VI. DISEASES OF HERBACEOUS ORNAMENTALS

ALTERNANTHERA

Root-knot nematode (Meloidogyne incognita). An infected specimen was received from Ottawa, Ont. (B.F. Hopper).

ALTHAEA - Hollyhock

Rust (Puccinia malvacearum) was generally light in the Okanagan Valley, B.C. (G.E. Woolliams) and in the lower St. Lawrence region, Que. (H. Genereux) but was sev. at Moncton, N.B. (S.R. Colpitts).

Wilt and stem rot (Sclerotinia sclerotiorurn). An infected specimen was received from Saskatoon, Sask. (R.J. Ledingham).

ANTIRRHINUM - Snapdragon

Gray mold (Botrytis cinerea). Stem infections killed about 1% of the plants in a greenhouse at Falmouth, N.S. (K.A. Harrison).

Stem rot (Phytophthora cactorum). Plants in pots were moderately affected but those in flats showed no disease in a commercial greenhouse at Dundas, Ont. (A.E. Straby).

CALENDULA

Smut (Entyloma polysporum (Pk.) Farl.). Two beds of calendulas at Kentville, N.S. were completely destroyed by Oct. In mid-July the leaves were heavily spotted with pale green dots. The spots dried out and became brown after several weeks and the leaves were killed. There were clusters of chlamydospores in each spot (K.A. Harrison, D.B. O. Saville). This represents a first report to the Survey (D. W. Creelman).

Aster yellows (aster yellows virus). Trace infections only were seen in Kings Co., N.S. (K.A.H.).

CALLISTEPHUS - China aster

Wilt and stern rot (Fusarium oxysporum f. callistephi) caused about 15% loss in a planting at Aldershort, N. S. (C. L. Lockhart).

Aster yellows (aster yellows virus). Early-flowering china asters from bedding plants were relatively free of the disease at Saskatoon, Sask. whereas later flowering ones were severely affected (R. J. Ledingham). Early infection was sl. at Kentville, N.S. but it built up rapidly in Sept. (K. A. Harrison).

CHRYSANTHEMUM

Soft rot (Erwinia carotovora). All cuttings in I flat at Amherst, N.S. had hollow stems as a result of infection (K.M. Graham).

COLEUS

Root-knot nematode (Meloidogyne incognita). An infected specimen was received from Saskatoon, Sask. (B.E. Hopper).

CYCLAMEN

Root rot (Cylindrocarpon radiciola) caused sev. injury to plants at Brampton, Ont. following invasion by Meloidogyne incognita. Specimens were received from a large commercial grower but no estimate of the overall loss is available (A.E. Straby).

Root-knot nematode (Meloidogyne incngnita). Infected specimens were received from Burlington and Toronto, Ont. (B.E. Hopper).

DAHLIA

Crown gall (Agrobacterium tumefaciens). Three plants in a garden at Winnipeg, Man. were sev. affected. One gall near the base of a stem was 4 inches in diam. (W.C. McDonald). A severely affected specimen was received from Montreal, Que. The plant was dwarfed and had failed to produce blooms (H. S. Thompson).

Bacterial rot (Erwinia cytolptica). A single specimen with a trace of infection was seen in Saskatoon, Sask. (R, J. Ledingham). This disease has not previously been reported to the Survey (D. W. Creelman).

Powdery mildew (Erysiphe communis) was mod. on both dwarf and standard varieties in a garden at Ottawa, Ont. (D. W. C.).

Mosaic (virus). Several clones averaged 15% infection at Kentville, N.S. (K.A. Harrison).

DICENTRA - Bleedingheart

Gray mold blight (Botrytis cinerea). Infection was slight in a nursery planting at Lacombe, Alta. (R. P. Brandrith).

GLADIOLUS

Gray mold (Botrytis cinerea). A light infection of several varieties followed several days of rainy weather at Kentville, N.S. (K.A. Harrison).

Corm rot (Fusarium oxysporum F. gladioli) caused sl. damage to 1000 plants in a nursery at St. Bruno, Que. (A.E. Straby). The organism was isolated from a sev. basal rot in 60% of a lot of the variety Life Flame at Kentville, N.S. (K.A. H.).

Scab (Pseudomonas marginata) was sl. in a 25-acre planting in a Quebec nursery (J.A. Cardinal, J. Benazet) and tr. On the variety Snow Princess at Kentville, N.S. (K.A.H.).

Dry Rot (Stromatinia gladioli) was sl.-mod. throughout a 3.5-acre planting of the varieties Spic and Span and Friendship at Leamington, Ont. and sl. in 47 acres at St. Eustache, Que. (A.E.S.). Many diseased plants were seen in Kings Co., N.S. following the heavy build-up of inoculum in 1962 (K.A.H.).

White break (virus) occurred in 56% of the plants of a stock of Spotlight propagated from cormels in 1961. The stock showed 77% virus infection in 1962 (K.A.H.).

IMPATIENS - Balsam

Root-knot nematode (Meloidogyne incognita). An infected specimen was received from Edmonton, Alta. (B.E. Hopper).

IRIS

Leaf spot (Didymellina rnacrospora) caused some damage in 1/5 plantings entered for certification on Vancouver Island, B.C. Dry weather kept damage do a minimum (R.P. Messum). Severely infected specimens were received from Salt Spring Island, B.C. (R. G. Atkinson). Mod. infections occurred late in the season in a breeding nursery at the U. of Manitoba, Fort Garry, Man. (W.C. McDonald). Infection was mod. in 3 acres at Clarkson, Ont. and sev. on 1000 plants at Chsmedy, Que. (A.E. Straby).

Soft rot (Erwinia carotovora) was sl. in a 3-acre planting at Clarkson, Ont. Sap beetle larvae, identified by E. Becker as Glischrochilus fasciatus (Oliv.), were feeding in large numbers in the rotting rhizomes (A.E. S.). About 15% infection in a planting infested with borers was seen at Kentville, N.S. (K.A. Harrison).

LATHYRUS - Sweet Pea

Wilt (Verticillium dahliae) occurred on a farm in the Okanagan Valley, B.C. on which Verticillium wilt had been a problem for a number of years (G.E. Woolliams).

LILIUM - Lily

Botrytis blight (B. elliptica, B. cinerea) was sev. in the Provincial Nursery at Regina and caused extensive damage in a nursery at Parkside, Sask. (T. Milasin, A. Charlebois). It was tr. on Regal lilies at Kentville, N.S. (K.A. Harrison).

NARCISSUS - Narcissus, Daffodil

Smoulder (Botryotinia narcissicola). Infection was sl. in 1/4 plantings on Vancouver Island and in most plantings on the lower mainland of B. C. (R.P. Messum).

Bulb and stem nematode (Ditylenchus dipsaci) was observed in 3 fields on the lower mainland of B. C. (B. M. Lawson).

Basal rot (Fusarium sp.) occurred in 1/4 plantings inspected on Vancouver Island, B.C. (R.P.M.).

Root-lesion nematode (Prathylenchus penetrans) was found in 1 field in the lower mainland, B.C. (B. M. L.).

Scorch (Stagonospora curtisii) was prevalent in late March and early April in plantings on the lower mainland, B. C., especially in fields that had been frost damaged. It was sl. in 1/4 plantings on Vancouver Island (R. P. M., B. M. L.).

Mosaic (virus) was seen in 80% of the stocks of susceptible varieties on the lower mainland of B. C. Some: stocks had up to 3% infection (B. M. L.).

White streak (virud) was prevalent in most susceptible stocks in B. C. with symptoms appearing late in the season (B.M. L.).

PAEONIA - Peony

Botrytis blight (B. paeoniae) was prevalent in a nursery at Ocean Park, B.C. (Gibson, Watt). It was sl. in nurseries at Edmonton and Bowden (R.P. Brandrith), caused sl. damage in gardens at Cardston and Twin Butte (P.E. Blakely) and was prevalent in both new and old plantings in nurseries in s. Alta. (R. P. Stogryn). Several light infections were reported in Kings Co., N. S. (K.A. Harrison),

Stem rot (Sclerotinia sclerotiorum) affected 4 plants in a small nursery at Acton, Ont. (A.E. Straby).

PELARGONIUM - Geranium

Wilt (Verticillium dahliae) was found affecting P. hortorum an 2 farms at Trout Creek Point, nr. Summerland, B.C, (G.E. Wolliams).

Bacterial leaf spot (Xanthomonas pelargoni) caused sev. damage to young plants at the Exp. Farm, Saanichton and to cuttings in a greenhouse at Victoria, B.C. All cuttings of 2 varieties and 50% of 2 others were discarded (R.G. Atkinson).

Chemical injury (2, 4-D) caused damage in a home garden at Weston, Ont. (A.E. Straby).

PEPEROMIA

Root-knot nematode (Meloidogyne incognita). An infected specimen of P. sandersii was received from Dundas, Ont. (B.E. Hopper).

PHLOX

Powdery mildew (Erysiphe communis) was common on perennial phlox at Lethbridge, Alta. (F.R. Harper), sev. on the same host in a border at Ottawa, Ont. (D.W. Creelman) and sev. an 3000 plants in a nursery at Chomedy, Que. (A.E. Straby).

PSILOTUM

Stem rot (Gliocladium roseum) was found on 1 dead and 1 declining stem of P. nudum in a greenhouse at Carleton University, Ottawa, Ont. (W.I. Illman).

SCILLA - English Bluebell

Rust (Uromyces muscari (Duby) Lév. = U, scillarum (Grev.) Lév.). Moderate infection was seen on S. nonscripta at Saanichton, B.C. (W.R. Orchard).

TULLPA - Tulip

Fire (Botrytis tulipae). Primary fire was present in all. 18 fields inspected on the lower mainland of B.C. but little secondary infection occurred and losses were negligible, Secondary fire developed following May irrigation and June rains on Vancouver Island and considerable losses were sustained (B. M, Lawson, R.P. Messum). Several home plantings in the Barrie, Ont. district were affected (A. E. Straby). A light, general infection occurred early in Kings Co. , N.S. but dry, cool weather prevented further spread and development (K.A. Harrison).

ZINNIA

Alternaria blight (A. ~~zinniae~~). A light outbreak developed late in the season at Kentville, N.S, (K.A. Harrison).