



SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary OCTOBER 2022

Day	Temperature						Degree-days			Precipitation			Relative Humidity		Station Pressure (sea level)	
	Max	Normal Max	Min	Normal Min	Mean	Normal Mean	Growing	Heating	Cooling	Geonor Weighing Gauge	Tipping Bucket	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	21.6	14.3	10.0	3.5	15.8	8.8	10.8	2.2	0.0	0.0	0.0	-	84	35	1026	1022
2	22.8	14.9	6.7	3.1	14.8	9.0	9.8	3.2	0.0	0.0	0.0	-	85	38	1022	1016
3	22.0	12.8	7.9	1.5	15.0	7.2	10.0	3.0	0.0	0.0	0.0	-	88	35	1020	1017
4	25.8	13.2	6.5	1.4	16.2	7.3	11.2	1.8	0.0	0.0	0.0	-	77	31	1019	1014
5	11.1	12.5	2.3	1.0	6.7	6.8	1.7	11.3	0.0	0.0	0.0	-	80	38	1033	1018
6	10.4	13.6	-4.3	1.4	3.1	7.5	0.0	14.9	0.0	0.0	0.0	-	85	26	1036	1031
7	19.8	14.5	-0.4	2.0	9.7	8.3	4.7	8.3	0.0	0.0	0.0	-	70	31	1030	1022
8	23.5	13.2	4.4	1.0	14.0	7.1	9.0	4.0	0.0	0.0	0.0	-	80	26	1022	1018
9	22.4	13.8	4.9	0.7	13.7	7.2	8.7	4.3	0.0	0.0	0.0	-	83	27	1019	1013
10	24.8	14.6	5.5	1.2	15.2	7.9	10.2	2.8	0.0	0.0	0.0	-	72	20	1013	992
11	16.5	10.9	5.0	0.8	10.8	5.9	5.8	7.2	0.0	1.6	1.3	-	87	31	1007	994
12	10.8	10.3	3.7	-1.3	7.3	4.5	2.3	10.7	0.0	0.0	0.0	-	66	12	1016	1007
13	13.3	9.6	1.2	-1.7	7.3	4.0	2.3	10.7	0.0	0.0	0.0	-	56	30	1018	1009
14	13.5	9.9	-1.8	-0.4	5.9	4.8	0.9	12.1	0.0	0.0	0.0	-	70	25	1010	1006
15	9.0	10.3	-3.2	-0.1	2.9	5.1	0.0	15.1	0.0	0.6	0.5	-	77	42	1027	1010
16	7.5	9.4	-2.5	-0.5	2.5	4.4	0.0	15.5	0.0	0.0	0.0	-	74	34	1029	1023
17	16.8	10.4	-0.8	-0.8	8.0	4.8	3.0	10.0	0.0	0.0	0.0	-	64	24	1029	1020
18	20.9	9.7	0.4	-0.7	10.7	4.5	5.7	7.3	0.0	0.0	0.0	-	60	25	1020	1017
19	21.1	9.6	3.6	-1.4	12.4	4.1	7.4	5.6	0.0	0.0	0.0	-	72	26	1021	1011
20	14.9	8.3	6.2	-1.3	10.6	3.5	5.6	7.4	0.0	0.0	0.0	-	65	34	1011	1002
21	12.0	9.9	2.2	-1.2	7.1	4.4	2.1	10.9	0.0	0.0	0.0	-	70	35	1002	999
22	11.5	8.0	-2.7	-2.4	4.4	2.8	0.0	13.6	0.0	0.0	0.0	-	91	39	1010	1000
23	4.4	8.9	-0.1	-2.1	2.2	3.4	0.0	15.8	0.0	3.4	Snow/sleet	-	97	62	1015	1010
24	2.8	9.7	-0.9	-1.8	1.0	3.9	0.0	17.0	0.0	1.1	Snow	-	97	81	1014	1004
25	4.9	8.2	-0.8	-2.1	2.1	3.0	0.0	15.9	0.0	0.2	snow	-	95	71	1010	1004
26	8.5	7.5	-2.2	-3.1	3.2	2.2	0.0	14.8	0.0	0.0		-	93	53	1009	1004
27	11.9	6.3	0.5	-2.8	6.2	1.8	1.2	11.8	0.0	0.0		0	83	40	1004	1001
28	9.4	4.7	1.1	-3.0	5.3	0.8	0.3	12.7	0.0	0.0		0	79	53	1013	1003
29	13.1	4.2	-1.5	-4.0	5.8	0.1	0.8	12.2	0.0	0.0		0	87	18	1014	1011
30	15.0	4.3	0.7	-4.9	7.9	-0.3	2.9	10.1	0.0	0.0		0	74	28	1013	998
31	9.7	4.1	-1.5	-4.7	4.1	-0.3	0.0	13.9	0.0	0.0		0	73	26	1006	998
Total							116.4	306.1	0.0	6.9			Extreme / Date	Extreme / Date	Extreme / Date	Extreme / Date
Avg	14.6	10.1	1.6	-0.7	8.1	4.7	1991-2020 Normal			20.4	1991-2020 Normal					
Extreme Date	25.8		-4.3				61.7	413.6	0.2	235.3	Year to date 2022 Cumulative		97	12	1036	992
	4		6							328.6	Year to date Cumulative Normal		23	12	6	10

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

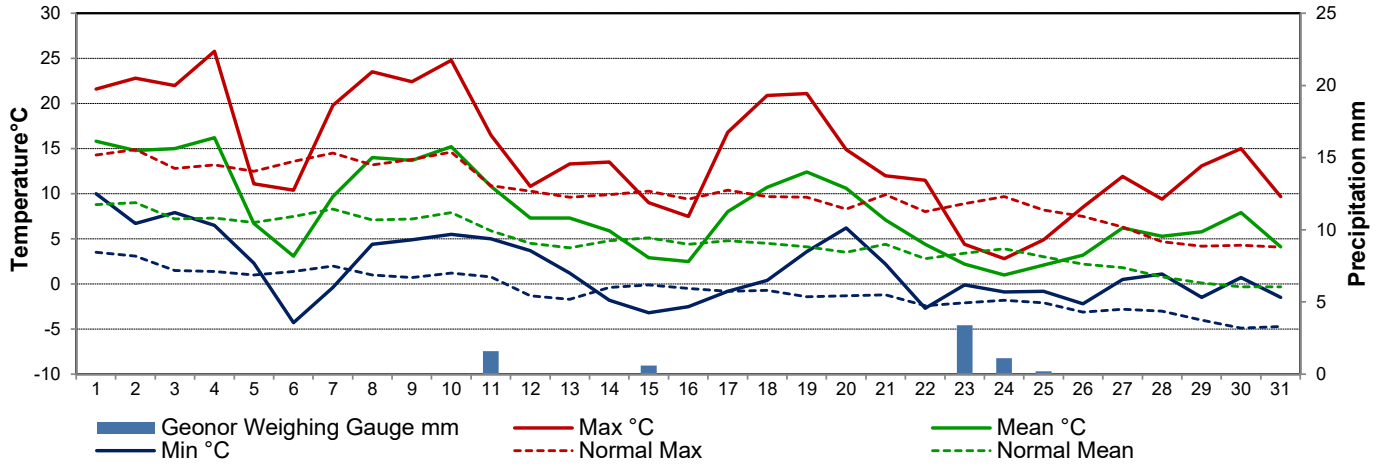
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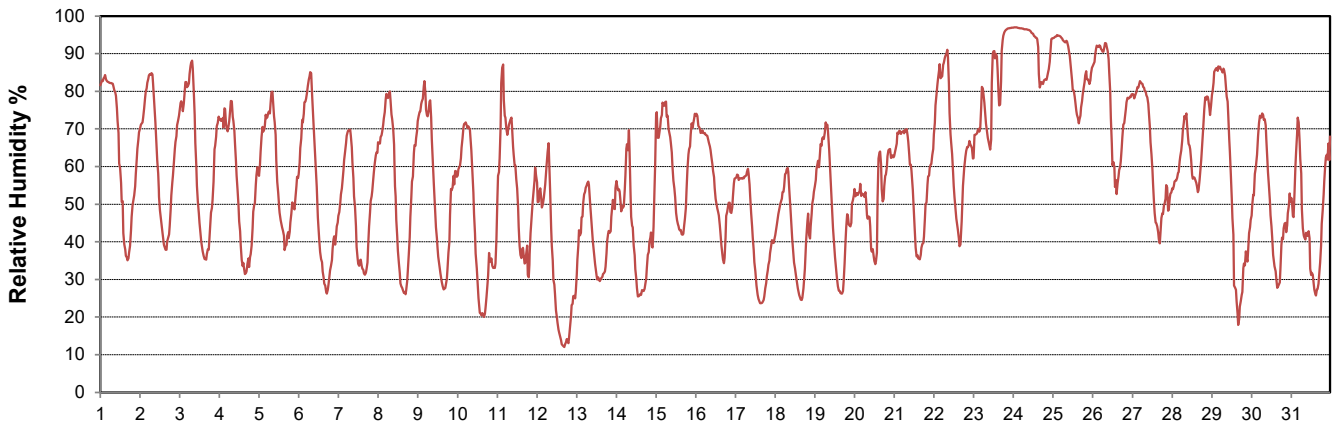
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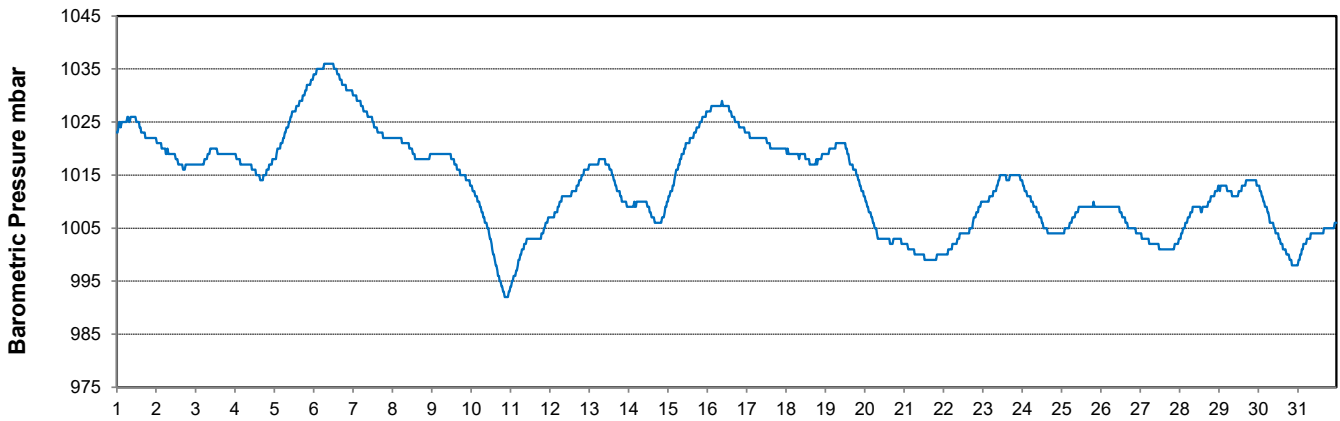
Temperature and Precipitation for October 2022



Relative Humidity for October 2022



Barometric Pressure Corrected to Sea Level for October 2022





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SASKATOON STATION 4057180

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

Preliminary **OCTOBER 2022**

Day	Wind Gust (10 meters)			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 ²	MJ/m ²
1	36.1	ESE	0:19	12.9	11.0	14.0	14.5	15.0	14.5	13.5	12.5	11.5	7.5	11.6	64.7	11.4	5.8
2	20.7	SSE	16:59	8.7	9.0	12.0	13.5	14.5	14.5	13.5	12.5	11.5	10.9	11.5	94.5	12.6	2.1
3	27.8	NE	10:24	9.5	10.5	12.5	13.5	14.5	14.5	13.5	12.5	11.5	10.9	11.5	95.1	12.4	2.4
4	33.2	NNW	17:37	8.5	11.0	11.5	13.0	14.0	14.5	13.5	12.5	11.5	9.9	11.4	86.8	11.2	3.6
5	39.4	NE	10:01	15.5	7.5	11.0	12.5	13.5	14.0	13.5	12.5	11.5	6.1	11.3	53.8	9.3	5.0
6	22.2	SSE	13:35	8.4	-0.5	6.5	9.0	10.5	13.5	13.5	12.5	11.5	10.9	11.3	96.8	13.2	1.6
7	30.9	WNW	14:42	12.7	3.0	6.0	8.0	10.0	13.0	13.5	12.5	11.5	10.7	11.2	95.5	12.1	2.0
8	43.5	WNW	15:04	11.1	6.5	7.5	8.5	10.0	12.0	13.0	12.5	11.5	9.5	11.1	85.4	11.3	3.0
9	18.0	W	15:25	6.2	8.0	8.0	9.5	10.5	12.0	13.0	12.5	11.5	10.3	11.1	93.0	11.3	2.1
10	51.2	NW	23:54	14.5	7.5	8.5	9.5	11.0	12.0	13.0	12.5	11.5	9.8	11.0	89.1	11.3	1.9
11	60.8	NW	1:36	29.8	5.5	10.5	11.5	12.0	12.0	12.5	12.5	11.5	5.8	10.9	53.1	8.1	3.6
12	72.0	NNW	15:20	32.1	4.5	7.0	8.5	10.0	12.0	12.5	12.5	11.5	10.5	10.9	96.6	11.7	1.8
13	47.8	WNW	15:15	22.9	2.5	5.0	6.5	8.5	11.5	12.5	12.0	11.5	10.2	10.8	94.4	11.0	1.6
14	25.4	NNW	22:51	6.6	1.0	4.5	6.5	8.5	11.0	12.5	12.0	11.0	7.5	10.7	69.8	7.9	4.7
15	47.5	NNW	4:50	20.5	3.5	7.5	8.0	9.0	10.5	12.0	12.0	11.0	7.9	10.7	74.0	9.7	2.6
16	29.1	SE	22:35	8.7	1.0	5.0	6.0	7.5	10.0	12.0	12.0	11.0	2.6	10.6	24.5	4.9	3.8
17	31.2	SSE	16:07	16.7	0.5	3.5	5.0	7.0	9.5	12.0	12.0	11.0	10.2	10.5	96.8	10.2	1.4
18	24.4	SE	0:22	8.9	3.0	4.5	6.0	7.5	9.5	11.5	11.5	11.0	10.0	10.5	95.5	9.9	2.2
19	18.2	W	16:25	7.2	5.0	4.5	6.0	7.5	9.5	11.5	11.5	11.0	9.9	10.4	95.1	9.0	2.4
20	40.3	NW	14:05	14.3	9.5	7.0	7.5	8.0	9.5	11.0	11.5	11.0	1.4	10.3	13.5	2.5	2.2
21	33.9	WNW	13:43	12.6	3.0	5.5	6.5	8.0	9.5	11.0	11.5	11.0	4.4	10.3	42.8	6.1	3.3
22	23.9	NE	19:26	8.8	-1.5	3.5	5.5	7.5	9.5	11.0	11.5	11.0	8.3	10.2	81.2	8.9	2.2
23	44.9	NE	16:40	18.9	2.0	5.5	6.0	7.0	9.0	11.0	11.0	11.0	0.0	10.2	0.0	1.7	1.7
24	35.5	N	1:17	13.1	-0.5	4.0	5.0	6.0	9.0	11.0	11.0	11.0	0.1	10.1	1.0	4.0	4.0
25	24.6	SSW	22:27	8.8	-0.5	3.0	4.0	5.5	8.5	10.5	11.0	11.0	0.7	10.0	7.0	4.3	4.0
26	38.7	S	15:25	14.5	-2.0	2.0	3.5	5.5	8.0	10.5	11.0	11.0	9.2	10.0	92.4	8.3	3.1
27	39.9	SSW	16:01	18.6	0.5	2.0	3.0	4.5	7.5	10.5	11.0	11.0	5.7	9.9	57.6	6.2	2.0
28	34.1	SW	0:07	10.6	0.5	2.5	3.5	5.0	7.5	10.0	10.5	11.0	4.5	9.8	45.8	4.4	3.7
29	48.0	NW	13:39	14.8	0.5	1.5	2.5	4.0	7.5	10.0	10.5	11.0	9.3	9.8	95.2	7.8	2.1
30	33.7	WSW	14:19	15.5	2.0	1.5	2.5	4.0	7.0	10.0	10.5	11.0	9.1	9.7	93.7	7.8	1.2
31	39.9	WNW	1:26	11.9	5.0	3.0	4.0	4.5	7.0	9.5	10.5	10.5	5.0	9.7	51.8	5.4	3.0
Total													228.8	328.9	69.6	265.9	86.1
Mean				13.7	3.8	6.1	7.4	8.7	10.6	11.9	11.8	11.2	1991-2020 Normal				
Extreme	72.0	NNW	15:20		1971- 2000 Normal for Soil Temperatures								158.7	329.0	48.2	226.5	92.8
Date	12					4.3	4.7	6.2	8.3	9.2	9.6	9.4	No. of Bright Sunshine days = 30				

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

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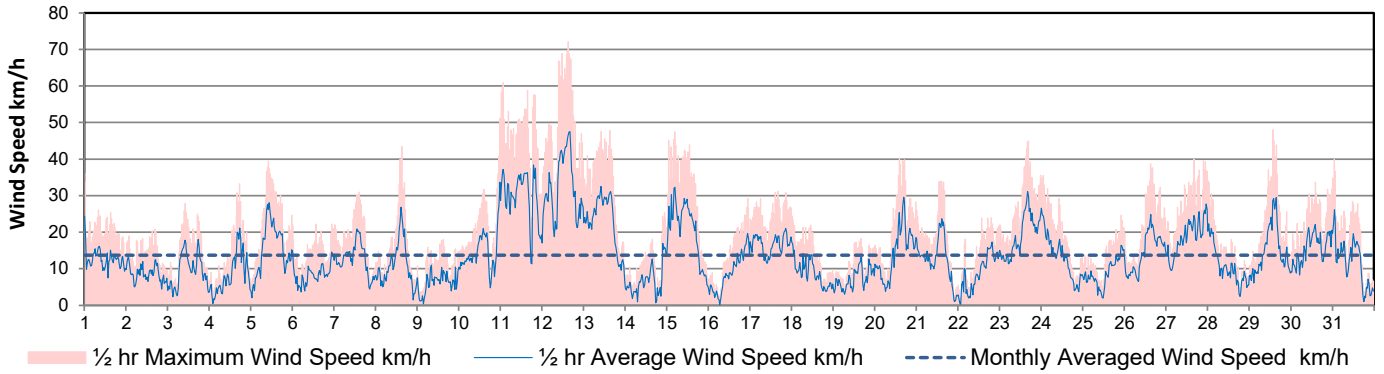


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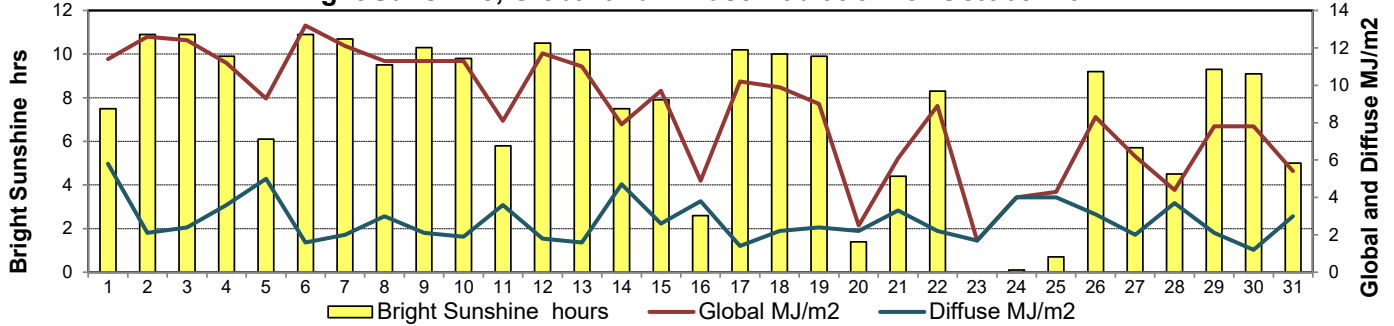
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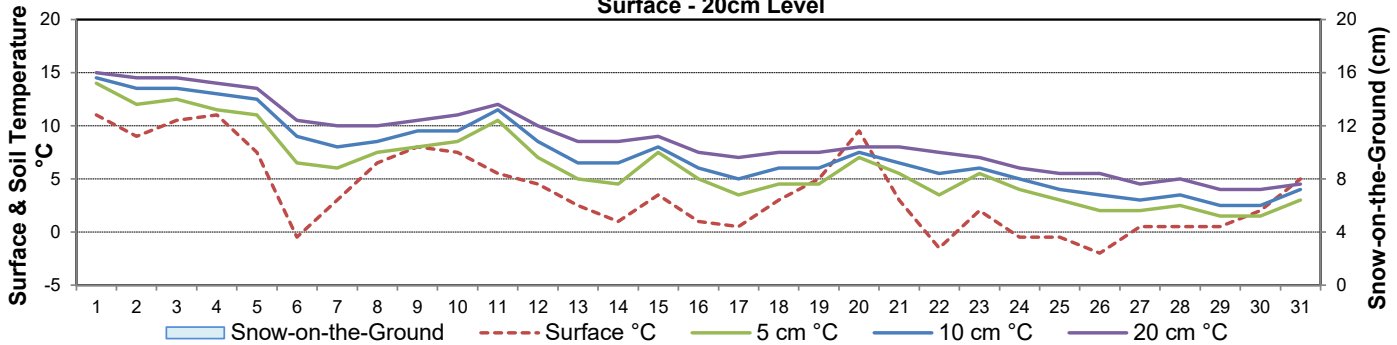
Wind Speed for October 2022



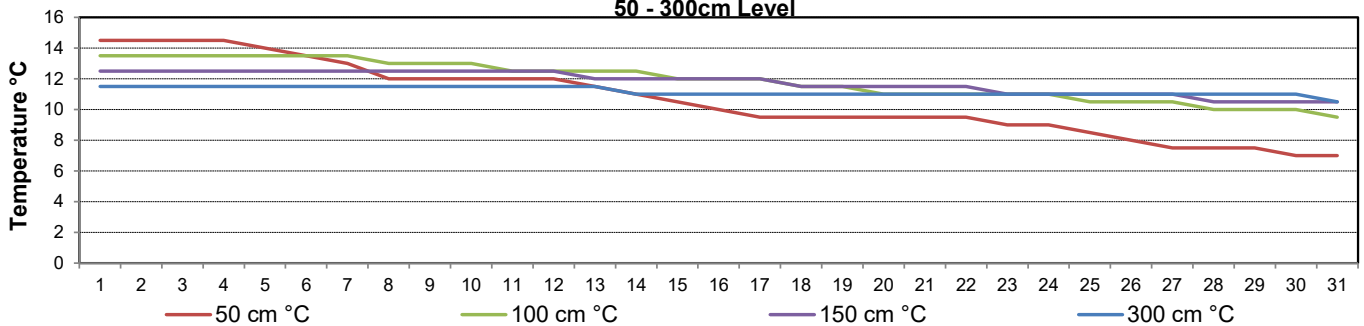
Bright Sunshine, Global and Diffuse Radiation for October 2022



**Soil Temperatures for October 2022
Surface - 20cm Level**



**Soil Temperatures for October 2022
50 - 300cm Level**





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Preliminary OCTOBER 2022

Extreme Records for October

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
32.2	05/1943	SA US SF	28.5	06.08/1980,84	72.4	1969	SF	69.8	1969	138 ^{NW}	16/1967	97	1976	231.3	2010	31	1965, RR
-25.6	26/1919	SE US	-21.5	29/1991	0.0	1965*	NRC*	0.0	2000					61.1	2016	19	2016

**1975 forward * more than one year/site

Notable Events for CRS Saskatoon - October						Saskatoon Area Stations			Glossary	
Element	Type	Day	New Record	Old Record	Year	SM	NWMP	c. 1892-1901	T	Trace of precipitation
Heating Degree-days	Lowest Monthly		306.1	315.4	2015	SE	Eby	1901-1941	Normal	30 year average beginning with the decade
Frost Free Growing Degree-days for 2022	Highest		2339.6	2283.7	1988	US	Univ. of Sask.	1915-1964	SOG	Depth of snow-on-the-ground in cm
First Fall Frost Oct 6 2022						S	Saskatoon	1941-1942	na	not available
2022 Growing Season Length = 137 days						SA	Saskatoon A	1942 -	Degree-days	
Bright Sunshine	No. of days >=5 hours		24	24	1974, 1988, 2010	NRC	Nat. Res. Council	1952-1966	Tm	Mean Temperature
	No. of days >=10 hours		9	8	2010	SRC	Sask. Res. Council	1963-	Growing	(Tm-5°C); if Tm ≤ 5°C then GDD = 0
Temperature	Highest Average Mean Monthly		8.1	7.9	2015	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		
						K	S'toon Kernen Farm	1993-2004		
						KCS	S'toon Kernen Farm CS	1996-		
						RCS	Environment Canada	2008-		
						SF	Sutherland Forestry	1943-1970		

Second Highest Average Maximum Monthly temperature (1965 = 15.0C)
 Fourth Warmest Average Minimum Monthly temperature

Fall maintenance: Oct 20 and 31 including fall maintenance on the all-season precipitation gauge, capping the tipping bucket, yearly maintenance on the snow depth sensor, replacing the 10 cm soil moisture sensor, changing desiccants, raised snow depth sensor pad to ground level

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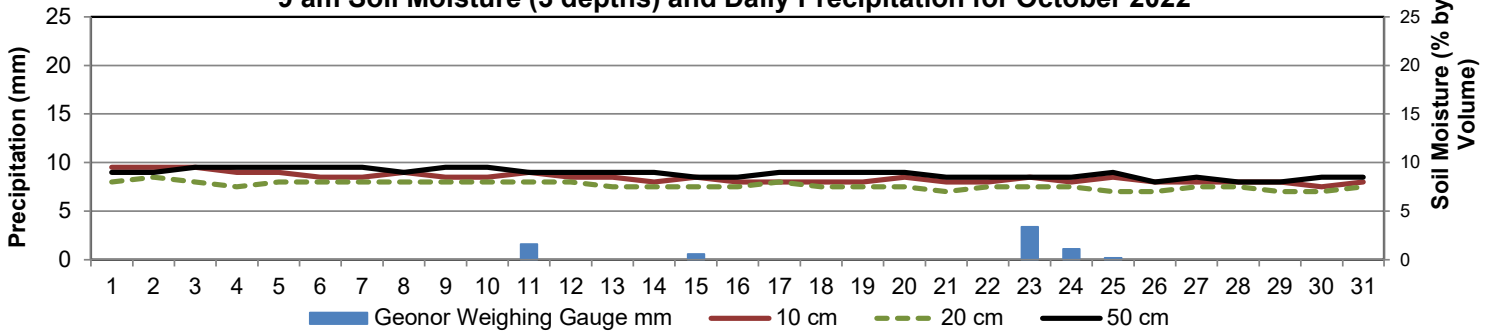
Day	2 meter Wind Speed			Soil Moisture at 0900 hrs (rounded to the 0.5%)														
	Daily Average	Max ½ hr Avg	½ hr Extreme Max	10 cm	20 cm	50 cm												
	km/h	km/h	km/h	% by volume (soil type is Loam (45.5% Sand, 41.1% Silt, 13.3% Clay))														
1	9.0	18.7	29.3	9.5	8.0	9.0												
2	5.0	8.7	18.3	9.5	8.5	9.0												
3	6.0	14.2	22.9	9.5	8.0	9.5												
4	6.0	15.9	26.4	9.0	7.5	9.5												
5	11.0	20.6	31.0	9.0	8.0	9.5												
6	5.0	11.1	27.0	8.5	8.0	9.5												
7	9.0	15.4	25.8	8.5	8.0	9.5												
8	7.0	19.9	32.7	9.0	8.0	9.0												
9	4.0	9.0	16.0	8.5	8.0	9.5												
10	10.0	24.1	38.5	8.5	8.0	9.5												
11	22.0	27.6	47.7	9.0	8.0	9.0												
12	23.0	34.5	56.3	8.5	8.0	9.0												
13	17.0	23.9	40.8	8.5	7.5	9.0												
14	5.0	12.6	20.6	8.0	7.5	9.0												
15	15.0	23.2	37.9	8.5	7.5	8.5												
16	6.0	14.5	23.5	8.0	7.5	8.5												
17	12.0	14.5	31.0	8.0	8.0	9.0												
18	6.0	11.1	19.5	8.0	7.5	9.0												
19	5.0	10.5	21.2	8.0	7.5	9.0												
20	10.0	21.3	35.6	8.5	7.5	9.0												
21	9.0	17.7	27.5	8.0	7.0	8.5												
22	6.0	12.8	18.9	8.0	7.5	8.5												
23	14.0	22.9	34.4	8.5	7.5	8.5												
24	9.0	18.2	25.2	8.0	7.5	8.5												
25	6.0	12.3	18.9	8.5	7.0	9.0												
26	9.0	15.6	27.0	8.0	7.0	8.0												
27	14.0	20.7	35.0	8.0	7.5	8.5												
28	7.0	16.4	25.2	8.0	7.5	8.0												
29	10.0	21.4	33.9	8.0	7.0	8.0												
30	11.0	17.4	28.1	7.5	7.0	8.5												
31	9.0	31.0	31.0	8.0	7.5	8.5												
Total																		
Mean				8	8	8.9												
Extreme	23.0	34.5	56.3	9.5	8.5	9.5												
Date	12	12	12	1	2	3												

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

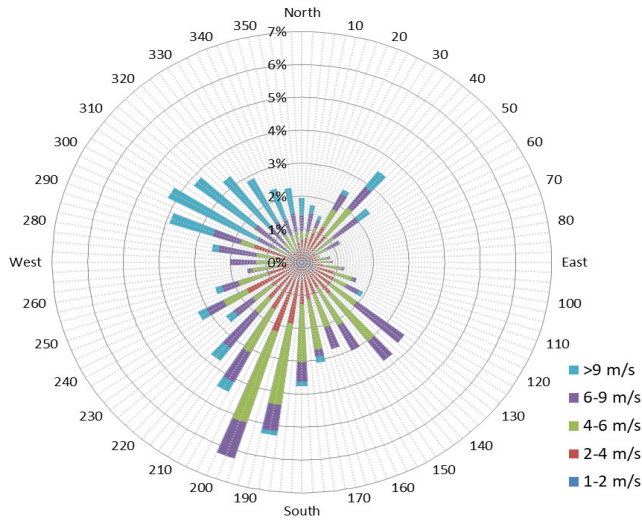
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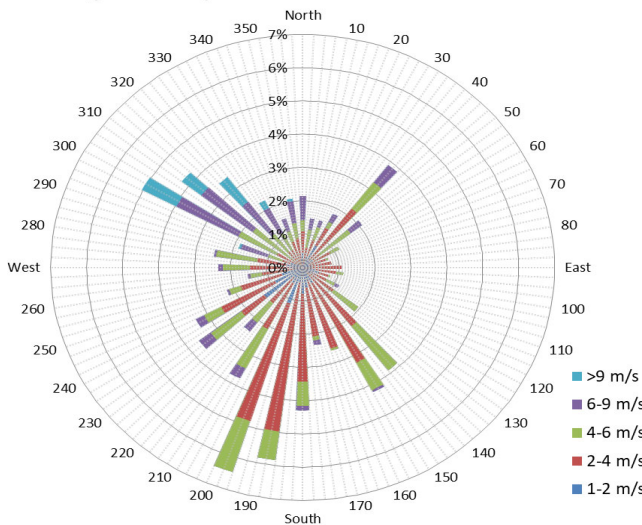
9 am Soil Moisture (3 depths) and Daily Precipitation for October 2022



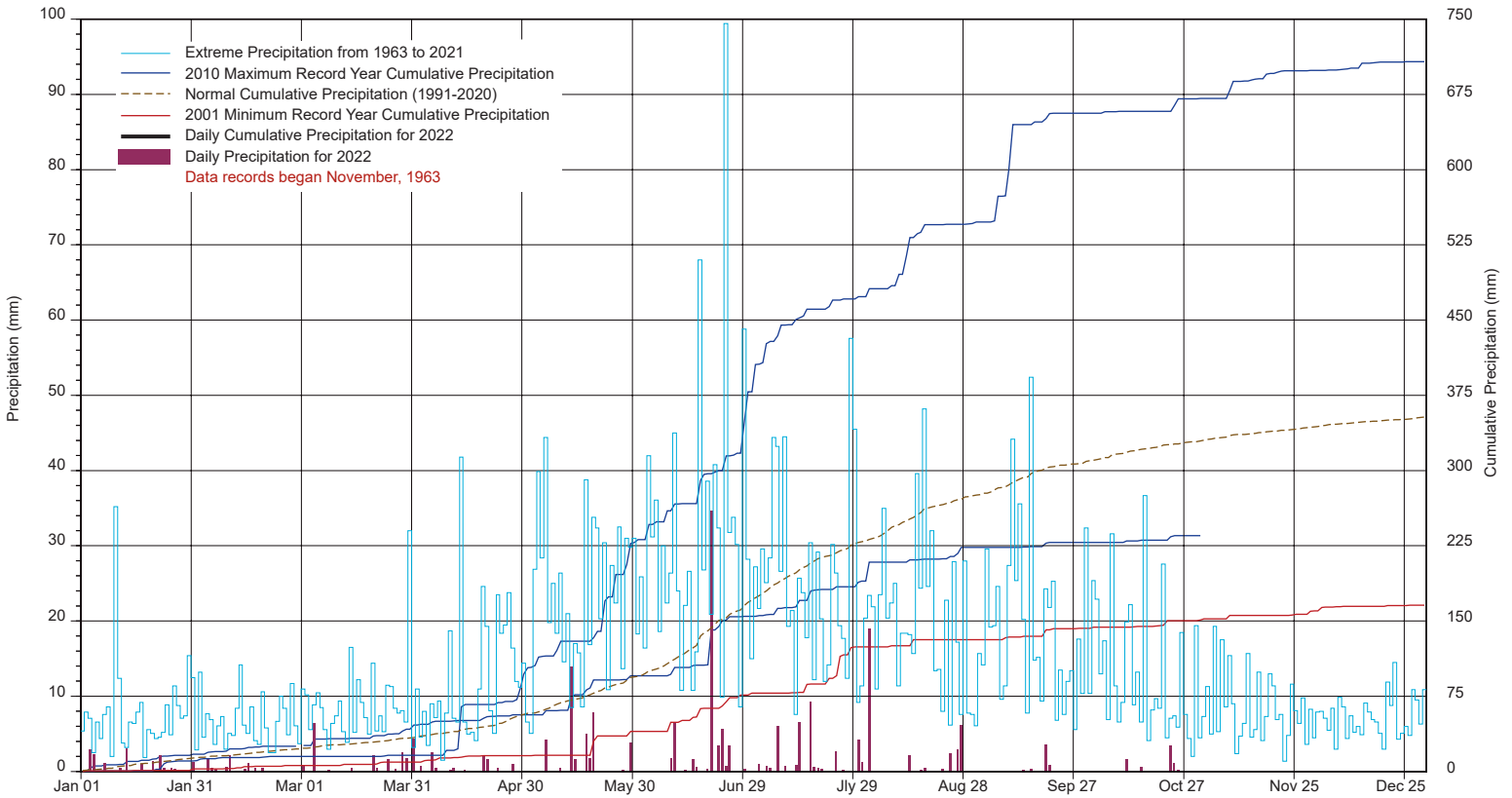
1/2 hr Maximum Wind Speed and Direction Saskatoon October 2022



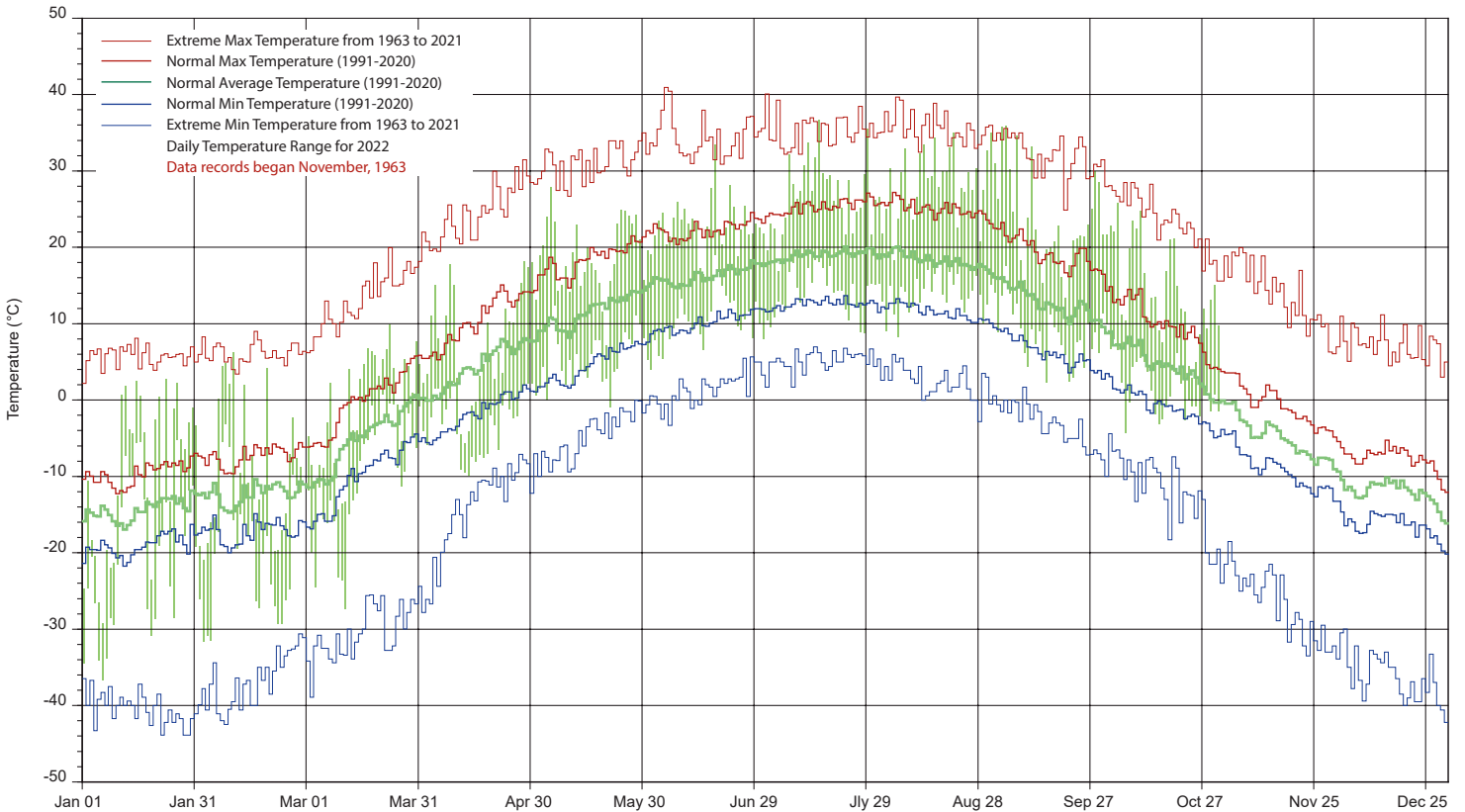
10 minute Average Wind Speed and Direction Saskatoon October 2022



SASKATCHEWAN RESEARCH COUNCIL SASKATOON CLIMATE REFERENCE STATION 2022 PRECIPITATION AND NORMALS



2022 TEMPERATURES AND NORMALS



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