

V. DISEASES OF FOREST AND SHADE TREESASH (Fraxinus)

Leaf spot (Piggotia Fraxini) was found on ash planted at the Forestry Station and the Experimental Farm, Indian Head, Sask., as well as on native trees in the valleys.

BALSAM FIR (Abies balsamea)

Witches' broom (Melampsorella Caryophyllacearum) slightly affected balsam fir in Kamouraska county, Que. It was reported to be widespread in N.B. It was prevalent in young stands in Kings and Annapolis counties, N.S.; the brooms were of varying sizes. It was also reported from P.E.I.

Canker (Aleurodiscus amorphus). The fungus was common on dead and living branches and on lesions at the base of branches in the Timagami Forest Reserve, Ont. The fungus is perhaps a saprophyte on frost-killed spots. (W.R. Haddow)

BASSWOOD (Tilia)

Leaf spot (Cercospora microsora) found on Mt. Yamaska, Que. (B.O. Savile)

BEECH (Fagus)

Canker (Nectria coccinea). Large trees under forest conditions have been killed at Kentville, N.S., while large trees in the open have survived although cankers are present on the trunks of many. Small trees in the forest are living although badly cankered. (K.A. Harrison)

BIRCH (Betula)

Stereum purpureum is common on living paper birch in the Timagami Forest Reserve, Ont. It is apparently associated with a canker.

BUTTERNUT

Nectria sp. was found on a few butternut trees at the Experimental Station, Fredericton, N.B., following winter injury.

ELM (Ulmus)

Black spot (Gnomonia Ulmi) was reported at Indian Head, Sask.; on several roadside trees in Lincoln county, Ont.; it was severe at Macdonald College, Que.

HORSE CHESTNUT (Aesculus)

Canker (Nectria cinnabarina) affected several trees, which are rapidly dying, in York and St. John counties, N.B.

Leaf blight (Guignardia Aesculi (Phyllosticta Paviae) caused severe injury to the leaves and may have caused the death of twigs and branches, which appear as if they had been winter killed in Queens county, P.E.I.

MAPLE (Acer)

Tar spot (Rhytisma acerinum) was reported as very common on Acer saccharinum in N.B. and as heavily infecting A. spicatum at Ste. Anne de la Pocatière, Que.

Leaf spot (Phyllosticta minima (Berk. & Curt.) Ell. & Ev.) moderately affected the leaves of A. rubrum and A. saccharum at La Pointe du Lac, Que.

Bark canker (Nectria sp.). Considerable areas of cankered bark were noticed on dying trees at Kentville, N.S. (J.F. Hockey)

MOUNTAIN ASH (Sorbus)

Fire blight (Erwinia amylovora). Diseased specimens were received in 1934 from Richmond Hill, Ont. (D.H. Jones). A trace of blossom blight was reported from Farnham, Que. It was heavy on 2 trees at Charlottetown, P.E.I.

Rust (Gymnosporangium Juniperi) was found several times on leaves at Ste. Anne de la Pocatière, Que.

Nectria sp. was present on a few trees at the Experimental Station, Fredericton, N.B. It may have developed following frost injury. (J.L. Howatt)

OAK (Quercus)

Powdery mildew (Microsphaera Alni var. extensa). Traces only found on Q. alba in Queens county, P.E.I., whereas it heavily infected the leaves in 1934.

Leaf curl (Taphrina caerulescens) slightly infected Q. macrocarpa planted at the Experimental Station, Beaverlodge, Alta. It was severe on Q. dentata, but none was found on Q. macrocarpa growing 15 feet away at the Experimental Farm, Indian Head, Sask.

PINE (Pinus)

White pine blister rust (Cronartium ribicola J.C. Fischer). An investigation conducted at three localities located in Peterborough county, Ont., showed about 6% of the white pines rusted. It is approximately 20 years since the rust first appeared in this region and as yet the mortality is very slight and only among small trees (W.R. Haddow). In a Que. plantation of 3,000 trees from 3 to 5 years old, 68% were affected with rust. It was noted on one young tree in about 15 planted at L'Assomption. A few trees were found heavily infected at Oromocto, N.B. It is developing slowly on older trees while many young trees are dying at Kentville, N.S. Trees are severely affected at Charlottetown, P.E.I., and it is prevalent in Queens and Prince counties.

Blister rust (Cronartium ?quercuum) was noted on Pinus Banksiana at Ste. Anne de la Pocatière, Que. (E. Campagna)

POPLAR (Populus)

Leaf blight (Fusicladium radiosum) found on P. tremuloides at Sinnet, Sask., and was severe on young trees at Benito, Man.; diseased specimens of P. sp. were received from Gananoque, Ont.

Galls (Cucurbitaria staphula) were collected at Dana, Sask., on P. balsamifera.

Powdery mildew (Uncinula Salicis) was found at Indian Head and Kamsack, Sask., on P. angustifolia.

Canker (Hypoxylon pruinaum) was found infecting about 40% of the trees of P. tremuloides in a $\frac{1}{2}$ -acre bluff at Vonda, Sask.; some trees were dead. Several trees bearing cankers were seen at different points in the Timagami Forest Reserve, Ont.

Taphrina Johansonii Sadeb. was found affecting 80% of the fruits of P. tremuloides at Ste. Anne de la Pocatière, Que. (E. Campagna). This species was previously represented in the Division of Botany herbarium by a Dearness collection from London, Ont.

Leaf spot (Septoria populicola) reported on P. angustifolia at Indian Head, Sask. It was heavy on P. balsamifera causing defoliation at Ponemah, Man.

Leaves affected with Sclerotium bifrons were received from Riley Brook, N.B.

Canker (Cytospora sp.) was found on cultivated poplar at Maple Creek, Sask.

SPRUCE (Picea)

Witches' broom (Arceuthobium pusillum) was heavy on 50 acres of Picea glauca at Ste. Anne de la Pocatière and on 30 acres of P. mariana at the edge of Lake St. John, Saguenay county, Que.

Rust (Chrysomyxa ledicola) was heavy on needles of P. glauca in Kings county, P.E.I.

WILLOW (Salix)

Tar spot (Rhytisma salicinum) was noted at Katewpa, Sask., and in Queens county, P.E.I.

Rust (Melampsora Abieti-capraearum) on Salix pellita at Watson and Attica, Sask.; and on Salix sp. at Mount Burnet, Que.

Scab (Fusicladium saliciperdum) was found at Cap Rouge, Que. along with Diplodina Salicis West. It was widespread in N.B. and caused moderate to severe damage.

Scab was noted on Salix vitillina at Grand Pré, N.S. Both scab and "black canker" are present in N.S. Few trees have died during the past 2 years as conditions were not favourable for the rapid spread of the disease. (K.A. Harrison)

Blight (Physalospora Miyabeana). A few lesions of blight were found extending from last year's infections on S. vitillina at Grand Pré, N.S. (K.A. Harrison)

Ramularia rosea Fuck. was collected on Salix at Indian Head, Sask.

Powdery mildew (Uncinula Salicis) was collected on willow at Indian Head, Sask.

Diaporthe tessella (Pers.) Rehm was collected on Salix at Saskatoon, Sask. (Det. G.R. Bisby)