford, Mt. Johnson and Hemmingford.

N. B. -

Black Rot occurred only slightly in York county. Infections on both fruit and leaves were observed.

N. S. -

The disease was scattered to general in small farm orchards in Pictou and Colchester counties.

PERENNIAL CANKER - Gloeosporium perennans Zeller & Chrls.

A survey conducted in the winter 1928-29 showed that perennial canker was established in the Penticton, Summerland, Kaleden and Keremeos districts, B. C. Control measures recommended last spring have kept the disease in check.

MISCELLANEOUS DISEASES

PINK ROT - Trichothecium roseum Link.

Pink rot caused considerable damage where the fruit was scabby in P. E. I. It was of slight occurrence in storage in York county, N. B.

ANTHRACNOSE - Neofabraea malicorticis (Cordley) Jackson

This disease is practically confined to the Salmon Arm district, B. C. Climatic conditions last fall were unfavourable for any serious increase of infection.

POWDERY MILDEW - Podosphaera leucotricha (Ell. & Ev.) Salm.

A light infection of powdery mildew occurred in every

Apple

district in the Okanagan Valley, B. C. It caused a slight reduction in grade owing to the russetting of the fruit.

BITTER PIT - Non-parasitic.

Bitter pit was not as prevalent as last year in B. C. It was limited almost entirely to Northern Spy. Considerable bitter pit showed up in storage in N. S. on Baldwin, Northern Spy, Greening and Stark.

CROWN ROT - Cause not known.

This disease is causing an increasing loss of trees in all irrigated sections of the Okanagan Valley, B. C.

WINTER INJURY - Non-parasitic.

Although the winter was more severe than usual very little noticeable injury was observed in the Okanagan Valley, B. C. Winter injury was also reported from Charlesbourg, Que., in a young orchard with sod cover exposed to prevailing west winds. Little new growth was made, the trees were stunted and bushy with light-green leaves.

INTERNAL BREAKDOWN - Non-parasitic.

Although internal breakdown was still general and serious especially in Jonathan in the Okanagan Valley, B. C., there was a marked decrease in loss of fruit in 1929. Internal breakdown was also found in many varieties in N. S. It was thought that the outbreak was due to the drought of the past summer.

DROUGHT SPOT, DIE-BACK and CORKY CORE - Non-parasitic.

These three diseases are evidently on the increase in Okanagan Valley, B. C. The loss in fruit from these diseases in 1929 was much greater than the combined losses from all other diseases.

Corky core was also observed in Wageners in N. S. The surface of the fruit was somewhat wrinkled resembling aphid apples.

JONATHAN SPOT - Non-parasitic.

A small amount of Jonathan spot was observed at the Experimental Farm, Fredericton, N. B. in March. The disease is not common.

Apple

EUROPEAN CANCER - Nectria galligena Bres.

This canker was observed to a limited extent in Restigouche county, N. B. on Fameuse.

TWIG BLIGHT - Nectria cinnabarina (Tode) Fr.

This fungus was found constantly on Ben Davis, Gano and Rome Beauty twigs in N. S. It caused a die-back from the fruit spurs. The fungus apparently gained entrance through old apple stems which had remained attached to the fruiting spurs.

SILVER LEAF - Stereum purpureum Fr.

Only three trees were found affected with silver leaf in the main orchard, Horticultural Station, Morden, Man. Two of these trees were, however, dying from the disease. The disease was also reported from Nappan, N. S. and York county, N. B.

BLUE MOULD - Penicillium expansum Thom.

This mould is reported to have caused a small loss in storage in N. B.

BROWN ROT - Sclerotinia americana (Worm.) Nort. & Ezekiel.

This rot was of slight occurrence in N. B. It was also of no importance in the Niagara peninsula in Ontario.

FRUIT SPOT - Phoma pomi Pass.

A slight amount of fruit spot occurred in N. B.

STIPPIN - Non-parasitic.

This disease was common on many varieties in N. B.

APRICOT

RUSSETING - Non-parasitic.

Russeting was prevalent in all parts of the Okanagan Valley, B.C. and is decidedly on the increase. It would appear that the disease is closely related to drought spot of apple.

BLACKBERRY

ORANGE RUST - Gymnoconia Peckiana (Howe) Trotter

Ont. -

The rust was common on both cultivated and wild varieties

Blackberry

in Halton, Peel and York counties.

Que. - The disease was locally serious in the Abbotsford district.

N. S. - In one plantation of the Snyder variety in King's county 2 to 3 per cent of the plants were affected. Specimens of the rust on the same variety were received from Annapolis county.

CHERRY

SHOT HOLE - Coccomyces hiemalis Higgins
(Cylindrosporium hiemalis Higgins)

Ont. - Fifty per cent of the leaf surface was destroyed by June 3, in Halton and Peel counties on sweet cherries (mostly Windsors) where the trees had not been sprayed or where the spraying was poorly done. The disease was also bad in the previous two years in Kent and Essex counties. Premature defoliation by this disease along with some unusually cold weather in the winter resulted in the death of many sour cherry trees. In the Niagara peninsula the disease was of no importance in 1929 although it had been serious the two previous seasons.

N. B. - A moderate amount of shot hole was present in York county.

N. S. - The disease was very prevalent on sour cherry trees that had not been sprayed, causing 25 per cent of the leaves to fall. It was well controlled on sprayed trees.

P. E. I. - Shot hole caused considerable defoliation. The trees are not sprayed.

DROUGHT SPOT - Non-parasitic.

Drought spot of cherry was observed in the Okanagan Valley, B. C., but it is of minor importance. The disease was neither widespread nor severe.

WITCHES' BROOM - Taphrina Cerasi (Fuck.) Sadeb.

One case of witches' broom was observed at Maguerville, N.B.

Cherry

BROWN ROT - Sclerotinia americana (Worm.) Nort. & Eziekiel.

Brown rot in sweet cherries caused considerable loss in 1928 in Kootenay Lake area, B. C. It was not found in 1929.

At the Horticultural Station, Vineland, Ont., the disease was relatively scarce and unimportant this year. In many cases over-ripe fruit remained on the trees for as long as 2 weeks with very little infection developing.

The fruit from 3 large trees of wild black cherry (Prunus serotina) was a total loss due to brown rot at St. Etienne des Grés, Que.

CURRANT

WHITE PINE BLISTER RUST - Cronatium ribicola Fischer.

Ont. -

The rust was less abundant than usual in York, Wellington, Peel and Halton counties.

Que. -

The rust was reported on black currants from Oka and Mascouche.

N. B. -

The disease was severe on currants at the Experimental Farm, Fredericton.

N. S. -

All the bushes in small garden plantations in Pictou and Colchester counties, where observations were made, were severely infected. Considerable defoliation resulted. Also reported from Inverness county.

P. E. I. -

The rust was general wherever currants were cultivated. The disease is also common now on white pine.

LEAF SPOT - Pseudopeziza Ribis Kleb.

(Gleosporium Ribis (Lib.) Mont. & Deam.

Ont. -

The disease was very common in spite of dry weather in Wellington, York, Peel and Halton counties.

N. S. -

Practically all leaves on bushes in a small garden at Middle Stewiacke were infected.

Currant.

- 50 -

P. E. I. -

Currants were moderately infected, with this leaf spot wherever they are cultivated.

LEAF SPOT - Mycosphaerella Grossulariae (Fr.) Lind
(Septoria Ribis Desm.)

Ont. -

Septoria leaf spot was very common in Wellington, York, Peel and Halton counties although the weather was dry.

P. E. I. -

This disease was very common on cultivated currants at the Experimental Farm.

POWDERY MILDEW - Sphaerotheca mors-uvae (Schw.) Berk.

A slight amount of powdery mildew occurred on currants in York county, N. B.

GOOSEBERRY

WHITE PINE BLISTER RUST - Cronartium ribicole Fisch.

It was reported that the disease had been noticed for several years on cultivated gooseberries at Wakeham, Gaspé Co., Que.

Severe infection occurred on bushes within 100 yards of infected pines at Peterville, N. B.

Scattered infection occurred on all bushes in a garden at Middle Stewiacke, N. S.

POWDERY MILDEW - Sphaerotheca mors-uvae (Schw.) Berk.

Specimens affected with powdery mildew were submitted from Ste. Theodosie, Que.

Slight infection of this disease occurred in York county, N. B.

CLUSTER CUP RUST - Puccinia Pringsheimiana Kleb.

A fairly heavy infection was seen in the University garden, Saskatoon, Sask.

The fruits were found infected to a considerable extent at Annapolis, N. S. Leaf infections were also noticed on both wild and cultivated species on several occasions.

LEAF SPOT - Pseudopeziza Ribis Kleb. (Gloeosporium Ribis
(Lib.) Mont. & Desm.)

A slight infection of this leaf spot was reported from York county, N. B.

Gooseberry

LEAF SPOT - Mycosphaerella Grossulariae (Fr.) Lind.
(Septoria Ribis) Desm.)

Septoria leaf spot was common in the gardens of Charlottetown,
P. E. I.

GRAPE

POWDERY MILDEW - Uncinula necator (Schw.) Burr.

This disease was of little significance in the Niagara peninsula, due no doubt, to the extremely dry weather. A heavy infection was observed in one vineyard of Concords bordering on Lake Ontario, where heavy fogs had prevailed and the vines had not been sprayed.

A trace of this disease was observed at Kentville, N. S.

DOWNY MILDEW - Plasmopora viticola (Berk. & Curt.)
Berl. & de Toni.

Downy mildew was similarly of little importance in the Niagara peninsula, due to the dry weather.

DEAD ARM-Cryptosporella viticola Shear. (Fusicoccum viticolum
Redd.)

The disease appeared to be more abundant than usual in the Niagara peninsula. This may have been due to the excessive moisture of early spring followed by a sudden change to dry weather, which seemed to exaggerate leaf symptoms. In a vineyard in Pelham township 5 per cent of the vines showed dead arm.

BLACK ROT - Guignardia Bidwellei (Ell.) Viola & Ravaz.

In a vineyard at Beamsville, Ont., a general but light infection was observed, about 8 to 10 per cent of the fruit being affected.

PEACH

LEAF CURL - Taphrina deformans (Berk.) Tul.

B. C. -

Where the trees were sprayed the disease was found of no importance in the Okanagan Valley.

Ont. -

Leaf curl was unusually prevalent and severe. Complete defoliation was not uncommon. The Ont. Spray Service Records

Peach

showed that the disease was very serious in orchards which were sprayed later than Apr. 11 or thereabouts. In many instances spray had not been applied as it was impossible to get on the land by that date. The disease also was prevalent in Halton and Peel counties and about London.

SCAB - Cladosporium carpophilum Thüm.

Scab was of much less importance than in the previous two seasons in the Niagara peninsula of Ontario. Infection appeared late and although the fruit developed some scab little became deformed and cracked. In a Jordan orchard scab was very serious on St. Johns. Although the trees had been sprayed twice they were in a very sheltered location. Alberta was much less heavily attacked. Infection was general but light on Admiral Dewey and St. John in another orchard at the same place. The trees had been sprayed twice, but the orchard was in a sheltered location.

BROWN ROT - Sclerotinia americana (Worm.) Nort. & Ezekiel.

Apothecia were found abundantly developed in an uncultivated peach orchard on May 24 at Vineland, Ont. The disease was of no importance either as blossom blight or a fruit rot in the Niagara peninsula. The dry weather apparently held the disease in check.

DROUGHT SPOT - Non-parasitic.

This disease was severe in only a few orchards in the Okanagan Valley, B. C.

PEAR

SCAB - Venturia pirina Aderh. (Fusicladium pirinum (Lib.) Fuck.)

Ont. -

In an orchard at Beamsville 60 per cent of the fruit of Flemish Beauty were infected, while fully 15 per cent were not marketable. These trees had been sprayed at least 3 times, while adjoining rows of Bartletts, which had been sprayed twice (dormant and calyx), were clean.

Que. -

Scab was found everywhere south of Montreal. Even where the trees had been sprayed there was a high percentage of infection at Covey Hill, Franklin Centre and Abbotsford.

P. E. I. -

Trees were moderately infected at Charlottetown.

FIRE BLIGHT - *Bacillus amylovorus* (Burr.) Trev.

B. C. -

Fire blight was general throughout the Okanagan Valley, but the disease has been kept under control and serious losses have been prevented.

Ont. -

Fire blight was of no importance in the Niagara peninsula.

Que. -

The disease was of little importance. It was observed at Abbotsford and Franklin Centre.

P. E. I. -

It was observed in one orchard near Charlottetown.

POWDERY MILDEW - *Podosphaeria leucotricha* (Ell. & Ev.) Salm.

The disease was not as severe as it has been in past seasons, in the Okanagan Valley, B. C.

DROUGHT SPOT - Non-parasitic.

Drought spot was prevalent and fairly severe in all parts of the Okanagan Valley, B. C. It appears to be increasing on younger pear trees where poor drainage conditions have resulted from irrigation on heavier soil types.

BLOSSOM-END ROT - Cause unknown.

The disease was slightly more prevalent in several districts of the Okanagan Valley, B. C.

PLUM

PLUM POCKETS - *Taphrina Pruni* (Fuck.) Tul.

Sask. -

Approximately 10 per cent of fruit were destroyed in the orchard at the Experimental Farm, Indian Head.

Man. -

Plum pockets is confined to the native selections of *Prunus nigra* and *P. americana* at Horticultural Station, Morden, Man. Probably most of the selections are of the latter species. Ten per cent of the fruit were affected. Spray has never been applied. At the Agricultural College, Winnipeg, 5 to 10 per cent of the fruit were affected on the native selections. The disease was epidemic in 1927 when spraying was omitted. The disease has been well controlled by spraying.

Plum

Ont. -

Specimens of plum pockets from cultivated plums were received from Britannia and North Bay.

Que. -

Although the disease was observed at Abbotsford it appears to be worse in eastern Que. The fruit was a total loss in small gardens at St. Sulpice and St. Etienne des Grès. Sixty to seventy-five per cent of the fruits on wild plums in Ste. Genevieve were destroyed by plum pockets.

BLACK KNOT - Diobotryon morbosum (Schw.) Theiss. & Syd.

Sask. -

From observations made at Dana, where choke-cherry (Prunus virginiana) and pin cherry (P. pennsylvanica) were found growing together, it appears that choke-cherry is much more susceptible than the other host. The galls on the former were more abundant, much larger, and they frequently occurred on the main shoots or larger branches, killing that portion above the knot. Black knot on pin cherry is rather difficult to find and the knots are confined to the smaller twigs. The disease was also common on choke cherry at St. Gregor and Humboldt.

Man. -

At Morden, Man. black knot was found to produce numerous large galls on the May Day tree (Prunus Padus var. commutata). At Winnipeg it was noted that the choke cherry was much more severely affected than the native plum.

Ont. -

Black knot was quite general throughout the Niagara peninsula. Lombard was commonly affected. The disease is common in unsprayed orchards in the mixed farming districts of York, Halton and Peel counties. Few trees are affected in the fruit sections.

It was also collected on choke cherry at Rainy River.

Que. -

Black knot apparently killed plum trees at Ste. Genevieve. It was also observed at St. Hilaire and Lacelle.

N. B. -

The disease was reported to occur to some extent. Pin cherry was found to be slightly infected.

P. E. I. -

The disease was very common all over the province and it has been responsible for the complete destruction of excellent orchards.

In view of the differences of susceptibility of the above hosts it is of interest to note their systematic position. According to Rehder (Manual of cultivated trees and shrubs), they may be classified as follows:-

Subgenus Prunophora, section Euprunus - Prunus domestica, some varieties very susceptible; section Prunocerasus - P. nigra and P. americana slightly susceptible; Subgenus Cerasus, section Mahaleb - P. pennsylvanica slightly susceptible. Subgenus Padus - P. Padus var commutata and P. virginiana very susceptible. Physiologic specialization has also been reported.

BROWN ROT - Sclerotinia americana (Worm.) Nort. & Ezekiel.

Ont. -

No importance in 1929 in the Niagara peninsula.

N. B. -

Moderate amount of brown rot occurred in York county.

P. E. I. -

Brown rot did considerable damage. It was found in all unsprayed orchards.

SCAB - Gladosporium carpophilum Thüm.

Scab was reported as common in Carleton county, N. B.

Raspberry

MOSAIC and LEAF ROLL - Virus diseases.

B. C. -

Mosaic was general in the Okanagan Valley.

Ont. -

Mosaic appeared to be very common on wild raspberries in Halton, Peel and York counties. Many plantations of cultivated raspberries are free from mosaic, while others show 8 to 10 per cent of the plants infected. Mosaic has never been seen on Viking. (W.G. Evans).

In the Niagara peninsula the prevalence of mosaic and leaf roll remains about the same as in previous seasons. They are commonly found in commercial plantations. At Beamsville in an half acre planting of Herberts about 6 years old and never rogued, 50 per cent of the plants were affected with mosaic and 5 per cent with leaf roll. The yield was already unprofitable and the planting must be replaced.

N. B. -

Mosaic is fairly prevalent, while leaf curl is common on both cultivated and wild varieties.

Raspberry

N. S. -

In a planting of Viking at Kentville, 10 per cent of the plants were infected with mosaic. Adjacent Herberts were free from the disease. Viking is apparently extremely susceptible under local conditions.

P. E. I. -

Mosaic occurred in all plantations irrespective of variety. Viking was only slightly susceptible. Leaf roll was reported from all parts of the province. It was not observed on Viking.

SPUR BLIGHT - Didymella applanata (Niessl.) Sacc.

The fungus causing spur blight in North America has usually been referred to as Mycosphaerella rubina (Pk), but Koch has recently shown that it is identical with Didymella applanata, the cause of spur blight in Europe, and the American name should be reduced to synonymy.

Ont. -

Spur blight is very common in Wellington, Peel, Halton and York counties where raspberries are grown in the mixed farming area, all varieties seem to be equally affected.

In the Niagara peninsula there was only about half as much spur blight as in the previous year, when it was exceptionally bad.

Que. -

The ascigerous stage was found on May 26 in a planting in Jacques Cartier county on cankered areas at the base of blighted spurs of two year old canes. (J.E. Machacek).

N. B. -

Spur blight was present to a slight extent.

N. S. -

Some severe infections of spur blight were observed in plantations at Greenwich. Canes were completely girdled near the base.

P. E. I. -

Spur blight was general over the province. It has been responsible for complete destruction of many plantations. Herberts were found badly diseased, while no spur blight was found on Viking.

ANTHRACNOSE - Plectodiscella veneta Burk.

Que. -

Anthracnose was reported as serious in some plantations in Jacques Cartier county.

Raspberry

N. B. - A small amount of anthracnose was present in York county.

N. S. - The disease was fairly common in King and Annapolis counties. New infections were showing abundantly on young canes causing considerable cankering of the canes.

LEAF SPOT - Mycosphaerella Rubi Roark
(Septoria Rubi West).

Que. - The leaf spot caused by the imperfect stage was serious on Herbert at Bedford.

N. S. - Septoria Rubi was common on the leaves at Digby.
Rhabdospora Rubi was found fruiting abundantly on adjacent blighted canes. This is the first report of the latter fungus for Nova Scotia. Whether these two fungi are identical, as claimed, is not known.

P. E. I. - Traces of the leaf spot were observed on wild raspberries.

CANE BLIGHT - Leptosphaeria Coniothyrium (Fuck.) Sacc.
(Coniothyrium Fuckelii Sacc.)

Ont. - Canes bearing the perithecia were numerous in nearly all plantations in Halton, Peel and York counties. Even some of the best growers have not succeeded in cutting it all out. In neglected plantations 50 per cent or more of the canes are diseased.

N. B. - The disease was present to a slight extent at Moncton.

N. S. - Cane blight was more prevalent than usual in Kings and Annapolis counties. Considerable blight was found on old fruit canes.

ORANGE RUST - Gymnoconia interstitialis (Schl.) Lagerh.

The rust was quite prevalent on wild raspberries in N. B. It was also observed at several places in N. S. and Que.

BLUE STRIPE WILT - Verticillium ovatum Berkeley & Jackson.

In a half-acre plantation in Welland county, Ont. 3 per cent of the plants were affected. Raspberries had been planted following potatoes, and tomatoes were grown as an interplanted crop.

Raspberry.

CROWN GALL - Pseudomonas tumefaciens
(E.F.Sm. & Towns.) Dugg.

Twenty-five per cent of plants rogued from a nursery plantation for mosaic also were infected with crown gall.

ASCOSPORA CANE SPOT - Ascospora Rubi Zeller.

The Coryneum stage of this fungus was found readily in a plantation at Digby, N. S. It was associated with cane blight and may have contributed to the loss in many plantings. This is the first report of this disease in Nova Scotia.

ROOT ROT - Fusarium sp.

A rot caused by a species of Fusarium was found in a few black raspberry plants in gardens in the southern part of the Okanagan Valley, B. C.

SAND CHERRY

POWDERY MILDEW - Podosphaera Oxycanthae (DC.) de Bary.

Rather heavy infection of some of the bushes in the University garden, Saskatoon, Sask. Mature perithecia were present on Sept. 29.

STRAWBERRY

LEAF SPOT - Mycosphaerella Fragariae (Tul.) Lindau
(Ramularia Tulasnei Sacc.)

Ont. -

Leaf spot was not as common as usual in Halton, Peel and York counties.

Que. -

The disease was general in the Montreal district.

N. B. -

Leaf spot was present to some extent in York county.

P. E. I. -

The disease was not common this year. Moderate infection of Portia and Premier varieties was observed.

LEAF SCORCH - Diplocarpon Earliana (Ell & Ev.) Wolf.
(Marssonina Fragariae (Sacc.) Kleb.)

N. B. -

Leaf scorch was fairly prevalent, but it is apparently

Strawberry.

of little economic importance.

P. E. I. -

The disease was abundant on S.L. Champion, Charles First and Portia. It was not observed on other varieties.

ROOT-ROT - Cause undetermined.

Ont. -

Root rot was quite general and severe in some plantations of the Niagara peninsula. At Vineland in a planting of Parson's Beauty composed of six rows each about 100 ft. in length, 60 per cent of the plants died completely after making a very vigorous growth and beginning to run. The plants had been carefully selected from a healthy patch in the spring.

The disease did not appear to be as bad as usual in Peel, Halton and York counties. It is thought that the long, cool, wet spring and the absence of heavy frosts gave the plants a better chance to recover from the winter. There were a few dead plants at fruiting time.

N. B. -

Root rot was reported as prevalent over the entire province..

POWDERY MILDEW - Sphaerotheca Humuli (DC.) Burr.

Ont. -

In the counties of Halton and Peel, powdery mildew caused very little damage in comparison with 1928. In that year Premier seemed to be less susceptible than Glen Mary.

N. B. -

A slight infection of powdery mildew occurred.

FRUIT ROT - Botrytis sp.

N. B. -

Infection from fruit rot was very slight.

P. E. I. -

Traces of rot were found on Senator Dunlop at the Experimental Farm, Charlottetown.

MOSAIC - Virus disease.

Ont. -

Sixty per cent of the plants were yellow and dying in one planting of Van Dyke in Lincoln county.

N. S. -

In a plantation in Colchester Co. the leaves were badly curled and mottled and the fruit was badly dwarfed.