V. DISEASES OF TREES AND SHRUBS

ABIES - Fir

Witches' Broom (Melampsorella caryophyllacearum) was observed on 15 trees of A. balsamea in Queens Co., P.E.I. (R.R. Hurst).

ACER - Maple

Twig Canker (Coryneum negundinis). Specimens on A. negundo were received from Lancaster and Chatham, N.B. through Dr. A.G. Davidson who reported this fungus to be common and apparently the cause of very evident cankers (J.A. Parmelee).

Anthracnose (Gloeosporium apocryptum), particularly on A. palmatum, caused defoliation in Essex, Harrow and Windsor, Ont. Three applications of an organic fungicide (unspecified) at 2-week intervals, beginning when the leaves unfold, gives good control (R.W. Walsh).

Coral Canker (Nectria cinnabarina) infected 4 trees of A. platanoides at Boischatel, Que, following winter injury. It is probable that the trees will die (D. Lebland).

Leaf Spot (Phyllosticta acericola). Mod.-sev. infections were found in a planting of 5000 trees of A. saccharinum in a nursery at Bowmanville, Ont. (H.S. Thompson).

Tar Spot (Rhytisma acerinum) was mod, in a small plantation of A. platanoides near Kingsville, Ont. It had not been observed in s.w. Ont. in several years (R.W.W.). It was mod, on A. saccharinum at Charlesbourg and Lachute, Que, (J. Ringuet).

Frost Injury. Frost damaged the unfolding leaves of A. platanoides in Essex Co., Ont. resulting in a ragged appearance of the fully expanded leaves (R.W.W.).

AESCULUS - Horsechestnut

Leaf Blotch (Guignardia aesculi) caused mod.-sev. damage to A. hippocastanum planted as shade trees in Brockville and Prescott, Ont. (D. W. Creelman).

BERBERIS - Barberry

Leaf Spot (Phyllosticta berberidis) was collected on B. thunbergii in Quebec City, Que. (D.L.).

Rust (<u>Puccinia graminis</u>) was heavy on seedlings and young transplants of <u>B</u>. <u>vulgaris</u> var. <u>atropurpurea</u> in a nursery near Joliette, Que. (J. Ringuet).

BETULA - Birch

Leaf Curl (<u>Taphrina carnea</u>) was sev. on <u>B</u>. <u>lutea near the Montmorency River in Que. (D.L.).</u>

Frost Injury. Specimens of leaves of B. lutea received from Kingston, Ont. had been damaged by frost in May (H.N. Racicot).

CATALPA

Coral Canker (Nectria cinnabarina) was seen on Catalpa in a nursery at St. Hilaire Station, Que. (H.S.T.).

Verticillium Wilt (V. albo-atrum). Several cases of wilt were observed in Essex Co., Ont. On smaller trees the disease often proved fatal, but on larger trees most large limbs made a partial recovery and produced new foliage (R.W. Walsh).

CHAMAECYPARIS - Cypress

Root and Collar Rot (Phytophthora lateralis and P. cinnamomi), has increased greatly on C. lawsoniana in recent years in B.C. (W.R. Foster).

CORNUS - Dogwood

Canker (Cytospora sp.) was sev. on specimens of Cornus sp. received from a nursery at Charlesbourg, Que. (H.S.T.).

Winter Injury. Native dogwoods (C. nuttalli) in home gardens and in natural conditions in Vancouver, B.C. injured in the 1955 November freeze continued to die throughout 1957 (H.N.W. Toms).

COTONEASTER

Leaf Spot (Phyllosticta sp.) caused sl. damage to C. acutifolia in a nursery at Neuville, Que. (D.L.).

ILEX - Holly

Pin and Ring Nematodes (Paratylenchus sp. and Criconemoides sp.) were found in association in the root zone of a tree of I. aquifolium showing pale, thin foliage and yielding a persistently poor berry crop. Other trees of normal growth in the plantation were either free or carried very small populations of nematodes (J.E. Bosher).

JUGLANS - Walnut

Leaf Spot (Marssonina juglandis) was mod. on specimens received from Beaurepaire, Que. (H.S.T.).

LABURNUM

Canker (Cucurbitaria laburni) followed winter injury to trees at Charlottetown, P.E.I. (D.B. Robinson, J.E. Campbell).

PLATANUS - Plane tree

Anthracnose (Gnomonia veneta). Both leaf and twig blight was sev. on a plane tree at Merriton, Ont. Partial defoliation had occurred and twigs and some small branches had died back. Fruiting structures were found in abundance on the twigs and on small branch cankers. The disease was affecting the entire tree (W.G. Kemp).

POPULUS - Poplar

Scab (Pollacia radiosa) was tr.-10% on P. grandidentata causing sl. damage at Kentville, N.S. (D.W.C.).

Yellow Leaf Blister (<u>Taphrina populina</u>). Light infections occurred on <u>P</u>, <u>canadensis var</u>, <u>eugenei</u> in a nursery at Unionville, Ont. (H.S.T.).

PRUNUS - Flowering Cherry

Black Knot (Dibotryon morbosum) was sev. on 1 tree of Prunus padus var. commutata at Masham, Que. (H.N. Racicot).

PYRUS - Mountain Ash

Rust (Gymnosporangium cornutum). An extremely heavy infection occurred on the leaves of P. decora at Clearwater Bay, Ont. There was no infection on P. aucuparia in close proximity to the native species (W.L. Gordon). Rust was general on P. americana at St. John's and Placentia, Nfld. (O.A.O.).

QUERCUS - Oak

Anthracnose (Gnomonia veneta) was common on Q. alba in Colchester Twp. in s.w. Ont. Defoliation was up to 15% and few leaves escaped infection (R.W.W.).

Leaf Blister (<u>Taphrina caerulescens</u>). All oaks on Hay Island, near Gananoque, Ont, were heavily infected. The trees do not appear to suffer much from this disease (D.W.C.).

Wilt, apparently caused by too deep soil over the roots and around the trunk sev. affected a tree of Q. macrocarpa on a lawn at Fort Garry, Man. (W.E. Sackston).

RHAMNUS - Buckthorn

Coral Canker (Nectria cinnabarina). A 50-foot hedge of R. dahurica in Ottawa, Ont. was sev. affected for about 1/4 its length (H.S.T.).

Crown Rust (Puccinia coronata). Light infections occurred on R. cathartica at Summerside and Charlottetown, P.E.I. (J.E. Campbell). Both R. cathartica and R. frangula in Kings Co., N.S., bore light rust infections (D.W.C.).

RIBES - Flowering Currant

Anthracnose (<u>Drepanopeziza ribis</u>) was heavy on young <u>R</u>. alpinum transplants in a nursery at Sheridan, Ont. (H.S.T.), and in a nursery near Ottawa (J.A. Parmelee). It was mod. on the same host in 6 nurseries near Montreal and Quebec City, Que. (J. Ringuet).

ROSA - Rose

Crown Gall (Agrobacterium tumefaciens). Single plants of Blaze and Dorothy Perkins were heavily infected at Charlottetown, P.E.I. (R.R. Hurst). It was sev. on 2 plants in a Kentville, N.S. rose garden (J.F. Hockey).

Canker (Cytospora ambiens) was sev. on roses in Quebec City, Que. (D.L.).

Black Spot (Diplocarpon rosae) appeared late in the Harrow, Ont, district but some varieties were defoliated by mid-Aug, where spraying was neglected (R.W. Walsh). The disease was sev, in the Niagara Peninsula. At. St. Catharines both hybrid teas and floribundas were partially defoliated by early Aug. Hybrid teas sprayed with either Captan 50 W Micronized, Captan 50 W, or Phaltan showed little infection throughout the season (W.G.K.). Heavy infections caused defoliation at Charlottetown, P.E.I. (R.R.H.). Black spot was sev. on Symphonie, Mrs. Calcombeth, Paarl von Aalsmeer and The Doctor and sl. on Peace and Masquerade at Kentville, N.S. (J.F.H.).

Powdery Mildew (Sphaerotheca pannosa). A few potted rose bushes were mod. infected at Amherstburg, Ont. (W.G.K.). In general it was a bad year for powdery mildew on roses in P.E.I. Frau Carl was heavily infected and Blaze to a lesser degree at Charlottetown (R.R.H., J.E.C.). Mildew appeared late in the summer on unsprayed bushes at Kentville, N.S. (J.F.H.).

Rust (Phragmidium sp.) was tr. on hybrid perpetuals at Charlottetown, P.E.I. (R.R.H.).

SALIX - Willow

Crown Gall (Agrobacterium tumefaciens). Aerial galls were seen on S. alba var. tristis at Ste. Foy, Que. (J. Ringuet).

Scab and Twig Blight (Fusicladium saliciperdum, Physalospora miyabeana) was sev. at St. Jean Port Joli and Trois Pistoles, Que. (D.L.). Willow blight was not serious in N.S. early in the season but as summer progressed many shoots on old willows were killed back. The old French willows at Grand Pré park were sprayed after a year of neglect and some recovery was noted (K.A. Harrison).

Anthracnose (Marssonina kriegeriana) caused sl. damage to S. alba var. tristis in a nursery at Rougemont, Que. (D.L.). The spores in this specimen, at $18-20 \times 5-8 \mu$, are somewhat larger than those given for M. kriegeriana, by Saccardo, but otherwise it agrees well (D.W.C.).

Die Back (various organisms). Phoma, Cytospora and Rhabdospora sp. were found associated with a dieback of S. pentandra at Rougemont, Que. The exact cause of the condition is undetermined (D.L.).

SPIRAEA

Foot Rot (Fusarium sp.) caused mod. damage to S. vanhouttei at Quebec City, Que. (D.L.).

Leaf Spot (Gloeosporium sp.) was mod. on S. vanhouttii at Quebec City, Que. (D.L.).

SYRINGA - Lilac

Powdery Mildew (Microsphaera alni) was sev. on white lilacs at Charlottetown, P.E.I. (R.R. Hurst).

THUJA - White Cedar

Dessication. Several cases of sev. injury or death of T. occidentalis were noted in Kent and Essex Counties, Ont. Trees appeared normal until growth began in the spring when branch's and twigs at the tops of trees turned brown and dropped. The condition occurred most frequently where soil moisture was low and where trees were exposed to drying winds (R.W. Walsh).

ULMUS

Dutch Elm Disease (Ceratocystis ulmi). The presence of this disease on single trees at Port Dalhousie, Grantham, St. Catharines and Port Weller, Ont., was confirmed by the Forest Pathology Laboratory, Maple, Ont. (W.G. Kemp, G.C. Chamberlain). Dutch Elm Disease was observed for the first time in New Brunswick at Woodstock. The identification was confirmed by the Forest Pathology Lab., Quebec City (D. Creelman).

Leaf Spot (Gnomonia ulmea) caused considerable yellowing and leaf drop at St. Catharines, Ont. (G.C.C.). It was heavy on Chinese elm in a nursery at St. Laurent, Que. (H.S.T.).

Coral Canker (Nectria cinnabarina) occurred on both trunks and branches of Chinese elm in a hedge at Montreal, Que. Damage was sev. (H.S.T.).