



SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary MARCH 2021

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	Notes	Snow-on-Ground 0900h	Max ½ hr Avg	Min ½ hr Avg	Max ½ hr Avg	Min ½ hr Avg
	°C	1991-2020	°C	1991-2020	°C	1991-2020	5°C base	18°C base	18°C base	mm		cm	%	%	mbar	mbar
1	2.2	-6.1	-19.0	-16.6	-8.4	-11.4	0.0	26.4	0.0	0.0		12	83	63	1019	998
2	2.0	-6.0	-8.7	-16.8	-3.4	-11.4	0.0	21.4	0.0	0.0		11	92	66	1009	998
3	2.1	-5.6	-11.7	-15.8	-4.8	-10.7	0.0	22.8	0.0	0.0	Fog	11	91	56	1015	1006
4	1.9	-5.5	-13.8	-14.9	-6.0	-10.3	0.0	24.0	0.0	0.0	Fog	11	93	73	1021	1015
5	3.2	-6.0	-5.4	-14.8	-1.1	-10.4	0.0	19.1	0.0	0.0	Fog	11	94	75	1020	1011
6	6.0	-6.1	0.5	-15.8	3.3	-11.0	0.0	14.7	0.0	0.0		10	89	58	1011	999
7	5.3	-5.2	-2.5	-15.8	1.4	-10.5	0.0	16.6	0.0	0.0		8	82	51	1013	1002
8	3.1	-4.9	-4.5	-15.1	-0.7	-10.0	0.0	18.7	0.0	0.0		5	84	67	1016	1011
9	1.2	-2.9	-7.3	-12.6	-3.1	-7.8	0.0	21.1	0.0	0.7	light snow	4	89	64	1016	1012
10	1.1	-1.0	-11.4	-11.7	-5.2	-6.4	0.0	23.2	0.0	0.0		4	92	51	1019	1008
11	-3.9	-0.6	-16.2	-11.2	-10.1	-5.9	0.0	28.1	0.0	0.0		4	74	54	1021	1017
12	4.2	-0.3	-8.7	-9.8	-2.3	-5.1	0.0	20.3	0.0	0.0		4	86	56	1020	1016
13	5.9	0.5	-5.4	-8.9	0.3	-4.3	0.0	17.7	0.0	0.0		3	91	52	1026	1021
14	7.6	0.1	-1.1	-10.6	3.3	-5.3	0.0	14.7	0.0	0.0	discontinuous snow cover	0	78	46	1024	1009
15	6.1	0.4	-3.5	-9.6	1.3	-4.6	0.0	16.7	0.0	0.0		0	69	50	1016	1006
16	0.2	-0.1	-9.5	-9.4	-4.7	-4.8	0.0	22.7	0.0	0.0		0	73	30	1018	1016
17	8.4	0.6	-7.1	-8.6	0.7	-4.0	0.0	17.3	0.0	0.0		0	82	30	1021	1016
18	13.4	1.5	-1.5	-8.5	6.0	-3.5	1.0	12.0	0.0	0.0		0	70	33	1018	1011
19	18.0	1.5	3.1	-7.8	10.6	-3.2	5.6	7.4	0.0	0.0		0	72	33	1011	1005
20	13.6	1.9	-2.2	-7.9	5.7	-3.0	0.7	12.3	0.0	0.0		0	91	25	1006	1004
21	4.5	1.5	-3.8	-7.0	0.4	-2.8	0.0	17.6	0.0	0.0		0	79	30	1014	1003
22	8.3	2.9	-4.5	-6.5	1.9	-1.9	0.0	16.1	0.0	0.0		0	89	52	1014	1006
23	-0.1	2.0	-8.6	-7.5	-4.4	-2.8	0.0	22.4	0.0	0.5	light snow	2	85	60	1026	1015
24	8.5	1.0	-4.6	-7.6	2.0	-3.3	0.0	16.0	0.0	0.0		1	84	43	1018	999
25	3.1	2.3	-6.1	-8.4	-1.5	-3.1	0.0	19.5	0.0	0.5	light rain / snow	0	89	67	1011	1000
26	1.5	3.7	-8.6	-6.5	-3.6	-1.4	0.0	21.6	0.0	0.1	light rain / snow	0	87	46	1014	1011
27	6.7	3.8	-7.3	-5.4	-0.3	-0.8	0.0	18.3	0.0	0.6	light rain / snow	0	82	29	1018	1011
28	18.2	4.8	0.8	-5.5	9.5	-0.3	4.5	8.5	0.0	0.0		0	68	23	1011	984
29	10.2	5.5	-10.8	-4.8	-0.3	0.4	0.0	18.3	0.0	1.3	rain/freezing rain/snow	0	92	43	1007	982
30	-5.3	5.8	-12.4	-4.4	-8.9	0.7	0.0	26.9	0.0	0.0		3	79	51	1021	1007
31	8.7	5.9	-13.1	-5.4	-2.2	0.2	0.0	20.2	0.0	0.0		2	82	40	1022	1015
Total							11.8	582.6	0.0	3.7			Extreme / Date	Extreme / Date	Extreme / Date	Extreme / Date
Avg	5.4	-0.1	-6.9	-10.0	-0.8	-5.1	1991-2020 Normal			11.2	1991-2020 Normal					
Extreme Date	18.2		-19.0				3.5	716.3	0.0	16.2	Cumulative		94	23	1026	982
	28		1							33.5	Cumulative Normal		5	28	13	29

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

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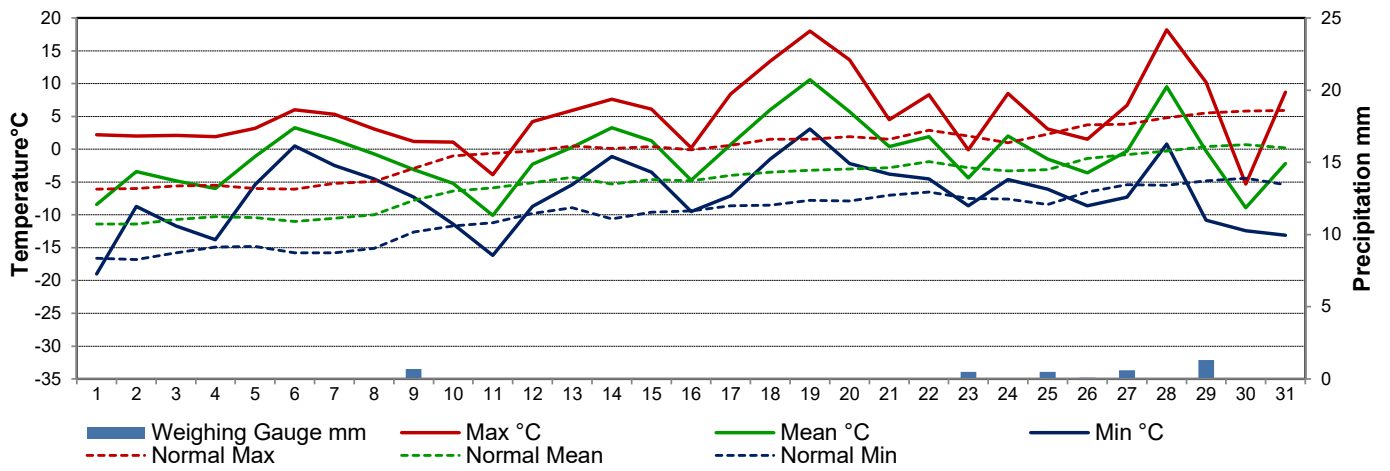


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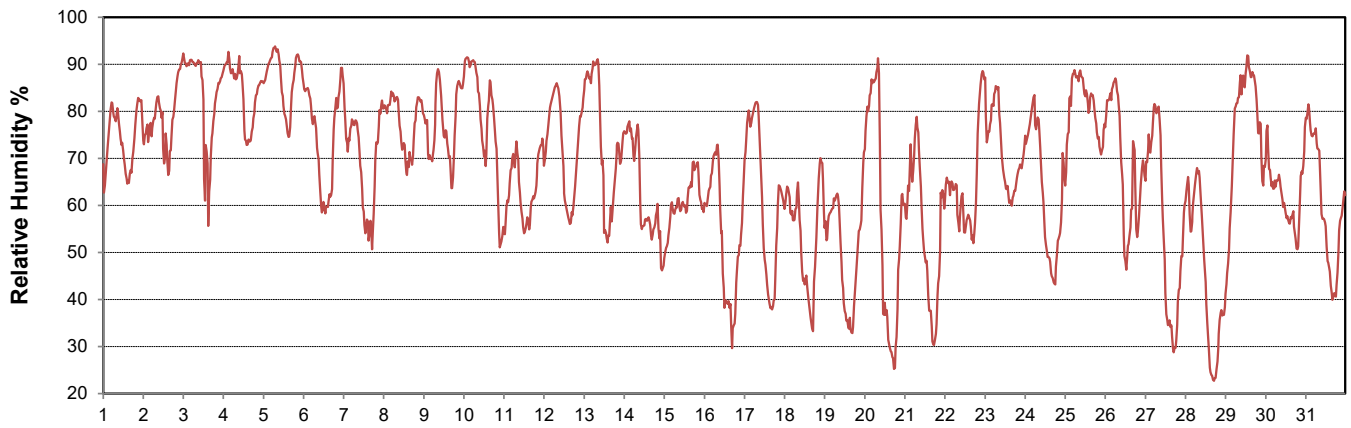
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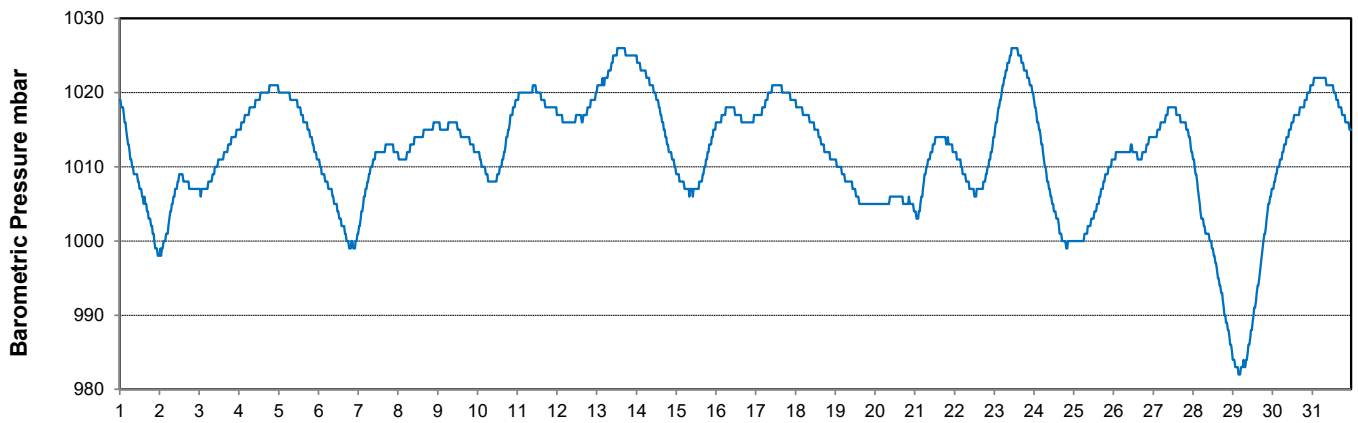
### Temperature and Precipitation for March 2021



### Relative Humidity for March 2021



### Barometric Pressure Corrected to Sea Level for March 2021





SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary MARCH 2021

Day	Wind Gust			Wind Speed (10 meters) Daily Average km/h	Soil Temperatures at 0900hrs								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	38.6	SSE	6:02	15.1	-11.5	-5.5	-5.0	-4.5	-2.5	0.0	1.5	4.5	5.3	10.9	48.5	10.4	6.0
2	40.1	NW	6:06	12.5	-6.5	-5.5	-5.0	-4.5	-2.5	0.0	1.5	4.0	7.6	11.0	69.2	10.5	3.8
3	24.9	SE	20:49	8.0	-11.0	-5.0	-4.5	-4.5	-2.5	0.0	1.5	4.0	8.7	11.1	78.7	12.8	3.5
4	32.9	SE	23:51	10.8	-12.5	-5.0	-4.5	-4.0	-2.5	0.0	1.5	4.0	10.2	11.1	91.6	13.4	2.7
5	34.4	SE	1:26	16.6	-5.5	-4.5	-4.5	-4.0	-2.5	0.0	1.5	4.0	8.0	11.2	71.5	12.3	4.3
6	31.5	WNW	23:22	13.8	0.5	-4.0	-4.0	-4.0	-2.5	0.5	1.5	4.0	4.4	11.3	39.1	9.6	5.3
7	35.3	NW	4:26	13.1	-3.5	-3.0	-3.0	-3.0	-2.0	0.5	1.5	4.0	10.7	11.3	94.4	13.4	1.8
8	31.9	NE	23:15	11.4	-6.0	-2.0	-2.0	-2.5	-2.0	0.5	1.5	4.0	10.4	11.4	91.2	13.3	1.8
9	40.3	NE	4:24	16.1	-7.0	-1.5	-1.5	-2.0	-1.5	0.5	1.5	4.0	8.8	11.5	76.8	13.1	2.8
10	47.6	N	16:09	21.1	-4.5	-1.0	-1.0	-1.5	-1.5	0.5	1.5	4.0	5.4	11.5	46.8	9.5	3.6
11	35.7	WSW	16:12	13.6	-16.0	-1.0	-1.0	-1.5	-1.0	0.5	1.5	4.0	10.6	11.6	91.4	13.2	4.7
12	24.8	SSW	23:07	12.9	-7.0	-1.5	-1.0	-1.5	-1.0	0.5	1.5	4.0	10.3	11.7	88.3	13.1	4.3
13	33.9	SE	7:44	10.1	-5.5	-1.5	-1.5	-1.5	-1.0	0.5	1.5	4.0	11.0	11.7	93.7	14.8	1.9
14	50.6	S	23:07	24.1	-0.5	-0.5	-0.5	-1.0	-0.5	0.5	1.5	3.5	11.2	11.8	94.9	14.4	2.0
15	56.4	S	0:53	24.5	2.5	0.0	0.0	-0.5	-0.5	0.5	1.5	3.5	9.6	11.9	80.9	13.8	3.9
16	33.1	N	0:20	11.4	-8.0	0.0	0.0	0.0	0.0	1.0	1.5	3.5	11.3	11.9	94.6	15.5	2.0
17	23.8	S	14:17	10.2	-5.0	0.0	0.0	0.0	0.0	1.0	1.5	3.5	11.6	12.0	96.6	15.1	1.9
18	35.6	SSE	10:52	13.3	0.0	0.0	0.0	0.0	0.5	1.0	1.5	3.5	11.6	12.1	96.1	15.0	2.5
19	42.8	SW	16:29	14.9	4.5	0.0	0.0	0.0	0.5	1.0	2.0	3.5	9.5	12.1	78.3	13.2	3.2
20	33.7	WNW	11:11	10.3	2.5	0.0	0.0	0.0	0.5	1.0	2.0	3.5	10.6	12.2	86.8	14.1	3.3
21	52.6	NW	10:46	21.6	-1.0	0.0	0.0	0.0	0.5	1.5	2.0	3.5	11.8	12.3	96.1	15.9	2.0
22	37.9	NNE	23:56	14.8	-0.5	0.0	0.5	0.5	0.5	1.5	2.0	3.5	6.9	12.4	55.9	11.8	5.8
23	50.9	NNE	1:56	16.9	-8.5	0.5	0.5	0.5	0.5	1.5	2.0	3.5	2.0	12.4	16.1	9.9	6.4
24	42.2	SSE	13:48	20.4	-0.5	0.0	0.5	0.5	1.0	1.5	2.0	3.5	9.6	12.5	76.9	12.8	5.5
25	38.6	N	15:22	16.8	-0.5	1.0	1.0	1.0	1.0	1.5	2.0	3.5	0.0	12.6	0.0	4.8	3.7
26	41.7	NW	16:34	12.3	-5.0	0.5	0.5	1.0	1.0	1.5	2.0	3.5	8.4	12.6	66.6	13.0	5.9
27	29.7	W	16:17	9.7	-4.0	0.0	0.5	0.5	1.0	1.5	2.0	3.5	11.0	12.7	86.8	16.7	2.4
28	50.6	SSW	23:43	17.6	4.5	0.5	0.5	0.5	1.0	1.5	2.0	3.5	9.5	12.8	74.5	16.3	3.0
29	69.8	N	9:31	24.0	1.5	3.0	3.5	3.0	1.5	1.5	2.0	3.5	0.0	12.8	0.0	3.1	2.4
30	54.5	NNW	0:15	23.9	-11.5	0.5	1.0	1.5	2.0	2.0	2.0	3.5	7.3	12.9	56.6	15.1	5.9
31	41.1	SW	12:20	16.9	-7.0	0.0	0.5	1.0	1.5	2.0	2.0	3.5	12.2	13.0	94.2	18.4	3.3
Total													265.5	370.11	71.7	398.3	111.6
Mean				15.4	-4.3	-1.1	-1.0	-1.0	-0.4	0.9	1.7	3.7	1991-2020 Normal				
Extreme	69.8	N	9:31		1971- 2000 Normal for Soil Temperatures								204.0	369.6	55.2	378.7	156.3
Date	29				-3.1	-2.8	-2.4	-1.5	-0.4	0.6	2.7	No. of Bright Sunshine days = 29					

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

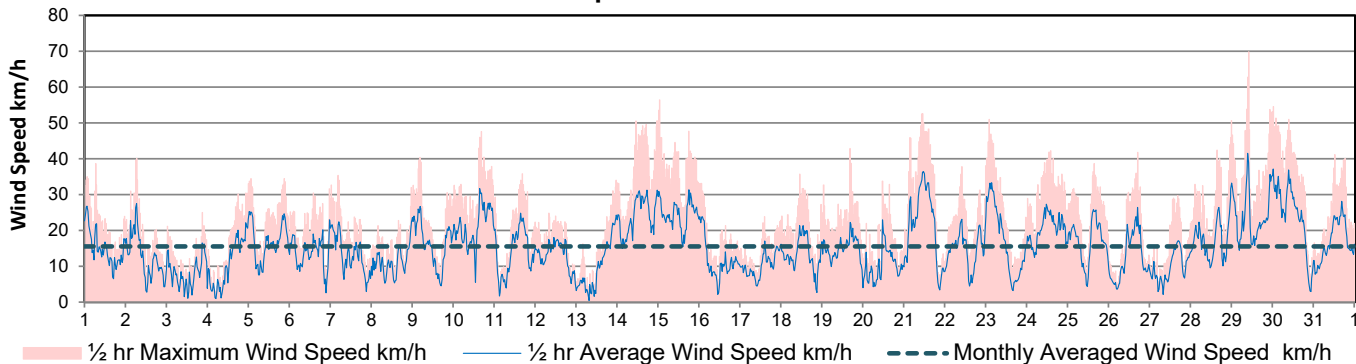
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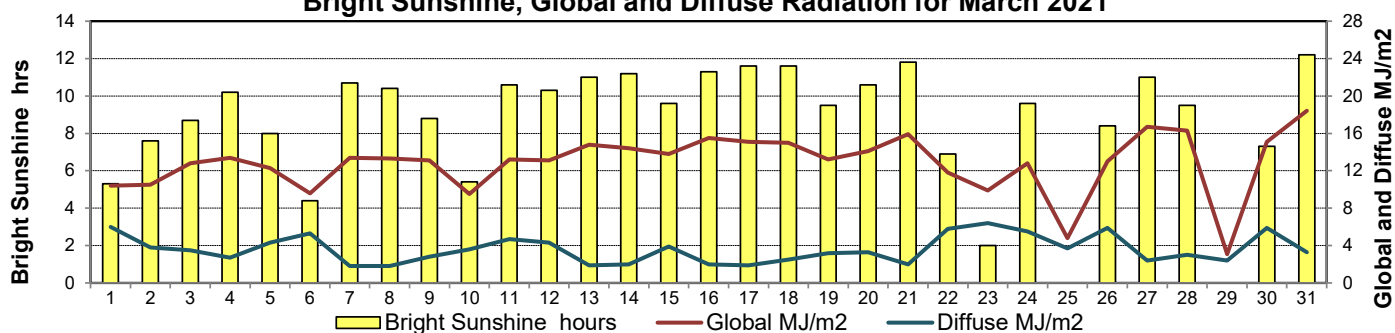
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### Wind Speed for March 2021

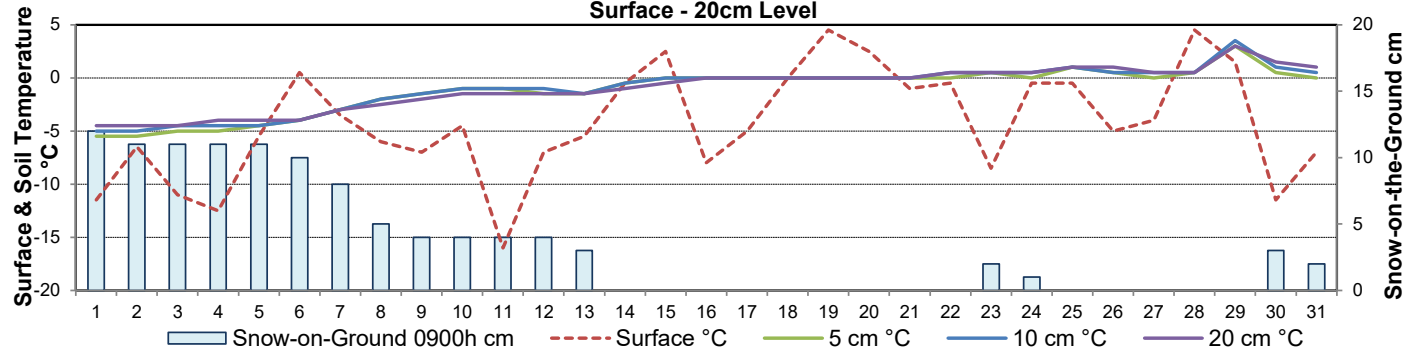


### Bright Sunshine, Global and Diffuse Radiation for March 2021



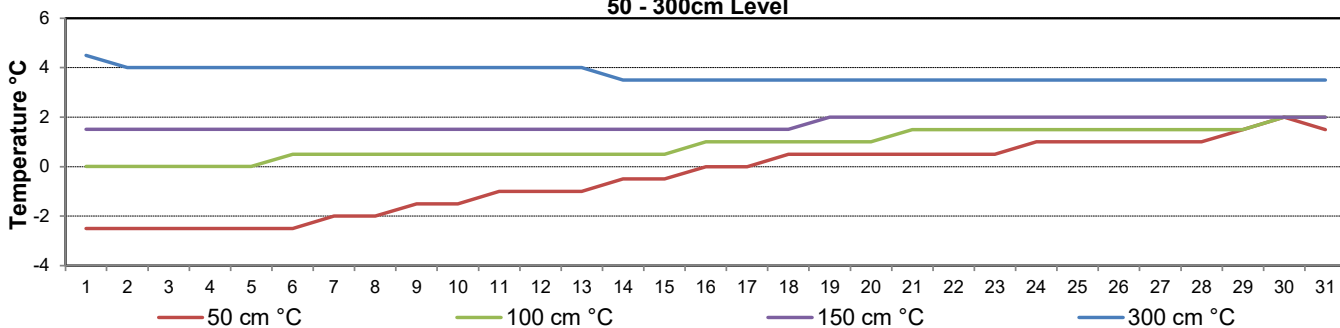
### Soil Temperatures for March 2021

Surface - 20cm Level



### Soil Temperatures for March 2021

50 - 300cm Level





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SASKATOON STATION 4057180

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

Preliminary March 2021

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	12.0	21.4	32.1	5.0	6.5	7.0															
2	10.0	22.2	33.9	4.5	6.5	7.0															
3	6.0	13.1	21.2	4.5	6.5	7.5															
4	9.0	17.7	29.3	4.5	6.5	7.5															
5	12.0	19.1	31.0	4.5	6.5	7.5															
6	9.0	18.6	28.1	4.5	7.0	7.0															
7	11.0	18.1	28.7	3.5	7.0	7.5															
8	9.0	18.9	27.5	3.5	6.5	7.5															
9	14.0	20.9	33.3		7.0	7.5															
10	17.0	25.4	39.6		7.0	7.5															
11	11.0	21.8	33.3		7.0	7.5															
12	10.0	16.1	22.9		7.0	7.5															
13	8.0	18.0	28.1		7.0	7.5															
14	15.0	20.1	39.1	4.0	7.0	7.5															
15	17.0	22.9	38.5		7.0	7.5															
16	9.0	17.9	27.0		20.5	7.0															
17	8.0	13.2	21.2		20.5	8.0															
18	8.0	15.3	26.4		20.0	8.0															
19	10.0	17.7	31.0	7.0	20.5	8.0															
20	7.0	17.7	26.4	9.5	20.5	8.0															
21	16.0	27.7	43.1		20.5	8.0															
22	11.0	17.3	31.0	9.5	20.5	8.0															
23	13.0	25.4	40.2	9.5	20.0	8.0															
24	14.0	19.2	36.8	9.5	19.5	8.0															
25	13.0	19.5	30.4	9.5	20.0	8.0															
26	10.0	20.4	29.8	9.5	19.5	7.5															
27	8.0	14.3	26.4	9.5	19.5	7.5															
28	13.0	25.5	41.9	10.0	19.5	8.0															
29	26.0	35.2	62.1		19.5	8.0															
30	18.0	28.9	45.4	9.5	19.0	8.5															
31	13.0	0.0	32.0	10.0	19.0	8.5															
Total																					
Mean					13.6	7.7															
Extreme	26.0	35.2	62.1	10	20.5	8.5															
Date	29	29	29	28	16	30															

Soil Moisture probes do not accurately measure soil moisture when soil temperature is near zero hence the missing data for the 10 cm probe.

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

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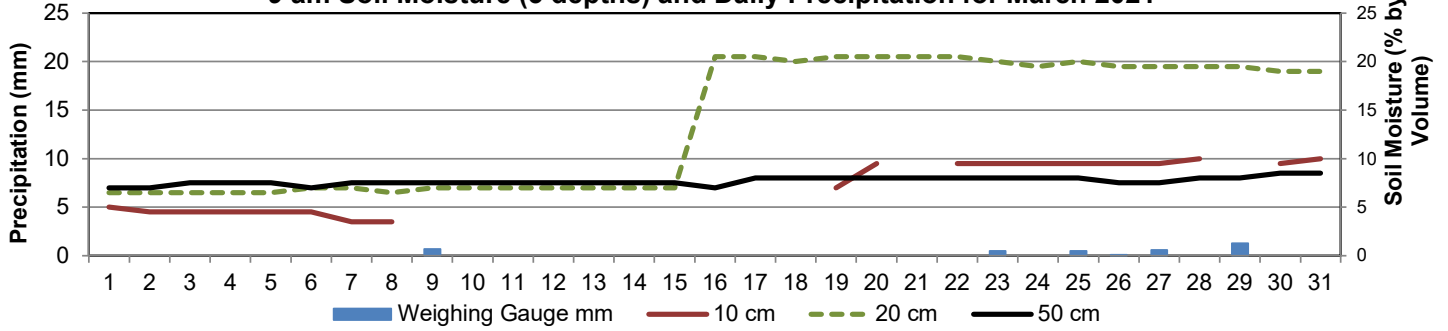


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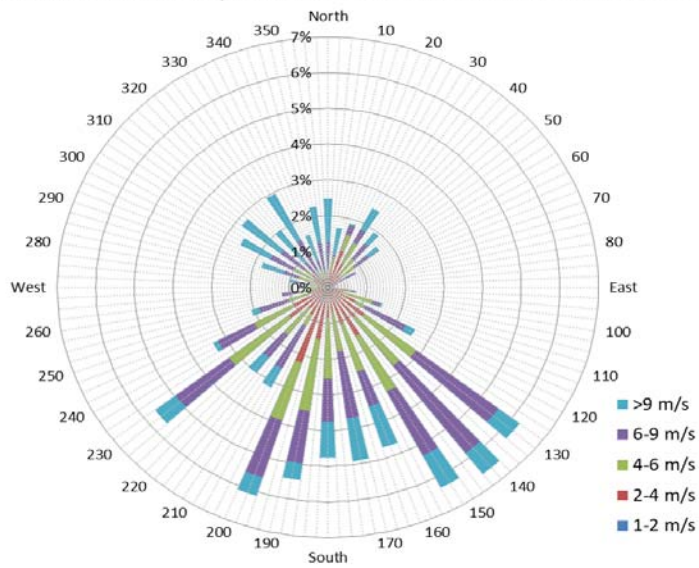
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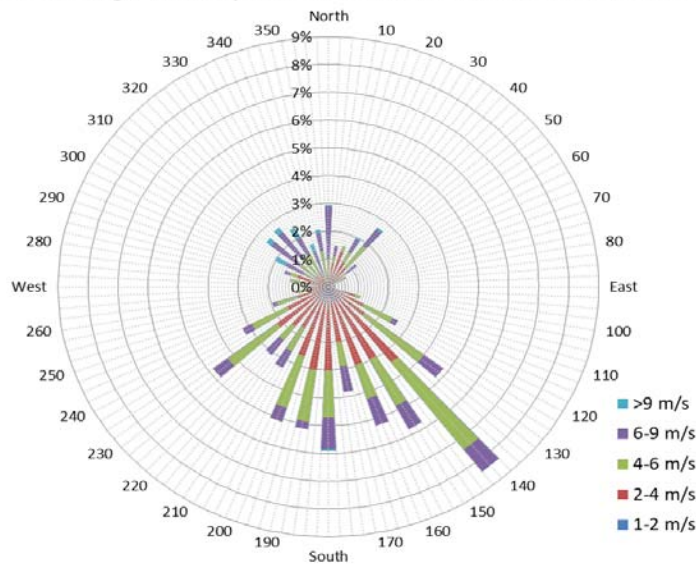
### 9 am Soil Moisture (3 depths) and Daily Precipitation for March 2021



### 1/2 hr Maximum Wind Speed and Direction Saskatoon March 2021



### 10 minute Average Wind Speed and Direction Saskatoon March 2021





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**SASKATOON STATION** 4057180

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

Preliminary **MARCH** 2021

## Extreme Records for March

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	
22.8	23/1910	SE	20.0 23/1993	59.0	1927	SE	57.1 1967	93 <sup>W</sup>	18/1959	89 <sup>W</sup>	08/1977	273.9	2019	31	1996*	
-43.3	14/1897	SM	-38.9 02/1972	0.0	1915*	SE*	0.8 2010					102.8	1983	21	1983*	

\*\*1975 forward \* more than one

Notable Events for CRS Saskatoon - March						Saskatoon Area Stations			Glossary	
Element	Type	Day	New Record	Old Record	Year	Station	Location	Period	Code	Description
Temperature	Highest Daily Maximum	18	13.4	11.3	2017	SM	NWMP	c. 1892-1901	Normal	Trace of precipitation
		19	18.0	13.5	2001	SE	Eby	1901-1941		
		20	13.6	12.1	2019	US	Univ. of Sask.	1915-1964	SOG	Depth of snow-on-the-ground in cm
		28	18.2	17.2	2010	S	Saskatoon	1941-1942		
	Highest Monthly Maximum		5.4	5.2	2012	SA	Saskatoon A	1942 -	na	not available
	# of days >0C	28	28	25	1992	NRC	Nat. Res. Council	1952-1966	<b>Degree-days</b>	
	Highest Daily Minimum	19	3.1	0.8	2000	SRC	Sask. Res. Council	1963-	Tm	Mean Temperature
		18	6	5.9	2012	SWT	S'toon Water Treatment Plant	1974 -	Growing	(Tm-5°C); if Tm ≤ 5°C then GDD = 0
		19	10.6	5.7	2017	SC	S'toon Central Ave	1974-1989	Heating	(18°C-Tm); if Tm ≤ 18°C then HDD = 0
		20	5.7	5	2019	S1	Saskatoon 1	1976-1978	Cooling	(Tm-18°C); if Tm ≥ 18°C then CDD = 0
Heating Degree days	Lowest daily number	28	9.5	8	2010	S2	Saskatoon 2	1977-1990	Extreme Cooling	(Tm-24°C); if Tm ≥ 24°C then CDD = 0
		18	12	12.1	2012	K	S'toon Kernen Farm	1993-2004		
		19	7.4	12.3	2017	KCS	S'toon Kernen Farm CS	1996-		
		20	12.3	13	2019	RCS	Environment Canada	2008-		
28	8.5	10	2010	SF	Sutherland Forestry	1943-1970				

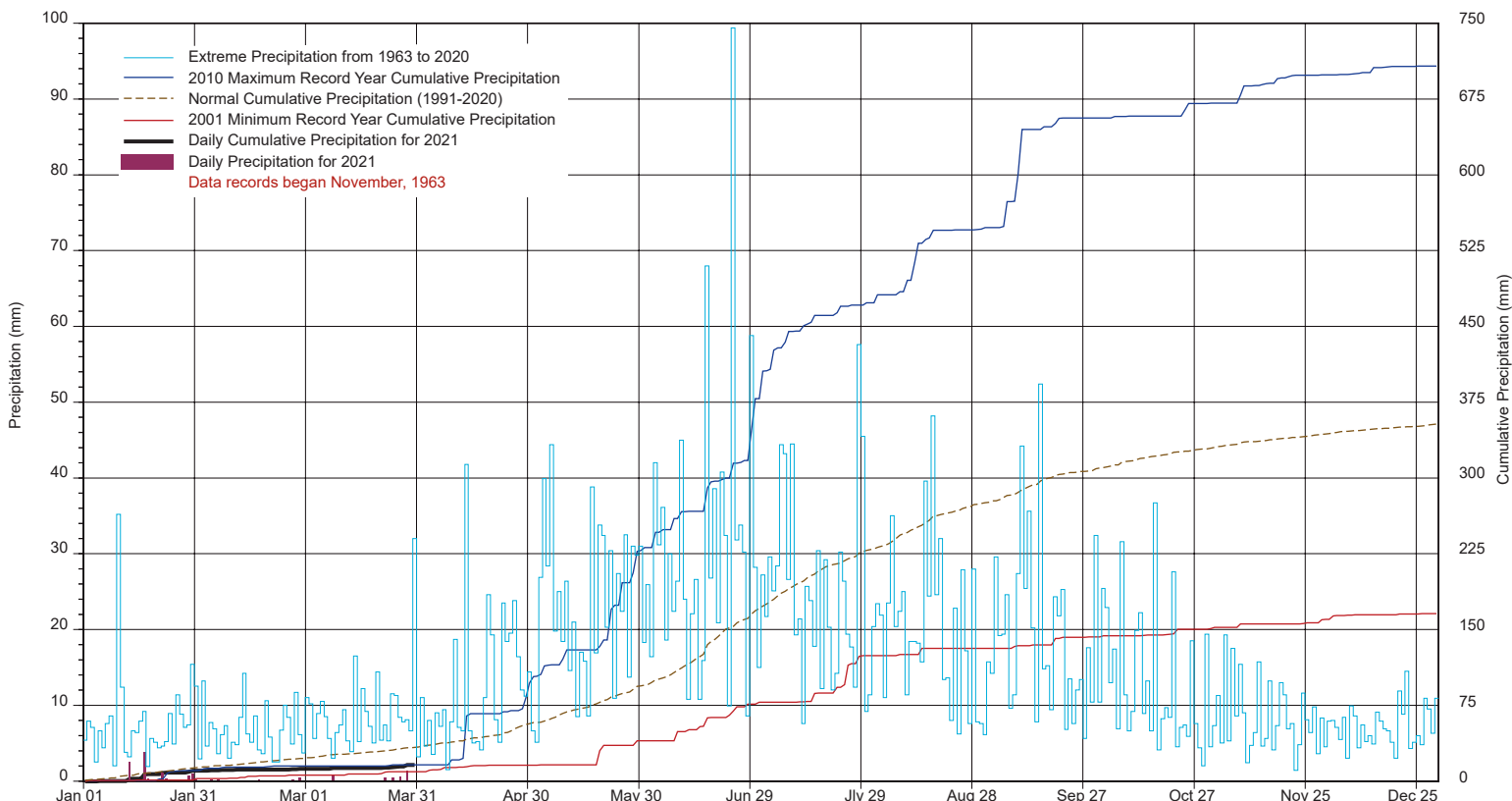
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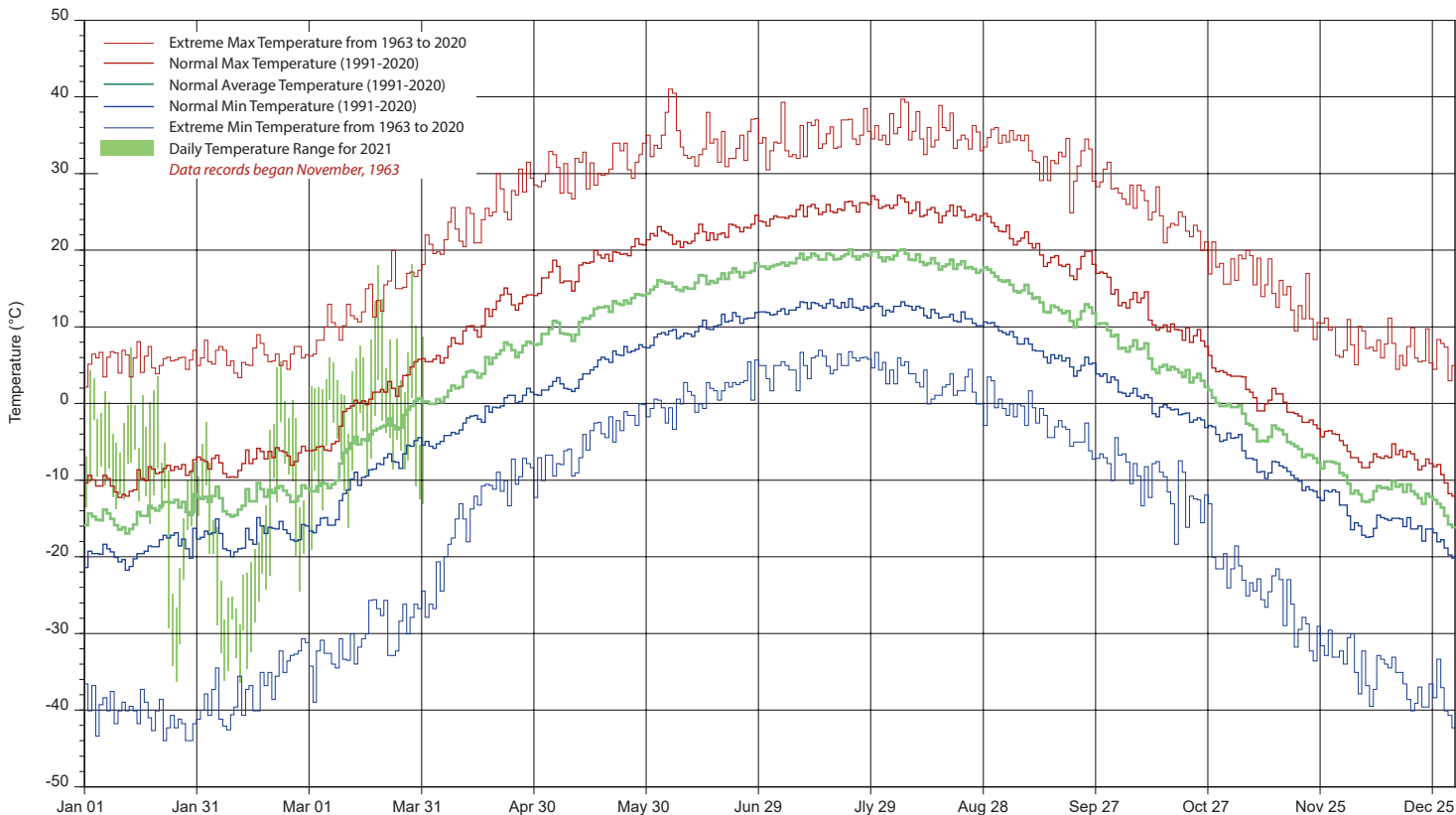
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# SASKATCHEWAN RESEARCH COUNCIL SASKATOON CLIMATE REFERENCE STATION 2021 PRECIPITATION AND NORMALS



## 2021 TEMPERATURES AND NORMALS



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