



SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary AUGUST 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	Tipping Bucket	Notes	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	mm		%	%	mbar	mbar
1	34.2	25.7	15.7	11.5	25.0	18.6	20.0	0.0	7.0	0.0	0.0		66	17	1024	1018
2	35.1	25.9	18.1	12.2	26.6	19.1	21.6	0.0	8.6	0.0	0.0		51	16	1019	1015
3	28.5	25.5	19.7	12.0	24.1	18.8	19.1	0.0	6.1	0.0	0.0		79	29	1015	1009
4	25.7	25.9	15.5	12.7	20.6	19.3	15.6	0.0	2.6	0.0	0.0		89	50	1016	1010
5	31.0	27.2	15.3	12.7	23.2	20.0	18.2	0.0	5.2	0.0	0.0		85	26	1016	1009
6	33.5	26.8	17.7	13.3	25.6	20.1	20.6	0.0	7.6	0.0	0.0		63	21	1009	1003
7	27.0	26.3	16.6	12.8	21.8	19.6	16.8	0.0	3.8	1.6	1.2	shower	82	39	1005	1001
8	21.7	24.8	14.3	12.7	18.0	18.8	13.0	0.0	0.0	1.4	1.6	shower	91	39	1011	1000
9	20.6	25.2	14.0	12.2	17.3	18.7	12.3	0.7	0.0	0.2	0.0		80	55	1012	1006
10	23.5	26.3	12.7	12.7	18.1	19.5	13.1	0.0	0.1	6.2	4.8	light rain	91	26	1005	1002
11	24.9	24.4	12.9	12.5	18.9	18.5	13.9	0.0	0.9	0.0	0.0		60	26	1013	1002
12	23.6	24.6	10.0	11.5	16.8	18.1	11.8	1.2	0.0	0.0	0.0		82	26	1019	1013
13	30.6	25.3	12.8	11.2	21.7	18.3	16.7	0.0	3.7	0.0	0.0		67	23	1019	1014
14	37.5	25.6	17.0	12.3	27.3	19.0	22.3	0.0	9.3	0.0	0.0		52	12	1014	1006
15	32.1	24.9	18.0	11.8	25.1	18.3	20.1	0.0	7.1	0.0	0.0		64	22	1011	1004
16	24.5	23.6	16.0	11.2	20.3	17.5	15.3	0.0	2.3	0.0	0.0		64	30	1007	1000
17	19.4	24.5	11.1	11.3	15.3	17.9	10.3	2.7	0.0	1.0	0.8	showers	83	30	1017	1000
18	20.5	25.1	10.8	11.3	15.7	18.2	10.7	2.3	0.0	0.0	0.4	showers	89	35	1019	1016
19	21.4	25.9	9.1	11.7	15.3	18.8	10.3	2.7	0.0	0.0	0.0		85	34	1017	1012
20	20.4	24.5	12.8	10.8	16.6	17.6	11.6	1.4	0.0	0.0	0.0		82	44	1012	1010
21	22.1	25.7	8.3	10.7	15.2	18.2	10.2	2.8	0.0	0.0	0.0		83	26	1014	1010
22	15.4	25.2	11.2	12.0	13.3	18.6	8.3	4.7	0.0	2.2	1.8	showers	81	37	1011	1007
23	16.6	24.3	7.3	11.1	12.0	17.7	7.0	6.0	0.0	16.2	12.2	showers / t-storm	91	59	1012	1010
24	14.9	24.4	9.1	11.1	12.0	17.8	7.0	6.0	0.0	2.3	2.0	showers	94	71	1020	1010
25	20.2	24.7	4.7	10.5	12.5	17.6	7.5	5.5	0.0	0.0	0.0		95	36	1023	1020
26	21.9	23.9	8.7	10.2	15.3	17.1	10.3	2.7	0.0	0.0	0.0		85	40	1021	1012
27	17.8	24.5	12.8	10.2	15.3	17.4	10.3	2.7	0.0	4.3	3.2	t-storm	93	67	1012	1009
28	25.0	24.8	11.8	10.7	18.4	17.8	13.4	0.0	0.4	0.0	0.0		94	33	1014	1010
29	26.4	24.4	11.5	10.5	19.0	17.5	14.0	0.0	1.0	0.0	0.0		90	27	1014	1012
30	29.4	23.6	14.2	10.6	21.8	17.1	16.8	0.0	3.8	0.0	0.0		68	21	1012	1006
31	27.0	23.1	14.1	10.1	20.6	16.6	15.6	0.0	2.6	6.4	5.0	t-storm	88	37	1006	1003
Total							433.7	41.4	72.1	41.8	33.0		Extreme / Date	Extreme / Date	Extreme / Date	Extreme / Date
Avg	24.9	25.1	13.0	11.6	19.0	18.3	1991-2020 Normal			46.4	Aug 1991-2020 Normal					
Extreme Date	37.5		4.7				413.0	41.6	51.6	126.5	Jan - Aug Cumulative		95	12	1024	1000
	14		25							274.8	year to date Cumulative Normal		25	14	1	8

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

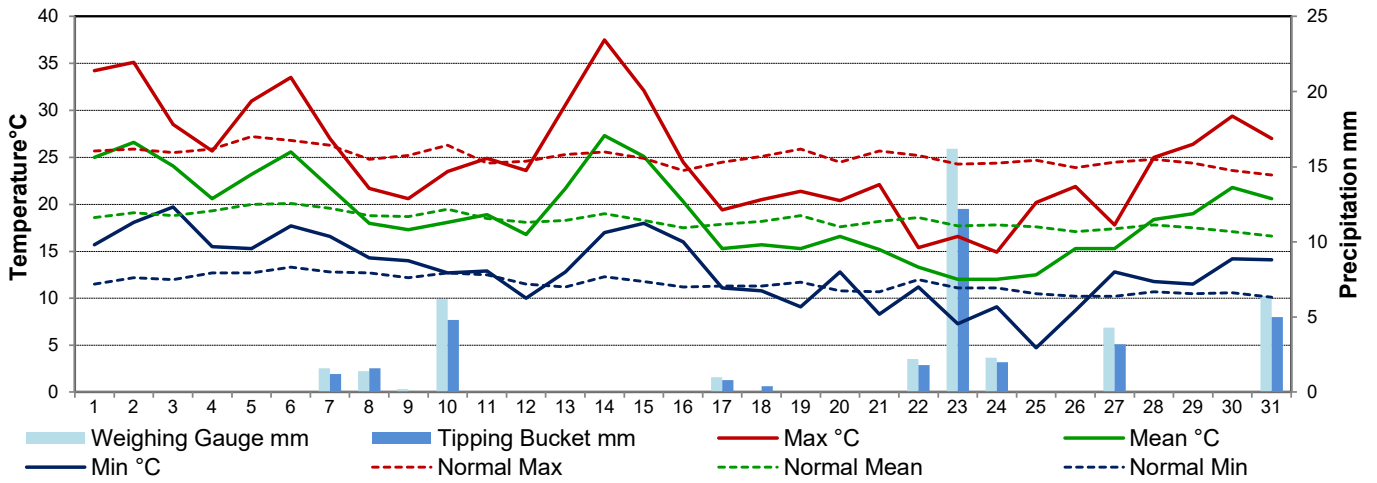
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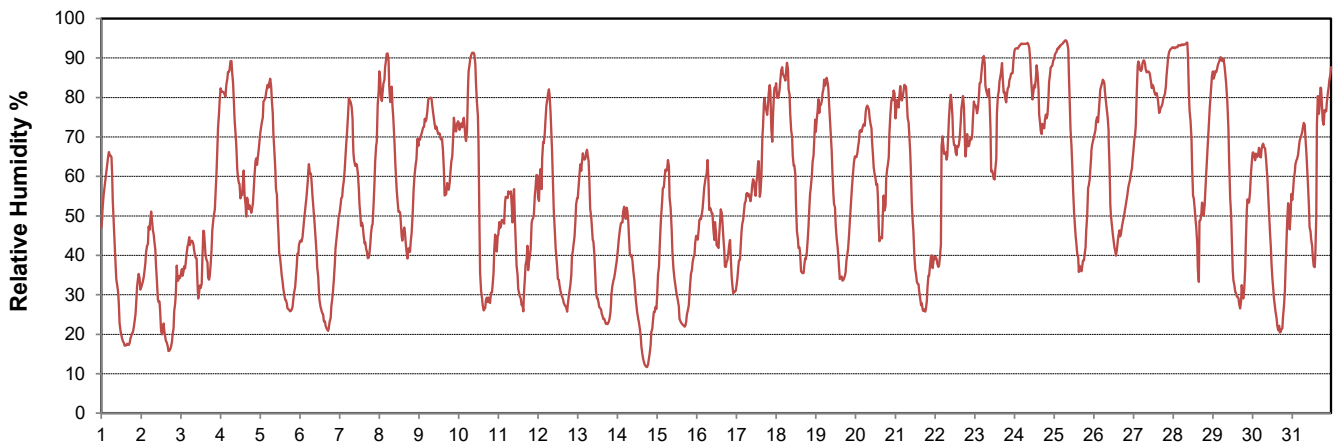
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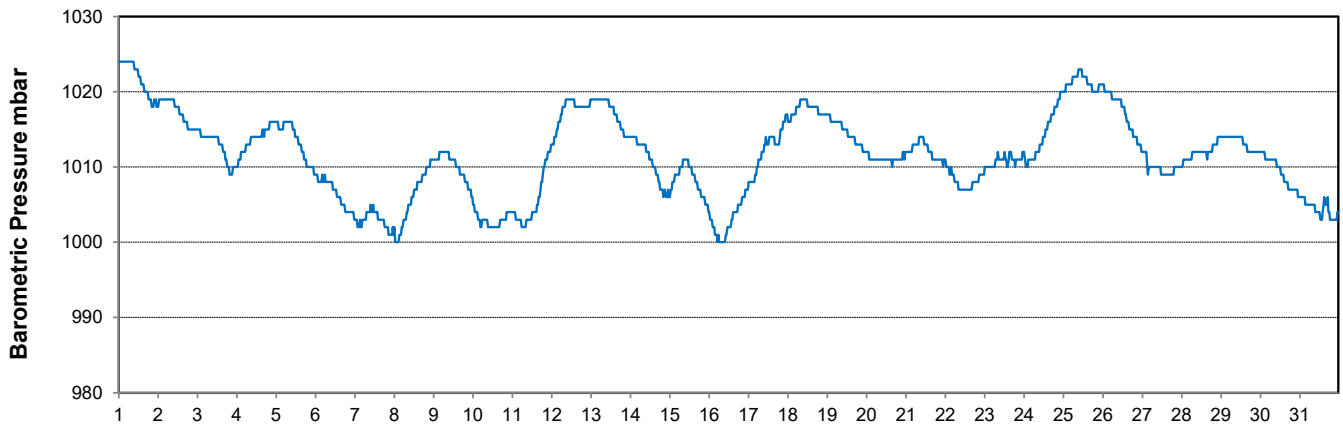
Temperature and Precipitation for August 2021



Relative Humidity for August 2021



Barometric Pressure Corrected to Sea Level for August 2021





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SASKATOON STATION 4057180

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

Preliminary **AUGUST 2021**

Day	Wind Gust (10 meters)			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				°C	°C	°C	°C	°C	°C	°C	°C	hours	hours		MJ/m ²	MJ/m ²
1	22.0	SSE	11:11	8.6	25.0	22.0	22.5	23.0	20.5	17.5	14.0	10.5	11.4	15.5	73.7	20.6	7.5
2	21.0	WSW	14:52	7.9	23.5	22.5	23.5	23.5	20.5	17.5	14.0	10.5	7.5	15.4	48.7	14.3	8.7
3	50.5	SSW	17:16	12.8	25.0	23.5	23.5	23.5	20.5	17.5	14.0	10.5	1.1	15.4	7.2	5.9	4.3
4	40.6	N	15:47	14.0	20.0	21.0	22.0	22.0	20.5	17.5	14.0	10.5	7.7	15.3	50.3	15.5	8.8
5	26.4	SSW	23:20	8.9	21.0	20.5	21.0	22.0	20.0	17.5	14.0	10.5	12.7	15.2	83.3	21.6	7.5
6	35.9	SE	18:05	15.0	23.0	22.0	22.5	23.0	20.0	17.5	14.5	10.5	9.8	15.2	64.5	16.7	9.0
7	37.0	NW	8:26	11.6	21.5	22.5	23.0	23.0	20.5	17.5	14.5	11.0	5.7	15.1	37.7	13.5	8.3
8	45.8	NW	12:03	16.1	15.5	20.5	21.5	22.5	20.5	17.5	14.5	11.0	4.8	15.1	31.9	14.2	8.5
9	20.7	N	15:22	6.8	15.5	18.0	19.0	20.0	20.0	17.5	14.5	11.0	2.2	15.0	14.7	7.9	5.0
10	60.6	WNW	14:16	21.6	14.0	16.5	17.5	19.0	19.0	17.5	14.5	11.0	5.0	15.0	33.4	13.5	4.8
11	72.1	NW	15:08	25.0	18.0	15.5	16.0	17.5	18.5	17.5	14.5	11.0	7.1	14.9	47.7	17.3	5.2
12	51.2	NW	11:39	20.9	14.0	14.5	15.5	17.0	18.0	17.0	14.5	11.0	12.3	14.8	82.9	24.0	3.3
13	37.7	NW	17:34	11.6	19.0	16.0	17.0	18.0	17.5	17.0	14.5	11.0	14.1	14.8	95.4	24.0	2.6
14	32.7	SW	16:50	14.3	21.5	18.5	19.5	19.5	18.0	16.5	14.5	11.0	13.0	14.7	88.4	19.6	6.7
15	23.2	NNE	1:02	7.3	23.0	20.0	20.5	20.5	18.5	16.5	14.5	11.0	9.8	14.7	66.9	18.5	6.1
16	52.2	NNE	11:31	15.1	19.5	20.5	21.5	21.5	19.0	16.5	14.5	11.0	2.9	14.6	19.9	11.0	6.6
17	29.7	N	8:31	12.5	13.5	19.0	20.0	20.5	19.0	16.5	14.5	11.5	0.3	14.5	2.1	5.6	4.0
18	22.7	ESE	20:03	7.6	13.0	16.0	17.0	18.0	18.5	16.5	14.5	11.5	6.7	14.5	46.3	15.3	7.8
19	19.1	SSE	10:34	6.6	13.5	15.0	16.0	17.5	18.0	16.5	14.5	11.5	3.8	14.4	26.4	13.3	8.4
20	30.6	NNE	13:53	8.9	14.0	16.5	17.5	18.0	17.5	16.5	14.5	11.5	1.6	14.3	11.2	8.5	6.0
21	25.3	ESE	23:19	10.1	13.5	14.5	15.5	17.0	17.5	16.5	14.5	11.5	11.6	14.3	81.2	20.3	4.2
22	32.9	ESE	3:00	14.3	11.5	15.5	17.0	17.5	17.0	16.0	14.5	11.5	0.4	14.2	2.8	4.5	3.2
23	46.8	ESE	13:44	14.5	11.5	13.0	14.5	15.5	17.0	16.0	14.0	11.5	2.4	14.2	17.0	6.6	4.0
24	41.5	NNE	12:26	12.4	11.0	12.5	13.5	14.5	16.0	16.0	14.0	11.5	0.8	14.1	5.7	7.5	5.4
25	21.7	SW	14:52	7.5	9.5	10.5	11.5	13.5	15.5	15.5	14.0	11.5	7.2	14.0	51.3	17.7	6.0
26	41.3	SE	23:08	19.1	13.5	12.0	13.0	14.5	15.5	15.5	14.0	11.5	7.9	14.0	56.6	16.2	4.3
27	45.7	ESE	3:40	14.4	14.5	14.5	15.0	15.5	15.5	15.0	14.0	11.5	0.7	13.9	5.0	7.3	5.2
28	45.1	N	16:18	10.8	13.0	14.0	14.5	15.0	15.5	15.0	14.0	11.5	9.5	13.8	68.7	18.9	5.1
29	23.6	SSW	8:36	8.1	14.5	14.5	15.0	16.0	16.0	15.0	14.0	11.5	11.7	13.8	85.0	19.0	4.1
30	31.2	SE	8:21	14.0	17.5	15.5	16.0	17.0	16.0	15.0	13.5	11.5	13.1	13.7	95.6	19.4	3.2
31	46.9	SE	12:16	19.9	19.5	17.0	17.5	18.0	16.5	15.0	13.5	11.5	5.5	13.6	40.3	9.8	3.7
Total													210.3	451.9	46.5	448.0	177.5
Mean				12.8	16.9	17.2	18.0	18.8	18.1	16.5	14.2	11.1	1991-2020 Normal				
Extreme	72.1	NW	15:08		1971-2000 Normal for Soil Temperatures								276.9	452.3	61.2	542.2	172.5
Date	11				16.5	16.9	18.1	16.8	14.1	12.3	9.1	No. of Bright Sunshine days = 31					

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

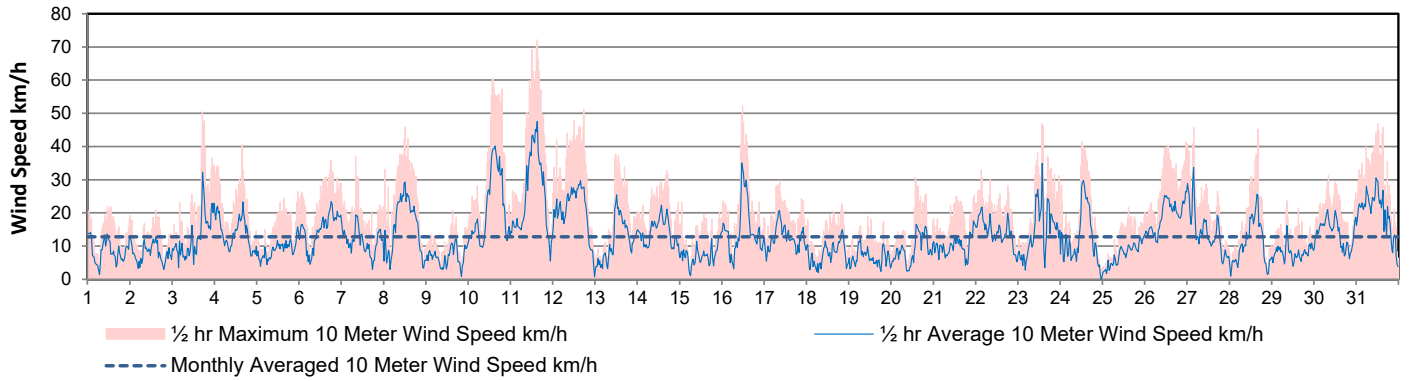
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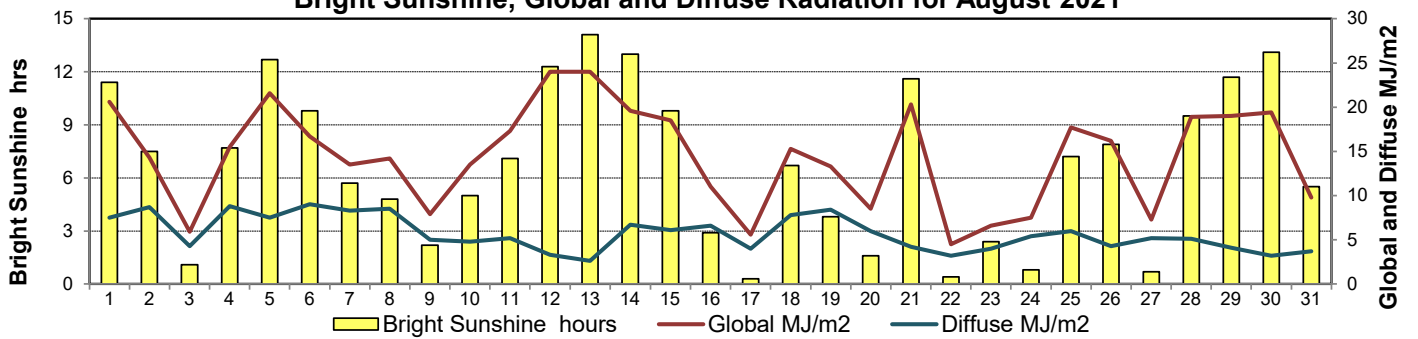
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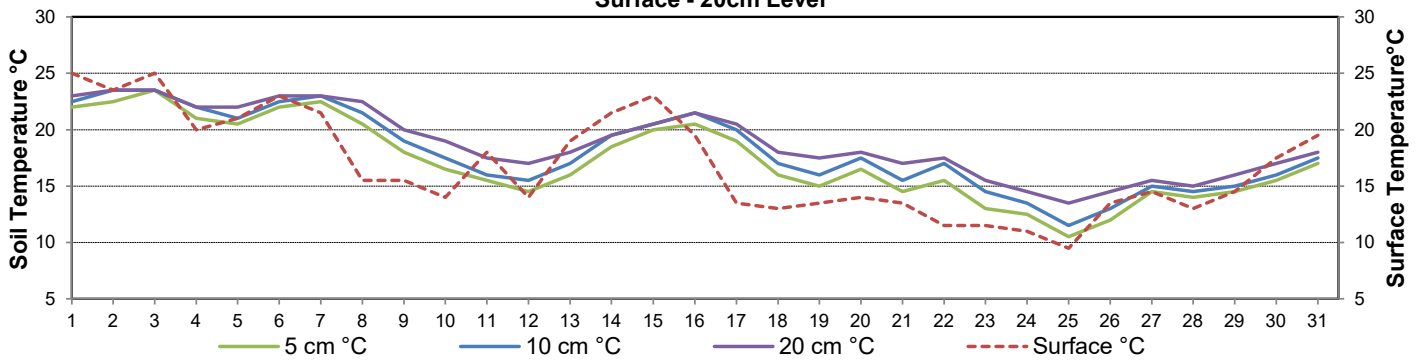
Wind Speed for August 2021



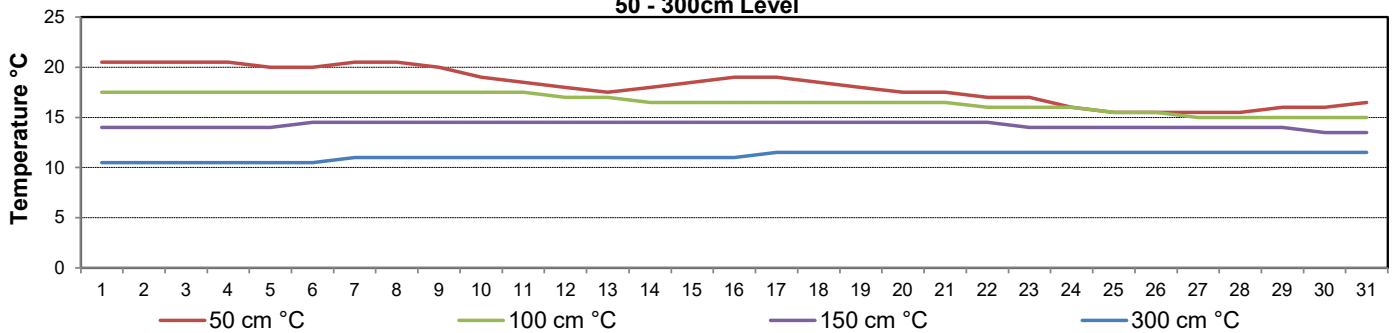
Bright Sunshine, Global and Diffuse Radiation for August 2021



**Soil Temperatures for August 2021
Surface - 20cm Level**



**Soil Temperatures for August 2021
50 - 300cm Level**





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Extreme Records for August

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
39.7	06/1998	SRC	39.7	06/1998	229.8	1953	SF	105.2	2007					360.8	1969	31	1966*
-2.8	23/1901 28/1976	SM SRC	-2.8	28/1976	0.0	1986	SC	7.0	2001	151 ^W	14/1967	129	1985	200.8	1987	27	1992*

**1975 forward * more than one year

Notable Events for CRS Saskatoon - August						Saskatoon Area Stations			Glossary	
Element	Type	Day	New Record	Old Record	Year	SM	NWMP	c. 1892-1901	T	Trace of precipitation
Temperature	Highest Maximum Daily	2	35.1	33.8	2019	SE	Eby	1901-1941	Normal	30 year average beginning with the decade
		14	37.5	33.5	1992	US	Univ. of Sask.	1915-1964	SOG	Depth of snow-on-the-ground in cm
	Highest Minimum Daily	3	19.7	19.1	2003	S	Saskatoon	1941-1942	na	not available
		15	18.0	16.0	1991	SA	Saskatoon A	1942 -	Degree-days	
	Highest Mean Daily	2	26.6	25.3	1989	NRC	Nat. Res. Council	1952-1966	Tm	Mean Temperature
14		27.3	24.1	2003	SRC	Sask. Res. Council	1963-	Growing	(Tm-5°C); if Tm ≤ 5°C then GDD = 0	
Summer (June July August) Temperature	Highest Mean Average	15	25.1	24.5	1973	SWT	S'toon Water Treatment Plant	1974 -	Heating	(18°C-Tm); if Tm ≤ 18°C then HDD = 0
		Highest Maximum Average	27.2	26.5	2001	SC	S'toon Central Ave	1974-1989	Cooling	(Tm-18°C); if Tm ≥ 18°C then CDD = 0
		Highest Minimum Average	13.6	12.9	2012	S1	Saskatoon 1	1976-1978	Extreme Cooling	(Tm-24°C); if Tm ≥ 24°C then CDD = 0
Growing Degree-Days	Highest Daily	2	21.6	20.3	1989	S2	Saskatoon 2	1977-1990	<p>I can't officially say 'we broke a record' for these as we could still get hot days in September and October but we have already broke records for <i>number of days with temperatures equal to or greater than 30</i> and <i>days with temperatures equal to or greater than 32.5</i> and we have equalled the record set in 1988 with <i>number of days greater or equal to 35</i>.</p>	
		14	22.3	19.05	2003	K	S'toon Kernen Farm	1993-2004		
		15	20.1	19.5	1973	KCS	S'toon Kernen Farm CS	1996-		
Cooling Degree-Days	Highest Daily	2	8.6	7.3	1989	RCS	Environment Canada	2008-		
		14	9.3	6.05	2003	SF	Sutherland Forestry	1943-1970		
		15	7.1	6.5	1973					
Extreme Cooling Degree-Days	Highest Daily	2	2.6	1.3	1989					
		14	3.3	0.05	2003					
		15	1.1	0.5	1973					

Precipitation Highest Daily Maximum 31 6.4 6.1 1971

Summer Precipitation Driest 69.3 70.2 1984

In addition, I lost track of the number of smoky days. They seemed continuous and would have had an impact on our bright sunshine and global / diffuse radiation levels

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Preliminary August 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	6.0	10.2	20.0	9.0	8.5	9.5																
2	6.0	11.5	19.5	8.5	9.0	9.5																
3	9.0	23.5	41.9	9.0	8.5	9.5																
4	10.0	16.5	26.4	8.5	8.5	9.5																
5	7.0	10.5	20.6	8.0	8.5	9.5																
6	10.0	16.4	32.7	8.5	8.5	9.5																
7	9.0	14.2	26.4	8.5	8.5	9.5																
8	11.0	21.3	32.1	8.5	8.0	9.5																
9	5.0	9.6	15.4	8.0	8.5	10.0																
10	15.0	28.6	48.3	7.5	8.0	9.0																
11	18.0	34.0	56.3	7.5	8.0	9.0																
12	15.0	21.5	39.1	8.0	8.0	9.5																
13	8.0	18.9	31.0	8.0	8.0	9.5																
14	11.0	17.9	27.5	8.0	8.5	9.0																
15	5.0	10.2	17.7	8.5	8.5	9.5																
16	11.0	23.4	40.2	8.5	8.5	9.0																
17	9.0	13.7	22.4	8.5	8.5	9.5																
18	6.0	11.8	19.5	8.0	8.0	9.5																
19	5.0	8.7	18.3	8.5	8.0	9.0																
20	6.0	12.2	23.5	8.5	8.0	9.5																
21	8.0	13.4	21.2	8.0	8.0	9.5																
22	11.0	16.5	29.3	8.5	8.0	9.0																
23	11.0	26.2	38.5	8.5	8.0	9.0																
24	9.0	20.3	33.9	8.0	8.0	9.0																
25	5.0	9.8	17.2	8.0	7.5	9.0																
26	14.0	19.7	34.4	8.5	8.0	9.0																
27	10.0	25.6	40.2	9.0	8.0	9.0																
28	7.0	18.7	32.1	9.0	8.0	9.0																
29	6.0	12.2	19.5	10.0	8.0	9.0																
30	10.0	16.4	25.8	10.5	8.5	9.0																
31	14.0	40.0	40.0	11.0	8.5	9.0																
Total																						
Mean				9	8	9.3																
Extreme	18.0	40.0	56.3	11	9	10																
Date	11	31	11	31	2	9																

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

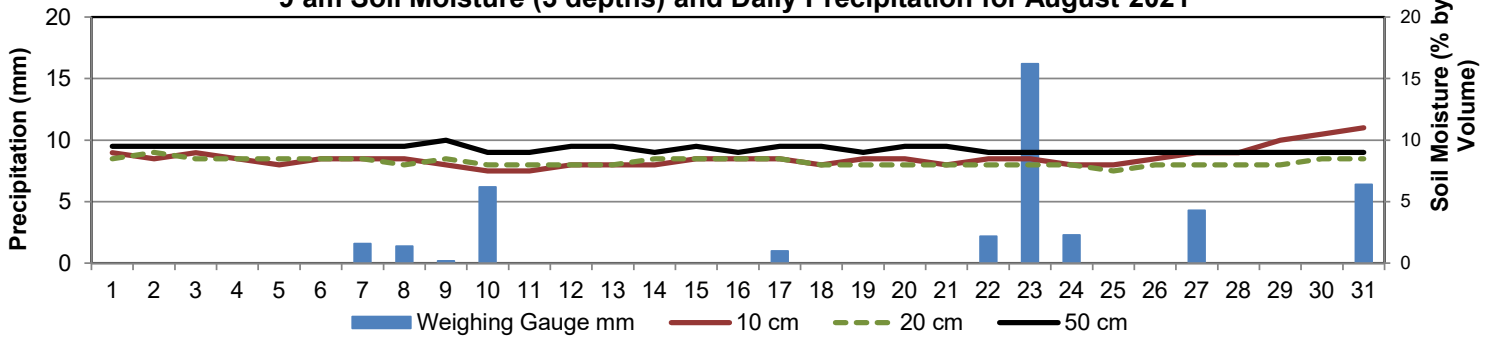
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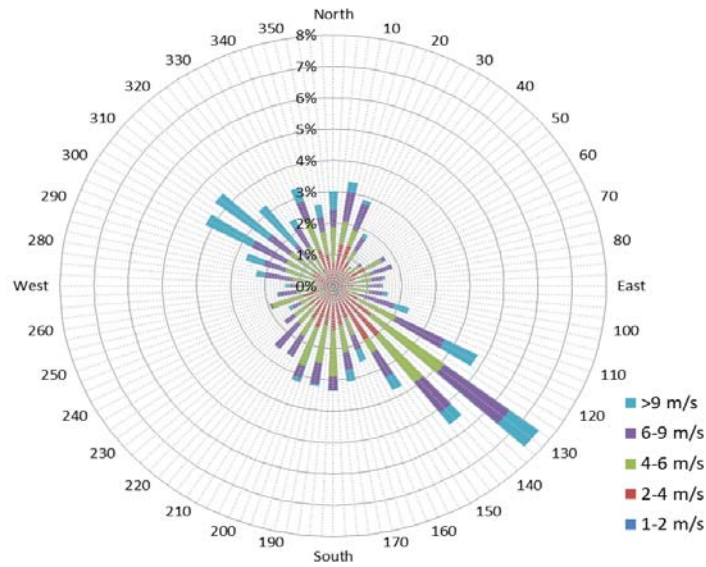
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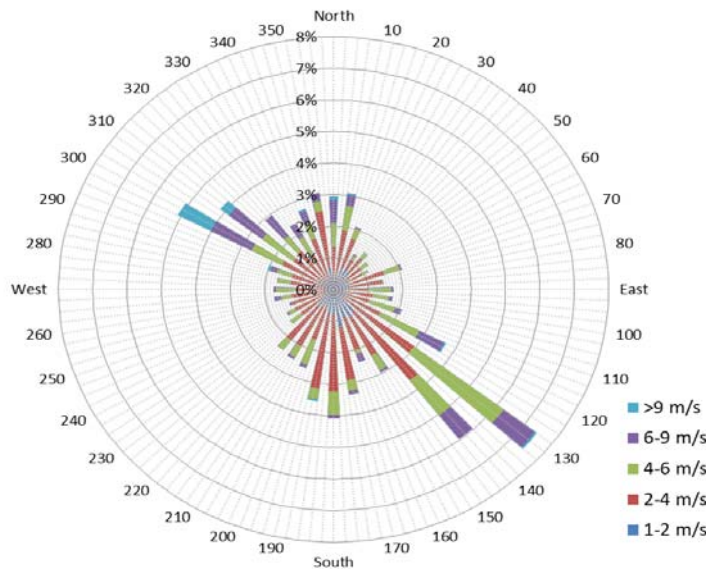
9 am Soil Moisture (3 depths) and Daily Precipitation for August 2021



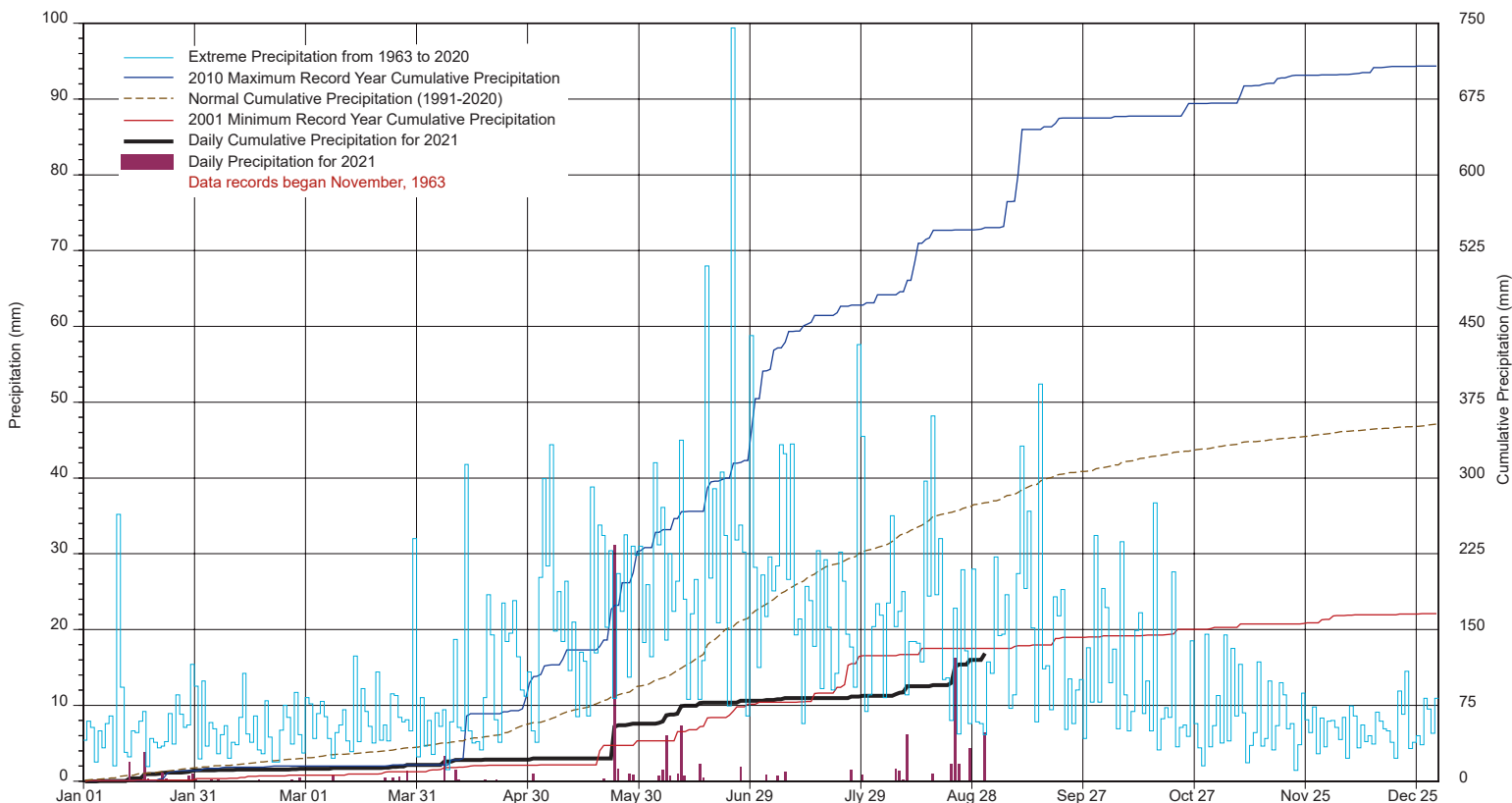
1/2 hr Maximum Wind Speed and Direction Saskatoon August 2021



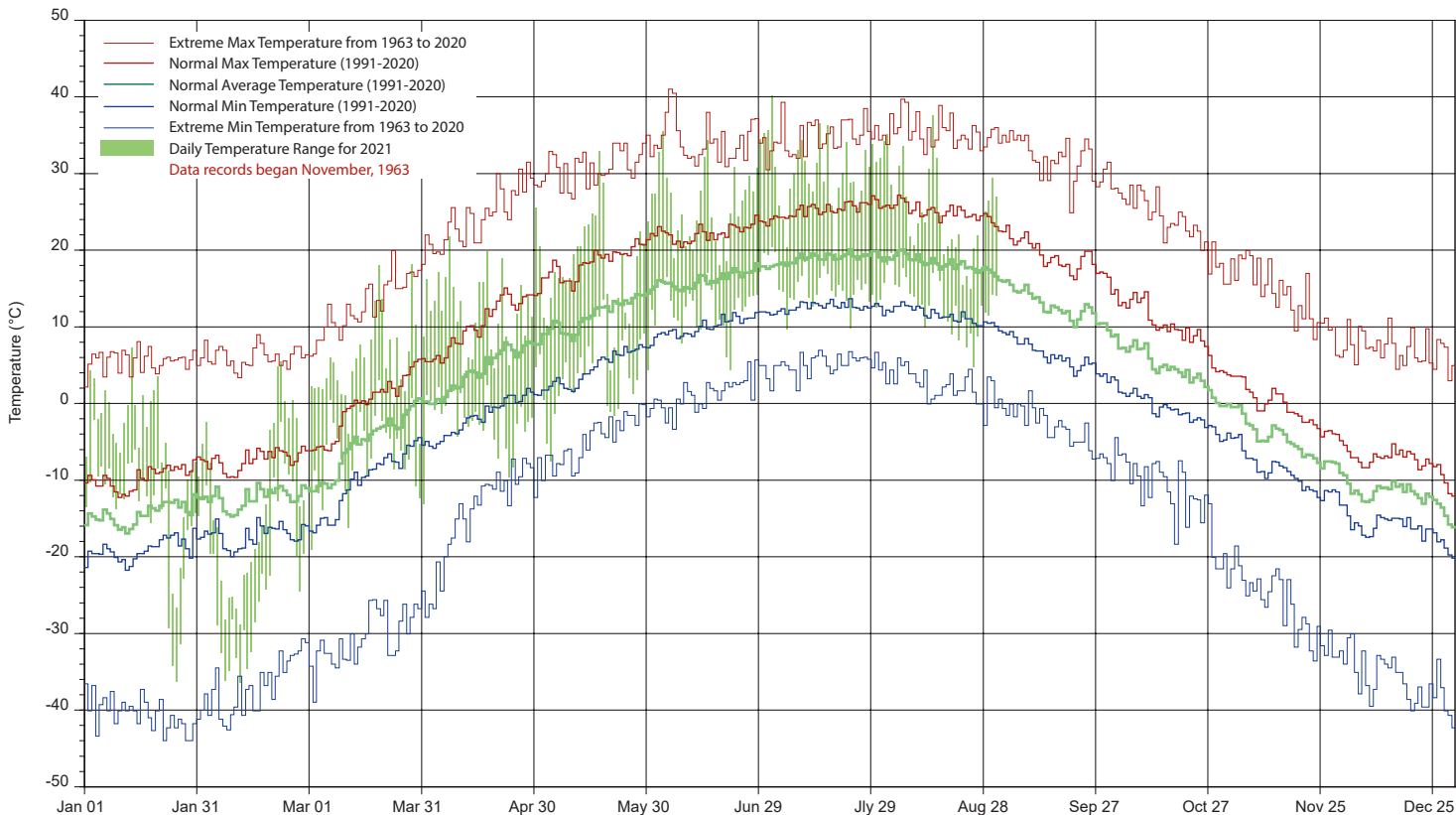
10 minute Average Wind Speed and Direction Saskatoon August 2021



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2021 TEMPERATURES AND NORMALS



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