



SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary SEPTEMBER 2023

Day	Temperature						Degree-days			Precipitation			Relative Humidity		Station Pressure (sea level)	
	Max	Normal Max	Min	Normal Min	Mean	Normal Mean	Growing	Heating	Cooling	Geonor all-season ppt 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	27.6	22.5	14.3	9.5	21.0	16.1	16.0	0.0	3.0	0.0	0.0		93	45	1008	1003
2	27.0	22.4	14.8	9.3	20.9	15.9	15.9	0.0	2.9	0.0	0.0		72	26	1008	1003
3	27.3	23.3	10.8	9.0	19.1	16.1	14.1	0.0	1.1	0.0	0.0		82	28	1010	999
4	19.8	21.5	8.9	9.4	14.4	15.5	9.4	3.6	0.0	0.0	0.0		85	35	1015	1002
5	17.4	20.7	2.0	8.7	9.7	14.7	4.7	8.3	0.0	0.0	0.0		91	37	1020	1015
6	23.1	21.2	8.9	7.8	16.0	14.5	11.0	2.0	0.0	0.0	0.0		78	30	1016	1011
7	20.2	21.6	9.0	7.8	14.6	14.8	9.6	3.4	0.0	3.4	3.6	light rain	88	43	1018	1011
8	23.1	22.4	5.6	8.5	14.4	15.5	9.4	3.6	0.0	0.0	0.0		93	29	1023	1018
9	24.8	20.9	6.6	7.8	15.7	14.4	10.7	2.3	0.0	0.0	0.0		90	24	1026	1023
10	24.3	20.3	10.8	7.0	17.6	13.7	12.6	0.4	0.0	0.0	0.0		79	32	1025	1023
11	20.3	20.9	8.1	6.9	14.2	13.9	9.2	3.8	0.0	0.0	0.0		93	38	1024	1019
12	26.5	19.4	8.6	6.9	17.6	13.2	12.6	0.4	0.0	2.7	2.8	t-storm	80	29	1019	1007
13	23.2	17.9	12.0	6.1	17.6	12.0	12.6	0.4	0.0	0.0	0.0		84	43	1011	1008
14	17.7	18.4	8.7	5.3	13.2	11.9	8.2	4.8	0.0	0.0	0.0		82	40	1017	1012
15	22.8	19.1	8.2	6.4	15.5	12.8	10.5	2.5	0.0	0.0	0.0		81	32	1019	1017
16	29.2	19.3	8.3	5.9	18.8	12.6	13.8	0.0	0.8	0.0	0.0		86	18	1017	1010
17	31.8	18.1	8.5	6.3	20.2	12.2	15.2	0.0	2.2	0.0	0.0		67	11	1016	1000
18	27.8	17.9	9.9	5.6	18.9	11.8	13.9	0.0	0.9	0.0	0.0		74	18	1005	1000
19	19.5	18.2	7.2	6.0	13.4	12.1	8.4	4.6	0.0	0.0	0.0		73	27	1010	1005
20	20.3	16.7	5.6	4.8	13.0	10.8	8.0	5.0	0.0	0.0	0.0		76	30	1018	1010
21	23.3	16.2	3.0	3.6	13.2	10.0	8.2	4.8	0.0	0.0	0.0		88	23	1022	1019
22	23.3	17.6	4.6	4.3	14.0	11.0	9.0	4.0	0.0	0.0	0.0		88	31	1022	1018
23	22.5	19.2	10.7	5.0	16.6	12.1	11.6	1.4	0.0	0.0	0.0		80	49	1018	1014
24	23.9	19.9	13.1	6.1	18.5	13.0	13.5	0.0	0.5	0.0	0.0		90	33	1014	1012
25	27.1	19.9	8.9	5.2	18.0	12.6	13.0	0.0	0.0	0.0	0.0		85	22	1018	1014
26	29.8	18.2	15.3	5.3	22.6	11.8	17.6	0.0	4.6	0.0	0.0		71	20	1015	1008
27	23.8	17.0	12.3	3.9	18.1	10.4	13.1	0.0	0.1	0.0	0.0		69	19	1011	1008
28	20.8	17.2	8.2	3.6	14.5	10.5	9.5	3.5	0.0	0.0	0.0		74	31	1009	1005
29	18.8	17.0	5.1	3.9	12.0	10.5	7.0	6.0	0.0	0.0	0.0		89	38	1014	1008
30	11.7	16.5	2.6	2.8	7.2	9.6	2.2	10.8	0.0	11.4	N/A	light rain	94	67	1021	1015
Total							330.5	75.6	16.1	17.5			Extreme / Date	Extreme / Date	Extreme / Date	Extreme / Date
Avg	23.3	19.4	8.7	6.3	16.0	12.9	1991-2020 Normal			33.4	1991-2020 Normal					
Extreme Date	31.8		2.0				238.0	163.6	9.6	213.2	Year to date 2023 Cumulative		94	11	1026	999
	17		5							308.2	Year to date Cumulative Normal		30	17	9	3

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

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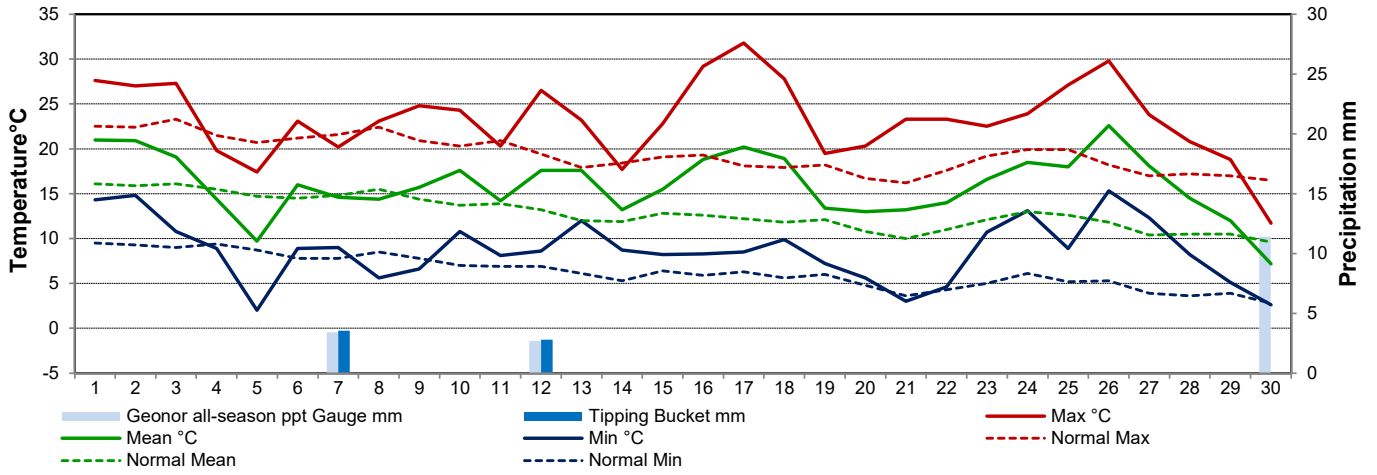


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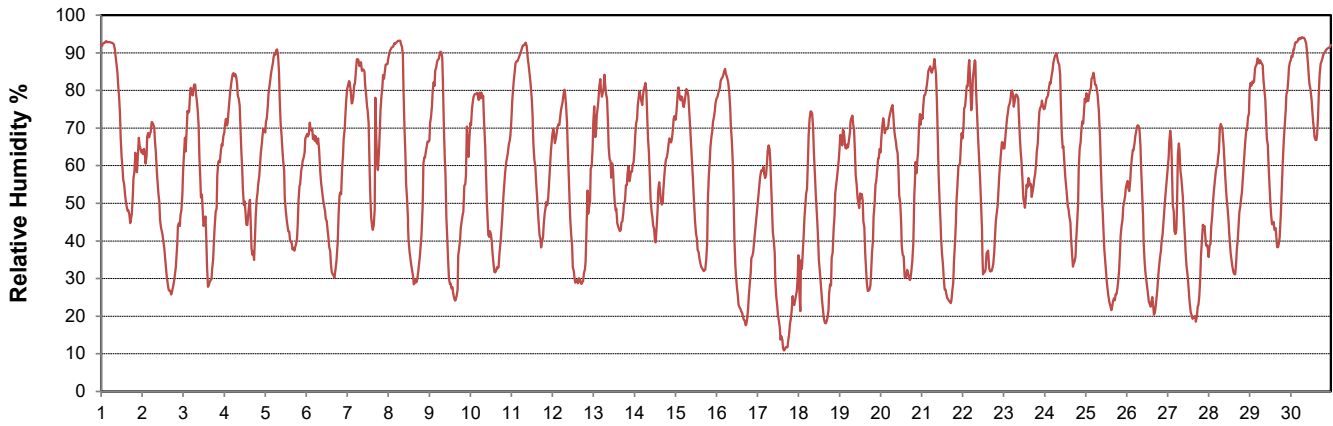
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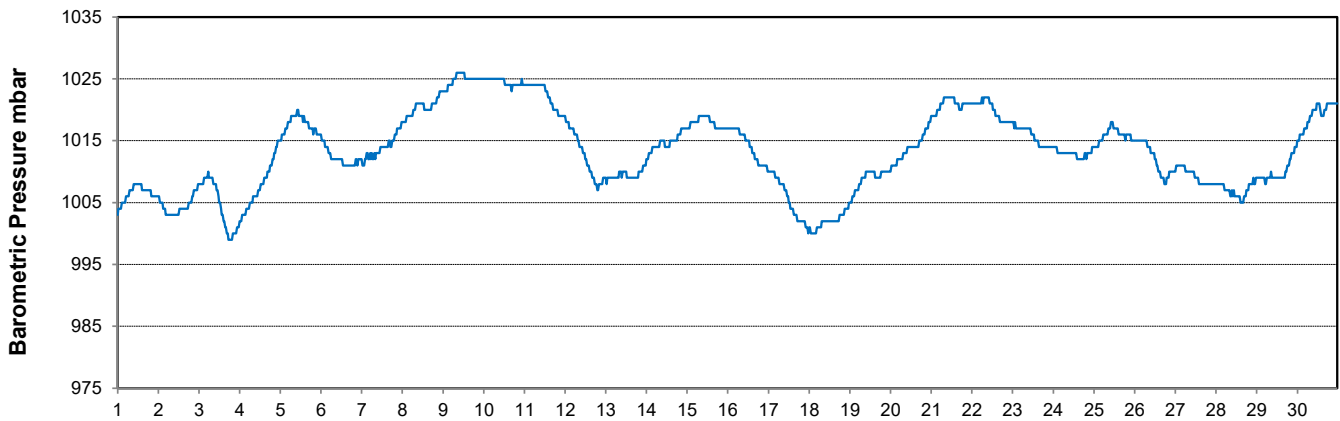
### Temperature and Precipitation for September 2023



### Relative Humidity for September 2023



### Barometric Pressure Corrected to Sea Level for September 2023





SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary SEPTEMBER 2023

Day	Wind Gust (10 meters)			Wind Speed (10 meters)	Soil Temperatures at 0900hrs								Radiation				
	Max	Direction	Time	Daily Average	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 <sup>2</sup>	MJ/m <sup>2</sup>
1	31.5	SW	17:38	12.9	17.0	15.5	16.5	17.0	17.0	15.0	13.5	11.5	10.8	13.6	79.4	16.2	7.5
2	42.7	W	15:37	16.7	18.5	16.5	17.0	18.0	17.0	15.0	13.5	11.5	11.9	13.5	87.9	15.1	6.5
3	25.8	E	15:44	8.9	13.5	14.5	15.5	16.5	17.0	15.0	13.5	11.5	3.6	13.5	26.7	9.0	6.9
4	38.2	NNW	17:23	16.2	12.5	14.5	15.5	16.5	16.5	15.0	13.5	11.5	3.9	13.4	29.1	9.7	7.7
5	22.1	NNW	0:53	8.6	8.0	11.0	12.5	14.5	16.0	15.0	13.5	11.5	12.2	13.3	91.5	17.3	4.7
6	34.4	SE	5:41	13.9	13.5	12.5	13.5	14.5	15.5	14.5	13.5	11.5	10.8	13.3	81.3	15.7	6.3
7	47.1	WNW	16:33	8.2	11.0	14.0	14.5	15.0	15.5	14.5	13.5	11.5	5.8	13.2	43.9	11.5	4.5
8	19.0	WNW	14:20	5.3	10.5	11.0	12.5	14.5	15.0	14.5	13.5	11.5	11.5	13.2	87.5	16.9	4.4
9	22.4	WNW	19:03	4.4	12.5	11.0	12.5	14.5	15.0	14.5	13.5	11.5	9.5	13.1	72.6	16.2	4.1
10	30.8	NE	17:15	9.8	14.5	13.0	14.0	15.0	15.0	14.0	13.5	11.5	11.1	13.0	85.3	16.8	4.1
11	37.9	SE	22:09	18.8	10.0	13.5	14.5	15.0	15.0	14.0	13.5	11.5	6.6	13.0	51.0	13.4	5.0
12	60.1	WSW	22:19	18.8	12.0	13.0	14.0	15.0	15.0	14.0	13.5	11.5	10.3	12.9	80.0	14.0	6.2
13	25.3	WNW	20:16	7.7	14.5	14.0	15.0	15.5	15.0	14.0	13.5	11.5	5.7	12.8	44.5	10.6	6.9
14	53.3	NW	15:37	19.3	12.0	13.0	14.5	15.5	15.0	14.0	13.5	11.5	6.1	12.8	47.8	7.7	4.5
15	29.6	SE	22:37	11.2	10.5	11.5	12.5	14.0	14.5	14.0	13.0	11.5	11.4	12.7	89.9	16.2	3.6
16	38.2	SSW	13:20	16.8	12.5	12.0	13.0	14.5	14.5	14.0	13.0	11.5	12.0	12.6	95.1	16.6	3.1
17	38.0	S	13:50	10.8	14.0	12.0	13.5	15.0	14.5	14.0	13.0	11.5	11.6	12.6	92.4	16.8	2.6
18	51.5	WSW	0:51	10.8	13.0	14.0	15.0	15.5	14.5	14.0	13.0	11.5	10.7	12.5	85.7	13.9	5.0
19	28.6	W	17:42	9.1	8.5	13.5	14.5	15.5	15.0	14.0	13.0	11.5	4.4	12.4	35.4	7.7	4.2
20	23.6	E	14:39	6.0	9.0	11.0	12.0	13.5	14.5	14.0	13.0	11.5	5.1	12.4	41.3	8.2	5.5
21	18.3	ENE	13:20	4.5	5.5	9.5	11.5	13.0	14.0	13.5	13.0	11.5	10.4	12.3	84.7	14.8	2.6
22	31.5	ESE	17:38	10.9	12.0	10.0	11.5	13.0	14.0	13.5	13.0	11.5	11.5	12.2	94.2	15.0	2.8
23	36.8	ESE	14:23	14.1	14.0	13.0	13.5	13.0	14.0	13.5	13.0	11.5	6.7	12.2	55.1	12.0	5.6
24	27.6	SSE	10:30	12.7	14.5	14.5	15.0	15.0	14.0	13.5	13.0	11.5	5.8	12.1	48.0	9.2	5.9
25	36.7	SW	15:45	11.4	12.0	13.0	14.0	14.5	14.5	13.5	13.0	11.5	10.0	12.0	83.3	13.8	2.9
26	55.0	SE	14:53	22.7	18.0	14.5	15.5	15.5	14.5	13.5	13.0	11.5	11.4	12.0	95.4	14.5	2.5
27	40.1	WSW	12:14	13.9	15.5	15.0	16.0	16.0	15.0	13.5	13.0	11.5	10.0	11.9	84.2	14.1	2.1
28	31.7	NW	16:43	10.4	12.0	14.0	15.0	15.5	15.0	13.5	13.0	11.5	10.1	11.8	85.5	13.6	2.6
29	33.0	NNW	18:34	6.8	8.0	11.5	13.0	14.5	15.0	13.5	13.0	11.5	8.8	11.8	74.9	11.4	4.1
30	27.9	NE	15:19	8.4	6.5	10.0	11.5	13.0	14.5	13.5	13.0	11.5	0.3	11.7	2.6	3.7	3.5
Total													260.0	379.4	68.5	391.6	137.9
Mean				11.7	12.2	12.9	14.0	14.9	15.1	14.1	13.2	11.5	1991-2020 Normal				
Extreme	60.1	WSW	22:19		1971-2000 Normal for Soil Temperatures								214.7	378.9	56.7	373.1	120.9
Date	12				10.5	11.0	12.5	13.2	12.4	11.7	9.9	No. of Bright Sunshine days = 30					

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

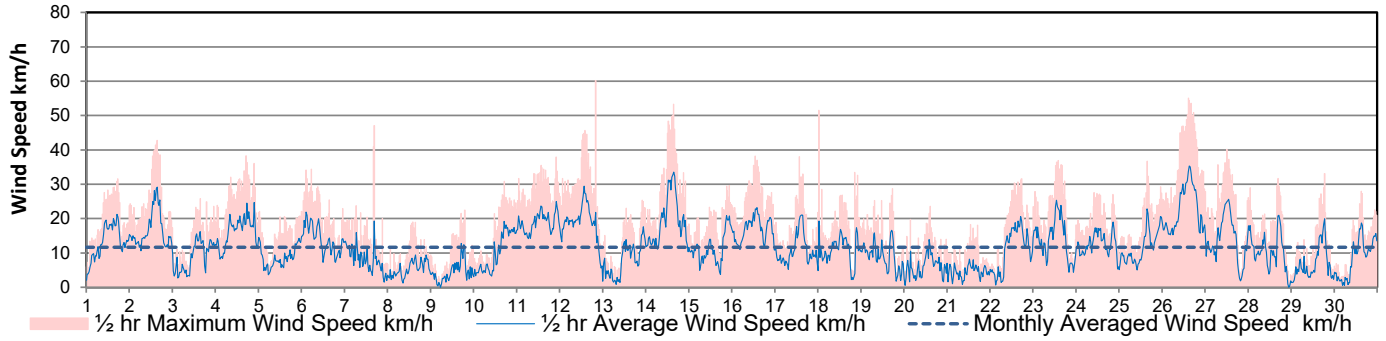
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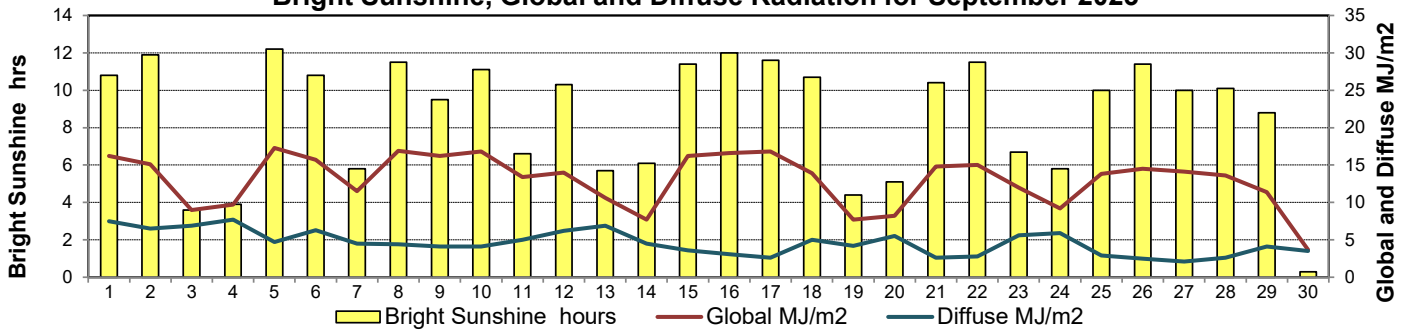
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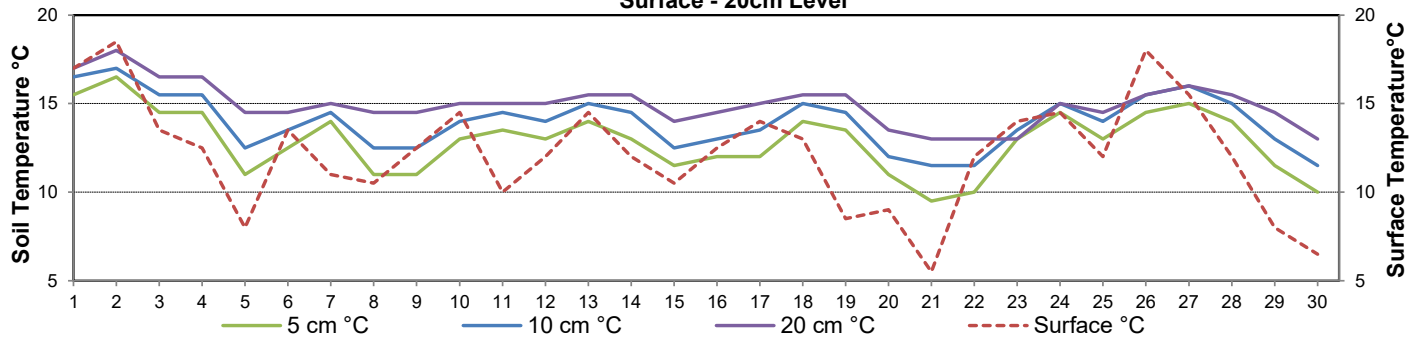
**Wind Speed for September 2023**



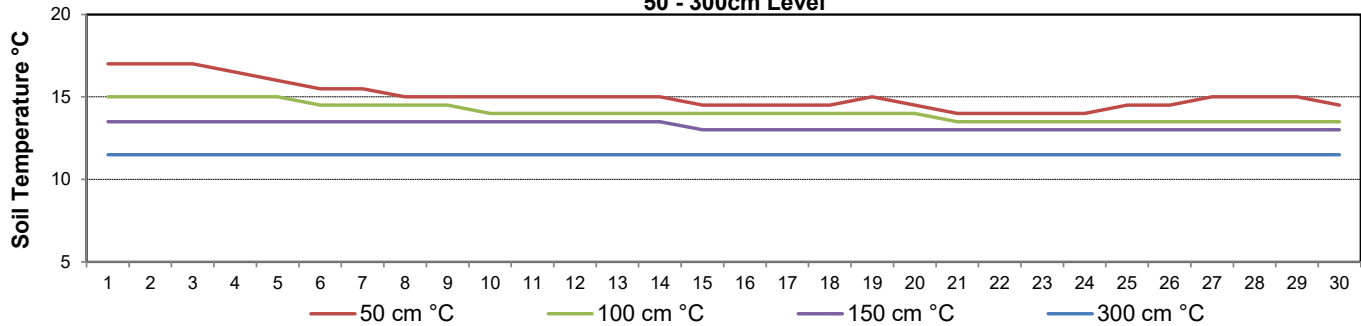
**Bright Sunshine, Global and Diffuse Radiation for September 2023**



**Soil Temperatures for September 2023**  
Surface - 20cm Level



**Soil Temperatures for September 2023**  
50 - 300cm Level





SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary SEPTEMBER 2023

Extreme Records for September

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	
36.1	22/1950	SF	35.9 04/2022	128.8	2006	SWT	128.4 2006	148 <sup>W</sup>	22/1967	89	1986	302.2	2011	30	1966*	
-11.1	28,30/1908,'61	SE SF	-7.8 30/1974	0.6	1995	SA	0.8 1995, 2012					114.6	1986	20	1984	

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

Notable Events for CRS Saskatoon - September						Saskatoon Area Stations			Glossary	
Element	Type	Day	New Record	Old Record	Year	Station	Location	Period	Term	Definition
Temperature	Highest Maximum Daily	26	29.8	29	1983	SM	NWMP	c. 1892-1901	T	Trace of precipitation
	Highest Minimum Daily	24	13.1	12.5	1990	SE	Eby	1901-1941	Normal	30 year average beginning with the decade
	Highest Mean Daily	26	22.6	18.8	1983	US	Univ. of Sask.	1915-1964	SOG	Depth of snow-on-the-ground in cm
Growing Degree-days	Highest Daily	26	17.6	13.8	1983	S	Saskatoon	1941-1942	na	not available
		26	15.3	12.3	2011	SA	Saskatoon A	1942 -	<b>Degree-days</b>	
Cooling Degree-days	Highest Daily	26	4.6	0.8	1983	NRC	Nat. Res. Council	1952-1966	Tm	Mean Temperature
		26	4.6	0.8	1983	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
									Cooling	(Tm-18°C); if Tm ≥ 18°C then CDD = 0
						SC	S'toon Central Ave	1974-1989	Extreme Cooling	(Tm-24°C); if Tm ≥ 24°C then CDD = 0
						S1	Saskatoon 1	1976-1978		
						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		

SRC proudly recognizes the following CRS supporters:





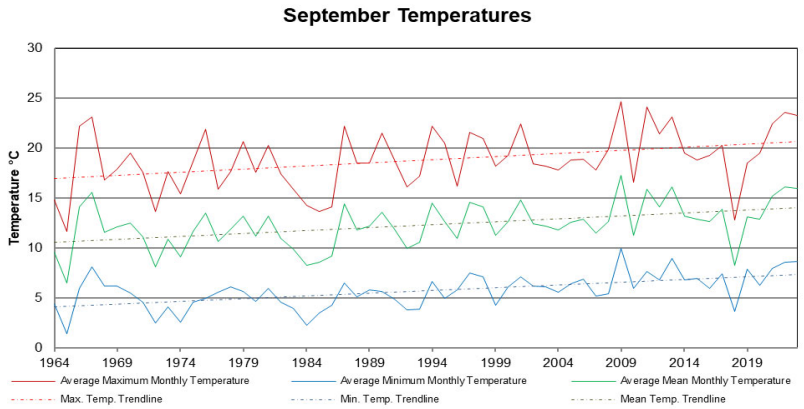
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SASKATOON STATION 4057180

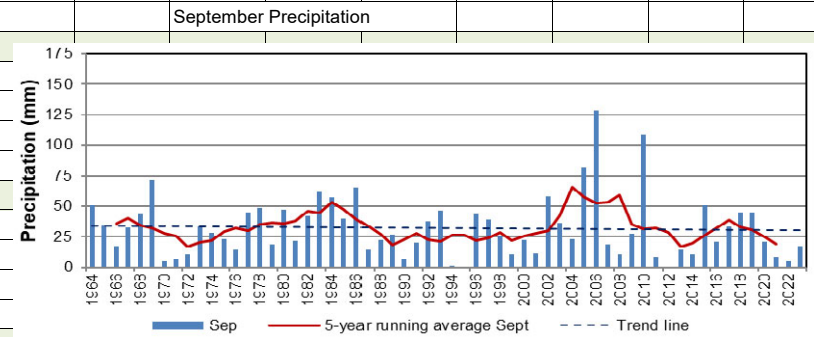
52°09' N 106°36' W 497 m asl Estab. 1963

Preliminary September 2023

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	15.6	26	16.5	8.5	10.5
2	12.0	20.3	33	14.0	9.0	10.0
3	6.0	12.5	21	12.5	8.5	10.0
4	11.0	16.2	28	11.5	8.5	10.0
5	7.0	10.3	18	10.0	8.5	10.0
6	10.0	14.9	26	10.0	8.0	10.0
7	6.0	12.9	32	9.5	8.0	10.0
8	4.0	8.0	17	9.0	8.5	10.0
9	3.0	9.3	16	8.5	8.5	10.0
10	7.0	13.9	22	8.5	8.5	10.0
11	14.0	18.1	29	8.0	8.5	9.5
12	12.0	17.6	39	7.0	8.5	9.5
13	5.0	12.2	20	7.0	8.0	10.0
14	13.0	22.6	41	5.5	8.5	9.5
15	9.0	15.1	24	5.5	8.5	10.0
16	11.0	15.0	29	5.5	8.5	10.0
17	7.0	16.3	28	5.0	8.0	10.0
18	8.0	13.2	36	4.5	8.0	10.0
19	7.0	12.2	21	4.0	8.0	10.0
20	5.0	11.6	19	3.0	8.0	10.0
21	3.0	7.9	14	3.0	8.0	10.0
22	8.0	15.3	25	2.5	7.5	9.5
23	11.0	19.6	30	3.0	8.0	9.5
24	9.0	13.4	22	3.0	8.5	9.5
25	8.0	16.9	28	2.5	8.0	10.0
26	14.0	22.3	43	2.5	8.5	9.5
27	10.0	19.9	32	2.0	8.5	9.5
28	8.0	15.2	24	2.0	8.5	10.0
29	5.0	14.0	27	1.5	8.0	9.5
30	6.0	13.4	21	1.5	8.0	9.5
Total						
Mean				6	8	9.9
Extreme	14.0	22.6	43.1	16.5	9	10.5
Date	11	14	26	1	2	1



- fourth highest monthly maximum temperature in September over the last 60 years  
 - third highest monthly minimum temperature in September over the last 60 years  
 - fourth highest monthly average temperature in September over the last 60 years



Thanks to rain on the 30th, September 2023 is the 19 driest September over the last 60 years

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

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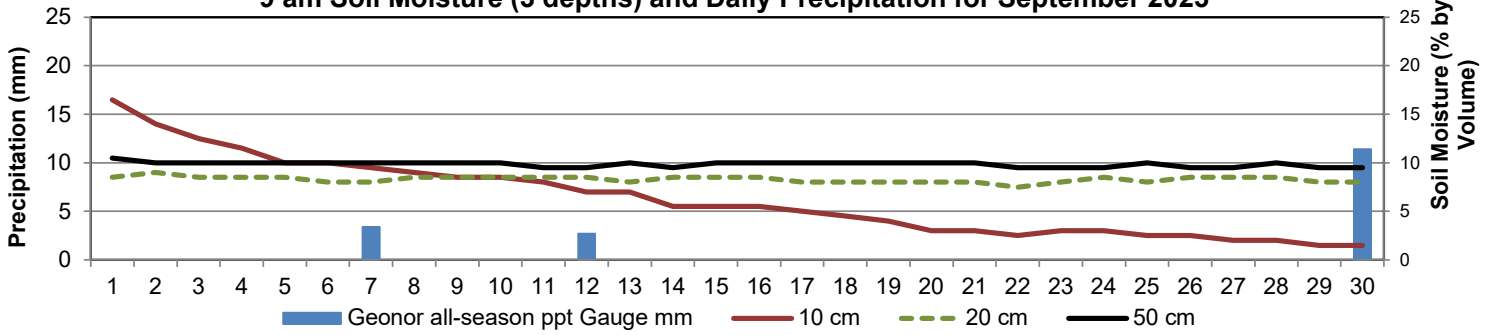


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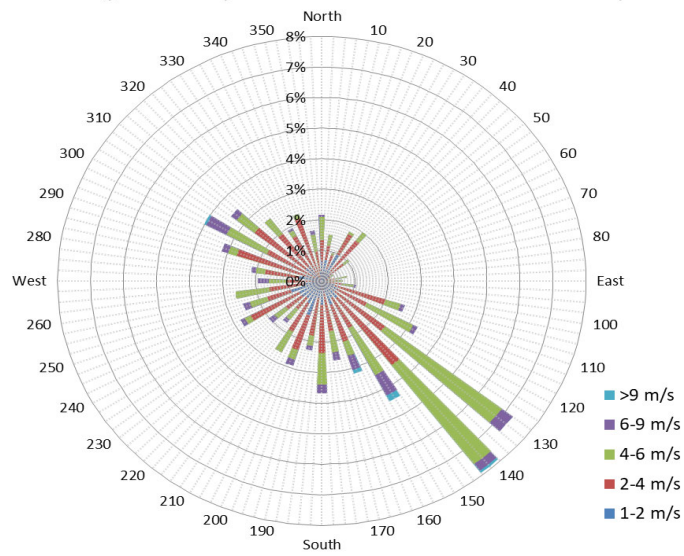
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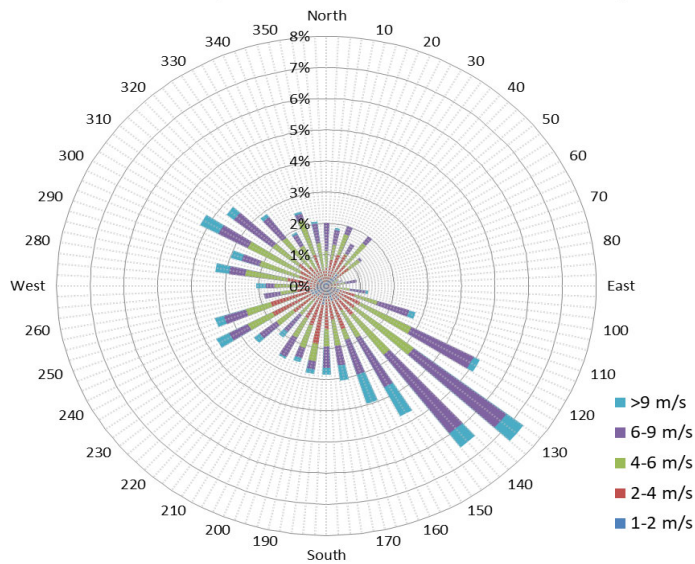
9 am Soil Moisture (3 depths) and Daily Precipitation for September 2023



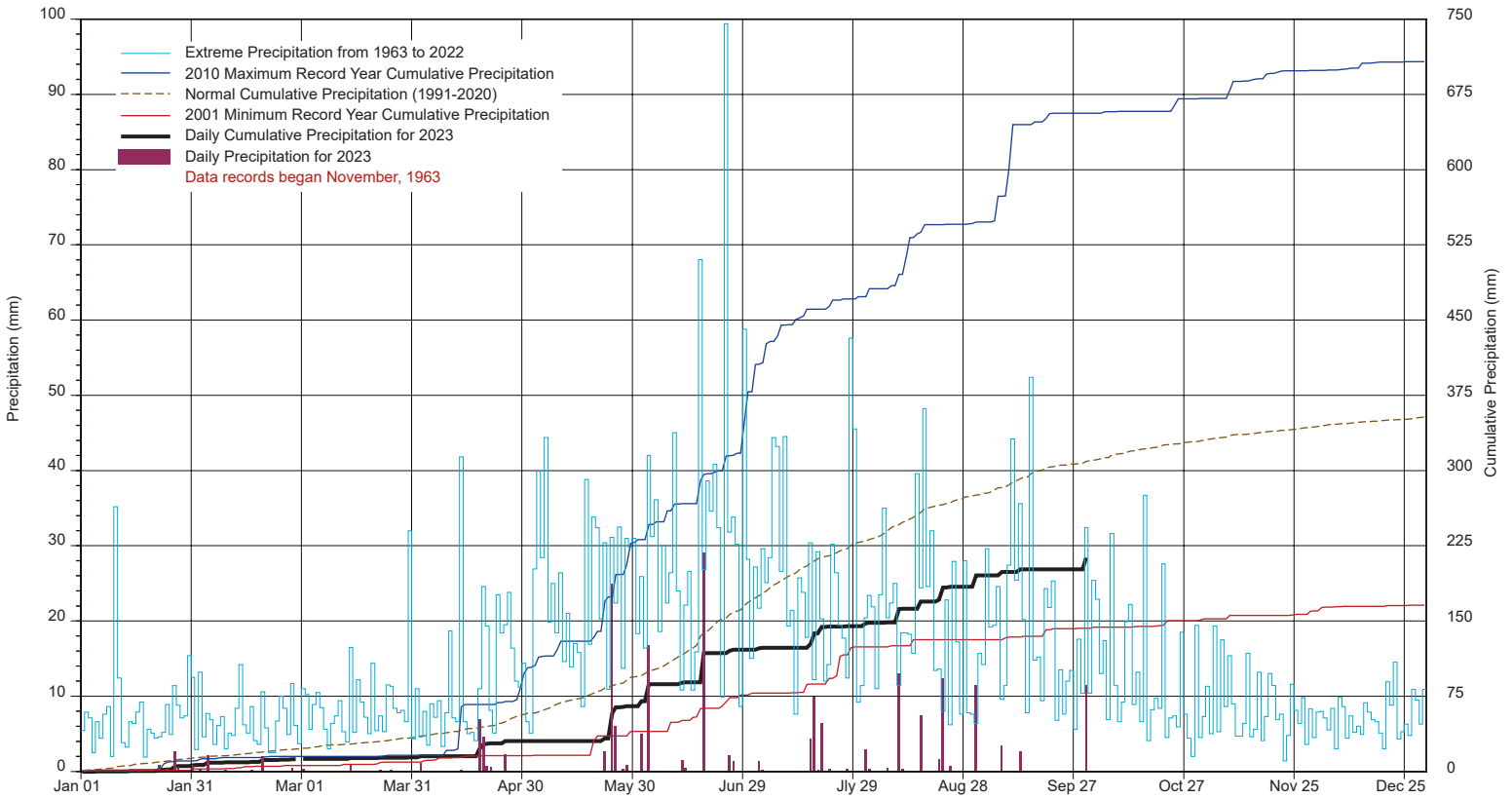
10 minute Average Wind Speed and Direction Saskatoon September 2023



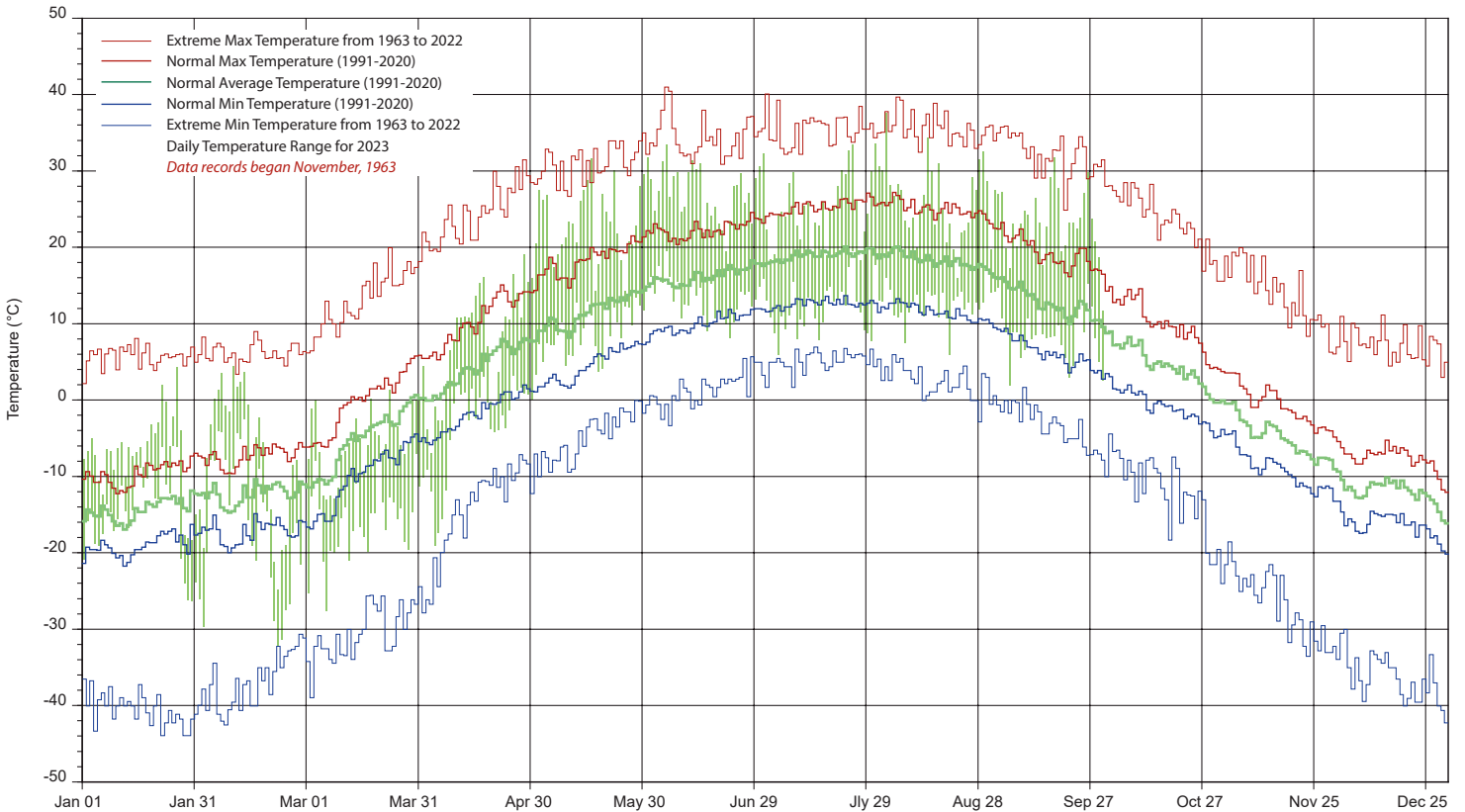
1/2 hr Maximum Wind Speed and Direction Saskatoon September 2023



# SASKATCHEWAN RESEARCH COUNCIL SASKATOON CLIMATE REFERENCE STATION 2023 PRECIPITATION AND NORMALS



## 2023 TEMPERATURES AND NORMALS



SRC proudly recongnizes the following CRS supporters:

