Heterodera trifolii (Goffart, 1932) Oostenbrink, 1949 in soil samples from Ladner and Agassiz.

Longidorus sylphus Thorne, 1939. Trace populations in soil samples from the Experimental Farm, Agassiz.

Meloidogyne incognita (Kofoid & White, 1919) Chitwood, 1949. From imported plants of Saintpaulia ionantha at Cowichan Station.

Meloidogyne hapla Chitwood, 1949 from Shasta daisy, variety Esther Reed, at Saanichton.

Paratylenchus spp. from 5/12 soil samples from strawberry fields at Keating; from raspberry soil at Agassiz; and from Ilex aquifolium at Brentwood and Victoria.

Pratylenchus penetrans (Cobb, 1917) Filipjev & Stekhoven, 1941 was found in 24/48 samples of strawberry from the Fraser Valley and in 8/12 samples from Vancouver Island; in 11/11 samples of apple stock from Vancouver Island and in 2/3 samples imported from Holland. Trace infections were seen in cherry, plum, rose and sea-buckthorn (Hippophaë rhamnoides) imports from Holland. Significant populations encountered in 24/ and light infections in 36/64 samples of raspberry from the Fraser Valley. Trace infections in peony at Saanichton, hyacinth at Bradner and English holly at Nanaimo. It caused severe root injury and early decline in sweet pea at Victoria and Cladastris lutea at Saanichton.

Pratylenchus pratensis (de Man, 1880) Filipjev, 1936 was associated with root rot in two samples of strawberry and was found in raspberry in the Fraser Valley.

Pratylenchus spp. occurred in 5/48 samples of strawberry from the Fraser Valley; in raspberry from the Fraser Valley and Vancouver Island and from English Holly at Brentwood and Victoria.

Nematode Diseases in Southwestern Ontario, 1958

W. B. Mountain

During 1958, perhaps as a result of lower than average soil temperatures in the spring, Pratylenchus penetrans was more active on a wide range of crops than has ever been observed before in southwestern Ontario.

Large acreages of flue tobacco in Norfolk County were affected by P. penetrans and root samples from more than 70 tobacco farms were highly infested. However, the acreage of flue tobacco affected by P. penetrans was much greater than the number of samples would indicate.

P. penetrans was recovered from onion roots from the first time in the Leamington area. Affected plants were stunted, the leaf tips were brown, the leaf was generally chlorotic and the roots were necrotic and occasionally somewhat pink in color. Affected areas in the onion fields occurred as discrete patches of stunted plants, a condition also typical for tobacco.

At least two fields of early tomato plants were affected by P. penetrans. Stunting in one field of celery could also be attributed to this nematode. All three fields were in the Leamington area.

Stunted wheat from fields at Aylmer and Orangeville contained high root populations of P. penetrans as did stunted potato plants from two fields at Aylmer and strawberry plants from one field at Byron. Two apple orchards in the Clarkson area were found to be infested with high root populations of P. penetrans. Leaves of affected apple trees were chlorotic. The trees have practically ceased growing and apple production has declined consistently for several years. One recently planted peach orchard near Blenheim which exhibited poor growth was found to be heavily infested with P. penetrans.

Pratylenchus minyus, a species which requires a much higher soil temperature, was not particularly active in 1958 and was only recovered from one field of stunted wheat near Port Lambton.

Pin nematode (Paratylenchus sp.) adversely affected celery production in the Thedford marsh and in several fields around London. The soil from a wheat field near Orangeville in which growth was very poor contained large numbers of pin nematodes.

The bulb and stem nematode (Ditylenchus dipsaci) has not yet been found in any onion growing area except the Leamington area. In the Leamington marsh the area of infestation appears to have spread only on those farms where growers have disregarded the rotation recommendations and have replanted onions.