



SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary JUNE 2019

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	24.0	21.3	6.1	8.2	15.1	14.8	10.1	2.9	0.0	0.0	0.0		77	18	1016	1011
2	32.9	21.7	11.8	8.2	22.4	15.0	17.4	0.0	4.4	0.0	0.0		53	15	1011	1002
3	34.8	21.7	7.9	8.3	21.4	15.0	16.4	0.0	3.4	0.0	0.0		82	11	1005	996
4	24.9	22.4	10.7	8.6	17.8	15.5	12.8	0.2	0.0	0.0	0.0		78	18	1013	1005
5	24.2	23.0	11.2	9.2	17.7	16.1	12.7	0.3	0.0	0.4	0.6	t-storm	80	15	1012	1009
6	26.5	20.9	15.7	9.5	21.1	15.2	16.1	0.0	3.1	0.0	0.0	showers	62	28	1009	1001
7	20.5	20.3	7.6	8.4	14.1	14.3	9.1	3.9	0.0	1.8	2.2	showers	90	38	1006	999
8	16.9	20.2	4.6	8.0	10.8	14.1	5.8	7.2	0.0	0.0	0.0		83	28	1017	1006
9	17.8	21.3	8.1	8.7	13.0	15.0	8.0	5.0	0.0	0.1	0.0	showers	76	23	1021	1017
10	24.2	22.0	6.9	9.1	15.6	15.5	10.6	2.4	0.0	0.3	0.0	showers	71	19	1021	1015
11	21.8	22.1	9.4	9.0	15.6	15.6	10.6	2.4	0.0	0.4	0.6	showers	84	30	1021	1017
12	24.3	21.3	10.4	9.1	17.4	15.2	12.4	0.6	0.0	3.5	3.4	showers	85	35	1020	1011
13	28.2	22.6	12.1	8.7	20.2	15.6	15.2	0.0	2.2	0.0	0.0		81	29	1011	1003
14	21.9	23.0	13.0	10.0	17.5	16.5	12.5	0.5	0.0	1.9	1.8	showers	90	58	1007	1003
15	16.0	23.1	11.4	9.3	13.7	16.2	8.7	4.3	0.0	0.7	0.6	showers	94	72	1015	1007
16	18.2	23.5	9.9	10.0	14.1	16.7	9.1	3.9	0.0	0.5	1.0	showers	91	42	1018	1014
17	23.9	22.8	6.7	10.7	15.3	16.7	10.3	2.7	0.0	0.3	0.0		87	26	1020	1016
18	27.2	23.3	10.9	10.4	19.1	16.8	14.1	0.0	1.1	0.0	0.0		60	20	1016	1009
19	25.9	23.7	13.5	11.3	19.7	17.5	14.7	0.0	1.7	0.2	0.2	showers	79	24	1009	1002
20	15.0	22.7	10.9	10.3	13.0	16.5	8.0	5.0	0.0	20.9	20.2	rain	92	82	1009	1003
21	20.2	23.8	8.4	10.5	14.3	17.2	9.3	3.7	0.0	1.5	1.6	showers	93	48	1012	1009
22	18.1	23.3	12.3	11.5	15.2	17.4	10.2	2.8	0.0	32.4	33.0	rain	92	64	1008	1001
23	21.8	23.1	11.4	10.8	16.6	17.0	11.6	1.4	0.0	0.0	0.0		91	46	1005	1003
24	19.6	22.1	11.2	9.9	15.4	16.0	10.4	2.6	0.0	2.3	2.4	light rain	86	62	1005	1003
25	19.8	22.1	12.2	10.1	16.0	16.1	11.0	2.0	0.0	2.8	3.4		88	51	1010	1005
26	23.7	22.8	10.1	10.3	16.9	16.6	11.9	1.1	0.0	0.0	0.0		91	34	1016	1010
27	25.4	23.5	10.9	10.5	18.2	17.0	13.2	0.0	0.2	0.1	0.0		86	38	1018	1016
28	24.6	24.4	15.3	11.2	20.0	17.8	15.0	0.0	2.0	7.9	7.8	t storm	90	53	1017	1015
29	25.8	23.8	15.0	11.5	20.4	17.7	15.4	0.0	2.4	0.0	0.0		91	25	1015	1011
30	22.6	24.1	12.8	11.6	17.7	17.9	12.7	0.3	0.0	0.0	0.0		77	34	1016	1012
Total							355.3	55.2	20.5	78.0	78.8		Extreme / Date	Extreme / Date	Extreme / Date	Extreme / Date
Avg	23.0	22.5	10.6	9.8	16.8	16.2	1981-2010 Normal			66.6	Normal					
Extreme Date	34.8		4.6				334.8	81.4	24.8	119.1	Cumulative		94	11	1021	996
Date	3		8							167.5	Cumulative Normal		15	3	9	3

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

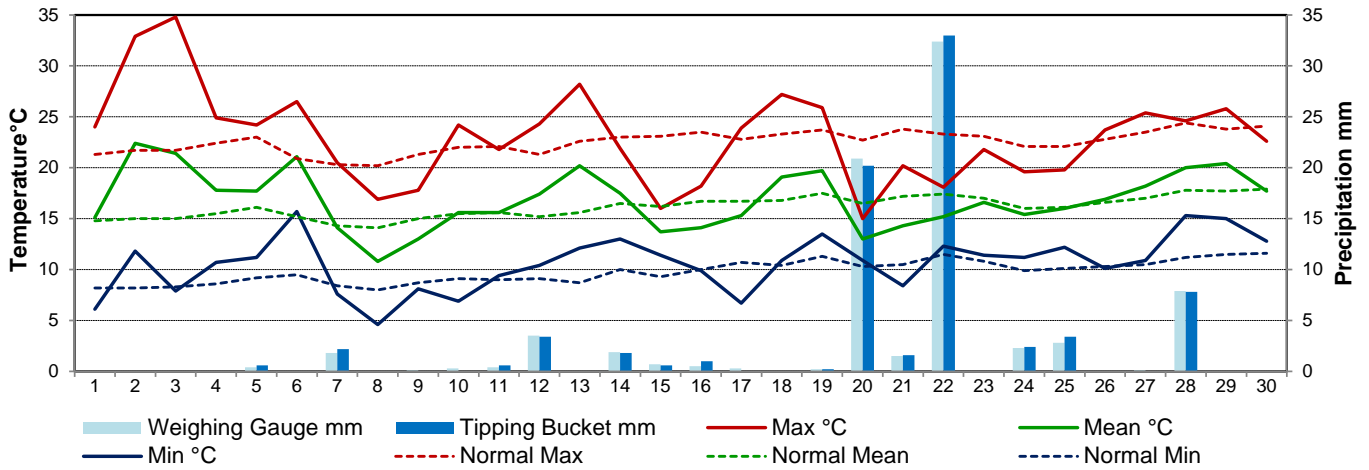
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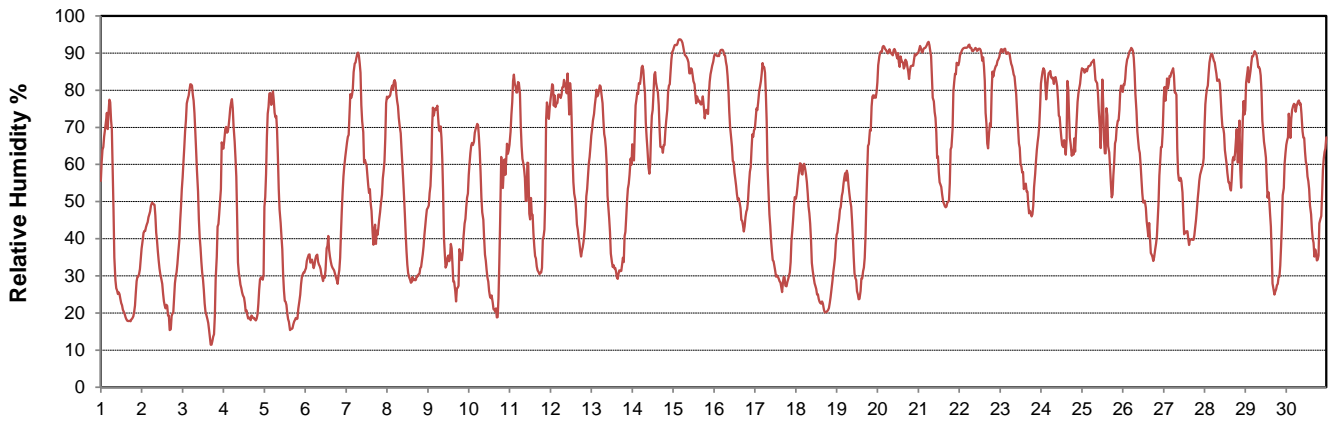
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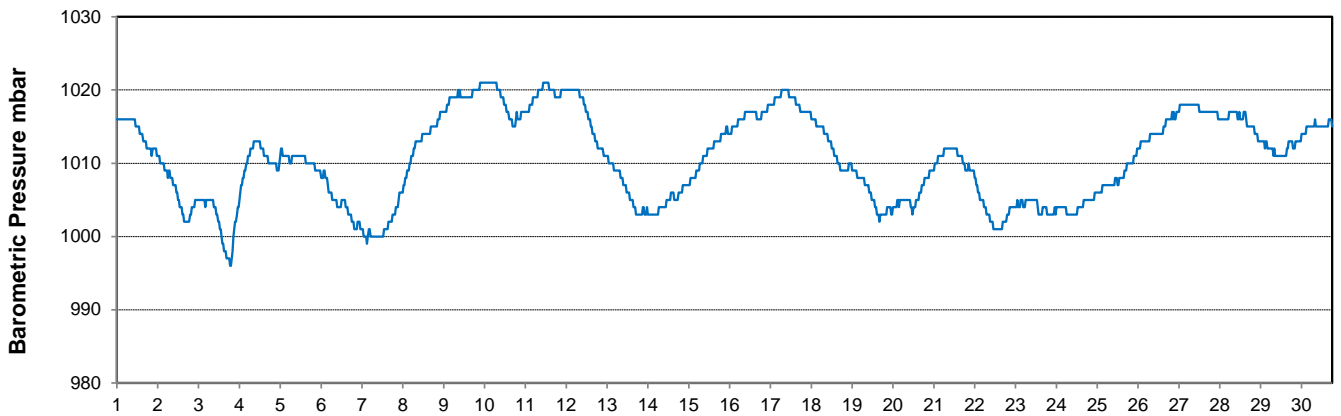
### Temperature and Precipitation for June 2019



### Relative Humidity for June 2019



### Barometric Pressure Corrected to Sea Level for June 2019





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

Preliminary **JUNE** 2019

Day	Wind Gust			Soil Temperatures at 0900hrs (rounded to the nearest 0.5C)								Radiation				
	Max	Direction	Time	Surface	5 cm	10 cm	20 cm	50 cm	100 cm	150 cm	300 cm	Bright Sunshine	Possible	% Possible	Global	Diffuse
	km/h			°C	°C	°C	°C	°C	°C	°C	°C	hours	hours		MJ/m <sup>2</sup>	MJ/m <sup>2</sup>
1	39.5	SE	23:52	19.0	15.0	15.5	16.0	13.5	8.5	7.0	5.0	14.2	16.4	86.4	25.8	7.7
2	45.9	SE	2:16	17.5	16.0	16.5	16.5	14.0	9.0	7.0	5.0	9.3	16.5	56.5	22.2	8.3
3	66.2	NNE	20:33	16.0	16.5	17.0	17.0	14.0	9.0	7.0	5.0	13.5	16.5	81.9	25.0	8.2
4	48.3	N	0:14	18.5	18.0	18.5	18.0	14.5	9.5	7.0	5.0	12.9	16.5	78.1	27.8	4.2
5	37.9	NW	15:36	18.0	17.5	18.0	18.0	15.0	9.5	7.5	5.0	14.9	16.5	90.1	29.2	3.6
6	46.2	SE	6:30	19.5	18.0	18.5	18.0	15.0	10.0	7.5	5.0	3.5	16.6	21.1	11.9	7.8
7	52.1	WSW	15:57	16.5	17.5	18.0	17.5	15.0	10.0	7.5	5.5	8.9	16.6	53.6	21.0	9.6
8	49.8	WNW	14:51	10.0	14.0	15.0	16.0	15.0	10.0	8.0	5.5	9.3	16.6	56.0	24.6	8.2
9	55.8	W	16:27	13.5	14.0	15.0	15.5	14.5	10.0	8.0	5.5	11.9	16.6	71.5	23.7	7.2
10	42.8	NW	16:48	16.0	13.5	14.0	15.0	14.0	10.5	8.0	5.5	10.9	16.7	65.4	25.6	4.9
11	42.8	N	10:40	15.0	15.5	15.5	16.0	14.0	10.5	8.5	5.5	8.4	16.7	50.4	20.9	8.2
12	29.1	SSE	15:41	12.0	15.0	15.5	16.0	14.5	10.5	8.5	6.0	8.2	16.7	49.1	17.2	5.2
13	29.1	NE	13:35	18.0	15.0	15.5	16.0	14.5	10.5	8.5	6.0	6.9	16.7	41.3	15.1	8.1
14	23.4	ENE	19:30	18.5	16.5	16.5	16.5	14.5	10.5	8.5	6.0	2.5	16.7	15.0	11.3	7.1
15	33.8	ESE	17:48	14.5	16.0	16.5	16.0	14.5	10.5	8.5	6.0	0.0	16.7	0.0	6.6	5.1
16	26.2	ESE	18:58	12.5	14.0	14.5	15.0	14.0	10.5	8.5	6.0	2.2	16.7	13.1	14.5	10.0
17	30.9	ESE	16:23	16.5	12.5	13.0	14.0	14.0	10.5	8.5	6.0	13.9	16.7	83.0	26.8	6.5
18	37.9	SE	13:32	20.0	15.0	15.5	16.0	14.0	10.5	9.0	6.5	14.2	16.8	84.8	26.7	5.2
19	52.1	SE	14:46	20.0	17.5	17.5	17.5	14.5	10.5	9.0	6.5	7.5	16.8	44.8	21.5	6.8
20	34.6	S	12:07	13.0	17.0	17.5	17.5	15.0	10.5	9.0	6.5	0.1	16.8	0.6	6.3	4.7
21	43.6	ENE	18:47	13.0	13.5	14.0	15.0	15.0	11.0	9.0	6.5	5.6	16.8	33.4	18.2	9.7
22	48.0	N	10:31	12.5	15.0	15.5	15.5	14.5	11.0	9.0	6.5	1.2	16.8	7.2	7.2	5.0
23	38.3	WNW	12:57	14.0	14.5	14.5	15.0	14.5	11.0	9.0	6.5	6.9	16.8	41.2	19.8	7.5
24	40.0	NNW	15:18	14.0	15.0	15.5	15.5	14.5	11.0	9.0	6.5	8.6	16.8	51.3	17.7	7.6
25	27.0	NW	11:41	16.0	15.5	16.0	16.0	14.0	11.0	9.0	7.0	7.0	16.7	41.8	19.0	8.9
26	24.7	NW	15:49	17.0	15.5	16.0	16.0	14.0	10.5	9.5	7.0	14.9	16.7	89.1	28.4	4.3
27	33.4	E	22:44	20.5	16.5	17.0	17.5	14.5	11.0	9.5	7.0	7.4	16.7	44.3	18.3	8.3
28	33.9	ESE	6:58	17.0	17.5	18.0	18.0	15.0	11.0	9.5	7.0	3.9	16.7	23.3	15.6	7.0
29	53.6	WSW	18:09	18.5	18.5	19.0	18.5	15.5	11.0	9.5	7.0	9.0	16.7	53.9	21.3	4.6
30	44.0	WNW	11:54	15.5	16.5	17.5	18.0	15.5	11.5	9.5	7.0	12.4	16.7	74.3	23.5	7.0
Total												250.1	500.1	50.0	592.7	206.5
Mean				16.1	15.7	16.2	16.4	14.5	10.4	8.5	6.0	1981-2010 Normal for Radiation				
Extreme	66.2	NNE	20:33	1971- 2000 Normal for Soil Temperatures								258.2	500.1	51.6	625.7	227.9
Date	3			15.3	15.7	16.3	14.0	10.4	8.3	5.4	No. of Bright Sunshine days = 29					

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

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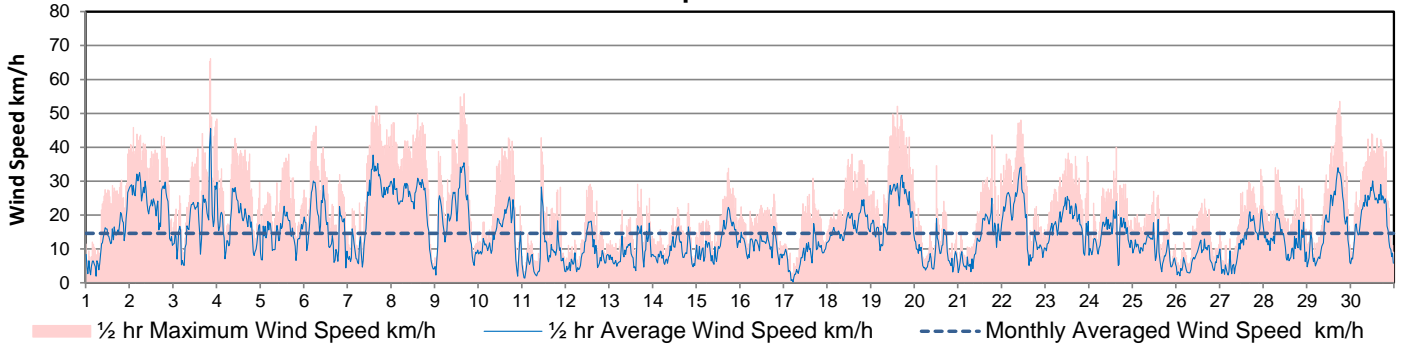


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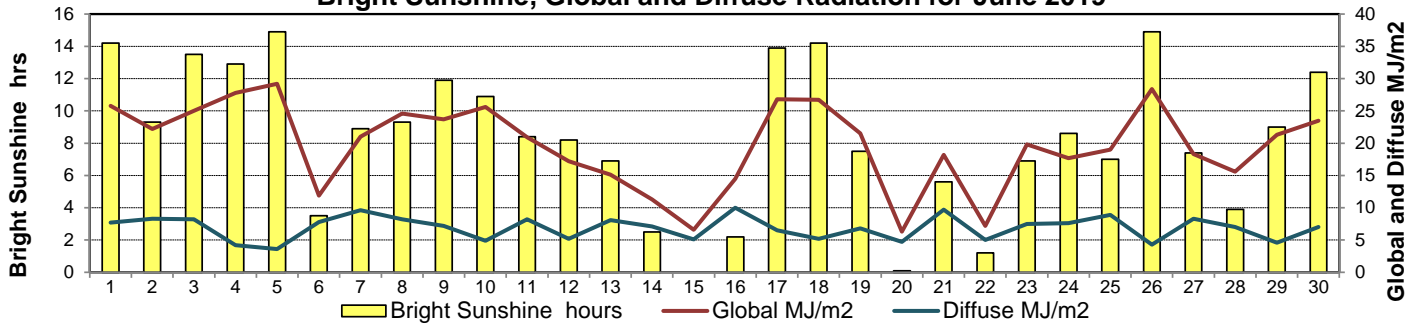


CAMPBELL SCIENTIFIC WHEN MEASUREMENTS MATTER

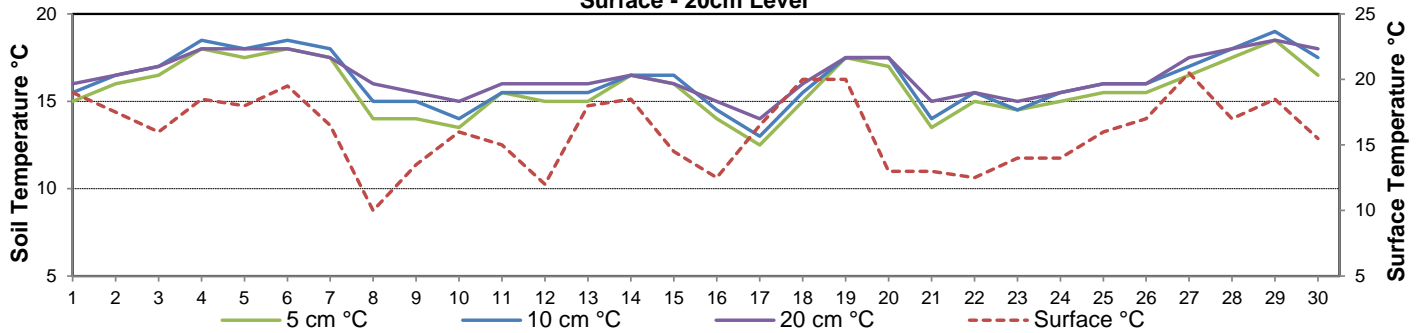
**10 meter Wind Speed for June 2019**



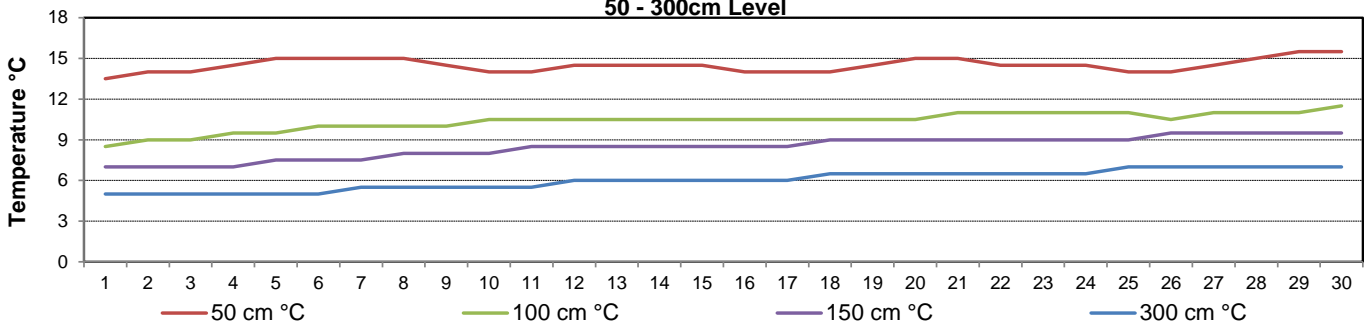
**Bright Sunshine, Global and Diffuse Radiation for June 2019**



**Soil Temperatures for June 2019**  
Surface - 20cm Level



**Soil Temperatures for June 2019**  
50 - 300cm Level





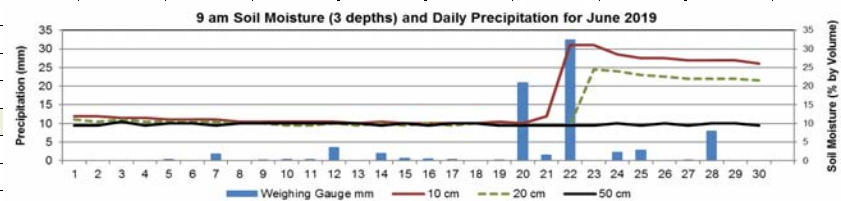
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Preliminary June 2019

Day	2 meter Wind Speed			Soil Moisture at 0900 hrs (rounded to the 0.5%)		
	Daily Average	Max ½ hr Avg	½ hr Extreme Max	10 cm	20 cm	50 cm
	km/h	km/h	km/h	% by volume (soil type is Loam (45.5% Sand, 41.1% Silt, 13.3% Clay))		
1	10.0	21.1	0.0	12.0	11.0	9.5
2	18.0	24.8	0.0	12.0	10.5	9.5
3	15.0	34.7	0.0	11.5	11.0	10.5
4	15.0	23.0	0.0	11.5	10.5	9.5
5	12.0	18.5	0.0	11.0	10.5	10.0
6	13.0	23.7	0.0	11.0	10.5	10.0
7	17.0	30.6	0.0	11.0	10.5	9.5
8	19.0	24.9	0.0	10.5	10.0	10.0
9	16.0	27.8	0.0	10.5	10.0	10.0
10	12.0	20.5	0.0	10.5	9.5	10.0
11	7.0	21.0	0.0	10.5	9.5	10.0
12	6.0	11.9	0.0	10.5	10.0	10.0
13	7.0	14.2	0.0	10.0	9.5	10.0
14	7.0	12.6	19.5	10.5	10.0	9.5
15	10.0	17.2	28.1	10.0	9.5	10.0
16	9.0	13.2	21.2	10.0	10.0	9.5
17	6.0	13.6	24.1	10.0	9.5	10.0
18	12.0	17.7	31.0	10.0	10.0	10.0
19	15.0	22.8	42.5	10.5	9.5	9.5
20	7.0	15.0	24.7	10.0	9.5	9.5
21	9.0	18.7	33.3	12.0	9.5	9.5
22	14.0	25.0	37.3	31.0	9.5	9.5
23	14.0	19.6	31.0	31.0	24.5	9.5
24	11.0	18.4	29.3	28.5	24.0	10.0
25	8.0	14.5	21.2	27.5	23.0	9.5
26	6.0	11.2	20.6	27.5	22.5	10.0
27	8.0	15.5	25.2	27.0	22.0	9.5
28	9.0	15.2	25.8	27.0	22.0	10.0
29	13.0	25.5	45.4	27.0	22.0	10.0
30	14.0	22.7	34.4	26.0	21.5	9.5
Total						
Mean				16	13	10
Extreme	19.0	34.7	45.4	31.0	24.5	10.5
Date	8	3	29			



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

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

Preliminary **JUNE** **2019**

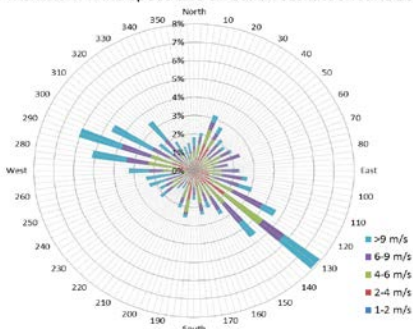
### Extreme Records for June

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
41.5	06/1988	S2	41.0	05/1988	186.8	1942	S	171.0	2005	117	01 <sup>S</sup> 1986	109.7 <sup>SW</sup>	22/2005	370.6	1978	30	1969*
-3.9	02/1917	US	-3.3	06/1967	5.0	2003	KCS	13.0	1985					175.3	2005	25	2002, 05

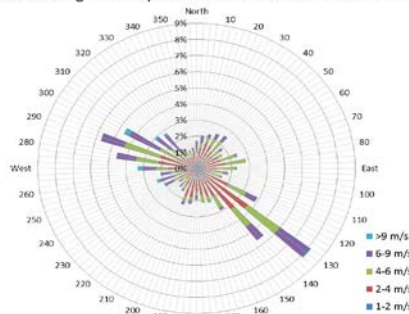
\*\*1975 forward \* more than one year

Notable Events for CRS Saskatoon - June						Saskatoon Area Stations			Glossary	
Element	Type	Day	New Record	Old Record	Year	Station	Location	Operational Period	Code	Description
Temperature	Lowest Maximum Daily Temperature	20	15.0	15.3	1998	SM	NWMP	c. 1892-1901	T	Trace of precipitation
		22	32.4	28.6	2005	SE	Eby	1901-1941	Normal	30 year average beginning with the decade
Precipitation	Greatest Daily	20	20.9	17.8	2014	US	Univ. of Sask.	1915-1964	SOG	Depth of snow-on-the-ground in cm
		22	32.4	28.6	2005	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	June 11 - toured students and their instructors from School of Natural Resources and Built Environment SaskPolytechnic Moose Jaw Campus around the site	
						K	S'toon Kernen Farm	1993-2004		
						KCS	S'toon Kernen Farm CS	1996-	June 12 - program update	
						RCS	Environment Canada	2008-		
						SF	Sutherland Forestry	1943-1970		

1/2 hr Maximum Wind Speed and Direction Saskatoon June 2019



10 minute Average Wind Speed and Direction Saskatoon June 2019



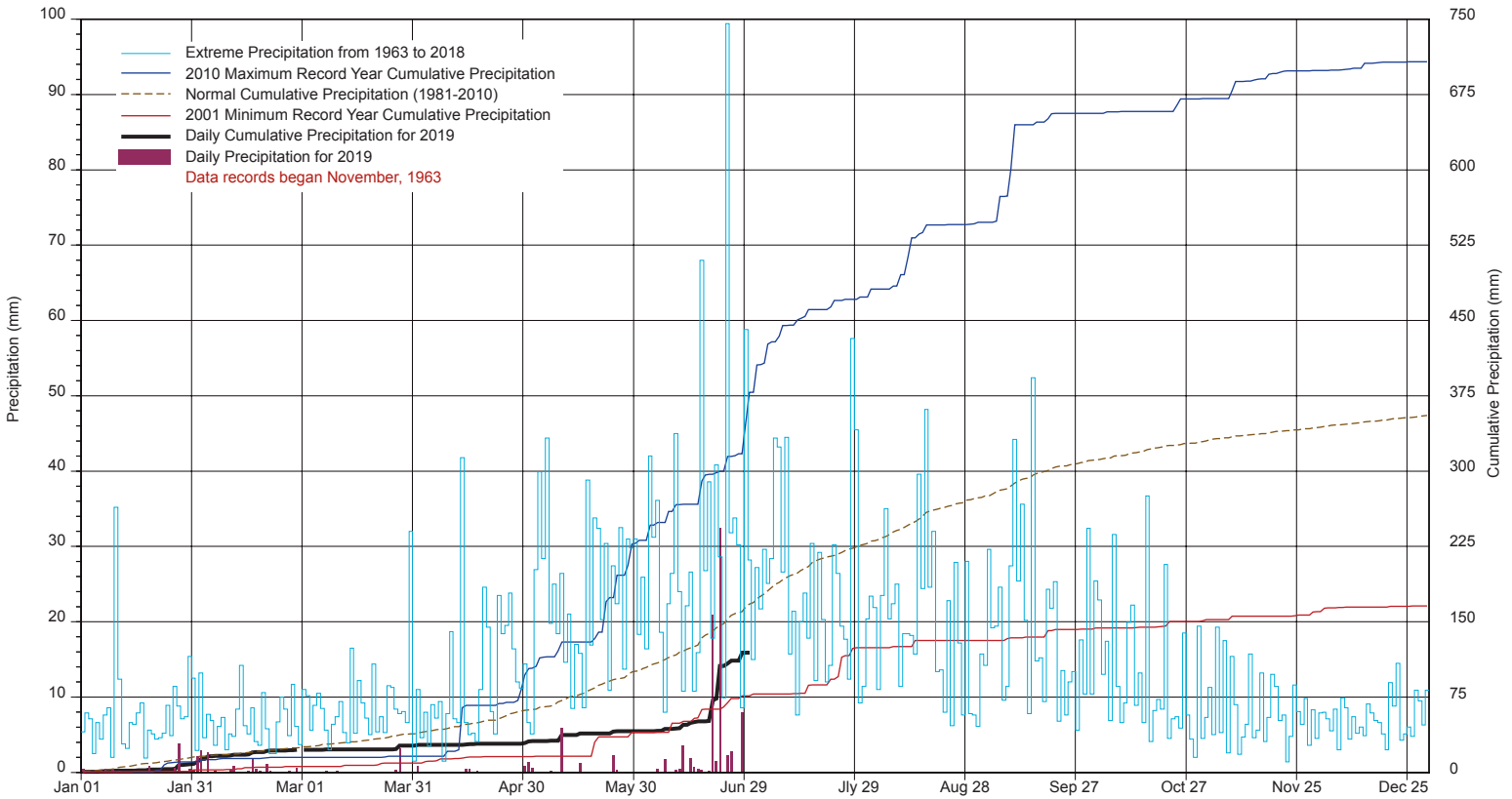
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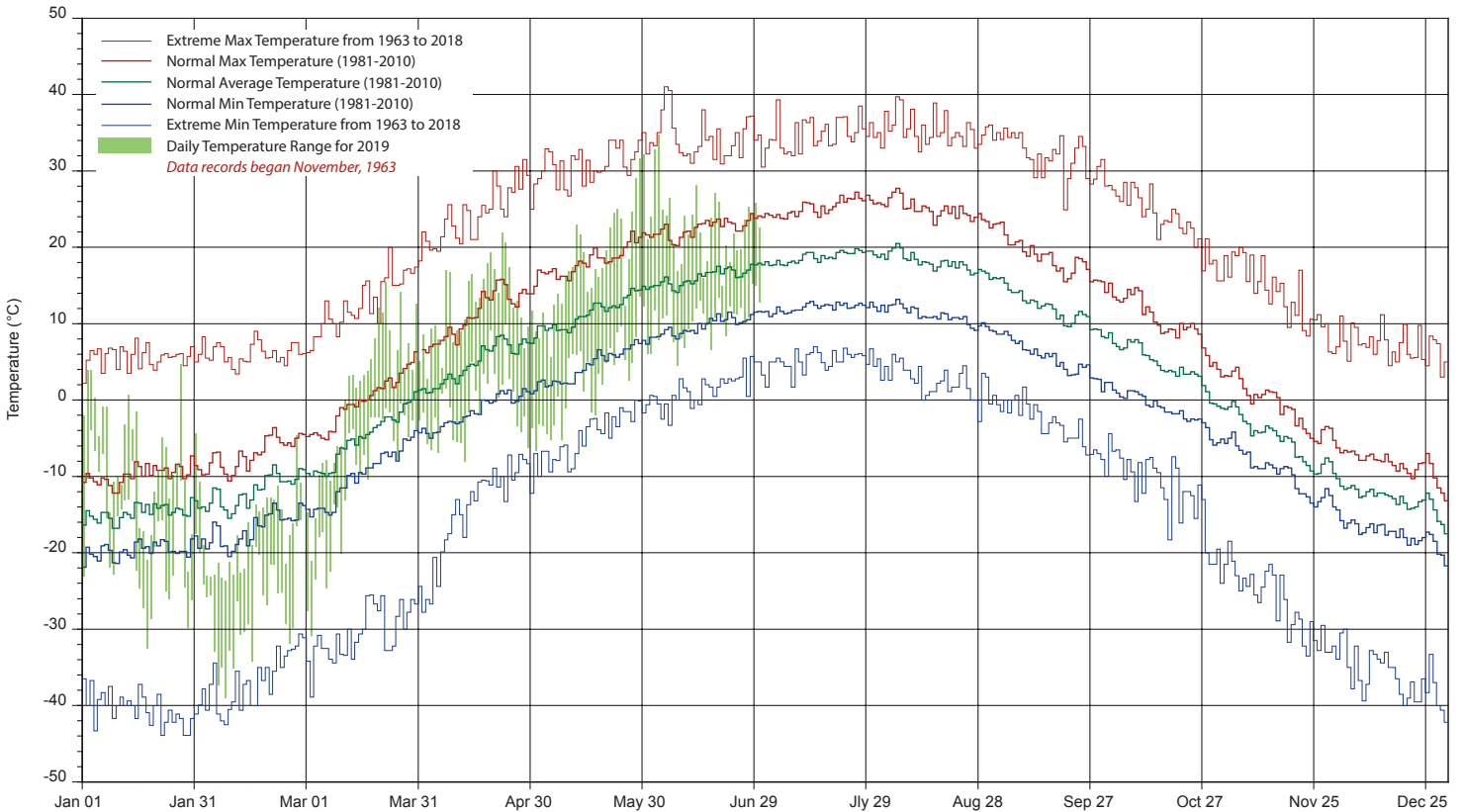
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# SASKATCHEWAN RESEARCH COUNCIL SASKATOON CLIMATE REFERENCE STATION 2019 PRECIPITATION AND NORMALS



## 2019 TEMPERATURES AND NORMALS



SRC proudly recongnizes the following CRS supporters:

