

Wilt (Verticillium albo-atrum) infected 40% of the plants in 4/4 plantings at Ste. Foy, Que. (G. O.).

#### THUJA - Cedar

Browning (Winter drying). Specimens were received from Lotbinikre, Plessiville and Carleton, Que, (D. Leblond),

#### TILIA - Linden

Coral canker (Nectria cinnabarina). This organism was found associated with cankers on a number of European lindens at Ste. Foy, Que. (G.B. Ouelette).

#### ULMUS - Elm

Dutch elm disease (Ceratocystis ulmi). The known limits of the disease in s. Ont, were extended northw'ard to a line between Key Harbor and La Cave (B. W. Dance, D. F. Lynn). A considerable northwest extension of distribution was made in Que., with the discovery of diseased trees at new localities in Temiscouata and Bonaventure counties (G. B. Ouelette). A diseased tree was found at Tidehead, Restigouche Co., N. B. The disease is now known in 7/15 N. B. counties (A. W. Chiko, A. G. Davidson, W. R. Newell).

Black spot (Gnomonia ulmea). Chinese elm hedges and trees were frequently attacked in the Ottawa, Ont. district with damage ranging from sl, -sev. (P.K. Basu, H. S. Thompson).

Coral canker (Nectria cinnabarina). Mod. damage was observed on a hedge of U. pumila at Quebec City and specimens were received from Three Rivers and Luceville (D. Leblond). Several Chinese elms were killed by canker in the Cornerbrook area, Nfld. (W. J. Carrol),

Leaf spot (Phyllosticta melaleuca) was sl, on U. americana at Montreal, Que, (G. Ouelette).

#### VIBURNUM

Bacterial spot (Pseudomonas viburni). Infection was sl, on a few shrubs of V. carlesii at Village des Aulnaies, l'Islet Co., Que. (J. Riquet)

### VI. DISEASES OF HERBACEOUS ORNAMENTALS

#### ALTHAEA - Hollyhock

Rust (Puccinia malvacearum) occurred in varying degrees of severity throughout the Okanagan Valley, B. C. (G. E. Woolliams). It was sev. in a garden at Lethbridge, Alta. (T. G. Atkinson). Specimens were received from several locations in Que. (D. Leblond, J. Santerre)

## ANTIRRHINUM - Snapdragon

Root rot (Pythium sp.) was tr. in a garden at Cardston, Alta. (P. E. Blakeley).

Fasciation (? genetic) was observed in a planting on the University Campus, Vancouver, B. C. Stems were striated and ribbon-like. The flower parts were replaced by green bract-like structures (H. N. W. Toms).

## AQUILEGIA - Columbine

Powdery mildew (Erysiphe communis) was common in the Summerland, B. C. district (G. E. Woolliams).

## BEGONIA

Powdery mildew (Erysiphe communis) was common on tuberous begonias at Ottawa, Ont. One large planting showed 100% infection (D. W. Creelman). Specimens were received from Rivière du Loup and Mégantic, Que. (D. Leblond).

## CALENDULA

Aster yellows (virus). Heavy infections were seen in beds at the Botanical Gardens, Hamilton, Ont. (D. W. Creelman). Calendulas were less affected than usual at Kentville, N. S. (K. A. Harrison).

## CALLISTEPHUS - China Aster

Aster yellows (virus) showed varying degrees of infection at Guelph and Hamilton, Ont. and Montreal, Que. (D. W. Creelman). A sev. infection was recorded at La Pocatière, Que. (H. Gagnéux) and a light one at Gagetown, N. B. (S. R. Colpitts).

## CHRYSANTHEMUM

Leaf nematode (Aphelenchoides ritzema-bosi). Mod. -sev. infection occurred on chrysanthemums in a garden in Eastview, Ont. (H. S. Thompson).

## CYCLAMEN

Tuber rot (Erwinia carotovora). Young plants, 1-2 inches high with tubers three-eighths inch in diameter showed a killing of the roots and a soft rot of the petioles at Saanichton, B. C. The tubers bore numerous dark-brown, punctate lesions which exuded masses of bacteria (R. G. Atkinson).

## DAHLIA

Crown gall (Agrobacterium tumefaciens) was seen on 2 plants at Flin Flon, Man. (R. J. Ledingham).

Gray mold (Botrytis cinerea) was prevalent on dahlias in the Edmonton Alta. district (W. P. Skoropad).

Bud rot (Fusarium spp.) caused 30% damage to a planting at Levis, Que. (G. Ola'h).

Mosaic (virus). Mod. infections were seen in a number of home plantings at Gagetown, N. B. (S. R. Colpitts).

#### DELPHINIUM - Larkspur

Crown rot (cause undetermined) killed 1/6 plants in a garden at Winnipeg Man. (B. Peturson).

Powdery mildew (Erysiphe polygoni). Stalk and flower blight was sev. in a closely-planted stand at Fredericton, N. B. (K. M. Graham).

#### DIANTHUS - Carnation

Root and crown rot (Rhizoctonia solani). Plants in 2 large commercial plantings in the Ottawa, Ont. district suffered heavy damage. The cuttings used had been purchased from the same source and it appeared that the disease had been introduced with them (H. S. Thompson).

#### FICUS - Rubber Plant

Anthracnose (Glomerella cingulata). At Victoria, B. C. 90/100 plants of F. rubra imported from Florida suffered varying degrees of leaf spotting. An accompanying shipment of F. elastica had relatively little anthracnose. A shipment of field-grown plants of F. decora from another Florida location showed 6% infection with 3% of the plants being a complete loss (R. G. Atkinson). Infection was seen of F. elastica at Quebec City, Que. (G. Ola'h).

Leaf scorch (physiological). Three/30 plants of F. pandurata from Florida exhibited sev. symptoms of leaf scorch accompanied by slight oedema (R. G. A.).

#### GLADIOLUS

Corn rot (Botryotinia draytoni). Of 15 corms showing lesions at Kentville, N. S., 10 were affected by this disease (K. A. Harrison).

Flower blast (Botrytis cinerea). Infection of flowers and flower stalks was unusually sev. in Kings, Co., N. S. in 1962. Continuing wet weather favored infection of flower stalks, many of which rotted before the flowers opened (K. A. H.).

Yellows (Fusarium orthoceras f. gladioli) affected 4/15 corms in a lot examined at Kentville, N. S. (K. A. H.).

Scab (Pseudomonas marginata) was sl. in a number of lots of corms examined at Kentville, N. S. (K. A. H.).

Dry rot (Stromatinia gladioli). Losses were unusually heavy in Kings Co., N. S. in 1962 (K. A. H.).

Mosaic (virus), Thirty-five % of the plants from 3000 cormels of the variety Spotlight were rogued at Kentville, N. S. during the summer for mosaic. It is doubtful that all the mild symptoms were recognized. This situation is typical of most commercial stocks available (K, A. H.).

#### HELIANTHUS - Sunflower

Powdery mildew (Erysiphe communis). Cleistothecia were collected on the lower leaves of H. decapetalus in a hotel garden in Victoria, B. C. (H, N, W. Toms).

#### HOSTA - Plantain Lily

Leaf spot (Phyllosticta sp.). Infection was light in flower beds in Battlefields Park, Quebec City, Que. (D. Leblond).

#### HYDRANGEA

Powdery mildew (Erysiphe communis). Specimens were received from Moncton, N. B. (S. R. Colpitts),  
Frost injury was recorded at Quebec City and Caplan, Que. (D. Leblond).

#### IRIS

Leaf spot (Didymellina macrospora) was general in Kamouraska Co., Que. and quite heavy in some instances (J. Santerre). Infection was sev. in a planting of mixed varieties of bearded species at the Research Station, Fredericton, N. B. (K, M. Graham). Heavy late infection destroyed most of the foliage in iris plantings at Kentville, N. S. (K, A. Harrison).

#### LATHYRUS - Sweet Pea

Root rot (Fusarium spp.) was sev. at Fort Garry and sl. in a planting in Winnipeg, Man. (B. Peturson).

#### LILIUM - Lily

Botrytis blight (B. elliptica). Infection was mod. on 15% of the plants of the variety Mid-Century in a nursery at Chomedey, Que. (H. S. Thompson). Specimens were received from Rivière du Loup, Que. (J. Santerre). All varieties in a planting at Kentville, N. S. were severely affected (K. A. Harrison).

#### PAEONIA - Peony

Botrytis blight (B. paeoniae) was prevalent in the Edmonton, Alta. area (W. P. Skoropad).

Stem and rhizome rot (Rhizoctonia solani). A specimen received from Rothesay, N.B. showed sev. rotting. Hyphae and sclerotia of R. solani were abundant (K. M. Graham).

Mosaic (virus) affected 5% of the plants in a nursery at Sherbrooke, Que. (J. Rinquet).

#### PELARGONIUM - Geranium

Blackleg (Pythium sp.) caused sl. damage in a cutting bed at Saskatoon, Sask. (R.J. Ledingham).

#### PHLOX

Powdery mildew (Erysiphe cornmunis) was sev. in 3 gardens observed in Lethbridge, Alta. (P.E. Blakeley, F.R. Harper). It was recorded at St. Anselme, Ste. Foy, Trois Pistoles and St. George, Que. (G. Ola'h, D. Leblond) as well as from l'Islet Co., Que. (J. Santerre).

Downy mildew (Peronospora phlogina). Infection was rated at 20% on P. paniculata at Berthierville, Que. (G.O.).

#### PRIMULA - Primrose

Mosaic (virus) affected 5/200 clumps at Saanichton, B.C. Foliage was pale, yellow-green and the leaves were puckered with a downward curling of the margins. Flowers were smaller than normal and exhibited an upward curling of the petals (R.G. Atkinson).

#### TULIPA - Tulip

Firs (Botrytis tulipae) was prevalent in plantings in the Edmonton, Alta, area (W, P. Skoropad). It was observed in plantings in Quebec City and specimens were received from Laterrière, Chicoutimi Co., Que. (D. Leblond). Sev. infections developed in Kings Co., N.S. following the heavy rains in July (K.A. Harrison).

#### VIOLA - Pansy,

Leaf blight (Centrospora acerina). A planting of 10,000 seedlings at Coldbrook, Kings Co., N.S., was completely destroyed. This is the second nursery to be forced out of production by this disease (K.A. Harrison).

#### ZINNIA

Leaf blight (Alternaria zinniae) was sev. in a planting at Ste. Foy, Que. (D. Leblond).