

It would appear very desirable if more attention were given to the recording of the numerous species of free-living nematodes from soils in different localities. The role that is played by many of these is still rather obscure, but it is not unreasonable to presume that they may play an important part in the problems of soil fertility with possible interrelation with other organisms. Meanwhile we should endeavour to accumulate more of this type of information. Neamatologists are in short supply and it is natural that the main demands on their time are directed toward finding solutions to problems associated with nematodes of known economic importance. However, as time permits, such records obtained at the Ottawa laboratory are now being included in reports in The Canadian Insect Pest Review.

Phenological Data - 1954

The phenological data for 1954 make abundantly clear the lateness of the season at the three places where records were taken. Most of the species listed bloomed about two weeks later than usual. Excessive moisture and cloudy weather held back plant growth throughout the season. Wheat matured in less time at Saskatoon than at Winnipeg or Edmonton. The data are summarized in the accompanying table.

The data were collected at Edmonton, Alta., by W.P. Campbell, at Saskatoon, Sask., by R.C. Russell and at Winnipeg, Man., by P. Peterson (R.C. Russell).

The first flowering dates for the majority of plants recorded at Ottawa, Ont., were about normal for the first part of the year. Anthesis dates were as follows:-

Acer saccharinum	11/4	N	Sambucus nigra	18/6	IL
Populus tremuloides	19/4	2L	Rhus typhina	23/6	IE
Ulmus americana	22/4	3E	Phleum pratense	24/6	IE
Acer negundo	1/5	2L	Bromus inermis	25/6	6L
Acer saccharum	6/5	2E	Catalpa speciosa	12/7	IIL
Prunus pensylvanica	15/5	2L	Tilia americana	12/7	5L
Smilacina stellata	19/5	IE	Cephalanthus occidentalis	20/7	5L
Pinus sylvestris	23/5	5E	Cassia hebecarpa	30/7	3E
Anemone canadensis	3/6	N	Solidago canadensis	3/8	2L
Carya cordiformis	12/6	IE	Hamamelis virginiana	14/9	9E

(I. J. Bassett)

SUMMARY OF PHENOLOGICAL DATA TAKEN AT
WINNIPEG, SASKATOON, AND EDMONTON IN 1954

<u>Species</u>	<u>Winnipeg</u>		<u>Saskatoon</u>		<u>Edmonton</u>	
<i>Corylus rostrata</i>	--	--	--	--	7/5	9L
<i>Shepherdia canadensis</i>	--	--	--	--	17/5	7L
<i>Pulsatilla ludoviciana</i>	--	--	3/5	15L	18/5	13L
<i>Populus tremuloides</i>	8/5	12L	6/5	11L	14/5	18L
<i>Phlox hoodii</i>	--	--	16/5	18L	--	--
<i>Salix petiolaris</i>	--	--	19/5	13L	17/5	6L
<i>Acer negundo</i>	17/5	11L	19/5	12L	7/5	4L
<i>Betula papyrifera</i>	--	--	24/5	14L	7/5	1E
<i>Thermopsis rhombifolia</i>	-	--	19/5	8L	--	--
<i>Amelanchier alnifolia</i>	30/5	12L	27/5	13L	31/5	15L
<i>Prunus americana</i>	23/5	10L	--	--	--	--
<i>Hierochloe odorata</i>	4/6	12L	9/6	21L	--	--
<i>Prunus pensylvanica</i>	--	--	1/6	13L	28/5	10L
<i>Viola rugulosa</i>	--	--	1/6	11L	3/6	11L
<i>Smilacina stellata</i>	3/6	10L	1/6	8L	26/5	1E
<i>Crataegus chrysoarpa</i>	6/6	14L	12/6	15L	18/6	18L
<i>Prunus melanocarpa</i>	9/6	15L	15/6	18L	14/6	17L
<i>Viburnum lentago</i>	15/6	12L	--	--	--	--
<i>Cornus stolonifera</i>	14/6	14L	15/6	16L	15/6	13L
<i>Hedysarum americanum</i>	--	--	17/6	9L	--	--
<i>Elaeagnus cummutata</i>	--	--	21/6	17/6	21/6	16L
<i>Lonicera glaucescens</i>	--	--	22/6	14L	18/6	10L
<i>Thalictrum turneri</i>	--	--	--	--	15/6	9L
<i>Viburnum trilobum</i>	18/6	9L	--	--	--	--
<i>Viburnum pubescens</i>	19/6	10L	--	--	--	--
<i>Anemone canadensis</i>	15/6	9L	22/6	11L	--	--
<i>Achillea lanulosa</i>	--	--	22/6	12L	--	--
<i>Maianthemum canadense</i>	--	--	--	--	13/6	6L
<i>Galium boreale</i>	--	--	1/7	16L	3/7	9L
<i>Bromus inermis</i>	4/7	13L	6/7	11L	16/7	18L
<i>Rosa alcea</i>	--	--	7/7	17L	24/6	7L
<i>Gaillardia aristata</i>	--	--	6/7	12L	--	--
<i>Chrysopsis hirsutissima</i>	--	--	11/7	10L	--	--
<i>Spiraea alba</i>	--	--	8/7	6L	5/7	N
<i>Symphoricarpos occidentalis</i>	15/7	18L	12/7	7L	--	--
<i>Campanula petiolata</i>	--	--	7/7	11L	19/7	6L
<i>Phleum pratense</i>	--	--	--	--	13/7	6L
<i>Cirsium flodmanii</i>	--	--	18/7	3L	--	--
<i>Lactuca pulchella</i>	--	--	18/7	9L	--	--
<i>Chamaenerion spicatum</i>	--	--	18/7	11L	11/7	2L
<i>Agastache anethiodora</i>	--	--	--	--	2/8	20L
<i>Apocynum androsaemifolium</i>	--	--	--	--	30/7	11L
<i>Solidago missouriensis</i>	--	--	23/7	8L	--	--
<i>Solidago canadensis</i>	19/7	1L	--	--	6/8	16L

<u>Species</u>	<u>Winnipeg</u>		<u>Saskatoon</u>		<u>Edmonton</u>	
Grindelia perennis	--	--	31/7	7L	--	--
Aster conspicuus	--	--	--	--	29/7	4L
Oligoneuron canescens	--	--	6/8	11L	--	--
Aster ericoides	--	--	8/8	9L	--	--
Aster laevis	--	--	11/8	12L	12/8	12L
Wheat -						
Sown	20/4	6E	10/5	10L	5/5	6L
Emerged	15/5	8L	26/5	14L	14/5	4L
Headed	10/7	12L	17/7	15L	--	--
Ripe	20/8	13L	19/8	9L	7/9	21L