DISEASES OF ORNAMENTALS

BEGONIA

GRAY MOULD - Botrytis cinerea Pers.
Two Rex begonia were affected at the Experimental Station, Fredericton, N.B.

BARBERRY (Berberis)

RUST - Uropyxis sanguinea (Peck.) Arth.
General on Vancouver island, B.C.

STEM RUST - Puccinia graminis Pers.
Stem rust was collected in York county, N.B. and Eganville, Ont.

CARAGANA

LEAF SPOT - Septoria Caraganae (Jacz.) P. Henn.
A moderate infection was reported on some hedges around Saskatoon, Sask. The disease causes defoliation. It was not as severe as in 1928 when it was first observed by Prof. Fraser.

CARNATION (Dianthus Caryophyllus)

RUST - Uromyces Dianthi (Pers.) Niessl
General but slight infections were reported from B.C.

Rust was severe in a greenhouse at Edmonton, Alta.

The carnations in the Horticultural greenhouses, Experimental Farm, Ottawa, Ont., were severely infected.

A trace of rust was observed on carnations brought into the greenhouse at Aylmer, Que.

LEAF SPOT - Alternaria Dianthi Stev. & Hall
A moderate infection was observed in the greenhouse at Fredericton, N.B. This disease is causing considerable damage throughout the province.

CENTAUREA

POWDERY MILDEW - Erysiphe Cichoracearum DC.
A heavy infection was reported from Lincoln county, Ont.

CHINA ASTER (Callistephus)

YELLOWS - Virus

Sask.-
About 3 per cent of the plants in a bed on the University campus at Saskatoon, Sask., were noticeably diseased.

Ont.-
Aster yellows was prevalent in Lincoln county, causing a yellowing of the plants and a blasting of the blooms.

N.B.-
Severe infection was reported from York county. This disease is widespread and is the most destructive malady of asters occurring in the province.

A disease similar to aster yellows was also found on the following plants, which Kunkel reported subject to yellows: Calendula, Tragopogon, Taraxacum, Lactuca, Erigeron, Tagetes, Gaillardia, Dimorphotheca, Helichrysum, Plantago and Chrysanthymum.

In addition the disease was observed on the following plants, which Kunkel did not report: Helianthus, Rudbeckia, Zinnia, Dahlia, Conopsis, Lavetera, Ageratum, Leontodon, Spergula, Apium and Antirrhinum (D. MacLeod). (See also under Plantago major in the Miscellaneous Section).

WILT - Fusarium conglutinans Woll. var Callistephi Beach

B.C.-
All varieties of asters were infected at Summerland, B.C., causing slight damage. Wilt was also common on Vancouver island.

Sask.-
Wilt was reported as severe at Caderre.

Que.-
Wilt was reported in one garden only in Kamouraska county, where 75 per cent of the plants were infected.

N.B.-
Severe infections were reported in numerous gardens throughout the province. No common varieties are immune to this disease, which has become a serious factor in the production of asters during the past two seasons.

STEM BLIGHT - Botrytis sp.

Stem blight was serious on the Experimental Farm, Saanichton B.C.

China Aster

In Lincoln county, Ont., a wilt caused by Botrytis affected 5 per cent of the plants.

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

Stem rot was occasionally found on Vancouver island, B.C.

RUST - Coleosporium Solidaginis (Schw.) Thüm.

A moderate infection was reported at the Experimental Station, Fredericton, N.B.

CHRYSANTHEMUM

POWDERY MILDEW - Erysiphe Cichoracearum DC.
General and quite severe in greenhouses in B.C. It also occurred this year in the field.

YELLOWS - Virus

Severe infections were observed in York county, N.B.

DAHLIA

YELLOWS - Virus
Severe infection was reported from York county, N.B.

BUD ROT - Botrytis spp.
Bud rot was occasionally found on Vancouver island, B.C.

TUBER ROT - Bacillus sp.
This disease is widespread and causes considerable damage in fancy varieties in N.B. A severe infection was observed at the Experimental Station, Fredericton.

GLADIOLUS

SCAB - Bacterium marginatum McC.
Scab was common on Vancouver island and in the lower Fraser valley, B.C. Damage was severe in certain locations only.

MOSAIC - Virus
Plants were observed on Vancouver island, B.C., apparently affected with mosaic.

HOLLYHOCK (Althaea)

RUST - Puccinia Malvacearum Bert.

B.C.-

Rust was very serious on Vancouver island and in the lower Fraser valley, particularly after the seedling year.

N.B.-

A severe infection was reported from the Experimental Station at Fredericton.

N.S.-

This disease was general on the older plants in Hants county.

P.E.I.-

Slight to severe infection was observed throughout P.E.I. This disease is very difficult to control in this province by any known method.

LEAF SPOT - Septoria malvicola Ell. & Ev.

Septoria leaf spot was very common in Quebec county, Que., causing considerable damage.

WILT - Sclerotinia sp.

Five plants were affected at the Experimental Station, Fredericton, N.B.

HONEYSUCKLE (Lonicera)

POWDERY MILDEW - Microphaera Alni (Wallr.) Wint. var Loniceræ (Schlecht.) Salm.

Seventy-five per cent of the leaves were infected at the Experimental Farm, Ste. Anne de la Pocatière.

TWIG BLIGHT - Diplodina tatarica Allesch.

The twigs on one side of a bush were affected and apparently were being killed by this fungus at Beaverlodge, Alberta.

IRIS

LEAF SPOT - Didymellina macrospora Kleb.

B.C.-

Leaf spot was reported from Enderby and also from Vancouver island, where the damage was severe in many gardens.

Sask.-

A trace was reported on Rose Unique at Indian Head.

P.E.I.-
Leaf spot affected about 75 per cent of the leaves causing severe damage to the plants.

RHIZOME ROT - Bacillus carotovorus L.R. Jones

Rhizome rot was found occasionally in B.C.

Fifty per cent of the plants were badly diseased in two gardens in York county, N.B. This disease was widespread in 1930.

RUST - Puccinia Iridis (DC.) Rabh.

A trace was found on Iris versicolor growing wild in York county, N.B.

LARKSPUR - (Delphinium)

POWDERY MILDEW - Erysiphe Polygoni DC.

Sask.-
Fairly heavy infections on the lower leaves were reported.

N.B.-
A severe infection was observed at the Experimental Farm, Fredericton. This disease is general.

P.E.I.-
Powdery mildew was present on all the plants causing slight damage in 2 gardens in Queens county.

BACTERIAL BLIGHT - ?Pseudomonas Delphinii (E.F.Sm.) Stapp

Several severely affected plants were observed in Yarmouth and Annapolis counties, N.S.

LILAC (Syringa)

POWDERY MILDEW - Microsphaera Alni (Wallr.) Salm.
Slight damage was reported from Queens county, P.E.I.

LILY (Lilium)

BLIGHT - Botrytis ?cinerea Pers.
Many plants were very severely blighted or killed in Yarmouth county, N.S.

NARCISSUS

BLIGHT - Botrytis spp.
Slight damage was reported from B.C.

NEMATODES - Tylenchus dipsaci (Kühn) Bast.
General and serious in B.C.

PANSY (Viola)

POWDERY MILDEW - Sphaerotheca Humuli (DC.) Burr. var fuliginea (Schlecht.) Salm.
Slight damage was reported from Summerland, B.C.

PEONY (Paeonia)

BLIGHT - Botrytis Paeoniae Oud.

Sask.-
Severe on peonies chiefly as root and stem rot at Moosomin. At Indian Head a slight infection of the buds caused a loss of 2 to 4 per cent of the blooms.

N.B.-
Slight infections were reported at the Experimental Station, Fredericton. The disease was not important in 1930.

N.S.-
Varieties at the Experimental Station, Kentville, showed 0 to 20 per cent of the stalks injured. This disease is general throughout the province; many urgent requests have been received from growers for control measures.

P.E.I.-
The infection is difficult to estimate. The young shoots were affected as well as flower buds. The fungus seem to overwinter and grow saprophytically upon the old dead parts of the plants.

PRIMULA

GRAY MOULD - Botrytis cinerea Pers.
Two diseased specimens were found in the Experimental Station greenhouse, at Fredericton, N.B.

ROSE (Rosa)

RUST - Phragmidium spp.

B.C.-
Rust was general on Vancouver island and in the lower Fraser

Rose

valley. The infection was severe on many varieties.

Sask.-

Rust was found at Saskatoon and Sutherland on wild roses. At Saskatoon the rust was probably Phragmidium speciosum while the Sutherland specimens were infected by a leaf inhabiting species.

Ont.-

A severe infection was reported from Lincoln county.

N.B.-

Roses were moderately infected at the Experimental Station, Fredericton.

N.S.-

Several plants in two rose gardens in Yarmouth county, showed 75 per cent of the leaves infected.

P.E.I.-

Two per cent of the leaves of Rosa odorata were infected in a garden in Queens county.

BLACK SPOT - Diplocarpon Rosae Wolf.

B.C.-

Infection was general and, on many varieties, severe.

Sask.-

A heavy infection was reported on La Reve variety in the Experimental rose plots at Saskatoon, while other varieties were hardly affected. At Indian Head, one yellow-flowered variety was severely infected while several other varieties showed no trace of black spot.

Que.-

Infection was severe on young crowded plants but only a slight amount was present on old plants in a regular bed in Chambly county. The damage was only slight, causing a retardation of growth in the young plants.

N.B.-

A moderate infection was reported from the Experimental Station at Fredericton. The disease is widespread and causes considerable damage.

LEAF SPOT - Cercospora rosaecola Pass.

Heavy infections of leaf spot were observed at St. Gregor and Beaver Creek, Sask., on native roses.

Rose

WILT - Verticillium sp.

A single plant, killed by wilt, was reported from Lincoln county, Ontario.

POWDERY MILDEW - Sphaerotheca pannosa (Wallr.) Lév.

Powdery mildew was general and on many varieties severe, on Vancouver island and in the lower Fraser valley, B.C.

A general infection causing the curling of the leaves and blasting of the blossom buds was observed in Lincoln county, Ont.

INFECTIOUS CHLOROSIS - Cause unknown

A slight localized infection was reported from the lower Fraser valley, B.C.

A slight infection was also found at the Experimental Station, Fredericton, N.B.

CANE BLIGHT - Leptosphaeria Coniothyrium Fuck.

Infection was general but the damage slight on Vancouver island and in the lower Fraser valley, B.C.

SWEET PEA (Lathyrus)

POWDERY MILDEW - Erysiphe Polygoni DC.
Slight to severe damage was reported from Queens county, P.E.I.

BUD DROP - Non-parasitic
The sweet peas were moderately affected with bud drop in 4 gardens in York county, N.B. The disease is only of local importance.

ROOT ROT - Cause undetermined
Sixty per cent of the plants were moderately affected with root rot in 14 gardens examined in York county.

ROOT BURN - Non-parasitic
The use of excessive amounts of wood ashes caused severe root burn in one garden in York county.

SNAPDRAGON (Antirrhinum)

RUST - Puccinia Antirrhini Diet. & Holw.
B.C.-
Snapdragons were heavily rusted on Vancouver island and the

lower mainland; the damage was severe.

Sask.-
A heavy infection was reported from one garden in Saskatoon.

N.B.-
In two greenhouses in Fredericton, 60 per cent of the plants were moderately infected. The disease was unusually severe this season in greenhouses.

N.S.-
Two beds at Hebron were severely infected, the infection being traced to the greenhouse.

ROT - Corticium Solani (Prill. & Del.) Bourd. & Galzin.

This rot is common on Vancouver island, B.C., but causing little damage.

TULIP

COLOUR BREAKDOWN - Virus
Five per cent of the tulips were affected at Summerland, B.C.

BLIGHT - Botrytis Tulipae (Lib.) Lind
A very serious infection was reported from the Experimental Station, Saanichton, B.C. This disease is worse some years than others.

VINCA

RUST - Puccinia Vincae
Specimens submitted from Toronto, Ont., proved to be infected with this rust.

ZINNIA

WILT - Fusarium spp.
Sixty per cent of the plants at Summerland B.C., were damaged by wilt. The disease was very bad in the plot used for breeding experiments.