

PHENOLOGICAL DATA AT FOUR CANADIAN LOCALITIES IN 1961R. C. Russell and I. J. Bassett¹

The first dates of anthesis for forty-two species of native plants were recorded at Winnipeg, Saskatoon and Edmonton by Dr. B. Peturson, R.C. Russell and W. P. Campbell respectively and compiled by the senior author. Similar data was recorded for thirty-three species at Ottawa by the junior author.

The 1961 season at Winnipeg opened somewhat early in April, but ensuing cold weather held back the development of the native flora to a considerable extent throughout the month of May. The remainder of the season was sufficiently warm and dry to mature native and cultivated plants earlier than normal.

At Saskatoon the season opened at about the usual time, but cold weather in the latter part of April and the first half of May retarded growth until June. From then on, higher than average temperatures and lack of rain hastened the development of native plants and wheat, with the exception that severe drought appeared to delay the flowering of some of the native plants that normally appear in the latter part of July. The high temperatures and severe drought matured the early-sown wheat very early.

The appearance of the native flowers at Edmonton was close to the normal dates until the early part of June. From then on the warmest, sunniest summer on record there resulted in the early appearance of all the listed species that bloomed throughout the rest of the season. Wheat sown two weeks later than normal was mature at about the average date.

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Table 1, Phenological data at Winnipeg, Saskatoon and Edmonton - 1961

	Winnipeg		Saskatoon		Edmonton	
<u>Pulsatilla ludoviciana</u>	6/4	4E	21/4	3L	26/4	1L
<u>Corylus rostrata</u>	--	--	--	--	27/4	N
<u>Populus tremuloides</u>	10/5	15L	23/4	2E	27/4	N
<u>Phlox hoodii</u>	--	--	28/4	1E	--	--
<u>Acer negundo</u>	15/5	8L	14/5	7L	7/5	4L
<u>Salix petiolaris</u>	--	--	--	--	1/5	1L
<u>Shepherdia canadensis</u>	--	--	--	--	3/5	N
<u>Betula papyrifera</u>	--	--	19/5	8L	3/5	4E
<u>Prunus americana</u>	21/5	7L	--	--	--	--
<u>Amelanchier alnifolia</u>	22/5	4L	21/5	6L	21/5	4L
<u>Prunus pensylvanica</u>	--	--	23/5	3L	19/5	1L
<u>Viola rugulosa</u>	--	--	23/5	2L	23/5	N
<u>Smilacina stellata</u>	28/5	4L	25/5	N	23/5	2E
<u>Crataegus chrysoarpa</u>	27/5	3L	--	--	27/5	3E
<u>Prunus melanocarpa</u>	29/5	4L	29/5	1L	31/5	3L
<u>Cornus stolonifera</u>	31/5	1E	3/6	4L	3/6	2L
<u>Viburnum lentago</u>	2/6	1E	--	--	--	--
<u>Elaeagnus commutata</u>	--	--	4/6	N	9/6	4L
<u>Lonicera glaucescens</u>	--	--	6/6	2E	11/6	4L
<u>Hedysarum americanum</u>	--	--	6/6	1E	--	--
<u>Thalictrum turneri</u>	--	--	--	--	6/6	1L
<u>Maianthemum canadense</u>	--	--	--	--	7/6	1L
<u>Achillea lanulosa</u>	--	--	12/6	2L	--	--
<u>Anemone canadensis</u>	5/6	1E	10/6	1E	12/6	11E
<u>Viburnum opulus</u>	7/6	2E	--	--	--	--
<u>Galium boreale</u>	--	--	9/6	5E	8/6	11E
<u>Rosa alcea</u>	--	--	17/6	3E	5/6	4E
<u>Campanula petiolata</u>	--	--	25/6	3L	7/7	4E
<u>Bromus inermis</u>	17/6	4E	16/6	7E	19/6	6E
<u>Spiraea alba</u>	--	--	16/6	14E	--	--
<u>Symphoricarpos occidentalis</u>	21/6	6E	20/6	12E	23/6	12E
<u>Chamaenerion spicatum</u>	--	--	--	--	4/7	5E
<u>Lactuca pulchella</u>	--	--	3/7	5E	--	--
<u>Psoraleidum argophyllum</u>	--	--	1/7	9E	--	--
<u>Phleum pratense</u>	--	--	--	--	7/7	1E
<u>Apocynum androsaemifolium</u>	--	--	--	--	20/6	21E
<u>Solidago missouriensis</u>	--	--	8/7	6E	--	--
<u>Solidago canadensis</u>	--	--	--	--	15/7	6E
<u>Grindelia perennis</u>	--	--	24/7	1L	--	--
<u>Oligoneuron canescens</u>	--	--	6/8	11L	--	--
<u>Aster conspicuus</u>	--	--	--	--	20/7	3E
<u>Aster laevis</u>	--	--	6/8	7L	25/7	5E
Wheat						
sown	5/5	6L	24/4	6E	16/5	14L
emerged	--	--	15/5	2L	22/5	10L
headed	24/6	7E	26/6	6E	16/7	12L
mature	28/7	12E	23/7	16E	22/8	2L

Table 2. Phcnological data at Ottawa, Ontario - 1961

<u>Species</u>	No. of years of observation	First dates of anthesis, 1961	No. of days departure from average
<u>Acer saccharinum</u>	26	11/4	1L
<u>Ulmus americana</u>	26	20/4	9E
<u>Corylus cornuta</u>	9	21/4	5L
<u>Populus tremuloidea</u>	21	21/4	2E
<u>Populus grandidentata</u>	10	21/4	2E
<u>Acer rubrum</u>	10	30/4	3L
<u>Betula papyrifera</u>	10	4/5	2L
<u>Acer negundo</u>	21	9/5	4L
<u>Acer saccharum</u>	24	No flowering	
<u>Fraxinus americana</u>	9	15/5	2L
<u>Celtis occidentalis</u>	8	25/5	3L
<u>Prunus pensylvanica</u>	20	18/5	4L
<u>Quercus macrocarpa</u>	10	19/5	2E
<u>Barbarea vulgaris</u>	10	19/5	4L
<u>Smilacina stellata</u>	20	23/5	3L
<u>Alopecurus pratensis</u>	10	24/5	8L
<u>Rumex acetosella</u>	9	27/5	6E
<u>Pinus sylvestris</u>	26	29/5	2L
<u>Fagus grandifolia</u>	9	No flowering	
<u>Juglans nigra</u>	10	30/5	6E
<u>Tilia americana</u>	20	3/6	2E
<u>Carya coccifera</u>	17	4/6	9E
<u>Poa pratensis</u>	10	6/6	8L
<u>Dactylis glomerata</u>	10	9/6	N
<u>Sambucus nigra</u>	12	14/6	1E
<u>Phleum pratense</u>	20	23/6	2E
<u>Bromus inermis</u>	20	26/6	7L
<u>Rhus typhina</u>	15	11/7	14L
<u>Catalpa ovata</u>	18	14/7	11L
<u>Cephalanthus occidentalis</u>	16	14/7	4E
<u>Ambrosia trifida</u>	10	29/7	13L
<u>Ambrosia artemisiifolia</u>	9	2/8	4E
<u>Hamamelis virginiana</u>	18	4/9	16E