

BACTERIAL BLIGHT (*Pseudomonas syringae*) was observed in a number of localities in coastal B.C. (w.R.F.).

WIND INJURY. Specimens were received from Cutknife and Rockhaven, Sask. (R.J.L.).

ULMUS - Elm

DUTCH ELM DISEASE (*Ceratocystis ulmi*). A northward range extension of about 30 miles, from Callendar to Sturgeon Falls, was recorded in e. Ont. (B.W.D., D.F.L.). It continued to spread in N.B. and was found in 1964 at Seville representing a northeasterly extension of about 40 miles down the Miramichi valley (L.P.M.).

LEAF SPOT (*Gnomonia ulmea*). Infected leaves of *U. pumila* were received from Yorkton, Sask. (R.J.L.).

CORAL CANCKER (*Tuberularia ulmi*) was found on *U. pumila* at Beaverlodge, Alta. (J.A.B.). Specimens on the same host were received from Québec City, Que. (D.L.) and sev. injury was observed on elms at Corner Brook, Nfld. (J.H., W.C.P.).

FROST INJURY caused sl. injury to leaves of 100 trees of *U. pumila* in a nursery at Spencerville, Ont. (A.E.S.).

VIBURNUM

ROOT-KNOT NEMATODE (*Meloidogyne hapla*) was found on roots of *Viburnum* sp. at St. Hilaire, Que. (M.O.T.).

POWDERY MILDEW (*Microsphaera penicillata*). Infection was sev. on *Viburnum tinus*, Laurestinus, in Victoria, B.C. (W.R.F.).

DISEASES OF HERBACEOUS ORNAMENTALS

ALTHAEA - Hollyhock

RUST (*Puccinia malvacearum*) was commonly seen in the Okanagan Valley, B.C. (G.E.W.) and was sev. at St. Casimir, Portneuf Co., Que. (D.L.).

STEM AND CROWN ROT (*Sclerotinia sclerotiorum*). A severely-rotted specimen was received from Victoria, B.C. Sclerotia were abundant in affected tissues (M.E.E.).

AQUILEGIA - Columbine

POWDERY MILDEW (*Erysiphe polygoni*) occurred frequently, late in the season, in the Okanagan Valley, B.C. (G.E.W.) and was reported from Edmonton, Alta. (A.W.H., D.S.).

BEGONIA

GRAY MOLD (*Botrytis cinerea*) caused a leaf blotch on begonias at Edmonton, Alta. (A.W.H., D.S.). Infection was sl.-mod. on 500 tuberous begonias in a greenhouse at Champigny, Que. (A.E.S.).

POWDERY MILDEW (*Erysiphe cichoracearum*). Infected specimens were received from Quebec City in Aug. and Sept. (D.L.).

CALENDULA

SMUT (*Entyloma polysporum*). Volunteer plants growing in a bed at Kentville, N.S. where calendulas were infected in 1963 became severely infected and finally defoliated. The organism apparently overwintered on leaf debris (K.A.H.).

CALLISTEPHUS - China aster

ASTER YELLOWS (aster yellows virus). The variety 'Queen of the Market' was 100% infected in a small planting at Kentville, N.S. by the first of Oct. (K.A.H.).

CHRYSANTHEMUM

POWDERY MILDEW (*Erysiphe cichoracearum*). Specimens were received from Calmar and Westlock, Alta. (A.W.H., D.S.). Heavily-infected leaves were received from Yam, Que. (D.W.C.).

WILT (*Verticillium albo-atrum*). Incidence in the coastal areas of B.C. was the highest in memory. Colder than normal spring temperatures favored the disease (W.R.F.).

DAHLIA

BUD ROT (*Botrytis cinerea*). A specimen was received from Levis, Que. (D.L.).

TUBER ROT (*Sclerotinia sclerotiorum*) affected one to several tubers from about 50% of the plants of the variety 'Unwin' at Summerland, B.C. Infection sometimes developed on the basal parts of old stems. Rot became evident soon after the plants were lifted in late Oct. (G.E.W.).

LOW-TEMPERATURE INJURY. Damaged tubers were received from Saskatoon, Sask. (R.J.L.).

DELPHINIUM - Larkspur

POWDERY MILDEW (*Erysiphe polygoni*) was observed at Edmonton, Alta. (A.W.H., D.S.).

DICENTRA - Bleeding heart

GRAY MOLD BLIGHT (*Botrytis cinerea*) affected plants at Edmonton, Alta. (A.W.H., D.S.).

EUPHORBIA - Poinsettia

ROOT ROT (*Thielaviopsis basicola*). Plants of 2 varieties received from an Ottawa, Ont. nursery were severely affected (H.S.T.).

FICUS - Rubber plant

ANTHRACNOSE (*Glomerella cingulata*). Affected specimens were received from Falker and Red Deer, Alta. (A.W.H., D.S.).

GLADIOLUS

LEAF AND FLOWER SPOT (*Botryotinia draytoni*) was sev. in a commercial planting for late flower production at Charlesbourg, Que. Varieties affected and extent of infection were: 'Spic and Span', 90% infection in 12,000 plants; 'General Eisenhower', 60% infection in 3,000; 'Leeuwenhorst', 50% infection in 3,000 (A.E.S.). Trace infections were seen at Kentville, N.S. (C.O.G.).

GRAY MOLD (*Botrytis cinerea*) was reported from Edmonton and St. Paul, Alta. (A.W.H., D.S.). Dull, rainy weather in late Sept. and early Oct. in the Annapolis Valley, N.S. resulted in very severe infection of petals of late-flowering gladiolus varieties (K.A.H.).

CORM LESIONS (*Curvularia trifolii* f. sp. *gladioli*). A lot of 300,000 corms of 'Spic and Span', grown at Leamington, Ont. and destined for export, was found to be heavily infected by this organism and was refused certification (A.E.S.).

CORM ROT (*Fusarium oxysporium* f. *gladioli*) was reported from Leduc, Alta. (A.W.H., D.S.). Twenty per cent of 10,000 corms from a Guelph, Ont. grower were found affected at Fort William, Ont. A trace of infection was seen in a smaller shipment from the same Guelph grower at Montreal, Que. (A.E.S.). The variety 'Life Flame', apparently highly susceptible, was 90% infected at Kentville, N.S. An adjacent row of 'Snow Princess' was unaffected (K.A.H.).

SCAB (*Pseudomonas marginata*) was seen at Wetaskiwin, Alta. (A.W.H., D.S.). It sl. in lot of mixed varieties at Kentville, N.S. (K.A.H.).

NECK ROT (*Stromatinia gladioli*) was sev. on the more susceptible varieties in most plantings in Kings Co., N.S. The usually-resistant variety 'Spotlight' showed

8% infection in an isolated planting that had been free of the disease for 2 years (K.A.H.).

MOSAIC (virus). In a planting at Kentville, N.S., 35% of the plants of a lot of 'Spotlight' were rogued because of virus symptoms. The same lot was 77% rogued in 1962 and 56% rogued in 1961. It is apparent that roguing is not an effective means of eliminating mosaic from severely-infected gladiolus stocks (K.A.H.).

WHITE STREAK (virus) was sev. in a planting at Ste. Foy, Que. (D.L.).

IRIS

LEAF SPOT (*Didymellina macrospora*) caused slight damage in a planting of 'Wedge-wood' iris - set out for field bloom on Vancouver Island, B.C. None was seen in 3 plantings entered for inspection (R.P.M.). It was mod. on 50 rhizomatous iris plants in a nursery nr. Kingston, (A.E.S.) and ranged from sl.-sev. in Ottawa, Ont gardens (H.S.T.). Infection was 50% at Kentville, N.S. (C.O.G.).

RUST (*Puccinia iridis*) occurred on Iris versicolor at Kentville, N.S. (C.O.G.)

NARCISSUS - Daffodil

SMOLDER (*Botryotinia narcissicola*) occurred in tr. amounts on Vancouver Island (R.P.M.) and was seen in 10/20 fields on the Lower Mainland, B.C. (B.M.L.).

BULB AND STEM NEMATODE (*Ditylenchus dipsaci*) caused some losses on Vancouver Island in the fields of one large grower who neglected to treat his bulbs with the recommended hot water treatment (R.P.M.). A 3-acre field on the Lower Mainland, B.C., which produced 20 tons of the variety 'Flower Carpet', was badly infested. The harvested bulbs were all given the prescribed hot water-formalin treatment (B.M.L.).

MEADOW NEMATODES (*Pratylenchus* spp.) were found in 2/20 fields in the Lower Mainland, B.C. Those portions of the fields shown to be infested were fumigated (B.M.L.).

SCORCH (*Stagonospora curtisii*), which was found in tr. amounts only on Vancouver Island, occurred as slight-moderate infections in all 20 fields inspected on the Lower Mainland, B.C. Yield losses up to 10% were recorded (R.P.M., B.M.L.).

MOSAIC (virus). A major planting of 'King Alfred' on Vancouver Island had 1.3% infection. Favorable weather conditions allowed its complete eradication by roguing (R.P.M.). It was found in 5/20 fields inspected on the Lower Mainland of B.C. (B.M.L.).

WHITE STREAK (virus) was prevalent in most narcissus stocks in the Lower Mainland, B.C. late in the season. The disease is causing noticeable yield reductions in many narcissus stocks in the Fraser Valley (B.M.L.).

PAEONIA - Peony

BOTRYTIS BLIGHT (*Botrytis paeoniae*). Diseased specimens were received from Acme, Calgary, Vilna and Vulcan, Alta. (A.W.H., D.S.). Infection was mod. at Ste. Foy, Que. (D.L.) and sev. on one plant at St. John's, Nfld. where peonies are not commonly grown (O.A.O.).

ROOT-KNOT NEMATODE (*Meloidogyne hapla*) was found on peony roots from the Toronto, Ont. area. (M.o.T.).

PELARGONIUM - Geranium

GRAY MOLD (*Botrytis cinerea*) caused a severe leaf spot and blossom blight on a large number of plants in an Ottawa, Ont. garden (H.S.T.).

BACTERIAL LEAF SPOT (*Xanthomonas pelargonii*) caused considerable damage in a greenhouse at Victoria, B.C. The pathogen was isolated and its pathogenicity demonstrated by inoculation into healthy plants (W.R.F., G.E.W.).

DAMPING-OFF (various soil organisms) was reported from Edmonton, Alta. (A.W.H., D.S.).

PETUNIA

STEM ROT (*Sclerotinia sclerotiorum*) affected a number of varieties, particularly 'Coral Satin', at Regina, Sask. (H.S.T.).

PHLOX

STEM AND LEAF BLIGHT (*Colletotrichum dematium*) was mod. on 500 plants in a nursery at St. Laurent, Que. (A.E.S.).

POWDERY MILDEW (*Erysiphe cichoracearum*). Heavy infection was seen on *P. paniculata* in 2 Ottawa, Ont. gardens (D.W.C.).

LEAF SPOT (*Septoria phlogis*). Infection on *P. paniculata* was sl. at Deschambault, mod. at Cap Rouge and St. Joachim and sev. at Champigny, Que. (D.L.).

TAGEETES - Marigold

ASTER YELLOWS (aster yellows virus) was seen on 9/75 plants examined at St. Catharines, Ont. It was observed on *Plantago*, *Taraxacum* and *Aster pillosa* in the same area (T.R.D.).

TULIPA - Tulip

FIRE (*Botrytis tulipae*) was seen only as traces in 3 plantings on Vancouver Island. Less secondary fire was seen than for many years (R.P.M.). Considerable fire developed on the Lower Mainland of B.C. in areas where air drainage was poor. Reductions in yield were as high as 15% (B.M.L.). A specimen was received from Levis, Que. (D.L.) and damage was sl. after bloom at Kentville, N.S. (K.A.H.).

SOFT ROT (*Erwinia carotovora*) was observed at Brooks, Alta. (A.W.H., D.S.).

BREAK (virus) affected the variety 'Sweet Harmony' and others in a garden at Toronto, Ont. (H.S.T.).

ZINNIA

POWDERY MILDEW (*Erysiphe cichoracearum*) was prevalent in a number of gardens at Ottawa, Ont. (H.S.T.) and at St. Jean, Que. (R.C.).