PLANT-PARASITIC NEMATODES FROM CANADA AND ABROAD, 1971

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During 1971 soil samples, plants, and other material were submitted to the Nematology Section, Entomology Research Institute, for extraction and identification of nematodes. Samnles were submitted by the Plant Protection Divsion, Canada Department of Agriculture, mostly of material intercepted at airports and ports, and by aaricultural aqencies, scientists, farmers, qreenhouse operators, and florists from across Canada.

ROOT-KNOT NEMATODES (Genus Meloidogyne)

The northern root-knot nematode Meloidogyne hapla Chitwood, 1949 was extracted from soil samples from the roots of roses from Charlottetown, Prince Edward Island. Meloidogyne incognita (Kofoid & White, 1919) Chitwood, 1949 was found on roses from the United States intercepted at Montreal and Windsor.

CYST FORMING NEMATODES (Genus Meterodera)

The cyst-forming nematode Heterodera trifolii Goffart, 1932 was found in samples taken from potato fields from Charlottetown, Prince Edward Island; Toronto, Ontario; St. John, New Brunswick; and Marytown, Newfoundland. Heterodera avenae Wollenweber, 1924 was intercented in soil associated with heather plants from Enqland and in samples fron potato fields near Toronto. Ontario. Heterodera humuli Filipjev, 1934 and Beterodera fici Kirjanova, 1954 was found in soil supporting herbaceous plants and ornamentals from Italy and qreenhouse nlants from Greece. Heterodera schachtii Schmidt, 1871 was found in soil associated with tulip bulbs from Portuqal. Heavy infestations of Heterodera punctata Thorne, 1928 were found on native qrasses on uncultivated land from the Matador Ranch, Saskatchewan. Heterodera latipons Franklin, 1967 was found for the first time in Canada, in a potato field in Prince Edward Island. This species was also intercepted in soil imported from Poland, Greece, and Italy. Soil collected from a jeep imported from Belgium was screened and found to contain Heterodera bifenestra Cooper, 1955. Heterodera weissi Steiner, 1949 was associated with ornamentals imported from Pennsylvania. Heterodera estonica Kirjanova & Krall, 1963 was recovered in soil on passenqer baqqaqe from Turkey. Heterodera gottingiana Liebscher, 1892 was intercepted on house plants from England. The Golden nematode, Heterodera rostochiensis Wollenweber, 1923 was extracted from soil samnles from notato fields in Newfoundland and at Sidney, British Columbia.

ROOT-LESION NEMATODES (Pratylenchus)

Pratylenchus crenatus Loof, 1960 was identified in soil samples from potato fields in Charlottetown, Prince Edward Island; in forage crops and blueberry from New Brunswick; peach orchards from Harrow, Ontario; and on Astible sp. from Holland. Pratylenchus penetrans (Cobb, 1917) Chitwood & Oteifa, 1952 was found in samples from potato fields from Charlottetown, Prince Edward Island, and New Brunswick; foraqe crops, strawberry and corn from Harrow, Ontario; in several beds of phlox from the Central Experimental Farm, Ottawa, Ontario; and on Astible sp. and Trollius sp. roots from Holland.

SPIRAL NEMATODES (Genus Helicotylenchus and Rotylenchus)

Helicotylenchus di onicus Perry, in Perry, Darling and Thorn:; 1959 and Rotylenchus fallorobustus Sher, 1965 occurred frequently in samples of forage crops from Eastern Canada. Helicotylenchus pseudorohustus (Steiner, 1914) Golden, 1956 was extracted from soil containing Astible sp. imnortcd from Holland. Rotylenchus robustus (deMan, 1876) Filipjev, 1936 was found in beds of phlox at the Central Experimental Farm, Ottawa.

APHELENCHOIDES

Aphelenchoides limberi Steiner, 1936 was isolated from tulip bulbs qrowinq in beds at the Central Experimental Farm, Ottawa. Aphelenchoides composticola Franklin, 1957 was associated with roots of shallot imported from Europe and Aphelenchoides blastophorus Franklin, 1952 was found with roots of Trollius sp. intercepted from Holland.

STEM AND BULB NEMATODES (Genus Ditylenchus)

Ditylenchus destructor Thorne, 1945 was intercepted on Trollius sp. roots from Holland.

STUNT NEMATODES (Genus Tylenchorhynchus)

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Several soil samples from forage crops in Prince Edward Island and New Brunswick had large populations of Tylenchorhynchus parvus Allen, 1955. Merlinius brevidens (Allen, 1955) Siddiqi, 1970 was found infesting beds of phlox at the Central Experimental Farm, Ottawa, Ontario.

PIN NEMATODE (Genus Paratylenchus)

Paratylenchus projectus Jenkins, 1956 was found in samples taken from fields of forage crops in areas from Prince Edward Island and Guelph, Ontario.

DORYLAIMIDS

Trichodorus pachydermus Seinhorst, 1954 was recovered from soil samples containing phlox on the Central Experimental Farm, Ottawa.

MISCELLANEOUS

Aphelenchus avenae Bastian, 1865 was present in most soil samples collected in surveys of forage crops in Prince Edward Island and New Brunswick and was associated with tulip bulbs and phlox from the Central Experimental Farm, Ottawa, and with alfalfa from Edmonton, Alberta.