



SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary **DECEMBER 2020**

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	Comments	Snow-on-Ground 0900h	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		cm	%	%	mbar	mbar
1	2.4	-5.3	-7.2	-14.0	-2.4	-9.6	0.0	20.4	0.0	0.0		11	79	70	1026	1003
2	-2.4	-6.3	-9.7	-14.4	-6.1	-10.3	0.0	24.1	0.0	0.0		11	79	64	1027	1021
3	2.3	-6.9	-7.4	-15.8	-2.6	-11.3	0.0	20.6	0.0	0.0		11	83	62	1021	1012
4	2.4	-6.6	-5.5	-16.8	-1.6	-11.7	0.0	19.6	0.0	0.0		11	80	60	1021	1013
5	3.5	-6.8	-5.1	-16.1	-0.8	-11.5	0.0	18.8	0.0	0.0		11	84	58	1022	1016
6	-1.0	-6.7	-8.6	-15.7	-4.8	-11.2	0.0	22.8	0.0	0.0		11	88	62	1017	1013
7	1.8	-7.2	-7.7	-16.2	-3.0	-11.7	0.0	21.0	0.0	0.0		11	78	66	1017	1011
8	4.8	-7.9	-4.5	-17.6	0.2	-12.8	0.0	17.8	0.0	0.0		11	85	66	1012	1008
9	1.9	-7.9	-5.5	-17.4	-1.8	-12.6	0.0	19.8	0.0	0.0		11	87	77	1016	1011
10	-4.1	-7.3	-10.9	-16.7	-7.5	-12.0	0.0	25.5	0.0	0.2	light snow	11	90	73	1019	1016
11	-4.1	-7.1	-10.0	-16.2	-7.1	-11.7	0.0	25.1	0.0	0.0		11	90	82	1023	1018
12	-3.8	-7.8	-12.8	-17.4	-8.3	-12.6	0.0	26.3	0.0	0.2	light snow	11	91	67	1022	1014
13	-12.8	-7.9	-25.3	-16.4	-19.1	-12.2	0.0	37.1	0.0	0.0		10	79	64	1027	1021
14	-17.8	-8.1	-27.4	-16.3	-22.6	-12.2	0.0	40.6	0.0	0.1	light snow	10	79	70	1025	1018
15	-11.1	-7.1	-19.4	-17.7	-15.3	-12.4	0.0	33.3	0.0	0.2	light snow	11	86	76	1019	1003
16	-7.5	-8.1	-17.5	-17.2	-12.5	-12.6	0.0	30.5	0.0	0.0		10	87	73	1008	1003
17	2.1	-8.6	-16.1	-17.2	-7.0	-12.9	0.0	25.0	0.0	0.1	mist/light rain	10	88	73	1008	991
18	-12.4	-9.3	-22.5	-18.0	-17.5	-13.7	0.0	35.5	0.0	0.1		10	82	55	1018	1000
19	4.4	-8.3	-13.8	-16.9	-4.7	-12.6	0.0	22.7	0.0	0.2	rain/snow	10	89	65	1007	991
20	2.7	-9.0	-6.9	-18.0	-2.1	-13.5	0.0	20.1	0.0	0.4	rain/snow	10	91	72	1005	992
21	0.7	-9.6	-6.2	-19.0	-2.8	-14.3	0.0	20.8	0.0	0.0		10	87	71	1009	1004
22	-6.1	-10.3	-15.3	-18.1	-10.7	-14.2	0.0	28.7	0.0	0.9	light snow	9	92	83	1022	1004
23	-9.9	-9.1	-15.3	-18.9	-12.6	-14.0	0.0	30.6	0.0	0.1	light snow	9	87	76	1023	1015
24	1.5	-8.3	-14.2	-18.4	-6.4	-13.3	0.0	24.4	0.0	0.0		9	81	63	1015	1006
25	-2.6	-8.2	-11.7	-18.0	-7.2	-13.1	0.0	25.2	0.0	0.0		9	91	70	1014	1007
26	-5.7	-7.0	-12.4	-17.3	-9.1	-12.2	0.0	27.1	0.0	0.0		10	90	81	1016	1012
27	-7.3	-8.3	-18.5	-17.6	-12.9	-13.0	0.0	30.9	0.0	0.3	light snow	10	90	80	1022	1016
28	-9.5	-10.2	-19.9	-18.5	-14.7	-14.4	0.0	32.7	0.0	0.0		10	89	77	1022	1011
29	-5.1	-11.5	-13.4	-20.2	-9.3	-15.9	0.0	27.3	0.0	0.0		11	91	78	1016	1010
30	-10.5	-12.2	-18.8	-20.3	-14.7	-16.3	0.0	32.7	0.0	0.0		11	87	70	1015	1005
31	-11.5	-13.2	-18.2	-21.7	-14.9	-17.5	0.0	32.9	0.0	0.0		11	85	79	1013	1005
Total							0.0	819.9	0.0	2.8			Extreme / Date	Extreme / Date	Extreme / Date	Extreme / Date
Avg	-3.7	-8.3	-13.2	-17.4	-8.4	-12.9	1981-2010 Normal			12.7	Normal					
Extreme	4.8		-27.4				0.1	957.5	0.0	284.5	Cumulative		92	55	1027	991
Date	8		14							355.3	Cumulative Normal		22	18	2	17

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

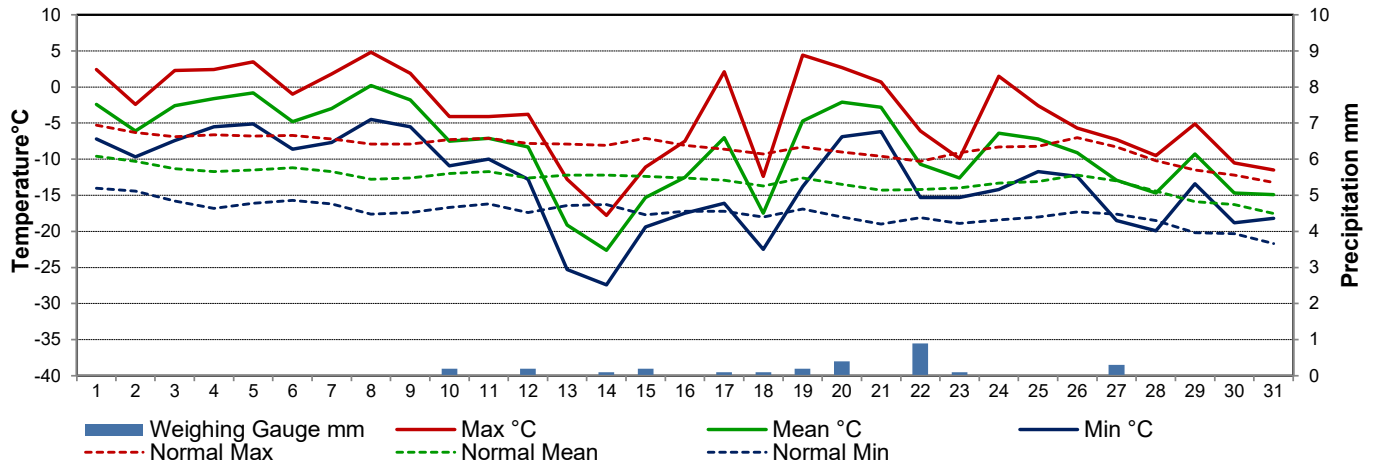
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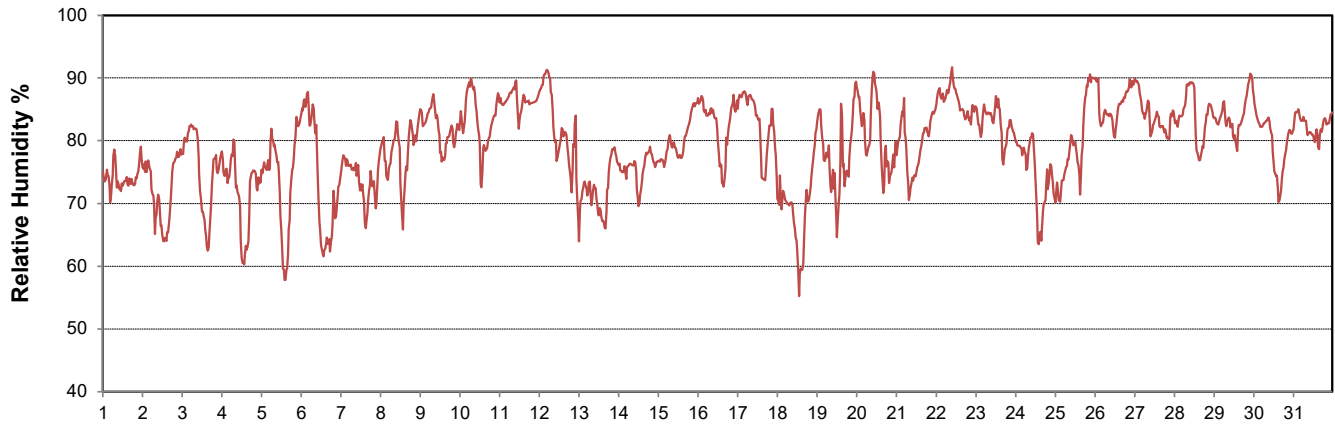
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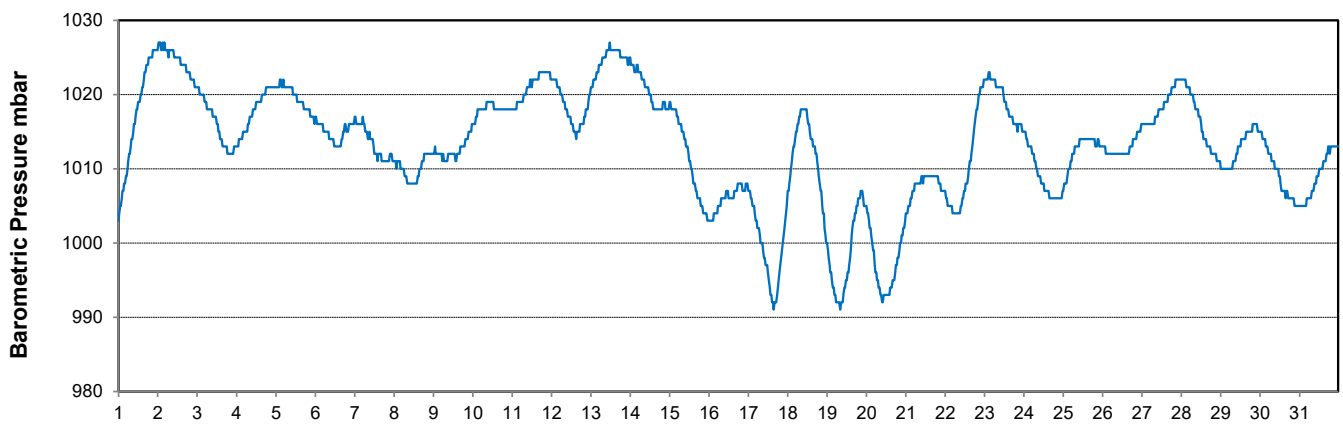
Temperature and Precipitation for December 2020



Relative Humidity for December 2020



Barometric Pressure Corrected to Sea Level for December 2020





SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary **DECEMBER 2020**

Day	Wind Gust (10 meter)			Wind Speed (10 meters) Daily Average	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			km/h	°C	°C	°C	°C	°C	°C	°C	°C	hours	hours		MJ/m ²	MJ/m ²
1	46.2	WNW	5:07	20.3	0.0	0.0	0.5	1.0	3.5	6.0	6.5	8.0	0.1	8.1	1.2	1.5	1.2
2	22.5	SW	15:35	13.4	-9.0	0.5	1.0	1.5	3.5	5.5	6.5	8.0	7.5	8.0	93.4	4.1	1.2
3	26.8	SW	17:39	13.1	-8.0	0.5	1.0	1.5	3.5	5.5	6.5	8.0	7.6	8.0	95.0	4.2	0.8
4	28.9	W	14:08	12.8	-5.5	0.0	0.5	1.0	3.0	5.5	6.5	8.0	6.8	8.0	85.3	3.8	0.8
5	25.5	SW	12:07	11.3	-6.0	0.0	0.5	1.0	3.0	5.5	6.5	8.0	6.8	7.9	85.6	3.9	0.9
6	28.6	WSW	13:54	11.8	-9.0	0.5	0.5	1.0	3.0	5.5	6.5	8.0	7.6	7.9	96.0	4.3	0.8
7	27.0	SW	17:43	14.1	-6.0	0.0	0.5	1.0	3.0	5.5	6.5	8.0	1.7	7.9	21.5	3.0	2.1
8	26.6	SSW	2:04	8.3	0.0	0.0	0.5	1.0	3.0	5.5	6.5	8.0	2.3	7.9	29.2	2.4	1.6
9	22.1	W	23:27	10.0	-2.0	0.5	1.0	1.0	3.0	5.5	6.5	7.5	0.0	7.9	0.0	2.0	1.6
10	24.2	NW	1:35	9.3	-10.5	0.5	1.0	1.0	3.0	5.5	6.5	7.5	2.9	7.8	37.0	3.8	1.8
11	29.6	N	9:10	9.2	-4.5	0.0	0.5	1.0	3.0	5.5	6.0	7.5	0.0	7.8	0.0	1.3	1.1
12	51.0	WNW	0:04	18.8	-6.0	0.0	0.5	1.0	3.0	5.5	6.0	7.5	0.0	7.8	0.0	1.0	0.8
13	47.6	NNW	18:39	11.7	-18.5	0.0	0.5	1.0	3.0	5.0	6.0	7.5	7.1	7.8	91.3	3.9	0.7
14	21.1	SE	12:56	8.1	-22.5	-1.5	-0.5	0.5	3.0	5.0	6.0	7.5	0.0	7.8	0.0	1.2	1.0
15	21.2	SE	18:25	8.4	-16.5	-2.5	-2.0	-0.5	2.5	5.0	6.0	7.5	0.0	7.8	0.0	2.0	1.7
16	15.7	SSW	13:53	6.3	-17.0	-3.0	-2.0	-1.0	2.0	5.0	6.0	7.5	2.5	7.7	32.3	2.9	1.7
17	52.1	NW	22:31	22.2	-11.5	-3.0	-2.0	-1.0	2.0	5.0	6.0	7.5	0.6	7.7	7.8	1.7	1.4
18	58.7	NW	1:02	18.2	-21.5	-2.5	-2.0	-1.5	1.5	5.0	6.0	7.5	7.1	7.7	91.8	3.4	0.7
19	70.8	NW	14:29	20.1	-0.5	-3.0	-2.5	-1.5	1.5	4.5	6.0	7.5	1.1	7.7	14.2	1.6	1.2
20	61.5	NW	18:53	16.5	-4.0	-2.5	-2.0	-1.5	1.5	4.5	5.5	7.5	1.6	7.7	20.7	2.9	1.9
21	35.3	WNW	0:12	12.7	-6.0	-2.0	-1.5	-1.0	1.5	4.5	5.5	7.0	0.1	7.7	1.3	2.4	1.8
22	47.6	NE	12:59	19.3	-7.0	-2.0	-1.5	-1.0	1.5	4.5	5.5	7.0	0.0	7.7	0.0	1.7	1.4
23	18.2	WNW	11:10	7.6	-11.0	-2.0	-1.5	-1.0	1.5	4.5	5.5	7.0	2.1	7.7	27.2	2.5	1.8
24	29.4	WSW	14:36	14.0	-7.5	-2.0	-1.5	-1.0	1.5	4.5	5.5	7.0	5.9	7.7	76.3	3.4	1.0
25	23.6	SW	0:31	6.8	-9.5	-2.0	-1.5	-1.0	1.5	4.0	5.5	7.0	1.7	7.7	22.0	2.0	1.3
26	28.2	E	8:34	11.7	-7.0	-2.0	-1.5	-1.0	1.5	4.0	5.5	7.0	0.0	7.8	0.0	1.8	1.5
27	27.7	N	9:23	10.5	-8.0	-2.0	-1.5	-1.0	1.5	4.0	5.5	7.0	0.0	7.8	0.0	1.4	1.2
28	34.6	SSW	11:41	12.8	-11.5	-2.0	-1.5	-1.0	1.5	4.0	5.0	7.0	1.0	7.8	12.9	2.5	1.4
29	37.5	NW	9:23	16.7	-7.0	-2.0	-1.5	-1.0	1.5	4.0	5.0	7.0	0.0	7.8	0.0	1.4	1.2
30	23.4	SSW	13:04	12.2	-16.0	-2.0	-1.5	-1.0	1.0	4.0	5.0	7.0	5.5	7.8	70.5	4.2	1.0
31	17.9	SSW	1:51	6.3	-15.5	-2.5	-1.5	-1.0	1.0	4.0	5.0	7.0	0.0	7.8	0.0	2.4	1.8
Total													79.6	242.2	32.9	80.6	40.4
Mean				12.7	-9.2	-1.2	-0.7	-0.1	2.3	4.9	5.9	7.5	1981-2010 Normal for Radiation				
Extreme	70.8	NW	14:29		1971- 2000 Normal for Soil Temperatures								85.7	242.3	35.4	100.0	50.0
Date	19					-7.1	-6.6	-5.6	-1.7	2.0	3.8	6.4	No. of Bright Sunshine days = 21				

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

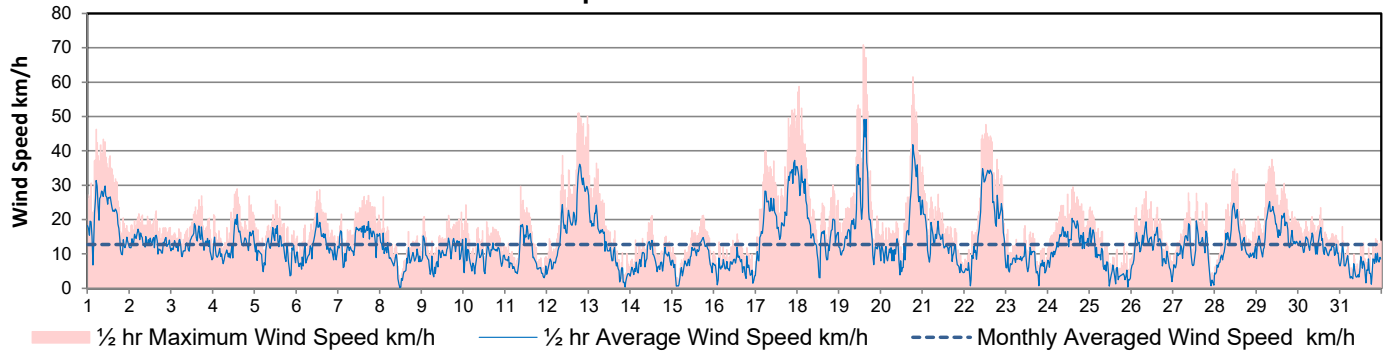
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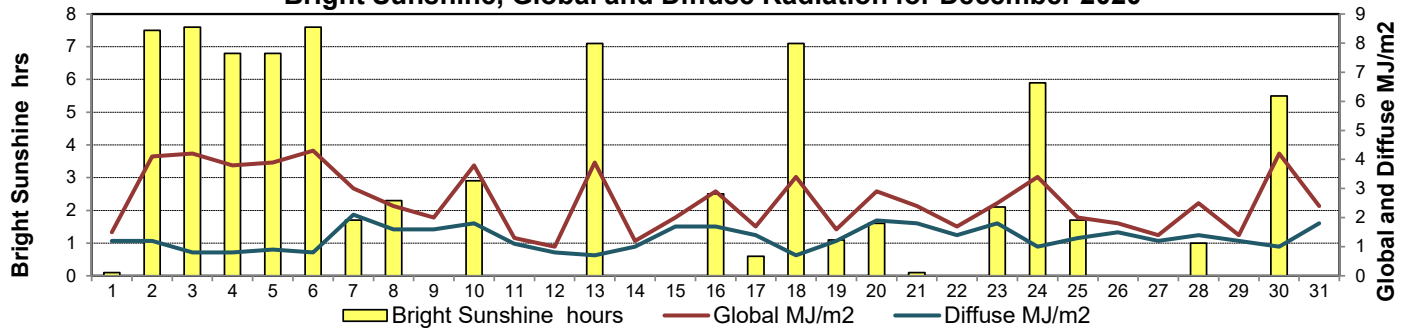
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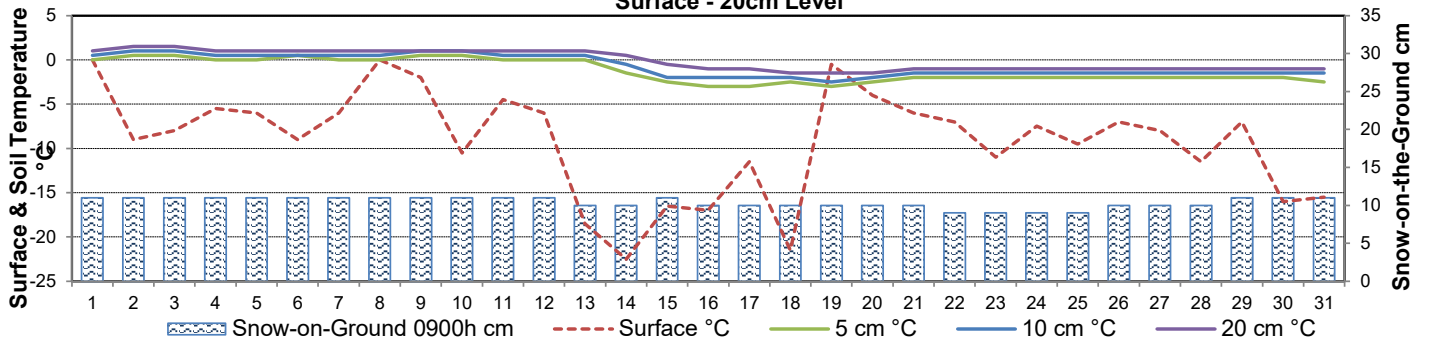
Wind Speed for December 2020



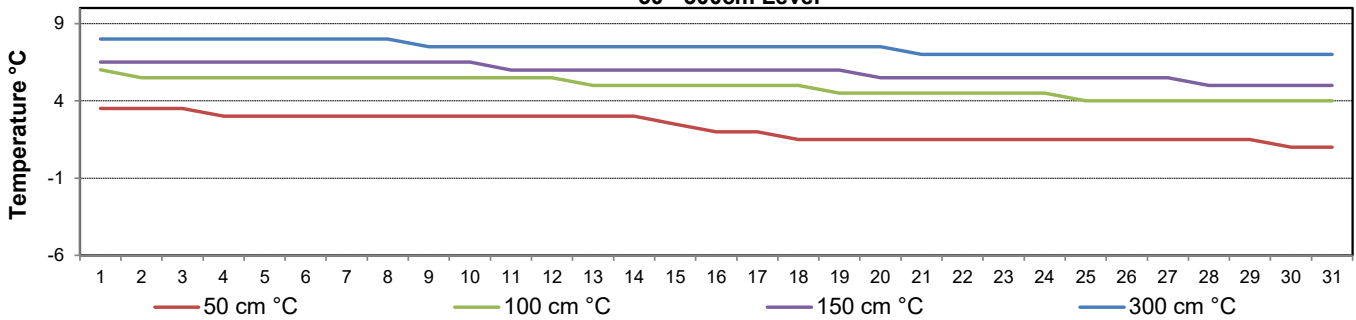
Bright Sunshine, Global and Diffuse Radiation for December 2020



Soil Temperatures for December 2020
Surface - 20cm Level



Soil Temperatures for December 2020
50 - 300cm Level





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Preliminary **DECEMBER 2020**

Extreme Records for December

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
14.4	05/1939	SE	11.2	14/1997	59.2	1956	SA	48.2	1973	121 ^W	12/1955	89.4	1992	123.3	2006	27	1994*
-43.9	22/1892	SM	-42.2	31/1973	0.0	1906,'30	SE	0.4	2009					49.1	1973	17	1966*

**1975 forward * more than one year

Notable Events for CRS Saskatoon - December						Saskatoon Area Stations			Glossary																	
Element	Type	Day	New Record	Old Record	Year	SM	NWMP	c.	1892-1901	T	Trace of precipitation															
<p>December 2020 had no new records</p> <p>... even though monthly average temperatures were 4.5°C above normal (10th warmest)</p> <p>... even though maximum daily temperatures went above 0°C twelve times</p> <p>... even though December precipitation amounts were 80% of normal (3rd driest)</p>						SE	Eby	1901-1941	Normal	30 year average beginning with the decade																
						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 -	Degree-days																	
						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	<p>Manual Snow Depths (average of 3 meter sticks located inside climate station compound)</p> <table border="1"> <thead> <tr> <th>Date</th> <th colspan="2">Depth (cm)</th> <th colspan="2">Average</th> </tr> </thead> <tbody> <tr> <td>Dec 4</td> <td>26</td> <td>16</td> <td>21.5</td> <td>21</td> </tr> <tr> <td>01-Jan-21</td> <td>29</td> <td>18</td> <td>21</td> <td>23</td> </tr> </tbody> </table>			Date	Depth (cm)		Average		Dec 4	26	16	21.5	21	01-Jan-21	29	18	21	23
						Date	Depth (cm)					Average														
						Dec 4	26	16				21.5	21													
						01-Jan-21	29	18				21	23													
K	S'toon Kernen Farm	1993-2004																								
KCS	S'toon Kernen Farm CS	1996-																								
RCS	Environment Canada	2008-																								
SF	Sutherland Forestry	1943-1970																								

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

Preliminary December 2020

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	16.0	25.1	38.5	9.0	7.5	7.5												
2	11.0	14.3	20.6	9.0	7.5	7.5												
3	11.0	16.1	22.4	9.0	7.5	7.5												
4	11.0	16.5	24.1	9.0	7.5	7.5												
5	9.0	16.4	22.9	9.0	7.5	7.5												
6	9.0	18.3	25.2	9.0	7.5	8.0												
7	12.0	16.9	25.2	9.0	7.5	8.0												
8	6.0	13.3	21.2	9.0	7.5	8.0												
9	8.0	12.8	20.6	9.0	7.5	8.0												
10	8.0	11.4	18.9	9.0	7.5	8.0												
11	8.0	14.7	22.9	9.0	7.5	8.0												
12	16.0	28.6	44.2	9.0	7.5	8.0												
13	9.0	21.5	36.8	9.0	7.5	8.0												
14	5.0	12.3	18.9	9.0	7.0	8.0												
15	8.0	12.7	20.0	9.0	7.0	7.5												
16	5.0	9.4	14.3	8.5	7.0	8.0												
17	17.0	30.3	44.8	9.0	7.0	7.5												
18	15.0	29.3	47.7	8.5	7.0	7.5												
19	16.0	39.9	59.2	8.5	7.5	7.5												
20	13.0	34.1	49.4	9.0	7.0	7.5												
21	11.0	21.2	30.4	9.0	7.0	7.5												
22	15.0	28.5	41.4	9.0	7.0	7.5												
23	7.0	11.1	15.4	8.5	7.0	7.5												
24	11.0	18.2	25.8	9.0	7.0	7.5												
25	6.0	14.9	20.0	9.0	7.0	7.5												
26	10.0	16.4	25.8	8.5	7.0	7.5												
27	9.0	15.8	24.1	9.0	7.0	7.5												
28	11.0	22.0	29.8	8.5	7.0	7.5												
29	14.0	20.2	30.4	9.0	6.5	8.0												
30	10.0	15.1	21.2	8.5	6.5	7.5												
31	5.0	15.0	15.0	8.5	7.5	8.0												
Total																		
Mean				9	7	7.7												
Extreme	17.0	39.9	59.2	9	7.5	8												
Date	17	19	19	1	1	6												

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

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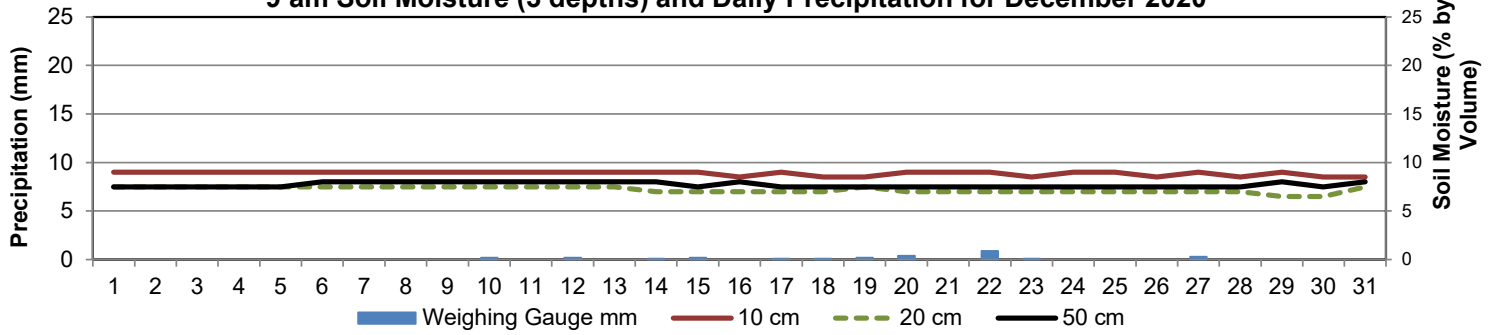


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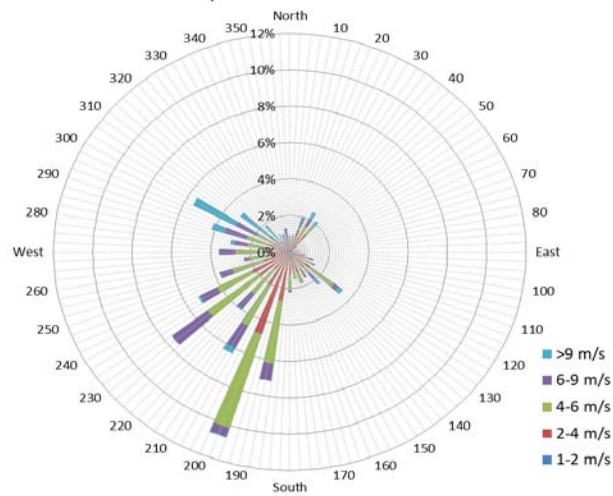
Agriculture et Agroalimentaire Canada



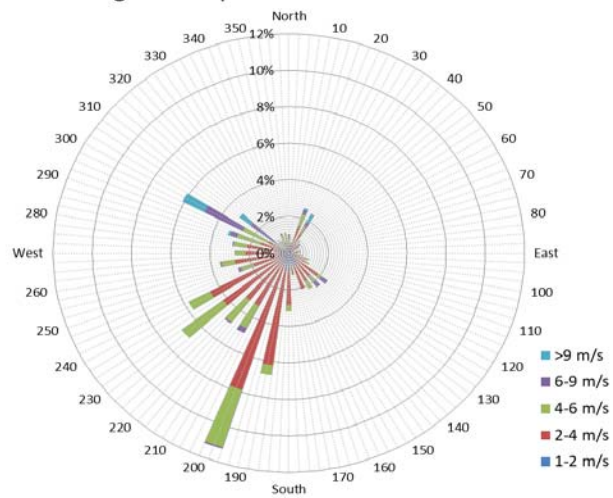
9 am Soil Moisture (3 depths) and Daily Precipitation for December 2020



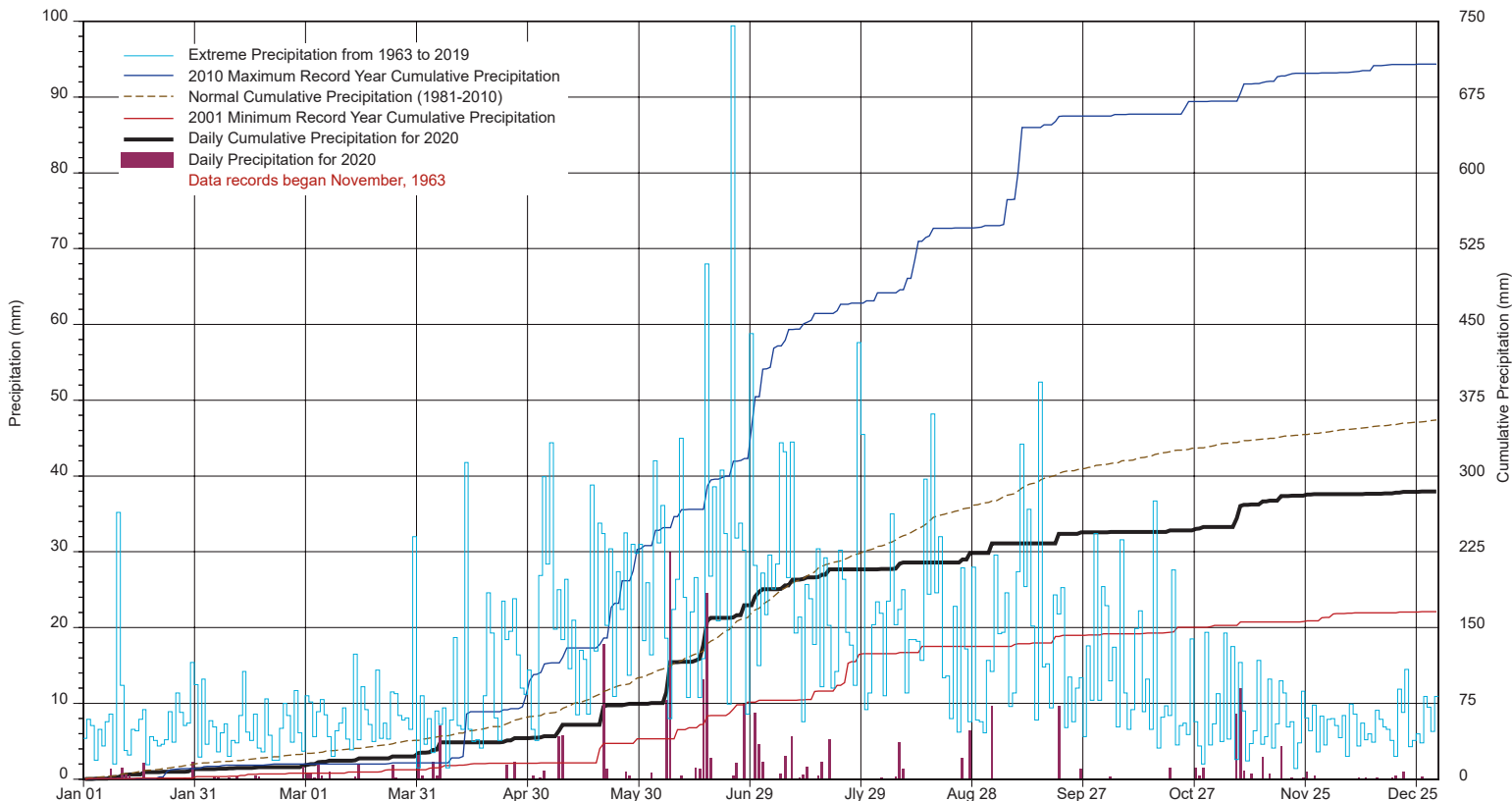
1/2 hr Maximum Wind Speed and Direction Saskatoon Dec 2020



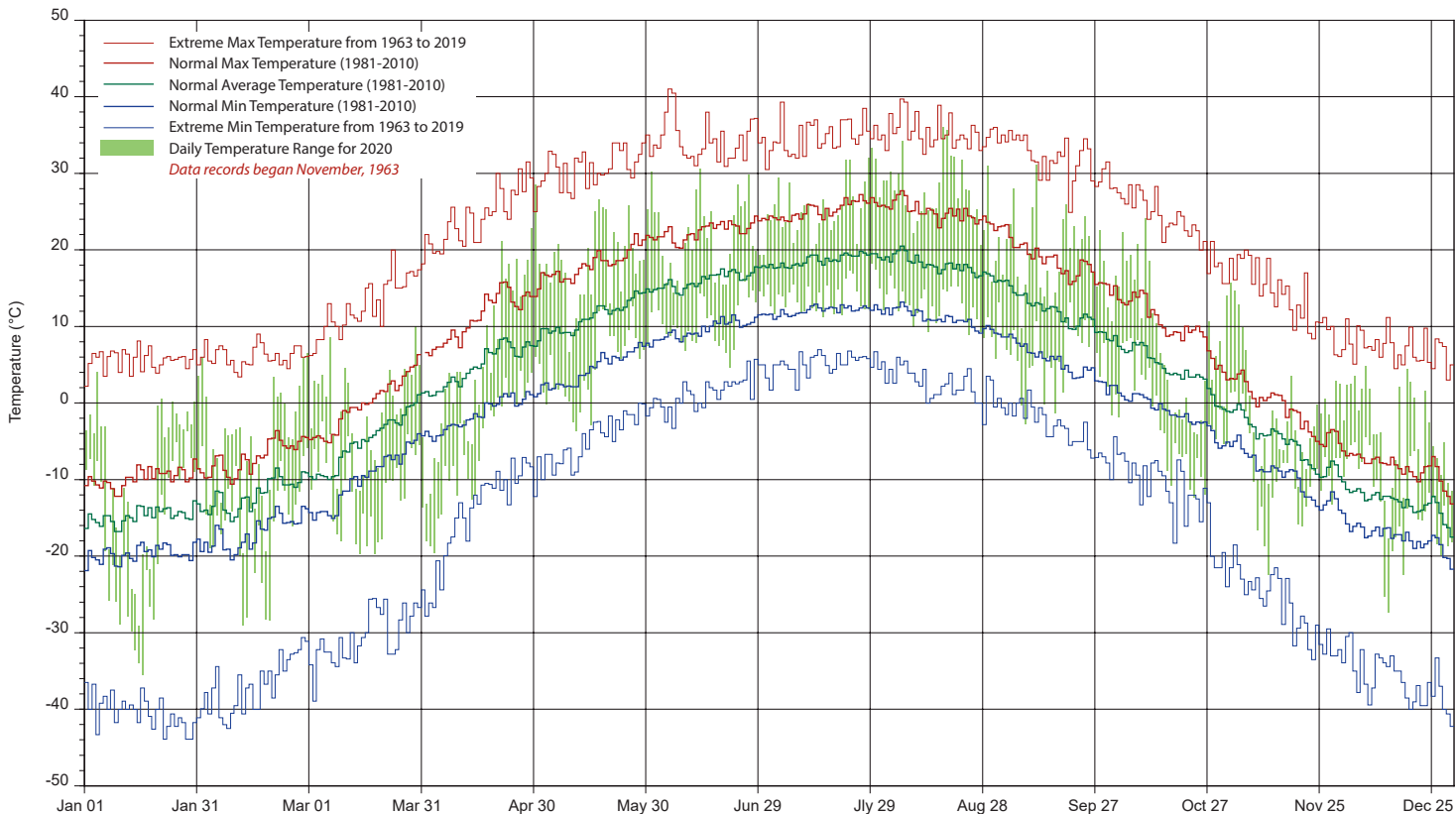
10 minute Average Wind Speed and Direction Saskatoon Dec 2020



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2020 TEMPERATURES AND NORMALS



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