VI. DISEASES OF ORNAMENTAL PLANTS

ASTER

Rust (<u>Coleosporium Solidaginis</u>). A trace of rust was found on <u>A</u>. novae-angliae at Lennoxville, Que.

BARBERRY (Berberis)

Stem rust (<u>Puccinia graminis</u>) was first found on May 18, at Ottawa, Ont., slightly infecting a common barberry bush. On June 20 the infection was heavy and the accia were still discharging spores, although most of them were now old. Rust was general on bushes of the common barberry on July 1, at Charlottetown, P.E.I.

BELL FLOWER (Campanula)

Rust (Coleosporium Campanulae) was heavy on the leaves and moderate on the stems of C. persicifolia in a garden in Vancouver, B.C. (3978); it caused considerable dwarfing of the plants, but did not prevent them flowering. All plants of this variety, whatever their location, were rusted, but C. cochlearifolia, C. glomerata, C. planiflora and C. rotundifolia were not affected (J. W. Eastham). This is the first record of its occurrence in Canada, but it is known on the same host in California. Physiologic specialization has been reported in the species in Europe (Sydow, Monographia Ured. 3:631. 1915) and may be the explanation of its failure to attack the other species of Campanula.

Frost caused some damage to the younger leaves of bell flower at Fredericton, N.B. on May 16. Similar injury by frost was also observed on columbine, cowslip, golden glow, hollyhock, honeysuckle, hydrangea, larkspur, and phlox; both leaves and buds of the lilac were damaged.

BUCKTHORN (Rhamnus)

Rust (<u>Puccinia</u> <u>coronata</u>). Aecia were abundant on the European buckthorn in the Arboretum, Ottawa, Ont., on May 26, and spores were still being discharged on June 20. A moderate infection was noted on June 17 at Charlottetown, P.E.I.

BUTTERFLY FLOWER (Schizanthus)

Yellows (virus) slightly affected 3 plants in the border at the Station, Fredericton, N.B.

BRACHYCOME

Yellows (virus). A single affected plant was seen in the border at the Fredericton Station, N.B.

CANDY TUFT (<u>Iberis</u>)

Yellows (virus) was present on 2 plants at the Station, Fredericton, N.B.

CALENDULA

Yellows (virus) was severe on 2% of the plants in the border at the Fredericton Station, N.B. it was common and caused moderate damage on Calendula in gardens in the city (D.J. MacLeod). It was common and severe in most gardens about Charlottetown, P. E. I. (R.R. Hurst)

CANTERBURY BELLS (Campanula medium)

Stem rot (Sclerotinia sclerotiorum) destroyed a group of these plants in a garden in Charlottetown, P.E.I.

CARAGANA

Leaf spot (<u>Septoria Caraganae</u>) caused slight damage at Saskatoon, and Indian Head, Sask. Infection was moderate at Winnipeg, Man.; it was less severe than in 1935.

CARNATION (Dianthus)

Rust (Uromyces caryophyllinus) was moderate on plants in the greenhouse at the Station, Kentville, N.S. on Feb. 7.

CHINA ASTER (Callistephus)

Wilt (<u>Fusarium conglutinans</u> var. <u>Callistephi</u>) affected 2 plants in a plot at the Summerland Station, B.C. It

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killed several plants of Balls White, while it was not observed on other varieties at the Lacombe Station, Alta. A slight infection was present in the beds at the Ste. Anne de la Pocatiere Station, Que.; it killed a few plants.

Stem rot (Sclerotinia sclerotiorum). A single diseased plant was seen at the Summerland Station, B.C.

Yellows (virus) affected 1% of the plants at the Station, Summerland, B.C. A yellowed plant was found here and there at the Station, Morden, Man. Yellows affected a trace to 1% of plants in gardens in Lincoln county, Ont. The disease was common and severe in York, Sunbury, and Charlotte counties, N.B.

Rust (Coleosporium Solidaginis) moderately infected the leaves and stems in a garden in Kings county, N.S.

CHRISTMAS ROSE (Helleborus niger)

Leaf spot (Coniothyrium Hellebori) occurred on a few plants in the rockery at the Station, Sidney, B.C.

CHRYSANTHEMUM

Leaf spot (Septoria macrospora Dearn.) was slightly infecting chrysanthemums in the Horticultural greenhouses, Ottawa, Ont. in Feb. 1937.

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CLARKIA

and the commentation of the same Grey mould (Botrytis cinerea) was very conspicuous on the seed pods at the Experimental Farm, Nappan, N.S.

Carrie Barrelline

COLEUS

Yellows (virus) was slight on 2 plants in the border at the Station, Fredericton, N.B.

CLEMATIS

Carried and American Septoria leaf spot (S. Clematidis). A trace was found on C. ligustifolia.

COLUMBINE (Aquilegia)

Leaf spot (Clasterosporium tenuissimum) was collected at Ottawa, Ont. (F.S. Thatcher)

Leaf spot (Septoria Aquilegiae) was collected at Abord à Plouffe, Que. in 1934.

Foot rot (<u>Fusarium</u> and other fungi isolated). Affected plants were drying up at the Station, Scott, Sask. on June 27.

COREOPSIS

Wilt (<u>Fusarium sp.</u>). One plant was wilted at the Station, Summerland, B.C.

Yellows (virus) affected 3% of the plants in a garden at Fredericton, N.B.

DAHLIA

Stunt (virus) was prevalent on many varieties of dahlia at Charlottetown, P.E.I. In a commercial planting of about 4,000 plants belonging to 500 varieties of dahlias in Lincoln county, Ont. Ten per cent of the plants were affected with either stunt or Mosaic (virus). Out of 245 plants in the garden of the Park Commission, Niagara Falls, 73 were affected with mosaic, 24 with stunt and 5 with ring spot. A trace of mosaic was seen at the Station, and in a city garden, Fredericton, N.B.

EVERLASTING (Helichrysum)

Yellows (virus) slightly affected 1.5% of the plants in the border at the Station, Fredericton, N.B.; it was also found in a garden in the city.

FIRETHORN (Pyracantha)

Scab (Fusicladium Pyracanthae) was general on Vancouver Island and in the Fraser River valley, B.C.

FLOWERING CRABAPPLE (Pyrus)

Rust (Gymnosporangium clavipes). Rusted specimens were received from Campbellford, Ont., at the Ottawa Laboratory.

GAILLARDIA

Yellows (virus) was slight on 1% of the plants in the border at the Station, Fredericton, N.B.

GLAD IOLUS

Bacterial blight (Phytomonas gummisudans) was severe on some varieties at Winnipeg, Man.

GODETIA

Rust (<u>Pucciniastrum Epilobii</u>) was moderate to severe at Abbotsford, Que., on about a dozen plants of <u>G. amoena</u> (3910), which appears to be a new host for the rust. The rust was severe on <u>G. grandiflora</u> at the Station, Charlottetown, P.E.I. (4481). It is also known on the latter host from Edmonton, Alta. (2591), Saskatoon, Sask. (4065) and in Man. (Bisby et al., Fungi of Manitoba p. 87, 1929). In Dec. 1936 (P.D. Reporter <u>21</u>: 10. Jan. 15, 1937) it was found on <u>Clarkia elegans</u> in a greenhouse at Ithaca, N.Y.

HOLLYHOCK (Althaea)

Rust (<u>Puccinia Malvacearum</u>) was severe on Cutleaf, while it was slight on other varieties at the Summerland Station, B.C.; a slight infection occurred at Winnipeg, Man.; rust was general but moderate at Farnham, Cap Rouge, and Ste. Anne de la Pocatiere, Que.; it was widespread in N.B. and caused severe damage in many gardens; it was severe in several gardens at Kentville, N.S. Rust was severe in P.E.I.; fair control of rust was obtained with Bordeaux mixture, especially when a casein sticker was added, although the spray did disfigure the foliage. (G. Ayers)

Mosaic (virus). Mosaic symptoms have been observed on a plant for several years at Charlottetown, P.E.I.; damage is not apparent. (R.R. Hurst)

Leaf spot (Ascochyta althaeina) caused moderate damage in gardens about Charlottetown, P.E.I.

HONEYSUCKLE (Lonicera)

Powdery mildew (Microsphaera Alni) was moderate at the University, Saskatoon, Sask. and at Farnham, Que.

Blight (Glomerularia Lonicerae) was moderate to severe on L. tatarica, while none or traces occurred on other species and varieties at L'Assomption, Que. A severe outbreak occurred at the Westfield Golf Club, near St. John, N.B.

HYDRANGEA

A few limbs on one shrub were found affected with Nectria cinnabarina at Kentville, N.S.

IRIS

Leaf spot (Didymellina macrospora) Heterosporium gracile) was recorded as follows: general and moderately infecting iris on Vancouver Island and the lower mainland, B.C.; severe in patches at the Station, Summerland; slight at Indian Head and moderate at Wynyard, Sask.; slight on Parisiana, Medrano, Bridesmaid, and Deba at Morden, Man.; infection lighter than in 1935; on leaves received from Oakville, Ont.; general but light at Ste. Anne de la Pocatiere and Cap Rouge, Que.; moderate to severe at the Station, Fredericton, N.B.; prevalent and severe in gardens at the Station, Kentville, N.S.; very common in 1936 at Charlottetown, P.E.I.

Rust (<u>Puccinia Iridis</u>) was heavy on Gladwin Iris (<u>I</u>. <u>foetidissima</u>) at Charlottetown, P.E.I. The rust is reported on this host in Europe.

Rhizome rot (Bacillus carotovorus) affected about 1% of the plants in a garden in Queens county, P.E.I.

Eelworm (<u>Ditylenchus dipsaci</u> (Kuhn 1858) Filipjev 1936) is present in most of the plantings on Vancouver Island, B.C. It cannot, however, be detected until after the bulbs are lifted.

LARKSPUR (Delphinium)

Powdery mildew (<u>Erysiphe Polygoni</u>) affected only some varieties at the Station, Summerland, B.C.; a moderate infection occurred at Winnipeg, Man.; it was moderate on all varieties at the Stations at Cap Rouge and Ste. Anne de la Pocatiere, Que., and on a few plants at Lennoxville.

Bacterial blight (Phytomonas Delphinii) was conspicuous in a florist's nursery at North Vancouver, B.C., but it did

not appear to be serious; it caused severe damage in a garden in zone 8, Alta.; the lower leaves were moderately to severely blighted at Lennoxville, Que.; the disease was prevalent and destructive in gardens in York and Sunbury counties, N.B.; several clumps were seriously affected on May 11 at Kentville, N.S.; it was found on a single plant in a garden in Queens county, P.E.I.

Yellow dwarf (?virus) affected a few plants at the Station, Summerland, B.C.

LILAC (Syringa)

Powdery mildew (Microsphaera Alni) was slight at Farnham, Que:; severe on a hedge at Rathesay, N.B.

Blight (Phytomonas Syringae) was severe on several hedges about Fredericton, N.B., and was noted once at St. John.

Grey mould (<u>Botrytis cinerea</u>) was severe as a twig blight on a hedge near St. John, N.B.; it was associated with bacterial blight. It was severe as twig and a leaf blight about Charlottetown, P.E.I.

Mosaic (?virus). A mosaic-like disease was noted in a garden at Fredericton, N.B.; affected plants were stunted. (J.L. Howatt)

Chlorosis (cause undetermined) was striking on lilac at the Station, N.B., and specimens showing a similar chlorosis were received from Halifax, N.S. (D.J. MacLeod)

LILY (Lilium)

Mosaic (virus) affected 80% of the Easter Lily plants in a greenhouse at the Dale Estate, Brampton, Ont. The foliage was yellowed, the growth stunted, and on the same plants, the bloom was blasted. Root rot was also present (G.H. Berkeley).

LUPINE (Lupinus)

· Powdery mildew (Erysiphe Polygoni) was severe at the Station, Summerland, B.C.

Foot rot and blight (<u>Fusarium</u> sp.) was severe on one in a garden at Saskatoon, <u>Sask</u>.

MALTESE CROSS (Lychnis)

Leaf spot (Phyllosticta Lychnidis) moderately infected L. chalcedonica at Farnham, Que.

MARIGOLD (Tagetes)

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Yellows (virus) was severe on marigolds at the Station, Fredericton, N.B.

MEZEREUM or FEBRUARY DAPHNE (Daphne mezereum)

Leaf spot (Gloeosporium mezereum Cooke) was found on this host in nurseries (3842), private gardens, and on the University campus at Vancouver, and in one large nursery at Victoria, B.C. The more severely infected plants were completely defoliated in late summer. A comparatively slight infection on a leaf was apparently sufficient to cause its fall. D. cneorum growing within a few feet of infected D. mezereum showed no signs of the disease, (J.W. Eastham). The pathogen agreed well with the description given for G. mezereum by Cooke. This is the first record of its occurrence in Canada and probably for the U.S.A. (I.L. Conners)

MINT (Mentha)

Rust (<u>Puccinia Menthae</u>) was severe on material received from Waterville, N.S. (D. Savile)

NARCISSUS

Leaf scorch (Stagonospora Curtisii) was widely distributed on Vancouver Island, B.C., but the damage was negligible. (R.J. Hastings)

White mould (Ramularia Vallisumbrosae) caused severe injury to a commercial planting of Phoenix on Vancouver Island, B.C. It was also found on Lucifer, Ornatus, and Phoenix in garden plantings. (R.J. Hastings)

Smoulder (Botrytis narcissicola) was widely distributed on Vancouver Island, B.C., but in general the damage was a trace. Only the early varieties, Golden Spur and Obvallarius, suffered serious injury when the bulbs were 3 or more years old; up to 40% might then be infected (R.J. Hastings).

It was also found on several imported bulbs intercepted at Vancouver. (J.W. Eastham)

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Eetworm (<u>Ditylenchus dipsaci</u>) was found in 8 plantings on Vancouver Island, B.C.; infestation ranged from a trace to 50%. However, where control measures have been adopted, infestation is decreasing while it was heavy where no attempt has been made to control the pest. (R.J. Hastings)

Root eelworm (<u>Anguillulina pratensis</u>) was found in 2 plantings on Vancouver Island, B.C. The bulbs in the affected areas were markedly stunted due to root decay. (R.J. Hastings)

PANSY (<u>Viola</u>)

Powdery mildew (Sphaerotheca Humuli) was moderate at Saskatoon, Sask., and moderate to severe at Lennoxville, Que.

PEONY (Paeonia)

Blight (Botrytis Paeoniae) caused a general but slight leaf spotting at Morden, Man.; it caused slight damage to the buds on about 100 varieties at the University, Saskatoon, Sask. It was severe in one garden at Ste. Anne de la Pocatiere; it was present at Cap Rouge, Que. on all varieties, but it caused slight damage. Late flower buds failed to open unless they were protected by a chemical spray (C. Perrault). Blight was prevalent in gardens in York county, N.B., but infection was slight at the Fredericton Station, for the disease was effectively checked by spraying with 2-2-40 Bordeaux (J.L. Howatt and S. Clarkson). The disease was severe on the buds, leaves, and stems in several clumps at the Farm, Nappan, N.S. It was also seen in many parts of the province. (J.F. Hockey)

Ring spot (virus) was present on 1 or 2 plants at the University, Saskatoon, Sask.; it was much less evident than in 1935; 3 plants out of 15 were affected at Farnham, Que.

Bud blight (cause unknown). About 50% of the buds failed to open fully at the University, Saskatoon, Sask. No sign of fungus infection was present. However, thrips were seen on all blighted buds. This disease was definitely confined to certain varieties.

Root knot (<u>Heterodera marioni</u>) was severe on several varieties recently introduced at the Station, Charlottetown, P.E.I.

Leaf blotch (<u>Cladosporium Paeoniae</u>) was moderate to severe on the leaves and flowers at Hudson Heights, Que. in 1934.

PETUNIA

Late blight (Phytophthora infestans). Traces were seen in a garden at Charlottetown, P.E.I.

Yellows (virus) severely affected 1% of plants in a garden at Fredericton, N.B.

PHLOX

Yellows (virus) was severe on 2% of the plants of P. Drummondii at the Station, Fredericton, N.B. It was common in gardens in York and Sunbury counties. The disease was severe on 2-5% of perennial phlox plants in the border at the Fredericton Station. It likewise was prevalent on this plant in York, Sunbury and Carleton counties. (D.J. MacLeod)

Powdery mildew (<u>Erysiphe Cichoracearum</u>) was severe on a few plants at Powell River, B.C., and at the Summerland Station. It was present at Lennoxville, Que., and caused slight damage at Cap Rouge.

RHODODENDRON

Leaf spot (<u>Pestalozzia Rhododendri</u> (D. Sacc.) Guba) caused moderate injury to plants at Spencerwood, Quebec City, Que. (A.J. Hicks)

ROSE (Rosa)

Rust (Phragmidium spp.) was severe on Lady Ashton, but none was present on the other varieties at the Summerland Station, B.C. Rust (P. speciosum) was severe on Betty Bland at Saskatoon, Sask.; it caused slight damage on leaves and branches of roses at Indian Head. Slight to moderate infections of rust were found at Ste. Anne de la Pocatiere, St. Vallier; St. Roch des Aulnaies (P. subcorticium); and Abbotsford, Que. (P. americanum). Both wild and cultivated roses were heavily infected in York and Sunbury counties, N.B. Rust (P. americanum) affected several of the bushes at the Station, Kentville, N.S. Rust (P. subcorticium) was found at Charlottetown, P.E.I.

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Black spot (Diplocarpon Rosae (Marssonina Rosae) was general and caused slight damage on Vancouver Island and on the lower mainland of B.C. It caused slight to moderate damage at Indian Head, Sask., and slight damage at Saskatom; it was less prevalent than in 1935. It was found in many gardens causing much defoliation in Lincoln county, Ont.; the following hybrid tea varieties were found seriously affected: Claudius Pernet, Dame Edith Helen, Heinrich Garde, Independence Day, Los Angeles, Mrs. A.R. Barraclough, Mrs. Chas. Lamplough, Mrs. M. Steward, Rev. F. Page-Roberts, and Talisman, while others were apparently resistant: Covent Garden, Dainty Bess, Elizabeth of York, E. J. Ladding, Hadley, Lady Ashtown and General-Superior Arnold Jansen (G.C. Chamberlain). The roses were partly defoliated by black spot at the Station, Fredericton, N.B.

Powdery mildew (Sphaerotheca pannosa) was general and caused slight damage on Vancouver Island and on the lower mainland of B.C. It was very prevalent on Crimson Rambler and the hybrid teas, General-Superior Arnold Jansen and Talisman, in Lincoln county, Ont. It was common on Rosa rugosa at Abbotsford, Que., in September. A severe outbreak occurred in a garden at Devon, N.B., but it was effectively controlled by sulphur dusting. Unsprayed rambler bushes were all affected in a garden at Kentville, N.S.; it was also observed in many other gardens. Rambler roses were already moderately affected on July 13 in a garden at Charlottetown, P.E.I.

<u>Discosia artocreas</u> was found on over-wintered leaves at Saskatoon, Sask. on May 5.

Leaf spot (Cercospora rosicola) slightly infected roses at Morden, Man.

Crown gall (Phytomonas tumefaciens) was found on one Rosa rugosa bush at L'Assomption, Que.

Canker (<u>Valsa ambiens</u>) was found slightly affecting Betty Bland in the University garden, Saskatoon, Sask.

Infectious Chlorosis (virus). Diseased material of Hollywood, a new variety, was sent from a greenhouse at Port Dover, Ont., to the St. Catharines Laboratory. (G.C. Chamberlain)

Mosaic (virus) was severe on 25% of the plants in a commercial garden at Fredericton, N.B. (D.J. MacLe od)

SHASTA DAISY (Chrysanthemum maximum)

Leaf spot (<u>Septoria Chrysanthemi</u> Allescher) caused severe damage to certain varieties at North Vancouver, B.C. (J.W. Eastham). It was also reported from Victoria. This is apparently the first record for Canada.

SNAPDRAGON (Antirrhinum)

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Rust (<u>Puccinia Antirrhini</u>) was widely distributed and appeared earlier than usual on Vancouver Island and the lower mainland of B.C. It was first observed in early July, but it became general in August. Sprays containing copper are most effective in the control of the disease, but sulphur sprays give poor results. Observations indicate that infection is initiated by over-wintered inoculum. Where sanitary measures have been rigidly applied, the infection does not occur or it develops late (W. Jones and W. R. Foster). Rust was severe at the Station, Summerland, and at Winnipeg, Man.

Yellows (virus) caused slight damage on 1% of the plants in the border at the Station, Fredericton, N.B.

SNOWBALL (Viburnum)

Grey mould (<u>Botrytis</u> sp. of the <u>cinerea</u> type) was found blighting snowball at Liverpool, N.S.

SNOWBERRY (Symphoricarpos)

Leaf spot (Sphaceloma Symphoricarpi) was severe on 2 bushes of S. alba at Abord à Plouffe, Que. in 1934, and caused premature defoliation.

SPIKE SPEEDWELL (Veronica spicata)

Powdery mildew (Sphaerotheca Humuli) severely infected the plants in a flower bed at the University, Saskatoon, Sask.

Yellows (virus) affected a single plant in the border at the Station, Fredericton, N.B.

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Yellows (virus) was slight on 2 plants at the Station, Fredericton, N.B.

STOCK (Matthiola)

Foot rot (Fusarium avenaceum (Fr.) Sacc.) caused severe damage to stocks at Ottawa, Ont., grown from imported seed. The disease was very severe on Beauty of Nice and severe on Blood Red, Canary Yellow, Crimson, White, Crimson King, Light Blue, Monte Carlo, Rose, Purple, Cote d'Azur, Dark Blue and Parma Violet, while little or none developed on Yellow and Mont Blanc. It practically wiped out the 20 plants in a bed at Lennoxville, Que. Cultures of the fungus secured from affected plants from both places were identified by Dr. W.L. Gordon as F. avenaceum. (H.N. Racicot and F.S. Thatcher)

SUNFLOWER (Helianthus)

Wilt (Sclerotinia sclerotiorum) affected one plant of an ornamental sunflower at the Station, Summerland, B.C. It was also severe on H. californicus at Charlottetown, P.E.I.

Rust (<u>Puccinia Helianthi</u>) was moderate to severe on the lower leaves of an ornamental sunflower at the Station, Swift Current, Sask.

SWEET PEA (Lathyrus)

Powdery mildew (Microsphaera diffusa) severely infected sweet peas at Saskatoon, Sask. It was slight to moderate on sweet peas at the Station, Lennoxville, Que. It moderately infected all varieties grown about Charlottetown, P.E.I.

Mosaic (virus) was severe on about a third of the plants in a 100-foot row in a garden, Lennoxville, Que.

Streak (<u>Erwinia Lathyri</u>) was prevalent about Charlotte-town, P.E.I., it caused slight to very severe damage.

Root rot (<u>Fusarium</u> spp.) moderately to severely infected sweet peas at Winnipeg, Man.

Root rot (cause undetermined) is becoming increasingly prevalent in gardens in York county, N.B. (J.L. Howatt)

TULIP (Tulipa)

Blight (<u>Botrytis Tulipae</u>). In general, infection was slight on Vancouver Island, B.C., in plantings where infected

plants were rogued out when it first appeared. Where diseased plants were not removed early, spores of the fungus were widely distributed and the flower crop was ruined during a wet spell at the time of full bloom. (R.J. Hastings)

Blight was also general at Salmon Arm. A moderate infection was reported at Winnipeg, Man. A scattered infection was noted in several tulip beds of the Corporation of St. Catharines, Ont. Blight was general and caused severe damage, especially in older plantings, at Charlottetown, P.E.I.

Break (virus) was prevalent in 10 plantings on Vancouver Island, B.C., but in most beds less than 1% of the tulips were diseased. The highest infections recorded were: Yellow Prince, 54%; Whistler, 50%; and Bartigon, 30% (R.J. Hastings and W. Jones). Isolated cases of break were observed in gardens in Lincoln county, Ont. In an experiment at the St. Catharines Laboratory in which bulbs supplied from the Station at Sidney, B.C., were used, the percentage of break was as follows: Bronze Queen, 14.8%; Blue Amiable, 76.1%; Pride of Harlem, 0; Le Merveille, 0; Farncombe Sanders, 96.9%; and Clara Butt, O. (G.C. Chamberlain)

Penicillium rot (<u>Penicillium</u> sp.). About 260 bulbs of Roi d'Islande failed to appear above ground in 2 beds in Lincoln county, Ont. Investigation revealed that the bulbs were affected by soft rot, lacked a root system except for a few discoloured rootlets, and were covered with <u>Penicillium</u>. (G.C. Chamberlain)

VIRGINIA CREEPER (Ampelopsis)

Powdery mildew (<u>Uncinula necator</u>) moderately infected a Virginia creeper in Westboro, Ont. in 1934.

Cercospora leaf spot (\underline{C} • Ampelopsidis) • A trace was found at Morden, Man •

WALL FLOWER (Cheiranthus)

Downy mildew (<u>Peronospora Cheiranthi</u>) was general in several gardens at Victoria, B.C.

YUCCA

Leaf spot (Coniothyrium concentricum) was present on all plants in the gardens at the Station, Kentville, N.S.

ZINNIA

Stem rot (Sclerotinia sclerotiorum) affected 5% of the plants at the Station, Summerland, B.C.

Wilt (Fusarium spp.). Ten per cent of the plants were diseased in the border at the Station, Summerland, B.C. It was also observed at Grand Forks. A few diseased plants were noticed at the Station, Cap Rouge, Que.

Powdery mildew (<u>Erysiphe Cichoracearum</u>) was slight at Summerland, B.C. It was common in gardens in Lincoln county, Ont. late in the season.

Yellows (virus) slightly affected 1% of the plants in a garden at Fredericton, N.B.

Grey mould (Botrytis sp. of the cinerea type) caused moderate damage as a rot of zinnia seedlings in a planting at Charlottetown, P.E.I.

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