sufficient or very helpful until these forms have been isolated and propagated. To do this it is necessary to build up populations from single females. This type of work is being pursued at the Ottawa Laboratory, and has been greatly helped by our finding that these nematodes are fungus feeders. (Baker, A.D., Georgiana L. Brown and Audrey B. James. Science 119:92-93. 1954). Isolation, propagation, and study is a rather lengthy undertaking, and, though the species question is not yet clear, preliminary observations indicate that at least some of the taxonomic characters used to separate destructor from dipsaci fluctuate widely within pure populations. An answer to this important problem is necessary before final conclusions are made on mass transfers of these nematodes from one plant to another. However, until we have clear evidence to the contrary, it appears expedient to assume tentatively that only one species is involved, but such reporting should be adequately qualified until clear answers have been obtained.

A root-knot nematode, Meloidogyne hapla Chitwood, 1949, was identified from sugar beets near Sarnia, Ont., by Miss G.L. Brown. It was also collected from the roots of tomato at Ste. Genevieve, Que. Further records of root-knot nematodes are reported in The Canadian Insect Pest Review 31(7).

Three items of some additional interest were the collection and identification by Dr. S.A. Sher of Tylenchorhynchus claytoni Steiner, 1937, from soil around red clover at Ottawa, of Pratylenchus sp. from chrysanthemum at St. Catharines, Ont., and of Trichodorus sp. from soil around red clover at Ottawa. Anguina agrostis (Steinbuch, 1799) Filipjev, 1946, was reported by V.E. Henderson from Prince Edward Island attacking Agrostis alba L.

Phenological Data - 1953

The season opened somewhat earlier than usual at Winnipeg but cool weather in mid-May retarded growth and from then on to the end of June the plants observed came into flower a little later than usual. Wheat sown moderately early developed slowly during the latter part of the season and ripened quite late.

At Saskatoon the season opened rather late and the development of native plants and of wheat was somewhat retarded throughout the season.

Recorded dates of flowering at Edmonton fluctuated from early to late during the season and wheat sown nearly a week late was ripe slightly earlier than the normal date for maturity (R.C. Russell).

Throughout the spring and summer the first flowering dates for the majority of plants recorded at Ottawa were from 4 to 11 days earlier than average. Anthesis dates were as follows:

Acer saccharinum	30/3	11E	Bromus inermis	17/6	2E
Populus tremuloides	5/4	10E	Sambucus nigra	13/6	4E
Ulmus americana	13/4	6E	Rhus typhina	18/6	6E
Acer negundo	30/4	1L	Catalpa speciosa	6/7	7L
Acer saccharum	5/5	4E	Phleum pratense	23/6	2E
Prunus pensylvanica	10/5	3E	Tilia americana	6/7	N
Smilacina stellata	15/5	5E	Cephalanthus occidentalis	12/7	5E
Pinus sylvestris	21/5	7E	Solidago canadensis	5/8	4L
Anemone canadensis	27/5	6E	Cassia hebecarpa	27/7	6E
Carya cordiformis	10/6	3E	Hamamelis virginiana	4/9	19E

(I.J. Bassett)

Summary of Phenological Data

Taken at Winnipeg, Saskatoon, and Edmonton in 1953

Species	Winnipeg		Saskatoon		Edmonton	
Corylus rostrata	--	--	--	--	27/4	6L
Shepherdia canadensis	--	--	--	--	4/5	?
Pulsatilla ludoviciana	--	--	20/4	2L	6/5	14L
Populus tremuloides	--	--	23/4	1L	4/5	9L
Phlox hoodii	--	--	5/5	8L	--	--
Salix petiolaris	--	--	9/5	6L	5/5	5L
Acer negundo	5/5	1E	9/5	3L	7/5	5L
Betula papyrifera	--	--	14/5	5L	8/5	N
Thermopsis rhombifolia	--	--	15/5	5L	--	--
Amelanchier alnifolia	11/5	5E	21/5	8L	21/5	6L
Prunus americana	7/5	6E	--	--	--	--
Hierochloe odorato	--	--	26/5	9L	--	--
Prunus pensylvanica	--	--	26/5	8L	19/5	2L
Viola rugulosa	--	--	24/5	3L	25/5	4L
Smilacina stellata	--	--	4/6	12L	25/5	2E
Crataegus sp.	25/5	3L	2/6	6L	30/5	N
Prunus melanocarpa	29/5	6L	5/6	10L	1/6	5L
Viburnum lentago	8/6	6L	--	--	--	--
Cornus stolonifera	3/6	5L	5/6	7L	10/6	9L
Elaeagnus commutata	--	--	11/6	8L	3/6	1E
Lonicera glaucescens	--	--	14/6	7L	4/6	3E
Thalictrum turneri	--	--	--	--	8/6	6L
Viburnum trilobum	8/6	N	--	--	--	--
Viburnum pubescens	12/6	3L	--	--	--	--
Anemone canadensis	8/6	2L	8/6	2E	24/6	1E
Achillea lanulosa	--	--	15/6	6L	5/7	9L
Maianthemum canadense	--	--	--	--	6/6	3L
Diholcos bisulcatus	--	--	15/6	4L	--	--
Galium boreale	--	--	18/6	5L	27/6	8L
Rosa alcea	--	--	26/6	7L	10/6	?
Bromus inermis	23/6	3L	23/6	6L	4/7	7L
Gaillardia aristata	--	--	1/7	7L	--	--
Chrysopsis hirsutissima	--	--	7/7	7L	--	--
Spiraea alba	--	--	5/7	4L	6/7	?
Symphorocarpos occidentalis	29/6	5L	2/7	2E	6/7	3L
Campanula petiolata	--	--	2/7	7L	8/7	?
Phleum pratense	--	--	--	--	8/7	1L
Chamaenerion spicatum	--	--	--	--	7/7	2E
Agastache anethiodora	--	--	--	--	12/7	1L
Apocynum androsaemifolium	--	--	--	--	24/7	20L
Solidago canadensis	--	--	--	--	3/8	15L
Aster conspicuus	--	--	--	--	24/7	1L
Aster laevis	--	--	--	--	31/7	N
Wheat -						
Sown	23/4	3E	8/5	9L	5/5	6L
Emerged	6/5	?	20/5	9L	17/5	7L
Headed	6/7	8L	8/7	7L	--	--
Ripe	18/8	12L	16/8	7L	18/8	2L