

Some Records of Plant-parasitic Nematodes
Encountered in Canada in 1958

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Root-knot Nematodes

The northern root-knot nematode, Meloidogyne hapla Chitwood, 1949, was found attacking roses from London, Ont., and Montreal, Que., and was intercepted on this host on three importations from Denmark, five from Holland, and three from Texas, U.S.A. This species was also found on carrot and lettuce from Chateaugay, Que., on peony from Clarkson, Ont., and twice on peonies from Holland. It was found on multiflora rose bush from Oakville, Ont., and on vetch from the Fraser Valley, B.C. It was intercepted on importations from the United States on tomato from Virginia, twice on strawberry from Maryland, once on strawberry from Indiana, on Lonicera ligustrum from Tennessee, on Viburnum opulus and V. trilobum from Michigan, on Forsythia from New York, and on Japanese barberry from Pennsylvania. The peanut root-knot nematode, Meloidogyne arenaria (Neal, 1890) Chitwood, 1949, was found attacking a shrub, Deutzia gracilis, from Toronto, Ont., on tomato from the Chatham area, Ont., on Japanese barberry from Pickering, Ont., and on Lysimachia sp. from L'Abord à Plouffe, Que. This species was intercepted on catalpa and rose from Holland, on weigelia from New York and Michigan, U.S.A., on rose from Denmark, and on chrysanthemum from Connecticut, U.S.A. The southern root-knot nematode, Meloidogyne incognita (Kofoid & White, 1919) Chitwood, 1949, was found on African violet from Toronto, Ont. (greenhouse), and from British Columbia, on cyclamen from Montreal, Que., and on red clover from Ottawa, Ont. (greenhouse). This species was intercepted on Lonicera ligustrum and on pink weigelia from Tennessee, U.S.A. The cotton root-knot nematode, Meloidogyne incognita var. acrita Chitwood, 1949, was found on tomato from the Chatham area, Ont., and intercepted on sansevieria from Florida, U.S.A. The Javanese root-knot nematode, Meloidogyne javanica (Treub, 1885) Chitwood, 1949, was intercepted on eight occasions on tomato from Georgia, U.S.A., and later was found on this host in the Chatham area, Ont. It is not yet known whether this species can over-winter in Canada.

Root-lesion Nematodes

Pratylenchus penetrans (Cobb, 1917) Filipjev & Stekhoven, 1941, was found on African violet at Ottawa, Ont., on strawberry from Bristol and Charlottetown, P.E.I., and on vetch from the Fraser Valley, B.C. It was intercepted on rose from Holland and in spruce soil from Denmark.

Pratylenchus pratensis (de Man, 1880) Filipjev, 1936, was found on red clover from Renfrew, Pakenham, and Braeside, Ont., and on alfalfa from Gillies Corners, Ont. This species was intercepted on rose roots from Denmark, on pine and other nursery trees from Denmark, in heather root soil from Scotland, and in dahlia packing material from Germany.

Pratylenchus minyus Sher & Allen, 1953, was found on red clover from Pakenham, Ont., on alfalfa from Fallowfield, Ont., and on sumac from Stittsville, Ont. Pratylenchus coffeae (Zimmermann, 1898) Filipjev & Stekhoven, 1941, was found in large numbers on an importation of chrysanthemum from Connecticut, U.S.A.

Tylenchids

Tylenchus sachsi Hirschmann, 1952, was intercepted on two occasions on peony from Holland, and Ditylenchus destructor Thorne, 1945, was intercepted on dahlia from Oregon, U.S.A. The latter species was also found on potato from Covehead, P.E.I. Tylenchorhynchus maximus Allen, 1955, was found in pasture sod from Stittsville, Ont., on wild strawberry near Cumberland and Sand Point, Ont., on red clover from South March, Ont., in apple soil from Stittsville, Ont., on flax from Pierce's Corners, Ont., in pasture sod from Tennyson, Ont., and on oats from Laurencetown, N.S. Tylenchorhynchus dubius (Buetschli, 1873) Filipjev, 1936, was found on red clover from Cumberland, Ont., and on strawberry from Bristol, P.E.I. It was intercepted on spruce from Denmark, in strawberry soil from Germany, in wallflower and carnation soil from England, and on Scots pine from Holland. Tylenchorhynchus parvus Allen, 1955, was intercepted in dahlia packing material and in soil from Germany, and in chrysanthemum soil from Connecticut, U.S.A. Tylenchorhynchus brevidens Allen, 1955, was found in peony roots and soil at Ottawa, Ont., and was intercepted in dahlia soil from Germany. Tylenchorhynchus macrurus (Goodey, 1932) Filipjev, 1936, was intercepted in raspberry soil from Germany. Psilenchus gracilis Thorne, 1949, was found attacking strawberry from Bristol and Charlottetown, P.E.I., and was intercepted in heather soil from Scotland and in raspberry soil from Germany. Psilenchus hilarulus de Man, 1921, was intercepted in raspberry soil from Germany. Heavy infestations of a grass seed nematode, Anguina agrostis (Steinbuch, 1799) Filipjev, 1936, were found in Agrostis gigantia seed heads from Ottawa.

Hoplolaimids

Rotylenchus robustus (de Man, 1876) Filipjev, 1936, was intercepted on Scots pine from Holland, on spruce from Denmark, and on holly from England. Gottholdsteineria goodeyi (Loof & Oostenbrink, 1958) Andrassy, 1958, was numerous on wild strawberry from Cumberland, Ont., in primrose soil and poplar from North Gower, Ont., and in truck garden soil

from Chateauguay, Que. It was intercepted on fig from Switzerland. Helicotylenchus erythrinae (Zimmermann, 1904) Golden, 1956, was found on oats from Laurencetown, N.S.

Ring Nematodes

Criconemoides lobatum Raski, 1952, was recorded from onion sets from Thetford Marsh, Ont. Hemicycliophora similis Thorne, 1955, was found on peony from Ottawa, Ont.

Aphelenchids

Records of Aphelenchus avenae Bastian, 1865, included red clover from South March, Ont., strawberry from Charlottetown, P.E.I., oat from Laurencetown, N.S., truck garden soil from Chateauguay, Que., and interceptions on strawberry from Germany, on peony roots from Holland, and on chrysanthemum from Connecticut, U.S.A. Records of Aphelenchoides parietinus (Bastian, 1865) Steiner, 1932, included hyacinths from Ottawa and interceptions in spruce soil from Denmark and on heather roots from Scotland.

Dorylaimids

Xiphinema americanum Cobb, 1913, and Longidorus sylphus Thorne, 1939, were found on strawberry from British Columbia. Xiphinema diversicaudatum (Micoletzky, 1927) Thorne, 1939, was intercepted in rose soil and on rose roots from Holland.

Some Nematodes Observed in British Columbia in 1958

J. E. Boshier

Criconemoides annulifer (de Man, 1921) Taylor, 1936, from Ilex aquifolium at Brentwood and Victoria.

Criconemoides spp. Small populations from 20/21 sites in the pole blight areas of the Kootenay Forest Region and from strawberry soil and wild bush land near Bradner.

Ditylenchus dipsaci (Kuhn, 1857) Filipjev, 1936. Light infections in two Fraser Valley plantings of the narcissus variety King Alfred and in greenhouse plantings of King Alfred and Sir Watkin at Victoria.