

DISEASES OF VEGETABLE AND FIELD CROPS.

ASPARAGUS

RUST - Puccinia Asparagi DC.

Traces of rust reported from Queens county, P. E. I.

DAMPING OFF - Rhizoctonia sp.

Rhizoctonia caused a slight amount of damping off at Fredericton, N. B.

BEAN

MOSAIC - Virus disease.

B. C. -

Mosaic was found on the majority of fields planted to wax beans.

N. B. -

Slight infection was observed in several vegetable gardens in York county

P. E. I. -

Moderate infection was reported in some unnamed varieties in Queens county.

ANTHRACNOSE - Colletotrichum Lindemuthienum (Sacc. & Magn.)  
Bri. & Cav.

Sask. -

Five to ten per cent of the plants were infected in a garden at Saskatoon.

Que. -

The disease was frequently very injurious. Serious outbreaks were reported at Ste. Genevieve and Lac de Vincennes, where a reduction in yield of 75 per cent occurred. At St. Augustin there was a loss of 50 per cent in a half acre field. The disease was also fairly prevalent south of Montreal.

N. B. -

Anthrachnose was common, but not severe.

P. E. I. -

All the varieties in the experimental plots at Charlottetown were infected.

Bean.

BACTERIAL BLIGHT - Pseudomonas Phaseoli E. F. Sm.

Ont. -

Beans affected with bacterial blight were sent from Cornwall for examination.

Que. -

This disease was reported as quite general at Vercheres. The damage was confined to the low spots.

N. B. -

Slight occurrence of the disease was reported.

P. E. I. -

A trace only of bacterial blight was observed on an unknown variety.

MISCELLANEOUS DISEASES

WILT - Botrytis cinerea Pers.

Only isolated specimens were observed on the Experimental Farm, Fredericton, N. B.

STEM ROT - Rhizoctonia Solani Kühn.

Common in gardens in Queens county, P. E. I.

WILT - Sclerotinia Sclerotiorum (Lib.) de Bary.

Slight occurrence in N. B.

BEET

LEAF SPOT - Cercospora beticola Sacc.

N. B. -

Slight infection reported.

N. S. -

General but light infection observed in a market garden of 3 acres. Apparently the disease was causing little injury.

P. E. I. -

General throughout the province, but not important.

SCAB - Actinomyces scabies (Thax.) Güssow.

N. B. -

Isolated cases only were observed.

P. E. I. -

Traces were found in gardens near Charlottetown. Probably general over the province.

CABBAGE

CLUB ROOT - Plasmodiophora Brassicae Wor.

B. C. -

Club root caused considerable loss to the cabbage crop at Armstrong. Infection, however, was much less severe than in 1928. The marked reduction in the amount of the disease was attributed to the soil being unusually dry this year, while last year the land was flooded and the soil exceptionally wet.

Que. -

The disease was prevalent in 5 home gardens at Ste. Anne de la Pocatiere. It was specially severe in one, where 50 per cent of plants were so badly infected that they were a total loss. The same was true of about an acre field in St. Johns.

N. B. -

Severe infection of seedling plants was reported. These plants were rendered unfit for transplanting into the field. The disease was severe in the field in all infected areas.

BLACK ROT - Pseudomonas campestris (Pamm.) E.F.Sm.

The disease was observed at St. Etienne des Grès, Que., in plants uncut from an early crop. About 50 per cent of these plants were destroyed which represented about 10 per cent of the  $\frac{1}{2}$  acre plot.

Black rot was also observed at Ottawa, Ont.

SOFT ROT - Bacillus carotovorus L. R. Jones.

A slight amount of soft rot occurred in York County, N. B.

CARROT

SCLEROTIAL ROT - Sclerotinia Sclerotiorum (Lib.) de Bary.

This rot was serious in stored carrots at Kentville, N. S. Up to 70 per cent of the carrots were destroyed.

BLACK ROT - Alternaria radicina Meier, Drechsler & Eddy.

The disease was observed on specimens from a local grocery store in Fredericton.

CAULIFLOWER

CLUB ROOT - Plasmodiophora Brassicae Wor.

In a half acre field in St. Johns, Que. about 60 per cent of the plants were affected. The diseased plants produced no heads. Moderate infection of cauliflower was also reported from N. B.

SOFT ROT - Bacillus carotovorus L. R. Jones.

Slight amount of soft rot was reported in York county, N. B.

CELERY

LATE BLIGHT - Septoria Apii Chester

Que. - Late blight is sometimes severe in Que. On the island of Montreal the disease was quite general, but it was often very well controlled. In Abord à Plouffe, slight infection occurred generally over a 6 acre field except in about half an acre where the loss was estimated to be 50 per cent. In another field of about a fifth of an acre, the crop was a total loss. This celery was neither sprayed nor dusted. At Cap Rouge a loss of 90 per cent occurred in a small plot.

N. B. - Moderate infection was reported.

P. E. I. - The disease was observed at Charlottetown, but it was of no importance this year.

CUCUMBER

MOSAIC - Virus disease.

Ont. - A serious outbreak of mosaic occurred at Beamsville. About 40 per cent of the plants were infected in a fairly large block.

Que. - In a 3 acre field in Abord à Plouffe about 2 per cent of the plants were affected. Loss was slight.

P. E. I. - Mosaic was common at the Experimental Farm, Charlottetown.

FRUIT SPOT (SCAB) - Cladosporium cucumerinum Ell. & Arth.

Que. - Around Montreal the disease was found in nearly every

Cucumber.

field. In Ste. Flore a loss of 50 per cent occurred in 1-10 acre field. In Abord à Plouffe fruit spot was very severe in a 3 acre field; about 75 per cent of the fruits attacked. In Three Rivers a  $\frac{3}{4}$  acre field of pickling and table cucumbers was almost a total loss.

N. B. -

Fruit spot was less severe than 1928. One field showed a loss of 25 per cent.

BACTERIAL WILT - Bacillus tracheiphilus E.F.Sm.

Ont. -

About 75 per cent of the plants infected in a small plot of a few hundred plants at Beamsville.

Que. -

Affected plants were sent in for examination from one grower in the Montreal district.

N. B. -

Isolated cases of wilt were observed in York county.

ANTHRACNOSE - Colletotrichum lagenarium (Pass.) Ell. & Halst.

Anthracnose caused slight injury in a greenhouse in Cape Breton, N. S. Lesions were present on both leaf and fruit.

EGG PLANT

WILT -

About 40 per cent of the plants affected in plot of 2500 plants at Jordan, Ont. Verticillium and Fusarium were isolated from the diseased plants. Three small infected areas were also observed in another field of about 5000 plants.

LATE BLIGHT - Phytophthora infestans (Mont.) de Bary.

Late blight was recorded once on the Experimental Farm, Charlottetown, P. E. I.

HORSE-RADISH

PALE LEAF SPOT - Rumularia Armoraciae Fuck.

Slight infection was reported in York county, N. B.

JERUSALEM ARTICHOKE

WILT - Sclerotinia ? Sclerotiorum (Lib.) de Bary.

Wilt caused a very slight amount of damage to Jerusalem artichoke in N. B.

### LETTUCE

DROP - Sclerotinia Sclerotiorum (Lib.) de Bary.

This disease was only slightly prevalent in areas where lettuce is grown intensively in N. B.

GREY MOULD - Botrytis cinerea Pers.

Grey mould was only slightly prevalent in isolated localities in N. B.

TIP BURN - Non-parasitic.

Wherever head lettuce was grown in the Okanagan Valley, B. C., the damage from tip burn was as severe as usual.

### MANGEL

BLACK LEG - Phoma Betae (Oud.) Frank.

A serious crown rot due to this organism developed on a series of fertilizer-lime plots at the Experimental Station, Kentville, N. S. The soil that was most favourable for the development of the crop appeared also to favour the disease.

STORAGE ROT - Corticium Solani (Prill. & Del.) Bourd. & Galz.

A serious rot occurred in storage at the Experimental Station, Fredericton, N. B. Rhizoctonia was found to be constantly associated with the trouble.

### MELON

BACTERIAL WILT - Bacillus tracheiphilus E.F.Sm.

Bacterial wilt was serious in about an acre planting at Beamsville, Ont; about 20 per cent of the plants were affected. Diseased plants were also received from Renfrew.

### ONION

SMUT - Urocystis Cepulae Frost.

About 85 per cent loss resulted from onion smut in 2 acre field at Rosemount, Que.

NECK ROT - Botrytis Allii Munn.

Losses from neck-rot were greater this year than last in Okanagan Valley, B. C. Rain interfered somewhat with the harvesting of the crop while in 1928 the autumn was exceptionally dry and ideal for the curing of the crop.

This disease was reported as occurring commonly on red varieties at Charlottetown, P. E. I.

BULB ROT - Fusarium sp.

In British Columbia Fusarium bulb rot has not been found outside the Kelowna district. In this district the disease

Onion.

has gradually spread each year to new fields and most of the land used for onion production is now infected with the pathogen. A loss as high as 50 per cent has occurred in some fields

MACROSPORIUM ROT - Pleospora herbarum (Pers.) Rabh.  
(Macrosporium parasiticum Thüm.)

The perfect stage was collected Apr. 26 at Macdonald College, Que., on dead seed stalks of the onion. The asci were just maturing. The imperfect stage began to appear on the onion seed stalks on Aug. 12 and it spread rapidly in the next two weeks.

PEA

LEAF AND POD SPOT - Ascochyta Pisi Lib.

Que. -

This disease was found mostly in fields of peas grown for canning purposes at Laprairie, St. Johns and Napierreville. It was fairly prevalent in spots.

N. B. -

Slight but general occurrence. All varieties appeared to be about equally affected.

N. S. -

Moderate infection was reported in a garden at Kentville, N. S.

P. E. I. -

The disease was common in gardens at Charlottetown.

ROOT ROT - Fusarium spp.

A destructive root rot of canning peas occurred in the 3 counties, Laprairie, Napierreville and St. Johns, Que. Losses up to 90 per cent occurred in some fields. It is thought the disease is caused by Fusarium spp.

ROOT ROT - Pythium sp.

A root rot caused by a Pythium is reported as local in Moncton, N. B.

POWDERY MILDEW - Erysiphe Polygoni DC.

N. B. -

Powdery mildew occurred commonly, but the infection was light.

- Pea.

P. E. I. -

It is reported as very common at Charlottetown.

#### POTATO

The observations on potato diseases here reported were obtained by the potato inspectors, during their examination of fields of potatoes grown from certified seed stock. As the various diseases must be kept down to very narrow limits for the seed to pass inspection, far greater effort is made to control them in certified stock than in the ordinary potatoes produced for table use. In consequence if any disease is reported as serious in certified seed, it is probably still more destructive in the general crop.

In 1929 about 6 per cent of the acreage devoted to potatoes in Canada was used for growing certified seed. In P. E. I. over 50 per cent of area in potatoes was inspected; in N. B. approximately 6 per cent; in B. C. over 2 per cent and in the other provinces the acreage averaged around 1 per cent. It is also worth noting that 70 per cent of the total acreage in certified seed potatoes is located in P. E. I.

Fields planted with certified seed failed to pass inspection for several reasons. Mosaic was responsible for 50 per cent of the total rejections. The disease was most prevalent in Green Mountain and Bliss Triumph. Black leg was second in importance being responsible for 8.5 per cent of the rejects. Leaf roll was third with 2.7 per cent. Fifteen and a half per cent were also rejected on account of being adjacent to diseased fields.

LATE BLIGHT - Phytophthora infestans (Mont.) de Bary.

Que. -

The weather was unusually wet during the summer in Quebec. As a result late blight reached epidemic proportions in the last few days of August and the first week of September. It then increased rapidly throughout the province. The losses from tuber rot were considerable.

N. B. -

Late blight caused a slight amount of damage in Restigouche county.

P. E. I. -

Late blight was present in very few instances. In one field where the crop had not been sprayed, 25 per cent of the tubers were infected when they were examined in the early autumn.



Potato

RHIZOCTONIA - Corticium Solani (Prill. & Del.) Bourd. & Galz.  
(Rhizoctonia Solani Kühn.)

B. C. -

Rhizoctonia was common, but not severe in the Okanagan Valley. It was neither as prevalent nor severe as in previous years. It is suggested that the decrease was due to the soil being warmer and drier than usual.

Alta. -

The disease was common and caused the usual damage.

Ont. -

The sclerotia of Rhizoctonia were present in greater numbers than usual.

N. B. -

A moderate amount of Rhizoctonia was present in this province.

P. E. I. -

The disease was quite prevalent on the tubers. The vines died early and some time elapsed after their death before the tubers were harvested. This permitted a greater development of the sclerotia than usual.

EARLY BLIGHT - Alternaria Solani (Ell. & Martin) Jones & Grout.

Que. -

On account of the wet season early potatoes in the Sherrington region suffered considerable damage from early blight.

N. B. -

A slight infection from early blight developed in the southern part of the province.

P. E. I. -

Early blight was present only in isolated districts and there the infection was light. It would seem that this disease is not necessarily more prevalent in a dry season.

COMMON SCAB - Actinomyces scabies (Thax.) Güssow.

B. C. -

Common scab was distributed generally in the Okanagan Valley. The disease was slightly more prevalent than usual.

Alta. -

The disease was common and caused severe damage at several points in the province. Several of the larger lots of potatoes

Potato.

awaiting certification had to be rejected on account of scab. The dry weather appeared to have favoured the disease.

Ont. -

The disease was more prevalent than usual, probably due to the dry weather.

N. B. -

In general common scab caused little damage, but here and there it was severe.

P. E. I. -

The disease was severe in many sections, particularly in those where mussel mud had been used.

MOSAIC - Virus disease.

B. C. -

Mosaic was less prevalent and less severe than in previous years. The symptoms of the disease may have been masked in part by dry weather.

Que. -

The disease appeared to be slightly on the increase.

N. B. -

Infection from mosaic varied from slight to severe. Eighty per cent of the fields that were rejected were refused certification on account of mosaic.

P. E. I. -

The disease was about as prevalent as it was in 1928.

LEAF ROLL - Virus disease.

B. C. -

Infection from leaf roll was limited and slight.

N. B. -

The disease was not as common as usual, infection being slight.

P. E. I. -

The amount of leaf roll was about the same as in 1928.

POWDERY SCAB - Spongospora subterranea (Wallr.) Lagerh.

N. B. -

Slight infections of powdery scab were reported from Restigouche and Gloucester counties.

Potato.

P. E. I. -

Powdery scab was practically absent.

A tuber of Solanum ?tuberosum, which was found growing wild in the Desert of Les Leones, Mexico and sent to the Division of Botany showed a pustule of powdery scab.

BLACK LEG - Bacillus phytophthorus Appel.

B. C. -

Moderate infection from Black leg was found in the Kelowna district.

N. B. -

A slight amount of black leg was present. The disease was not as important as usual.

N. S. -

Black leg was found in abundance in fields of ordinary potatoes in Hastings township.

P. E. I. -

The damage from black leg was negligible.

DRY ROT - Fusarium spp.

Dry rot was present to a moderate extent in N. B. In a small lot of potatoes, which were mostly Green Mountains with a light red potato said to be Early Ohio mixed with them, it was noted that the Green Mountains were badly decayed while the red potatoes were practically free from rot.

FROST INJURY - Non-parasitic.

Ont. -

Heavy losses were experienced from early frosts at digging time, which resulted in still further losses in storage.

P. E. I. -

On account of inadequate storage facilities many growers suffered losses from frost. Either the tubers were frozen causing them to decay, or they were so chilled that net necrosis resulted rendering them unfit for seed purposes.

#### MISCELLANEOUS DISEASES

LACK OF VIGOUR -

In P. E. I. potatoes which were planted about June 1st were the most vigorous. Fields planted before or after that period failed to produce vigorous plants in several instances. The season was one of the driest on record and contributed materially to this condition. A similar condition was observed in Alberta.

Potato.

SPINDLING TUBER - Virus disease.

The disease was observed in some fields in B. C. A slight amount of spindling tuber occurred in N. B.

SHOE-STRING MOSAIC - Virus disease.

Two plants affected with shoe-string mosaic were observed in an acre field of Green Mountains in Trois Pistoles, Que. The seed had been obtained from P. E. I.

GIANT HILL - Virus disease.

The disease was observed in some fields in B. C.

SEED PIECE ROT - Cause undetermined.

Experiments conducted in B. C. in 1929 tend to show that in low lying, wet, cold soils, cut tubers are more frequently rotted than whole potatoes, which results in a decrease in yield.

PHOMA ROT - Phoma tuberosa. Melh., Rosenb. & E.S. Schultz.

This rot follows powdery scab. A considerable amount of this disease has been observed in P. E. I.

ALTERNARIA ROT - Alternaria Solani (Ell. & Martin) Jones & Grout and A. fasciculata (Cooke & Ell.) Jones & Grout.

The disease occurred on a few tubers only at the Experimental Farm, Fredericton, N. B.

SILVER SCURF - Spondylocladium atrovirens Harz.

A moderate amount of infection was present.

NET NECROSIS - Cause unknown

A slight amount of net necrosis was reported in York county, N. B.

HOLLOW HEART - Non-parasitic.

A slight amount of the disease was present in oversize tubers of Bliss Triumphs in N. B.

FUSARIUM WILT - Fusarium oxysporum Schl.

The disease was quite common in uncertified stock. Up to 25 per cent of the plants were affected in fields in N. S.

VERTICILLIUM WILT - Verticillium albo-atrum Reinke & Berth.

A single plant found in York county, N. B.

RHUBARB

CROWN ROT - Cause undetermined.

Sask. -

A serious crown rot continues to be destructive in Saskatchewan.

Rhubarb.

At the Dom. Experimental Station, Rosthern, a new crop of rhubarb was set out; the new roots were obtained by cutting up roots taken from the old block. A large percentage of the new plants were dead from crown rot. It is thought that the disease was spread by cutting up diseased and healthy crowns with the same knife.

N. B. -

A crown rot is also reported from Fredericton. Several plants in one garden died from the disease.

LEAF SPOT - Phyllosticta straminella Bres.

Traces of this leaf spot were observed in P. E. I. It was present generally in Rosemount township, Que., but it caused no loss.

LEAF SPOT - Ascochyta Rhei Ell. & Ev.

This leaf spot was found in gardens at Charlottetown, P. E. I.

MOSAIC - Virus.

Observed in Queens county, P. E. I. The symptoms were very striking.

SALSIFY

WHITE RUST - Cystopus cubicus (Strauss) de Bary.

The disease was very severe on two 50 foot rows in Neuville township, Que.

SPINACH

DOWNY MILDEW - Peronospora effusa (Grev.) Rabh.

Que. -

Large fields of spinach were entirely destroyed. The loss was very heavy.

P. E. I. -

The disease was very scarce this year. It was found in only one garden.

SUGAR BEET

SCAB - Actinomyces scabies (Thax.) Gussow.

Specimens received from Armstrong, B. C., were severely affected.

Sugar Beet.

BLACK LEG - Phoma Betae (Oud.) Frank.

The disease was present on specimens from Armstrong, B. C.

ROOT ROT - Cause undetermined.

A root rot, the cause of which is unknown, was prevalent in the Raymond district, Alta.

HOLLOW HEART - Non-pathogenic.

Hollow heart was present on sugar beets received from Armstrong, B. C.

TOBACCO

BLACK ROOT ROT - Thielavia basicola Zopp.

Que. - Although this disease is quite general in the tobacco

districts the damage was less than in 1928.

Ont. -

The damage was less than usual due to the hot dry mid-summer. The Dark and Burley varieties, which are grown on the heavier soils were most seriously affected. Practically no black root was observed in the Norfolk section.

WILDFIRE - Pseudomonas Tabacum (Wolfe & Foster) Stev.

Shortly after transplanting, an outbreak of wild fire occurred in Yamaska Valley, Que. The disease was checked by the drought and very little damage resulted. No wild fire was observed in Ont. or B. C.

ANGULAR LEAF SPOT - Pseudomonas angulata (Fromme & Murray) Stev.

Que. -

Tobacco of the Belge variety seemed more seriously affected than any other grown in Que. Very little damage was done to the cigar tobacco.

Ont. -

Infection by angular leaf spot was only about one third as heavy as it was in 1928.

MOSAIC - Virus.

Damage from mosaic was very slight throughout all the tobacco districts, except in B. C.

DAMPING-OFF - Pythium de Baryanum Hesse.

Damping-off was very common in a section north of the

Tobacco.

St. Lawrence River, Que. due to heavy watering and insufficient ventilation of the seed beds.

NUTRITIONAL DISTURBANCES

No cases of sand drown, drought spot or potash starvation were noted.

MISCELLANEOUS DISEASES.

Ont. - No frenching, curly dwarf, sore skin, hollow stalk or leaf drop were observed.

Que. - Only a few isolated cases of frenching, hollow stalk brown root rot were noted.

B. C. - Leaf drop was observed again in the Okanagan Valley.

TOMATO

YELLOWS - Virus disease.

Yellows was more prevalent than it has been in previous years in the Okanagan Valley, B. C. Although it is present every year, it rarely produces any severe losses.

MOSAIC - Virus disease.

B. C. - The disease was found on plants in the greenhouse and the field in the Okanagan Valley, but in all cases infection was very light.

N. B. - Mosaic was widespread, but infection was very light,

P. E. I. - Mosaic was observed twice. Very slight amount was present in either case.

LEAF SPOT - Septoria Lycopersici Speg.

Ont. - Plants of Chalk's Jewel showed slight infection at Burlington and Bronte at the time they were being set out where they had not been sprayed. Infection was still light on July 1.

Tomato.

N. B. -

Infection was light and infrequent.

P. E. I. -

Moderate infection occurred in the experimental plots at Charlottetown.

EARLY BLIGHT - Alternaria Solani (Ell. & Martin) Jones & Grout.

Que. -

Early blight was present in Laval and Deux Montagnes counties. It also occurred on the fruit at Macdonald College where it caused a semi-dry, black rot of the calyx-end of the fruit.

P. E. I. -

The varieties, which are grown commonly in the city gardens at Charlottetown, were moderately infected.

BLOSSOM END ROT - Non-parasitic.

B. C. -

The disease was general and more severe than in previous years in the Okanagan Valley.

Sask. -

Blossom-end rot was very severe on tomatoes late in the season at Indian Head though there was very little earlier. Variety Pink was most severely affected, 80 to 90 per cent of the fruit being rotted. This disease was also common and severe about Saskatoon.

Ont. -

Specimens were sent in from Almonte.

Que. -

Blossom-end rot caused a loss of 60 per cent in a garden of about 100 plants at St. Gregoire. The soil appeared to lack in fertility and in humus content. The weather was very dry.

N. S. -

The disease was present in a truck garden at Kentville, N.S.

VERTICILLIUM WILT - Verticillium albo-atrum Reinke & Berth.

About 10 per cent of tomatoes in two large greenhouses in Lincoln county, Ont. were infected. V. albo-atrum was isolated consistently.



Tomato.

BREAKDOWN - Non-parasitic.

During the past season breakdown was again found at Keremos, B.C. in practically all the fields. The disease however was not extensive and losses from it were negligible. A survey of the Okanagan Valley showed that a small percentage of breakdown occurred in all the tomato-growing districts. The disease was less severe than in 1928.

LEAF MOULD - Cladosporium fulvum Cke.

This disease appeared again in some of the greenhouses in the Okanagan Valley, B.C. and it caused a small amount of damage.

TURNIP

STEM AND ROOT ROT - Sclerotinia Sclerotiorum (Lib.) de Bary.

Stecklings were severely girdled by this fungus at Kentville, N. S. Ordinarily the disease is of no consequence. It also caused some decay of turnips in storage at Nappan.

STORAGE ROT - Corticium Solani (Prill. & Del.) Bourd. & Galz.

N. B. -

A slight, general infection of the turnips at the Experimental Station, Fredericton, was observed.

P. E. I. -

This disease caused the destruction of many thousands of bushels of turnips in storage. They break down very rapidly where ventilation is poor (For a description of the disease see Lauritzen, J.I. Rhizoctonia rot of turnips in storage. Jour. Agr. Res. 38: 93-108. 1929).

DRY ROT AND CANKER - Phoma Lingam (Tode) Desm.

This disease was serious in some varieties of swedes at Kentville, N.S. The disease appears to be carried on the seed. However, the fungus apparently lives over also in the soil on the remains of diseased plants.

SOFT ROT - Bacillus carotovorus L.R. Jones.

One per cent of the plants in the variety Bangholms was affected with soft rot at Charlottetown, P. E. I.

CLUB ROOT - Plasmodiophora Brassicae Woron.

Que. -

In a field at New Richmond about 25 per cent of the plants

Turnip

were infected. The disease was also reported from Acton Vale.

N. B. -

Infection from club root was fairly general in all infected soils. Few varieties appear to be immune.

N. S. -

About 5 per cent of the crop in one field in Great Village township were seriously affected with club root. At Princeport another field showed 25 per cent.

P. E. I. -

The disease was observed on all commercial varieties except Bangholms at Charlottetown. Club root is quite common where the land has not been "mudded".

WHITE RUST - Cystopus candidus (Pers.) de Bary.

White rust was observed on a few occasions.

WATERMELON

LEAF SPOT - Cercospora sp.

Slight infection observed in Sunbury county, N. B.