damage to S. americana was stated to be extensive although it is suspected that prior winter injury was a factor. Both perfect and imperfect states of the fungus were in good fruit. Although this is the first report to the Survey, Mrs. R. H. Arnold states that Kern (Phytopath. Z. 40: 303-314.1966.) refers to collections on Sorbus from Percé and Anse Pleureuse, Que. The organism is close to Valsa cincta but is considered separate on the basis of host affinities (D.W.C.). The same organism caused slight damage to 100 trees of S. aucuparia in a nursery at Fabreville, Que. (A.E.S.).

CORAL CANKER (Nectria cinnabarina) caused a shoot blight of mountain ash at Nevon, Alta. (A.W.H.).

SPIRAEA

CORAL CANKER (Nectria cinnabarina) caused a die-back of spiraeas at Ste. Foy, Que. The affected twigs were covered with a black mold, Fumago sp. (D.L.).

SYMPHORICARPOS - Snowberry

POWDERY MILDEW (Microsphaera diffusa). Specimens on S. albus were received from Chateau Richer, Montmorency Co., Que. (D.L.).

SYRINGA - Lilac

POWDERY MILDEW (Microsphaera penicillata). White lilacs were heavily infected in a garden in Ottawa, Ont. Standard purple cultivars in the same garden were less seriously affected (D.W.C.). Infection was rated 2-sl. 3-mod. 1-sev. in nurseries inspected in Que. (J.R.).

SHOOT BLIGHT (Phytophthora citricola Sawda.) was observed at Athabaska, Brooks, Edmonton, Rosebud and Sundre, Alta. The pathogen was determined by D. L. McIntosh (A.W.H.). Phytophthora syringae (Kleb.) Kleb. was reported (Can. Plant Dis. Surv. Ann. Rept. 20: 98. 1941) from La Pocatikre, Que. by R.O. Lachance. According to Waterhouse (C. M. I. Misc. Publ. No. 12. pp. 1-120. 1956.), these two species are distinct (D.W.C.).

BACTERIAL BLIGHT (Pseudomonas syringae). Specimens were received from Didsbury and Red Deer (A.W.H.) and it was found in 2 garden plantings at Lethbridge, Alta. (F.R.H.).

ULMUS - Elm

DUTCH ELM DISEASE (Ceratocystis ulmi). The known distribution in Ont. was extended to the Sudbury district. Infected trees were found as far west as Spanish on the mainland and on Manitoulin Island (B.W.D.). Known distribution in N.B. did not change greatly in 1965. Its occurrence at St. Andrews, 15 miles from the nearest known infection at Milltown, represents the greatest extension (L.P.M., G.A.V.S.).

DIE-BACK (Cytospora sp.) affected 2/25 trees of U. parvifolia at Fort William, Ont. Infection was probably secondary following undetermined injury (A.E.S.).

LEAF SPOT (Gnomonea ulmea) caused slight damage to U. parvifolia in a nursery at Campbell's Bay, Ont. (A.E.S.).

CORAL CANKER (Nectria cinnabarina) was responsible for moderate to severe damage to U. pumila at Cornerbrook, Nfld. (J.H.).

TWIG BLIGHT (Tubercularia ulmea). Affected specimens were received from Loretteville, Que. (D.L.).

CHEMICAL INJURY. Spray drift of 2,4-D caused moderate to severe injury to several young elm trees at Ste. Foy, Que. (G.B.O.).

DISEASES OF HERBACEOUS ORNAMENTALS

ALTHAEA - Hollyhock

RUST (Puccinia malvacearum) was observed in the Okanagan Valley, B. C. (G.E.W.) and at Edmonton and Sangudo, Alta. (A.W.H.). Affected specimens were received from East Angus, Que. (D.L.).

AQUILEGIA - Columbine

POWDERY MILDEW (Erysiphe polygoni) occurred generally throughout the Okanagan Valley, B. C. late in the summer (G.E.W.).

BEGONIA

POWDERY MILDEW (Erysiphe cichoracearum). Specimens were received from Levis, Que. (D.L.).

BACTERIAL LEAF SPOT (Xanthomonas begoniae). Infected leaves were received from Ormiston, Sask. in October (D.W.C.).

SPOTTED WILT (virus) affected 5% of the begonias in a greenhouse at Yarmouth, N.S. All leaves of affected plants showed ringspot symptoms (A.A.MacN.).

CALENDULA

SMUT (Entyloma polysporum). All plants in a planting at Wolfville, N.S. were infected. Infections in early June will cause death before fall. Later infections disfigure the foliage but plants will continue to flower (K.A.H.).

CALLISTEPHUS - China aster

WILT (Fusarium oxysporum f. callistephi). Infected specimens were received from Edmonton and Stony Plain, Alta. (A.W.H.).

ASTER YELLOWS (aster yellows virus). Infection was rated 25% in a home garden at Port Morien, N. S. (A.A.MacN.).

CHRYSANTHEMUM

VASCULAR DISCOLORATION (Ascochyta chrysanthemi Stev.). Most plants in a propagator's greenhouse at Leamington, Ont. had reddish-brown discolored vascular tissues at the stem bases. A. chrysanthemi was isolated, often in association with Pectobacterium carotovorum var. chrysanthemi (J. H. H.). This represents a new record for Canada (D.W.C.)

GRAY MOLD (Botrytis cinerea). The pathogen was isolated from diseased plants in a propagator's greenhouse at Leamington, Ont. (J.H.H.).

BACTERIAL BLIGHT (Pectobacterium carotovorum f. sp. chrysanthemi) affected chrysanthemums in a propagator's greenhouse at Leamington, Ont. Infected plants were dwarfed with an upward curling of the leaves. P. c. f. sp. chrysanthemi was isolated and its pathogenicity proven by Koch's postulates (J H.H.). This disease has not been reported in Canada (D.W.C.).

CYCLAMEN

ROOT-KNOT NEMATODE (Meloidogyne hapla) occurred on roots of florists' cyclamen at Cote St. Luc, Que. (M.W.).

DAHLIA

CROWN GALL (Agrobacterium tumefaciens). Infected specimens were received for diagnosis from Montreal, Que. (D.W.C.).

DATURA

RING MOSAIC (virus) caused severe leaf distortion on D. metel at Deschambault, Que. (D.L.).

DELPHINIUM - Larkspur

BACTERIAL LEAF SPOT (Pseudomonas delphinii) Specimens were received from Charlevoix Co., Que. showing profuse spotting of leaves and stems. The grower reported that the disease had been present for 2 years and was spreading (D.W.C.).

ASTER YELLOWS (aster yellows virus). Typical infections were seen in a Saskatoon, Sask. garden. Generally aster yellows was not a problem in ornamentals in 1965 (R.J.L.).

GLADIOLUS

CORM ROT (Botryotinia draytoni). Affected specimens were received from Edmonton and Rochester, Alta. (A.W.H.).

CORM ROT (Curvularia trifolii f. sp. gladioli, Fusarium oxysporum f. gladioli). One-half of a 1000 corm lot of 'Early Spring' at Leamington, Ont. was refused export certification on examination. Both fungi were present on the same corms and the symptoms of Curvularia were very pronounced on the husks (A.E.S.). Several small lots at Kentville, N.S. were infected with F. o. f. gladioli. 'Life Flame' appeared to be the most susceptible (K.A.H.).

YELLOWS (Fusarium orthoceras var. gladioli). Average damage was slight in a 1-acre field grown nr. Harrow, Ont. but was severe in a low area of the field (A.E.S.).

SCAB (Pseudomonas marginata). Specimens were received from Ponoka and Stony Plain, Alta. (A.W.H.). Traces were seen on cormels of 'Spotlight' at Kentville, N.S. No infection had been seen in the stock in 1963 and 1964 and it was grown in 1965 in soil which had never grown gladiolus previously (K.A.H.).

NECK ROT (Stromatinia gladioli). Approximately 5% of 20,000 plants at St. Eustache, Que. were infected at the time of field inspection in Aug. (A.E.S.). Very little infection was seen at Kentville, N.S. , probably because of the dry summer. Even the highly susceptible cultivar 'Spotlight' was free of infection (K.A.H.).

LEAF SCORCH (atmospheric fluorides). Specimens were received from Kitimat, B.C. (W.R.F.).

HEUCHERA

RUST (Puccinia heucherae). All leaves in a planting for export at Brandon, Man. were infected (W.C.McD.).

HOYA - Waxflower

ANTHRACNOSE (Colletotrichum gloeosporioides) caused gradual defoliation and death of H. carnosa at Woodfibre, B.C. (H.N.W.T.).

IMPATIENS - Balsam

ROOT-KNOT NEMATODE (Meloidogyne hapla) was reported on roots of Impatiens sp. from Calgary, Alta. (M.W.).

IRIS

LEAF SPOT (Didymellina macrospora). None was found in 1965 during inspection of 500,000 plants on Vancouver Island, B.C. (R.P.M.). Moderate infections were seen on rhizomatous iris in all 4 nurseries inspected in the Port Arthur, Ont. district (A.E.S.).

LILIUM - Lily

ROOT, BASAL PLATE AND SCALE ROT (various organisms) were observed on Lilium maxwelli x L. wilmontii (Paterson's hybrids) at the University of Saskatchewan, Saskatoon, Sask. The predisposition to rot may be due mainly to poor soil condition -- a heavy clay loam, but there appears to be a relationship between cultivar and rotting. 'Lillian Cummings' is resistant; 'Apricot Glow', 'Enchantment' and 'Dunkirk' are susceptible. New seedlings show various degrees of resistance. Colletotrichum gloeosporioides, Cylindrocarpon radicicola and Rhizoctonia solani isolated from lesions showed the ability to cause rot on detached, wounded bulb scales. Only C. gloeosporioides was able to cause rot on undamaged scales of some cultivars (J.D.S.). All bulbs in a lot of 3000 at Brampton, Ont. had basal scale and root lesions attributed to Rhizoctonia solani and some 1500 plants of 'Croft Easter' at Bell's Corners, Ont. showed about 70% damage from the same organism. Plants were short with many of the buds papery rendering them unsaleable. Other organisms present were Pythium spp., Pratylenchus penetrans and Aphelenchoides sp., possibly A. subtenuis (A.E.S.).

MYOSOTIS - Forget-me-not

POWDERY MILDEW (Oidium sp.) was severe in a planting at Deschambault, Que. (D.L.).

NARCISSUS - Daffodil

NEMATODES (Aphelenchoides saprophilus) were found in narcissus bulbs from Ottawa, Ont. (M.W.).

SCORCH (Stagonospora curtisii). Average infection was slight in 7/17 plantings examined on the lower mainland of B.C. It was not observed on Vancouver Island (B.M.L., R.P.M.).

MOSAIC (virus). Trace infections were seen in 3/17 fields on the lower mainland and in 1 field on Vancouver Island, B. C. (B.M.L., R.P.M.).

PAEONIA - Peony

BOTRYTIS BLIGHT (Botrytis paeoniae). Infected specimens were received from Claresholm, Red Deer and Sarrail, Alta. Infection at Sarrail was severe (A.W.H.). Blight was seen at St. Foy and specimens were received from Levis, Que. (D.L.).

PELARGONIUM - Geranium

BASAL STEM ROT (Botrytis cinerea) was seen on stem cuttings for propagation at several locations in the Okanagan Valley, B.C. (G.E.W.).

PETUNIA

STEM ROT AND WILT (Sclerotinia sclerotiorum) caused extensive damage in 3 plantings at Victoria, B. C. The disease has built up because of lack of rotation. Plants developed a permanent wilt: stems became chlorotic and hollow and unable to support foliage and bloom. Sclerotia and mycelium were abundant in the tissues at the bases of affected stems (W.R.O.).

PHLOX

POWDERY MILDEW (Erysiphe cichoracearum). Infections were slight to moderate in 9 nurseries inspected in Que. (J.R.) and specimens were received from Vincennes, Champlain Co., Que. It is troublesome each year on perennial phlox (D.L.). It caused heavy defoliation in garden plantings in the Kentville, N.S. district. Drought apparently favored infection and disease development (K.A.H.).

TULIPA - Tulip

FIRE (Botrytis tulipae). Secondary fire was slight to severe on all cultivars on Vancouver Island, B. C. but cooler than average temperatures in May and June offset most of the effects of partial defoliation and bulb growth was good. No primary or secondary fire was seen on 20,000 tulips planted on light, well drained, newly broken land (R.P.M.). Trace amounts were seen in a planting on the lower mainland of B. C. (B.M.L.). At Kentville, N.S., slight damage was evident in plantings left down for 2 years. First-year plantings were free of infection Spread was not evident because of the dry weather (K.A.H.). Practically all blooms in a greenhouse at St. John's, Nfld. were conspicuously spotted in April. The symptoms had developed over a period of 3 days (O.A.O.).

FROST. One planting in a frost pocket on the west side of the Saanich Peninsula on Vancouver Island, B.C. suffered severe damage. This was followed by botrytis fire and the tops were almost completely destroyed. (R.P.M.).

VIOLA - Pansy

LEAF SPOT (Centrospora acerina). Infections were rated trace to 1% in plantings examined in Kings Co., N.S. (A.A.MacN., K.A.H.).

LEAF SPOT (Cercospora granuliformis). Fifty% of the old leaves in a nursery planting in Kings Co., N.S. were infected (A.A.MacN., K.A.H.).

ZINNIA

POWDERY MILDEW (Erysiphe cichoracearum). Infection was moderate, late in the season, in a home garden at Ottawa, Ont. (D.W.C.).

STEM CANKER (Rhizoctonia solani). A small percentage of dwarf zinnias were killed in a home planting at Ottawa, Ont. (D.W.C.).

ZYGOCACTUS - Christmas cactus

STEM ROT (Fusarium sp.). Specimens were received from Montreal, Que. A species of Fusarium was consistently isolated from affected areas at the bases of stems (P.K.B.).