

Phenological Data - 1959

At Winnipeg the 1959 season was somewhat late for the most part. Excessive moisture on the heavy clay soil delayed seeding of wheat considerably and it matured about two weeks later than normal. At Saskatoon the season was quite early at the start but was delayed for a period around the first of May. Most of the flowers recorded bloomed a few days earlier than normal. Wheat **sown** 9 days early matured 3 days early. It was delayed somewhat by drought in June. The season opened very early at Edmonton but was delayed by cold weather in May and June. During the latter part of the season most of the species recorded bloomed late. Wheat **sown** 11 days later than normal matured 12 days later than normal. (R.C. Russell).

At Ottawa, first anthesis dates for plants under observation were late early in the season but after mid-May the trend was towards earlier than normal flowering (I,J, Bassett).

Table I Phenological Data at Ottawa, Ontario - 1959

<u>Species</u>	<u>No. of Years of Observation</u>	<u>First Dates of Anthesis 1959</u>	<u>No. of Days Departure from Average</u>
<u>Alnus rugosa</u>	8	14/4	8L
<u>Acer saccharinum</u>	24	15/4	5L
<u>Corylus cornuta</u>	7	20/4	4L
<u>Populus tremuloides</u>	19	20/4	3L
<u>Populus grandidentata</u>	8	25/4	2L
<u>Poa annua</u>	8	28/4	3L
<u>Ulmus americana</u>	24	28/4	3L
<u>Acer rubrum</u>	8	29/4	3L
<u>Acer negundo</u>	19	4/5	1E
<u>Betula papyrifera</u>	8	6/5	4L
<u>Acer saccharinum</u>	24	9/5	N
<u>Celtis occidentalis</u>	7	9/5	3E
<u>Prunus pensylvanica</u>	18	12/5	1E
<u>Fagus grandiflora</u>	7	No : oowering on marker tree in 1959	
<u>Alopecurus pratensis</u>	8	13/5	1E
<u>Smilacina stellata</u>	18	20/5	N
<u>Quercus macrocarpa</u>	8	21/5	1E
<u>Pinus sylvestris</u>	24	22/5	5E
<u>Rumex acetosella</u>	8	27/5	7E
<u>Dactylis glomerata</u>	8	29/5	11E
<u>Poa pratensis</u>	8	30/5	2L
<u>Anemone canadensis</u>	18	1/6	2E
<u>Juglans nigra</u>	8	3/6	4E
<u>Carya cordiformis</u>	15	5/6	6E
<u>Bromus inermis</u>	18	18/6	N
<u>Corylus cornuta</u>	8	Plai did not flower in 1959	
<u>Phleum pratense</u>	18	22/6	3E
<u>Tilia americana</u>	18	23/6	12E
<u>Rhus typhina</u>	13	25/6	1E
<u>Catalpa ovata</u>	16	27/6	5E
<u>Cephalanthus occidentalis</u>	14	12/7	6E
<u>Ambrosia trifida</u>	8	15/7	3L
<u>Artemisia vulgaris</u>	5	No observation in 1959	
<u>Cassia hebecarpa</u>	12	31/7	4E
<u>Ambrosia artemisiifolia</u>	7	11/8	4L
<u>Hamamelis virginiana</u>	16	14/9	5E

Table II. Phenological Data taken at Winnipeg, Saskatoon and  
Edmonton - 1959

<u>Species</u>	<u>Winnipeg</u>	<u>Saskatoon</u>	<u>Edmonton</u>
<u>Fulsatilla ludoviciana</u>	17/4 6L	10/4 8E	10/4 16E
<u>Corylus rostrata</u>	-- --	-- --	13/4 15E
<u>Phlox hoodii</u>	-- --	16/4 13E	-- --
<u>Papulus tremuloides</u>	19/4 6E	15/4 10E	13/4 13E
<u>Acer negundo</u>	4/5 3E	1/5 6E	27/4 6E
<u>Salix petiolaris</u>	-- --	-- --	13/4 18E
<u>Sheperdia canadensis</u>	-- --	-- --	13/4 20E
<u>Betula papyrifera</u>	-- --	14/5 3L	20/4 17E
<u>Prunus americana</u>	16/5 2L	-- --	-- --
<u>Amalanchier alnifolia</u>	21/5 3L	15/5 1L	13/5 3E
<u>Prunus pensylvanica</u>	-- --	16/5 3E	15/5 3E
<u>Viola rugulosa</u>	-- --	18/5 3E	28/5 6L
<u>Smilacina stellata</u>	1/6 8L	23/5 1E	19/5 7E
<u>Crataegus chrysocarpa</u>	1/6 8L	-- --	21/5 9E
<u>Prunus melanocarpa</u>	2/6 8L	26/5 2E	21/5 7E
<u>Cornus stolonifera</u>	3/6 2L	1/6 2L	6/6 4L
<u>Viburnum lentago</u>	6/6 3L	-- --	-- --
<u>Elaeagnus commutata</u>	-- --	1/6 3E	4/6 N
<u>Lonicera glaucescens</u>	-- --	2/6 6E	4/6 3E
<u>Hedysarum americanum</u>	-- --	4/6 3E	-- --
<u>Thalictrum turneri</u>	-- --	-- --	10/6 6L
<u>Maianthemum canadense</u>	-- --	-- --	8/6 3L
<u>Achillea lanulosa</u>	-- --	5/6 5E	-- --
<u>Anemone canadensis</u>	9/6 3L	9/6 2E	24/6 1L
<u>Viburnum opulus</u>	11/6 2L	-- --	-- --
<u>Viburnum pubescens</u>	10/6 N	-- --	-- --
<u>Galium boreale</u>	-- --	12/6 2E	28/6 6L
<u>Rosa blanda</u>	15/6 N	-- --	-- --
<u>Rosa alba</u>	-- --	21/6 1L	8/6 1E
<u>Campanula petiolata</u>	-- --	21/6 1E	12/7 2L
<u>Bromus inermis</u>	22/6 1L	22/6 2E	5/7 7L
<u>Zizia aurea</u>	8/6 2E	-- --	-- --
<u>Spiraea alba</u>	-- --	24/6 6E	-- --
<u>Symphoricarpos accidentalis</u>	27/6 1E	3/7 N	9/7 4L
<u>Chamaenerion spicatum</u>	-- --	-- --	13/7 4L
<u>Lactuca pulchella</u>	-- --	4/7 4E	-- --
<u>Psoraleidum argophyllum</u>	-- --	25/6 15E	-- --
<u>Phleum pratense</u>	-- --	-- --	15/7 7L

<u>Species</u>	<u>Winnipeg</u>	<u>Saskatoon</u>	<u>Edmonton</u>
<u>Apocynum androsaemifolium</u>	-- --	-- --	19/7 5L
<u>Solidago missouriensis</u>	-- --	16/7 1L	-- --
<u>Solidago canadensis</u>	18/7 3E	-- --	24/7 3L
<u>Grindelia perennis</u>	-- --	23/7 N	-- --
<u>Oligoneuron canescens</u>	-- --	24/7 1E	-- --
<u>Aster conspicuus</u>	-- --	-- --	26/7 2L
<u>Aster laevis</u>	-- --	28/7 1E	3f8 4L

Wheat Records

	<u>Winnipeg</u>	<u>Saskat</u>	<u>Edmonton</u>
Wheat sown	20/5 21L	21/4 9E	12/5 11L
emerged	29/5 18L	8/5 5E	18/5 7L
headed	16/7 15L	4/7 2L	14/7 10L
mature	24/8 15L	7/8 3E	31/8 12L

First observation of leaf rust of wheat at Winnipeg, Man., June 15'  
 " " " stem " " " " " " " June 18  
 " " " crown rust of oats " " " " " June 30  
 " " " stem " " " " " " " July 23