



# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## SASKATOON STATION 4057180

52°09' N 106°36' W 497 m asl Estab. 1963

Preliminary **MAY** 2014

Day	Temperature						Degree-days			Precipitation			Relative Humidity		Station Pressure (sea level)	
	Max	Normal Max	Min	Normal Min	Mean	Normal Mean	Growing	Heating	Cooling	Weighing Gauge	Tipping Bucket	Notes	Max ½ hr Avg	Min ½ hr Avg	Max ½ hr Avg	Min ½ hr Avg
	°C	1981-2010	°C	1981-2010	°C	1981-2010	5°C base	18°C base	18°C base	mm	mm		%	%	mbar	mbar
1	20.7	14.9	4.0	1.2	12.4	8.1	7.4	5.6	0.0	0.0	0.0		79	36	1022	1008
2	11.9	17.0	1.3	2.4	6.6	9.7	1.6	11.4	0.0	0.0	0.0		88	34	1015	1011
3	5.2	16.7	-2.2	2.6	1.5	9.7	0.0	16.5	0.0	0.0	0.0		74	44	1018	1015
4	8.7	16.5	-0.5	1.7	4.1	9.1	0.0	13.9	0.0	0.0	0.0	24mm 5km south of station	79	37	1017	1012
5	9.4	16.8	1.7	1.9	5.6	9.4	0.6	12.4	0.0	0.0	0.0		90	49	1012	1008
6	8.0	17.2	-3.1	2.5	2.5	9.9	0.0	15.5	0.0	0.3	0.6		99	39	1013	1010
7	9.2	15.8	-3.1	2.4	3.1	9.1	0.0	14.9	0.0	0.0	0.0		89	21	1015	1013
8	16.7	16.2	-0.6	2.1	8.1	9.2	3.1	9.9	0.0	0.3	0.2		83	20	1013	1003
9	18.8	16.2	4.2	2.2	11.5	9.2	6.5	6.5	0.0	0.0	0.0		70	25	1007	1000
10	12.3	15.6	-1.6	2.1	5.4	8.8	0.4	12.6	0.0	0.0	0.0		81	26	1019	1007
11	10.6	16.8	-2.6	2.1	4.0	9.5	0.0	14.0	0.0	0.0	0.0		86	34	1025	1019
12	13.8	17.6	-0.6	3.6	6.6	10.6	1.6	11.4	0.0	0.2	0.0		85	26	1026	1024
13	11.9	18.2	-1.4	3.6	5.3	10.9	0.3	12.7	0.0	0.4	0.0		82	24	1027	1025
14	19.3	17.9	-1.8	3.9	8.8	10.9	3.8	9.2	0.0	0.0	0.0		80	16	1027	1020
15	16.0	17.4	4.9	4.8	10.5	11.1	5.5	7.5	0.0	0.0	1.0		90	41	1021	1014
16	16.1	19.0	7.4	4.6	11.8	11.8	6.8	6.2	0.0	5.8	6.2		97	52	1018	1015
17	19.2	19.9	5.7	5.4	12.5	12.7	7.5	5.5	0.0	0.5	0.0		95	32	1018	1011
18	20.1	18.6	7.3	6.6	13.7	12.7	8.7	4.3	0.0	0.2	0.0		67	32	1011	1005
19	12.4	18.6	5.5	5.8	9.0	12.2	4.0	9.0	0.0	11.2	15.2		94	53	1012	1005
20	17.7	17.9	2.4	5.1	10.1	11.6	5.1	7.9	0.0	3.5	0.0		96	27	1016	1013
21	24.9	18.1	5.6	6.1	15.3	12.1	10.3	2.7	0.0	0.0	0.0		76	26	1016	1011
22	28.5	18.6	9.7	5.9	19.1	12.3	14.1	0.0	1.1	1.3	0.0		81	19	1013	1010
23	32.3	18.6	12.8	5.6	22.6	12.1	17.6	0.0	4.6	0.0	0.0		69	15	1010	1005
24	26.5	18.9	14.9	6.0	20.7	12.5	15.7	0.0	2.7	0.0	0.0		60	25	1011	1005
25	20.4	20.0	8.3	6.7	14.4	13.4	9.4	3.6	0.0	0.0	0.6		84	39	1015	1011
26	19.1	20.7	11.1	6.7	15.1	13.7	10.1	2.9	0.0	16.6	20.2	small hail observed	93	61	1013	1007
27	19.5	22.1	8.7	7.2	14.1	14.6	9.1	3.9	0.0	0.0	0.0	48mm 5km south of station	93	47	1017	1008
28	22.6	20.6	6.0	7.9	14.3	14.3	9.3	3.7	0.0	0.0	0.2	27.8mm 5km south of station	95	35	1018	1008
29	22.3	21.3	10.9	7.4	16.6	14.4	11.6	1.4	0.0	29.3	29.8		95	26	1013	1005
30	23.4	21.9	7.9	7.8	15.7	14.9	10.7	2.3	0.0	0.0	0.0		84	24	1015	1012
31	25.2	21.6	8.0	7.3	16.6	14.5	11.6	1.4	0.0	0.0	0.0		83	21	1015	1012
Total							192.4	228.8	8.4	69.6	74.0		Extreme / Date	Extreme / Date	Extreme / Date	Extreme / Date
Avg	17.5	18.3	4.2	4.6	10.9	11.5	1981-2010 Normal			39.4	1981-2010 Normal					
Extreme Date	32.3		-3.1				206.9	209.3	6.3	179.4	Cumulative 2013		99	15	1027	1000
	23		6							100.9	Cumulative Normal		6	23	13	9

Note: Red numbers indicate manual calculation; Red cell indicate data not available

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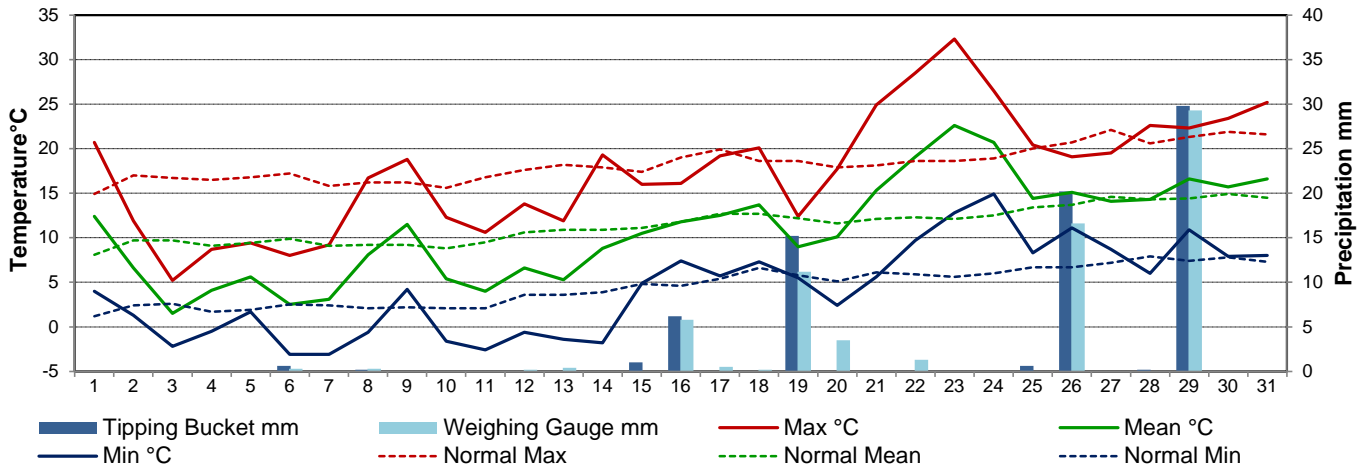


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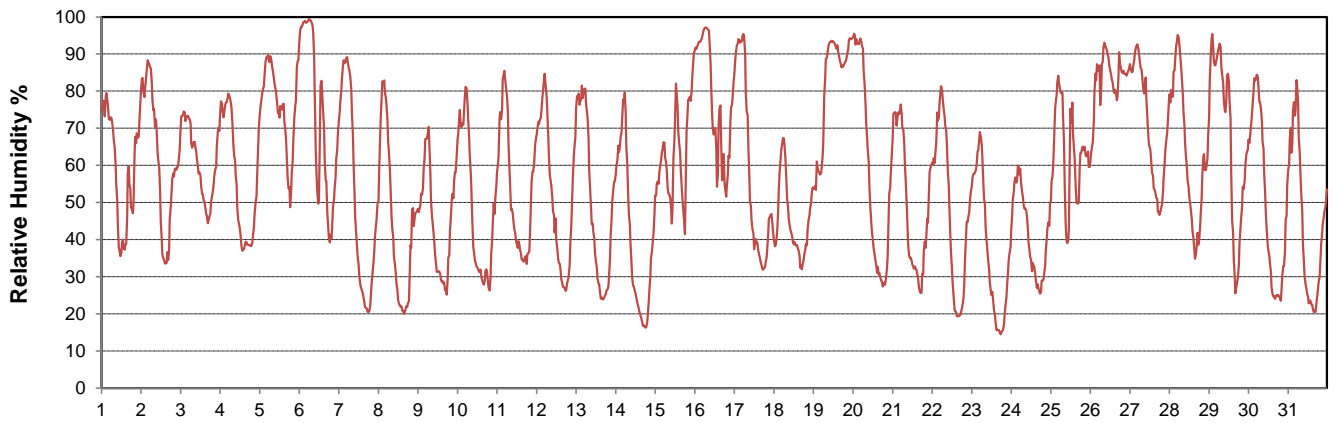
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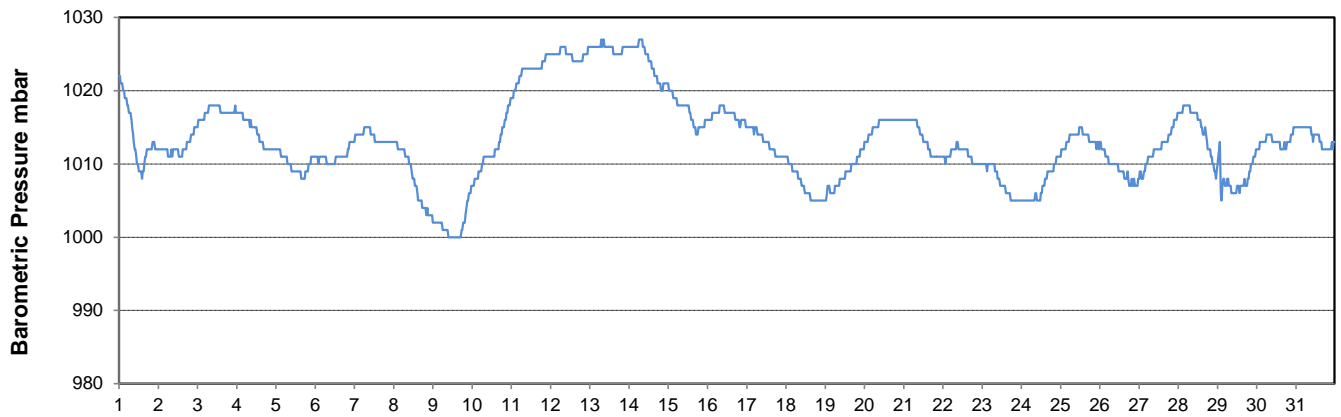
### Temperature and Precipitation for May 2014



### Relative Humidity for May 2014



### Barometric Pressure Corrected to Sea Level for May 2014





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**SASKATOON STATION 4057180**

52°09' N 106°36' W 497 m asl Estab. 1963

Preliminary **MAY 2014**

Day	Wind Gust			Soil Temperatures at 0900hrs								Soil Moisture 30 cm	Radiation				
	Max	Direction	Time	Surface	5 cm	10 cm	20 cm	50 cm	100 cm	150 cm	300 cm		0900hrs	Bright Sunshine	Possible	% Possible	Global
	km/h			°C	°C	°C	°C	°C	°C	°C	°C	%	hours	hours		MJ/m <sup>2</sup>	MJ/m <sup>2</sup>
1	60.5	N	16:33	8.0	6.5	6.5	5.5	4.0	3.0	2.5	3.5	31.6	6.8	15.0	45.5	14.2	8.0
2	48.4	NW	13:07	4.5	6.0	6.0	5.5	4.5	3.0	2.5	3.5	30.9	9.5	15.0	63.3	18.9	7.4
3	41.8	N	6:37	-2.0	5.0	5.5	5.5	4.5	3.0	3.0	3.5	30.1	9.8	15.1	65.0	20.3	8.4
4	32.0	SSE	15:52	2.0	5.5	5.5	5.5	5.0	3.5	3.0	3.5	29.5	3.6	15.1	23.8	14.5	10.8
5	27.9	WNW	17:35	1.5	6.0	6.5	5.5	5.0	3.5	3.0	3.5	29.2	3.5	15.2	23.1	8.5	5.8
6	35.1	NW	19:48	0.5	4.5	5.0	5.0	5.0	3.5	3.0	3.5	28.9	5.5	15.2	36.1	11.5	7.8
7	55.9	W	14:11	-0.5	3.0	4.0	4.5	5.0	4.0	3.5	3.5	28.7	13.6	15.3	88.9	24.4	3.8
8	68.1	WSW	19:19	5.5	4.5	5.0	5.0	5.0	4.0	3.5	3.5	28.6	10.3	15.4	67.1	20.0	5.6
9	45.0	NNW	18:09	9.0	7.0	7.0	6.0	5.0	4.0	3.5	3.5	28.7	8.3	15.4	53.9	16.4	8.9
10	47.1	NNW	13:33	5.0	6.0	7.0	6.5	5.5	4.0	3.5	3.5	28.6	14.3	15.5	92.5	24.9	3.9
11	35.1	WNW	12:45	5.0	5.5	6.0	6.5	6.0	4.0	3.5	3.5	28.3	12.1	15.5	78.0	21.1	7.1
12	41.8	NW	13:47	6.5	6.0	6.5	6.5	6.0	4.5	3.5	3.5	28.2	11.7	15.6	75.1	19.6	7.1
13	49.8	N	13:18	6.0	5.5	6.0	6.5	6.0	4.5	4.0	3.5	28.1	15.0	15.6	96.0	25.9	3.7
14	31.8	NNW	15:25	6.5	6.0	6.5	6.5	6.0	4.5	4.0	3.5	27.9	14.2	15.7	90.6	25.5	3.5
15	41.6	SE	16:26	9.0	9.5	9.5	8.5	6.5	5.0	4.0	3.5	27.9	0.9	15.7	5.7	6.6	5.2
16	20.0	N	14:40	5.5	9.0	9.5	8.0	7.0	5.0	4.0	3.5	28.1	4.5	15.8	28.5	11.4	8.1
17	31.4	ESE	23:43	9.5	9.5	9.5	8.5	7.5	5.0	4.0	4.0	29.4	11.1	15.8	70.1	21.0	7.0
18	48.8	ESE	23:08	9.5	10.5	11.0	10.0	8.0	5.0	4.5	4.0	29	5.3	15.9	33.4	13.4	8.9
19	47.6	SE	0:29	6.0	10.0	10.5	9.5	8.0	5.5	4.5	4.0	28.6	0.0	15.9	0.0	4.6	3.8
20	25.0	NE	10:55	7.5	8.5	9.0	8.5	8.0	6.0	4.5	4.0	32.7	13.6	16.0	85.2	25.9	4.1
21	49.6	SW	18:28	14.0	10.5	11.0	10.0	8.5	6.0	4.5	4.0	31.8	12.7	16.0	79.3	22.8	6.4
22	26.5	NNE	2:27	11.0	13.0	13.0	11.0	9.0	6.0	5.0	4.0	31.2	11.0	16.1	68.5	20.0	8.4
23	42.8	SW	17:15	16.0	15.0	15.0	12.5	10.0	6.5	5.0	4.0	30.7	15.3	16.1	95.0	23.8	7.5
24	48.7	NW	15:38	15.5	16.0	16.0	13.5	11.0	6.5	5.0	4.0	29.9	12.8	16.2	79.3	24.1	5.9
25	42.0	NE	14:16	15.0	15.5	15.5	14.0	11.0	7.0	5.0	2.5	29	6.5	16.2	40.1	14.6	7.5
26	50.1	SE	10:49	9.5	13.5	14.5	13.5	11.0	7.0	5.5	4.0	31.3	5.3	16.2	32.7	13.5	7.6
27	40.6	WSW	11:55	11.5	14.0	14.5	13.0	11.5	7.5	5.5	4.5	33.2	13.7	16.3	84.2	22.1	7.5
28	49.8	NE	17:43	11.5	13.0	13.5	13.0	11.5	8.0	6.0	4.5	32	11.7	16.3	71.8	22.0	6.8
29	81.0	NE	2:11	12.5	15.0	15.5	13.5	12.0	8.0	6.0	4.5	37.2	9.4	16.3	57.5	18.2	6.9
30	51.1	WSW	12:52	11.5	13.0	14.0	13.0	12.0	8.0	6.5	4.5	34.1	15.1	16.4	92.2	26.2	3.7
31	29.8	SSW	20:25	14.0	14.0	14.5	13.0	12.0	8.5	6.5	4.5	32.4	11.8	16.4	71.9	23.1	7.4
Total													298.9	488.05	61.2	579.0	204.5
Mean				8.0	9.2	9.6	8.8	7.6	5.3	4.3	3.8	30.2	1981-2010 Normal for Radiation				
Extreme	81.0	NE	2:11	1971- 2000 Normal for Soil Temperatures									256.9	487.6	52.7	603.5	221.5
Date	29				10.3	10.8	11.3	9.3	6.4	4.8	3.4		No. of Bright Sunshine days = 30				

Note: Red numbers indicate manual calculation

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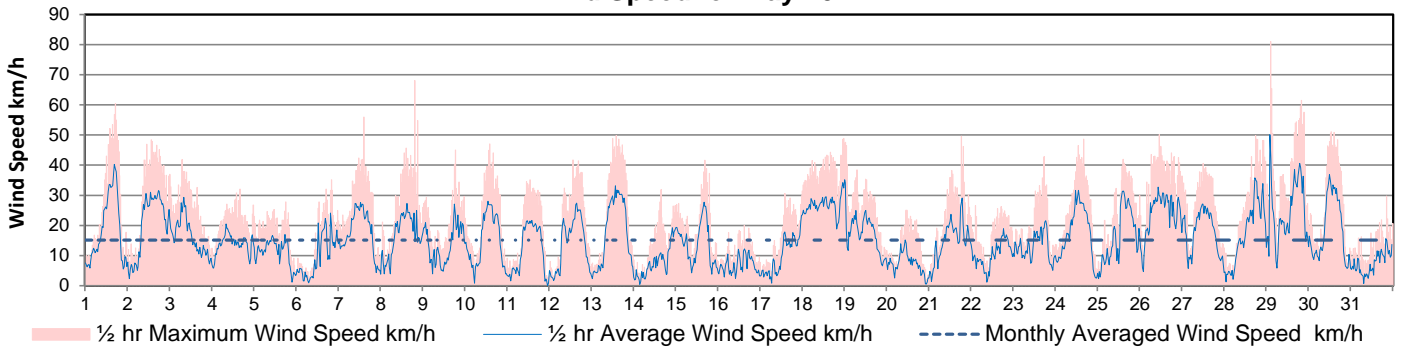


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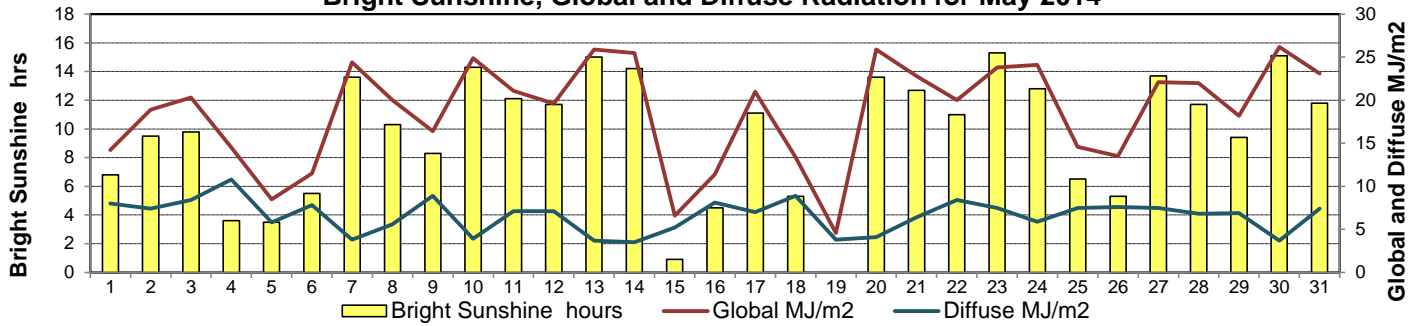
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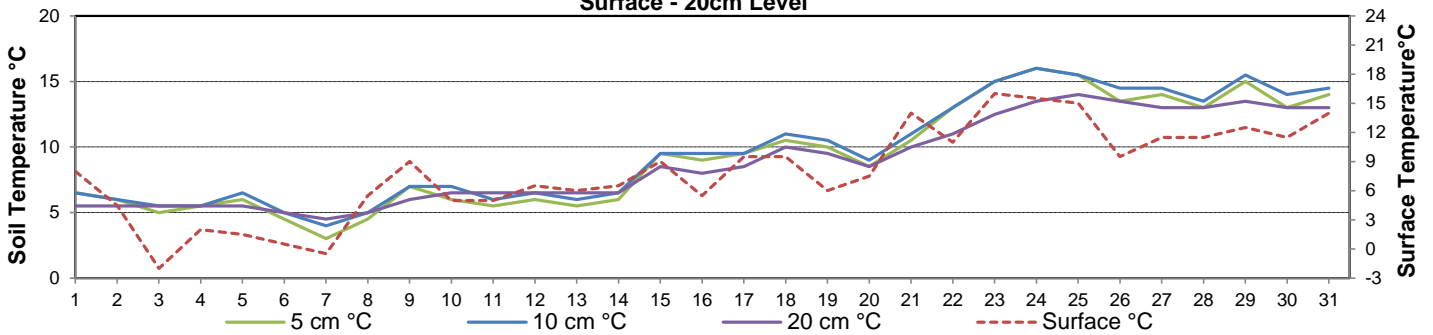
### Wind Speed for May 2014



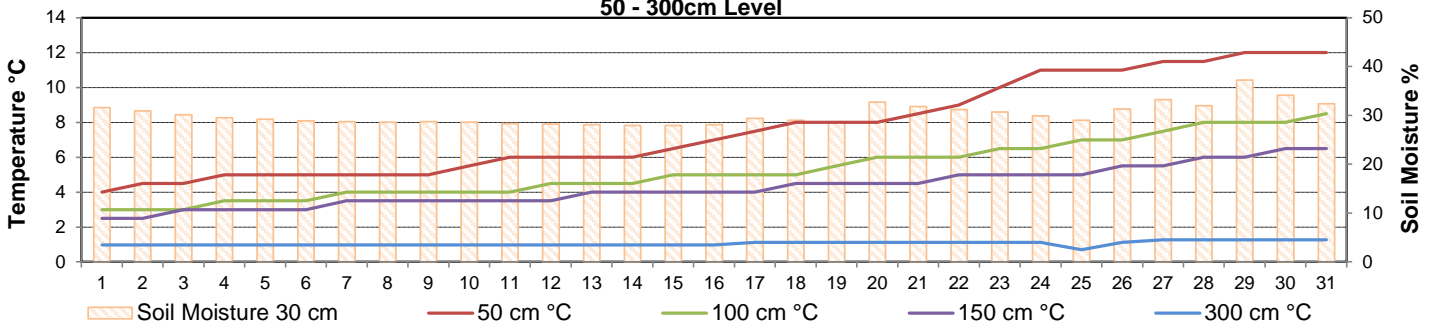
### Bright Sunshine, Global and Diffuse Radiation for May 2014



### Soil Temperatures for May 2014 Surface - 20cm Level



### Soil Temperatures for May 2014 50 - 300cm Level





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## SASKATOON STATION 4057180

52°09' N 106°36' W 497 m asl Estab. 1963

Preliminary **MAY** 2014

### Extreme Records for May

Max/Min Temperature °C			Precipitation - Monthly mm				Wind Monthly km/h				CRS Bright Sunshine - Monthly						
S'toon Area	Date	Site	S'toon CRS	Date	S'toon Area	Date	Site	S'toon CRS	Date	S'toon Airport	Date	S'toon CRS**	Date	Hours	Year	No. of Days	Year
37.2	27/1936	SE	35.0	30/1988	178.0	1977	SWT	145.3	1977	132	17 <sup>SW</sup>	108	1991	389.3	1980	31	1966*
-12.8	06/1907	SE	-10.0	02/1967	0.0	02, '02, 1988	SWT, K, SC	0.2	2002					153.0	1996	24	2006

\*\*1975 forward \* more than one year

Notable Events for CRS Saskatoon - May						Saskatoon Area Stations			Glossary	
Element	Type	Day	New Record	Old Record	Year	SM	NWMP	c. 1892-1901	T	Trace of precipitation
Precipitation	Daily	29-May	29.8	21.2	2010	SE	Eby	1901-1941	Normal	30 year average beginning with the decade
Days win 15mm or more			3	3	1977, '94, 2010, '12	US	Univ. of Sask.	1915-1964	SOG	Depth of snow-on-the-ground in cm
						S	Saskatoon	1941-1942	na	not available
						SA	Saskatoon A	1942 -	<b>Degree-days</b>	
						NRC	Nat. Res. Council	1952-1966	Tm	Mean Temperature
						SRC	Sask. Res. Council	1963-	Growing	(Tm-5°C); if Tm ≤ 5°C then GDD = 0
						SWT	S'toon Water Treatment Plant	1974 -	Heating	(18°C-Tm); if Tm ≤ 18°C then HDD = 0
						SC	S'toon Central Ave	1974-1989	Cooling	(Tm-18°C); if Tm ≥ 18°C then CDD = 0
						S1	Saskatoon 1	1976-1978	Extreme Cooling	(Tm-24°C); if Tm ≥ 24°C then CDD = 0
						S2	Saskatoon 2	1977-1990	<b>Did you Know?</b>	
						K	S'toon Kernen Farm	1993-2004	<p>As much as we take the modern thermometer for granted in today's world, they are relatively new, being invented in the early 1600's. In 1724, Fahrenheit invented the first mercury thermometer with the scale that bears his name. Celsius redefined the scale in 1742 by having 0°C as the freezing point of water and 100°C as the boiling point. The "Sourdough Thermometer", an invention of necessity in the Yukon of the 1880's, consisted of four bottles place on an outside window sill. The first, mercury, froze at -40°C; the second, coal oil, at -45 °C; the third, extract of Jamaica ginger, at -50°C and Perry Davis' Painkiller (a popular patent medicine) turn white at -50°C, crystallize at -55°C and froze solid at -60°C.</p>	
						KCS	S'toon Kernen Farm CS	1996-		
						RCS	Environment Canada	2008-		
						SF	Sutherland Forestry	1943-1970		

<i>Close but no cigar</i>		2014		Record	
Temperature	Daily Maximum	Day	Value	Day	Value
		22-May	28.5	34.0	1980
		23-May	32.3	33.0	1980
		24-May	26.5	34.0	1980



### Summary

May continued the cool spring temperatures with below normal monthly averages. The temperatures ranged from a low of -3.1°C on the 6<sup>th</sup> and 7<sup>th</sup> to a high of 32.3°C on the 23<sup>rd</sup>. The last frost day, hopefully until October, was May 14<sup>th</sup>. Precipitation was concentrated to the latter half of the month with 89% of the monthly total. Small pea hail was observed south of the station on the 26<sup>th</sup>. The yearly cumulative value is at CRS Saskatoon 78% above normal. Near gale winds over 50km/h were recorded four times, Gale winds over 62Km/h once and Strong Gale winds over 75 km/h also once. The month was above average for bright sunshine with only two days showing less than 1 hour. Soil temperatures, on average, are below normal with the exception of the lowest level at 300cm. Soil moisture hovered around 30%.



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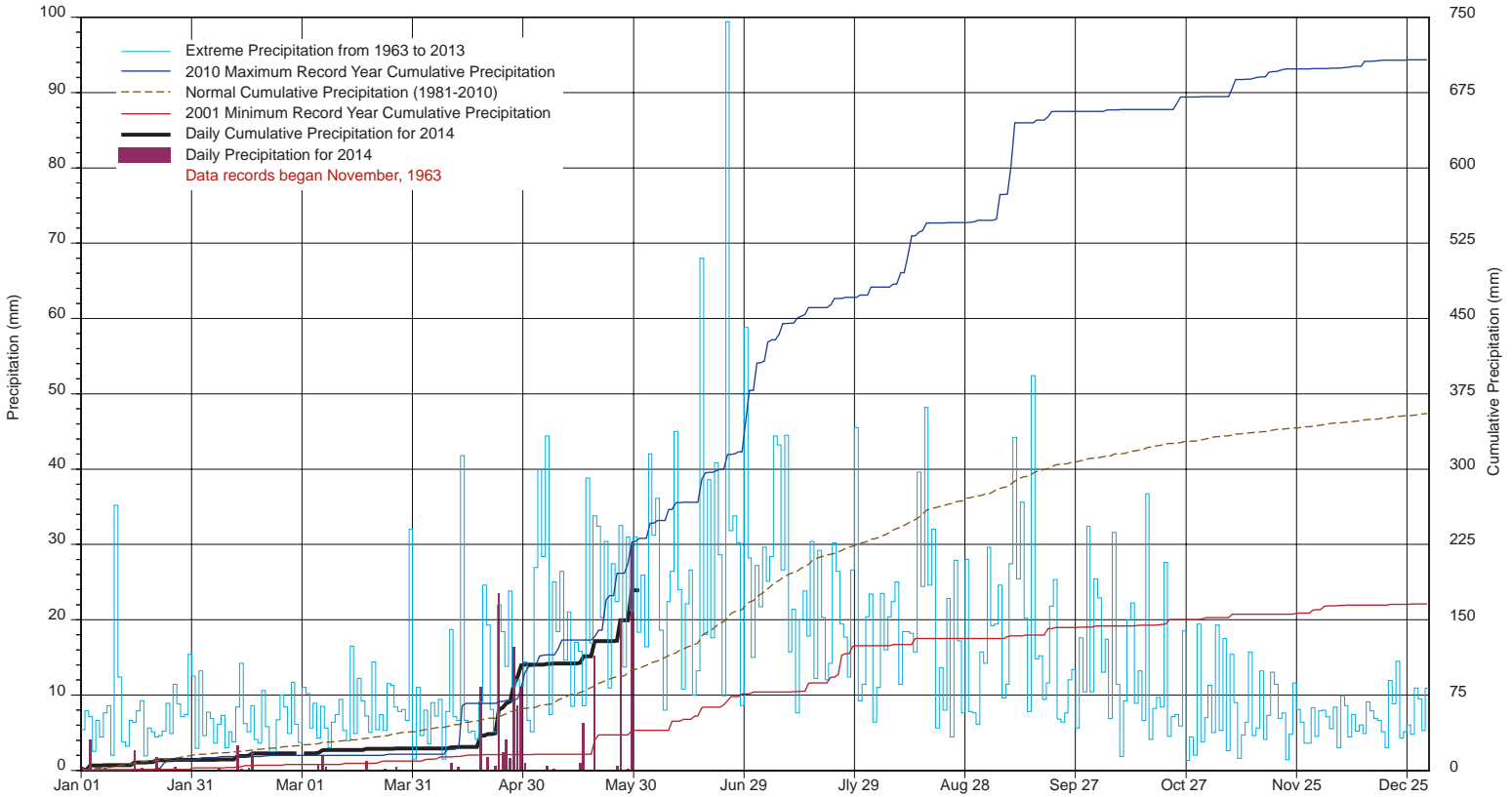


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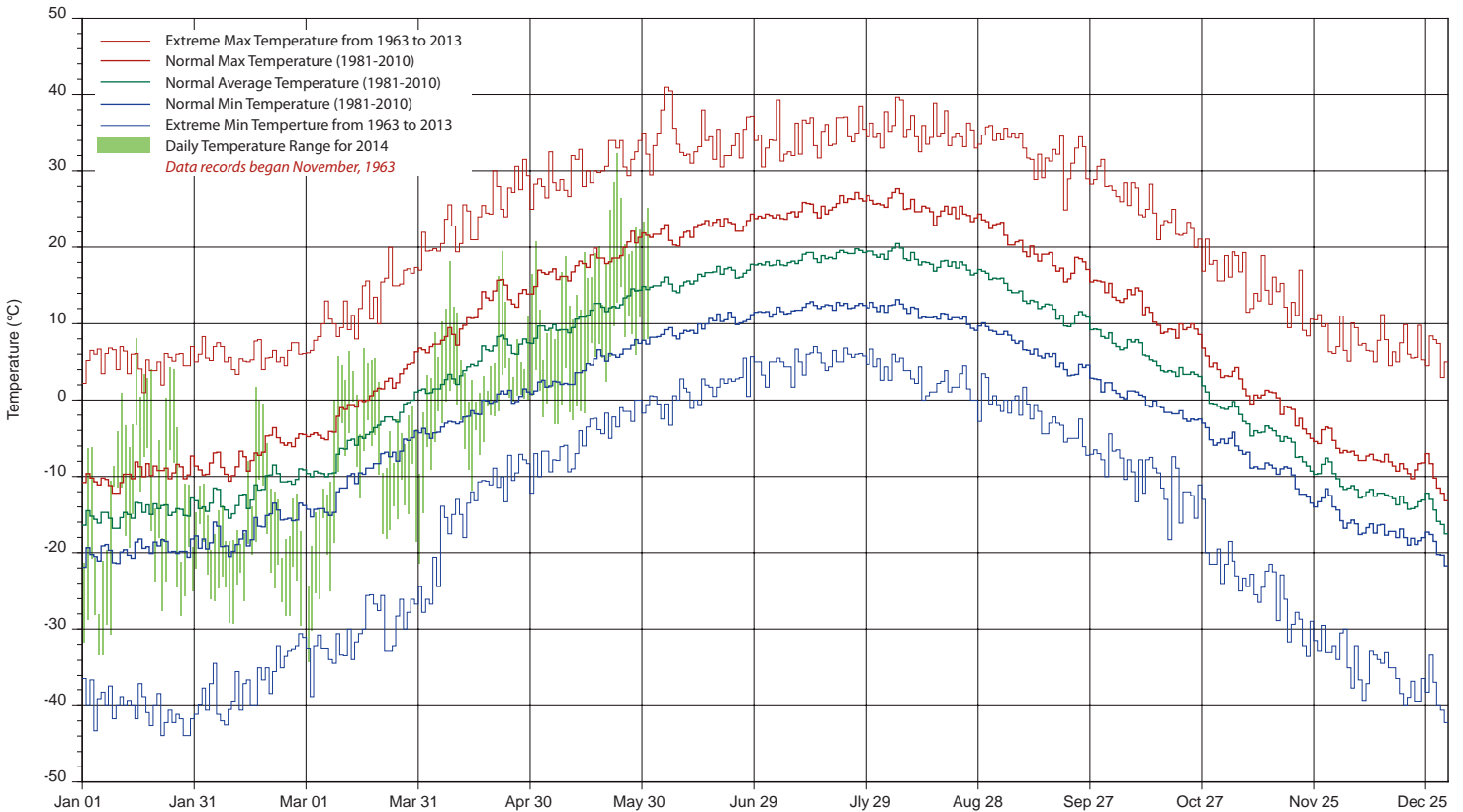
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# SASKATCHEWAN RESEARCH COUNCIL SASKATOON CLIMATE REFERENCE STATION 2014 PRECIPITATION AND NORMALS



## 2014 TEMPERATURES AND NORMALS



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