

PLANT PARASITIC NEMATODES FROM CANADA AND ABROAD, 1970

Robert Sewell¹

During 1970 soil samples, plants, and other material were submitted to the Nematology Section, Entomology Research Institute, for extraction and identification of nematodes. Samples were submitted by members of the Plant Protection Division, Canada Department of Agriculture, mostly of material intercepted at airports and ports, and by agricultural agencies, scientists, local farmers, greenhouse operators, and florists from across Canada.

CYST-FORMING NEMATODES (Genus Heterodera)

Heterodera trifolii Goffart, 1932 (Oostenbrink, 1949) was found during a potato cyst survey carried out in the areas of Montreal, Que.; Toronto, London, and Windsor, Ont.; Charlottetown, P.E.I.; and St. John, N.B.; it was also detected on lady's thumb from St. Catharines, Ont.; and garden pea from Saanichton, B. C. H. cacti Filipjev and Schuurmans Stekhoven, 1941 was detected in a nursery survey carried out in the Windsor, Ont., area. H. rostochiensis Wollenweber, 1923 was found in soil from potatoes sent from Newfoundland.

ROOT-KNOT NEMATODES (Genus Meloidogyne)

The northern root-knot nematode, Meloidogyne incognita acrita Chitwood and Oteifa, 1952 was found on plants from a greenhouse in Harrow, Ont., and on intercepted Lycopersicon sp. from Georgia, U.S.A. Meloidogyne arenaria (Neal, 1889) Chitwood, 1949 was found on Weigela sp. and Forsythia sp. from U.S.A. M. javanica (Treub, 1885) Chitwood, 1949 was discovered on olives from Egypt. Meloidogyne hapla Chitwood, 1949 was intercepted on pink weigela from Tennessee, on Rosa sp. from Belgium, France, and Holland, on red clover root, and on field pea from Prince Edward Island.

PIN NEMATODE (Genus Paratylenchus)

Paratylenchus projectus Jenkins, 1956 was removed from soil around oats from the Central Experimental Farm, Ottawa, from rosemary from France, and from alfalfa from Edmonton, Alberta.

STUNT NEMATODES (Genus Tylenchorhynchus)

T. dubius (Butschli, 1873) Filipjev, 1936 was discovered in soil from Charlottetown, P.E.I., and in soil from Holland. T.

brevidens Allen, 1955 was found in soil from corn fields at Vineland, Ont. T. claytoni Steiner, 1937 was found on Azalea sp. intercepted from California and on nursery stock from Vancouver, B. C. T. maximus Allen, 1955 was found in soil from Prince Edward Island.

ROOT-LESION NEMATODE (Genus Pratylenchus)

Pratylenchus minyus was found in soil from a corn field at Vineland, Ont. P. coffeae (Zimmermann, 1898) Filipjev and Schuurmans Stekhoven, 1941 was found in soil samples taken from a citrus grove in Winter Haven, Florida. P. penetrans (Cobb, 1917) Filipjev and Schuurmans Stekhoven, 1941 was taken; from a corn field at Vineland, Ont., and P. crenatus Loof, 1960 from soil samples submitted from Charlottetown, P.E.I. P. thornei Sher and Allen, 1953 was intercepted on Rosa sp. from Oregon, U.S.A. Pratylenchus sp., close to P. pseudopratensis Seinhorst, 1968, was intercepted on rosemary from France.

SPIRAL NEMATODES (Genera Helicotylenchus and Rotylenchus)

Helicotylenchus digonicus Perry, 1959 was taken from samples from a corn field at Vineland Ont., and was also intercepted from France on rosemary. Hoplolaimus galeatus (Cobb, 1938) Slier, 1963 was intercepted in soil around conifers from Maine, U.S.A. Rotylenchus fallorobustus Sher, 1965 was discovered in soil from Charlottetown, P.E.I. Rotylenchus robustus (de Man, 1876) Filipjev, 1936 was intercepted on Thuja nigra from Connecticut, U.S.A., in soil from around conifers from Maine and around spruce, and on a passenger's baggage from Germany.

RING NEMATODES (Genus Criconemoides)

Criconemoides xenoplax Raski, 1952 was identified from soil from around roots of conifers from Maine. C. curvatum Raski, 1952 was found in soil in which oats was grown on the Central Experimental Farm, Ottawa, Ont., and on rosemary from France.

DORYLAIMIDS

Xiphinema americanum Cobb, 1913 was recorded on Rosa sp. from the U.S.A., on potato from Prince Edward Island, and field pea from Windsor, Ont.

MISCELLANEOUS

Anguina agrostis (Steinbuch, 1799) Filipjev, 1936 was recorded on bentgrass from New Zealand.

¹ Nematology Section, Entomology Research Institute, Canada Department of Agriculture, Ottawa.