



SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary OCTOBER 2021

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	23.8	14.3	8.9	3.5	16.4	8.8	11.4	1.6	0.0	0.0		0	49	25	1021	1013
2	20.8	14.9	2.7	3.1	11.8	9.0	6.8	6.2	0.0	0.0		0	74	18	1021	1008
3	23.5	12.8	6.3	1.5	14.9	7.2	9.9	3.1	0.0	0.3		0	50	16	1013	1008
4	16.7	13.2	0.7	1.4	8.7	7.3	3.7	9.3	0.0	0.0		0	86	23	1017	1013
5	22.1	12.5	4.6	1.0	13.4	6.8	8.4	4.6	0.0	0.0		0	69	30	1014	1008
6	25.9	13.6	6.0	1.4	16.0	7.5	11.0	2.0	0.0	0.0		0	73	20	1009	1003
7	14.4	14.5	3.7	2.0	9.1	8.3	4.1	8.9	0.0	0.0		0	78	27	1018	1008
8	17.7	13.2	1.2	1.0	9.5	7.1	4.5	8.5	0.0	0.0		0	87	33	1016	1012
9	19.7	13.8	-0.2	0.7	9.8	7.2	4.8	8.2	0.0	0.0		0	83	13	1012	1006
10	16.3	14.6	-0.4	1.2	8.0	7.9	3.0	10.0	0.0	0.0		0	55	28	1005	999
11	6.8	10.9	0.1	0.8	3.5	5.9	0.0	14.5	0.0	0.0		0	87	55	1019	1000
12	10.6	10.3	-2.8	-1.3	3.9	4.5	0.0	14.1	0.0	0.0		0	89	24	1022	1018
13	6.1	9.6	-4.1	-1.7	1.0	4.0	0.0	17.0	0.0	1.8		0	93	54	1018	1010
14	5.2	9.9	0.5	-0.4	2.9	4.8	0.0	15.1	0.0	4.0		0	95	75	1010	1008
15	14.2	10.3	-1.1	-0.1	6.6	5.1	1.6	11.4	0.0	0.0		0	84	28	1012	1010
16	17.1	9.4	-0.7	-0.5	8.2	4.4	3.2	9.8	0.0	0.0		0	76	29	1013	1009
17	23.6	10.4	3.9	-0.8	13.8	4.8	8.8	4.2	0.0	0.0		0	75	15	1013	1001
18	12.1	9.7	-0.2	-0.7	6.0	4.5	1.0	12.0	0.0	0.0		0	84	51	1021	1000
19	7.1	9.6	-5.0	-1.4	1.1	4.1	0.0	16.9	0.0	0.0		0	97	45	1028	1022
20	7.4	8.3	-5.4	-1.3	1.0	3.5	0.0	17.0	0.0	0.0		0	88	45	1027	1021
21	7.8	9.9	-3.0	-1.2	2.4	4.4	0.0	15.6	0.0	0.0		0	89	52	1020	1017
22	8.8	8.0	-2.5	-2.4	3.2	2.8	0.0	14.8	0.0	0.0		0	92	49	1019	1013
23	7.5	8.9	-1.4	-2.1	3.1	3.4	0.0	14.9	0.0	0.0		0	91	48	1013	1007
24	4.8	9.7	2.6	-1.8	3.7	3.9	0.0	14.3	0.0	0.0		0	95	89	1011	1007
25	7.7	8.2	4.4	-2.1	6.1	3.0	1.1	11.9	0.0	0.0		0	94	78	1009	1000
26	10.1	7.5	2.3	-3.1	6.2	2.2	1.2	11.8	0.0	0.0		0	98	77	1000	998
27	10.3	6.3	-0.2	-2.8	5.1	1.8	0.1	12.9	0.0	0.0		0	96	48	1009	999
28	11.5	4.7	-0.1	-3.0	5.7	0.8	0.7	12.3	0.0	0.0		0	76	23	1015	1010
29	9.6	4.2	0.9	-4.0	5.3	0.1	0.3	12.7	0.0	0.0		0	79	44	1012	1006
30	5.2	4.3	-3.7	-4.9	0.8	-0.3	0.0	17.2	0.0	0.0		0	78	45	1022	1013
31	4.4	4.1	-5.6	-4.7	-0.6	-0.3	0.0	18.6	0.0	0.0		0	77	46	1026	1022
Total							85.6	351.4	0.0	6.1			Extreme / Date	Extreme / Date	Extreme / Date	Extreme / Date
Avg	12.9	10.1	0.4	-0.7	6.7	4.7	1991-2020 Normal			20.4	1991-2020 Normal					
Extreme Date	25.9		-5.6				61.7	413.6	0.2	141.1	Cumulative		98	13	1028	998
	6		31							328.6	Cumulative Normal		26	9	19	26

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

SRC proudly recognizes the following CRS supporters:



Agriculture and Agri-Food Canada

Agriculture et Agroalimentaire Canada

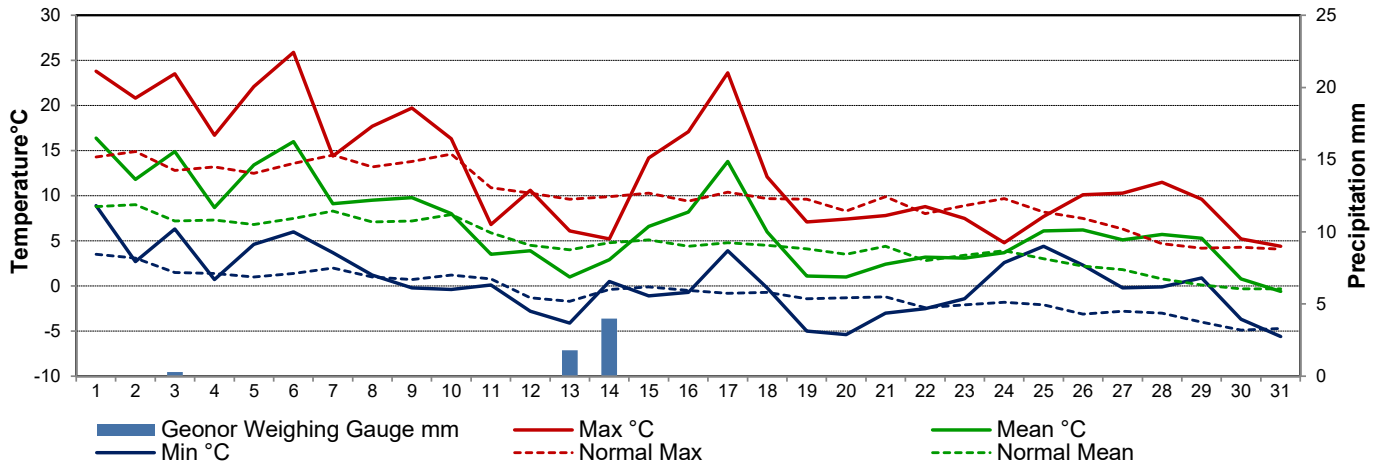


UNIVERSITY OF SASKATCHEWAN

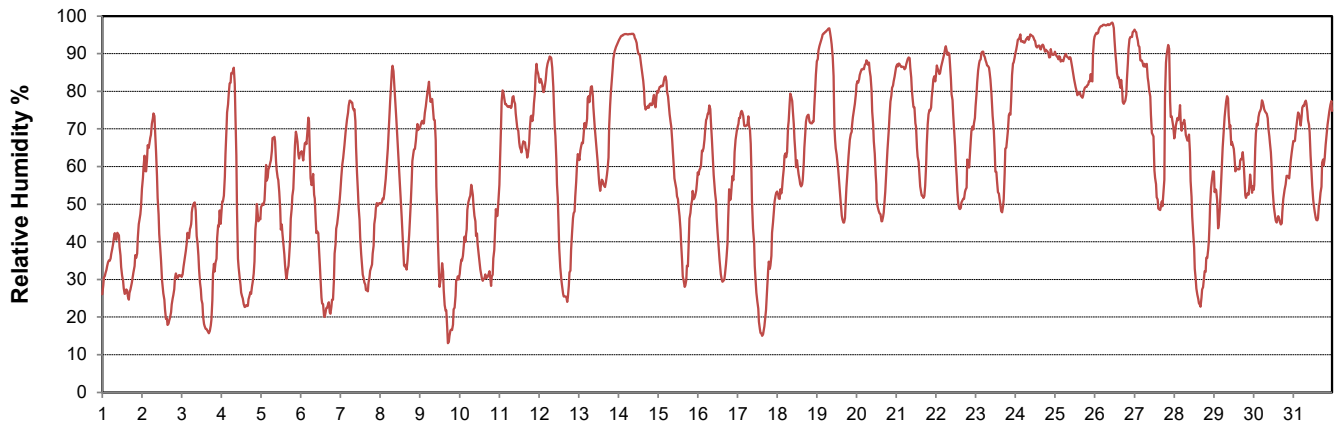


CAMPBELL SCIENTIFIC WHEN MEASUREMENTS MATTER

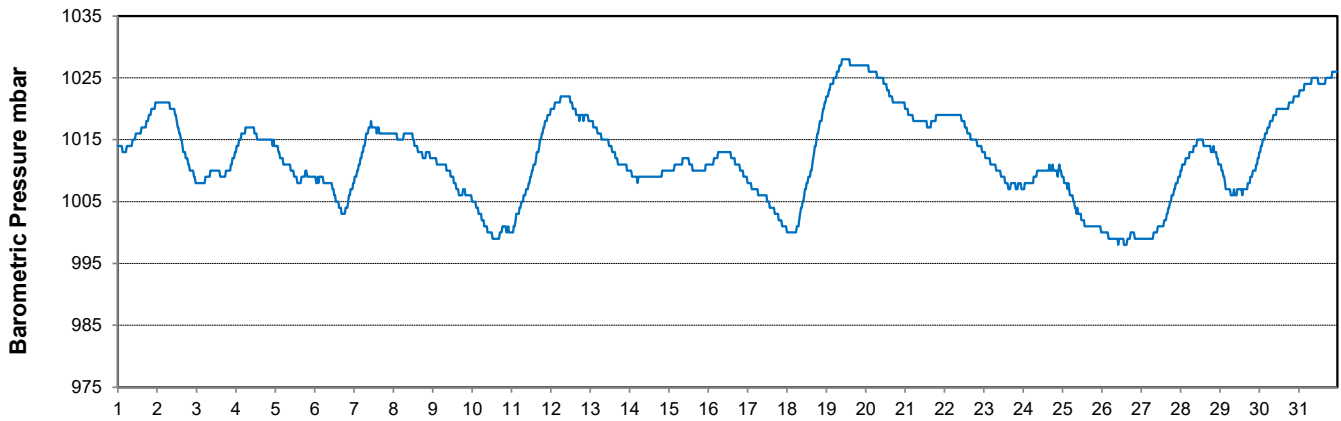
Temperature and Precipitation for October 2021



Relative Humidity for October 2021



Barometric Pressure Corrected to Sea Level for October 2021





SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary **OCTOBER 2021**

Day	Wind Gust (10 meters)			Wind Speed (10 meters) Daily Average km/h	Soil Temperatures at 0900hrs								Radiation				
	Max km/h	Direction	Time		Surface	5 cm	10 cm	20 cm	50 cm	100 cm	150 cm	300 cm	Bright Sunshine hours	Possible hours	% Possible	Global MJ/m ²	Diffuse MJ/m ²
1	33.7	WNW	16:22	15.6	12.5	12.0	13.0	14.0	14.0	13.5	12.5	11.5	10.5	11.6	90.7	12.7	2.3
2	31.3	ESE	19:50	10.0	6.0	9.5	11.0	13.5	14.0	13.5	12.5	11.5	9.0	11.5	78.2	11.9	2.7
3	31.4	WSW	14:50	10.0	7.0	11.0	12.0	13.0	13.5	13.0	12.5	11.5	9.7	11.5	84.7	12.0	2.3
4	33.6	ENE	12:16	14.3	5.0	9.0	10.5	12.5	13.5	13.0	12.5	11.5	6.7	11.4	58.9	8.9	4.3
5	26.7	ENE	13:09	11.3	7.5	9.5	10.5	11.5	13.0	13.0	12.5	11.5	6.8	11.3	60.1	9.1	3.6
6	44.6	WNW	21:37	13.3	11.5	9.5	10.5	11.5	13.0	13.0	12.5	11.5	0.8	11.3	7.1	5.1	3.5
7	37.5	WNW	0:22	12.0	3.5	10.0	11.0	12.0	12.5	13.0	12.5	11.5	8.0	11.2	71.6	11.2	1.9
8	25.1	SSE	14:47	9.8	5.0	7.5	9.5	11.0	12.5	13.0	12.5	11.5	9.8	11.1	88.1	11.8	2.0
9	33.5	SW	16:52	8.2	2.0	6.0	8.0	10.5	12.5	12.5	12.5	11.5	10.2	11.1	92.3	11.4	2.3
10	28.5	WSW	13:35	9.6	5.0	5.5	7.5	9.5	12.0	12.5	12.5	11.5	8.7	11.0	79.2	10.0	4.6
11	64.3	WNW	11:17	29.4	3.5	7.5	8.5	9.5	11.5	12.5	12.0	11.5	0.6	10.9	5.5	4.0	3.1
12	23.1	WNW	20:51	8.8	-1.0	5.0	6.5	8.5	11.0	12.5	12.0	11.5	10.5	10.9	96.8	11.9	5.8
13	20.7	NE	3:39	8.0	-1.5	3.5	5.0	7.0	10.5	12.0	12.0	11.5	0.0	10.8	0.0	2.9	2.3
14	28.9	NW	15:53	12.4	0.5	4.5	5.5	7.0	10.0	12.0	12.0	11.5	0.0	10.7	0.0	2.9	2.3
15	30.7	WNW	16:00	12.2	0.5	2.5	4.0	6.0	9.5	11.5	12.0	11.5	10.1	10.7	94.8	10.7	1.2
16	21.4	SSW	9:01	11.0	1.0	2.5	4.0	5.5	9.0	11.5	12.0	11.0	9.9	10.6	93.5	10.4	1.3
17	27.7	SSW	11:33	12.8	6.5	4.0	5.0	6.0	8.5	11.5	11.5	11.0	9.2	10.5	87.5	10.2	1.5
18	47.4	N	16:05	19.4										10.5			
19	22.2	E	13:35	9.3										10.4			
20	33.6	SE	15:00	16.3										10.3			
21	38.3	ESE	5:16	20.1										10.3			
22	49.8	SE	22:49	20.3										10.2			
23	59.0	ESE	11:30	31.4										10.1			
24	42.5	SE	20:46	22.2										10.1			
25	61.7	SSE	7:46	29.9										10.0			
26	26.7	ESE	4:05	10.0										9.9			
27	21.9	WNW	22:38	9.1									5.5	9.9	55.7	5.2	0.7
28	42.0	WNW	14:25	14.5	1.0	2.0	3.0	5.0	7.5	9.5	10.5	11.0	8.3	9.8	84.5	8.2	1.4
29	28.1	SE	3:50	10.3	3.5	3.0	3.5	4.5	7.0	9.5	10.5	10.5	4.7	9.8	48.2	4.8	2.9
30	44.7	NW	14:49	19.9	-3.0	1.5	3.0	4.5	7.0	9.5	10.0	10.5	9.5	9.7	97.9	8.0	1.2
31	33.8	N	15:17	15.9	-4.5	0.0	1.5	3.5	6.5	9.5	10.0	10.5	5.6	9.6	58.2	6.9	1.7
Total													154.1	328.4	46.9	190.2	54.9
Mean				14.8	3.4	6.0	7.3	8.9	10.9	12.0	11.9	11.3	1991-2020 Normal				
Extreme	64.3	WNW	11:17		1971- 2000 Normal for Soil Temperatures								158.7	329.0	48.2	226.5	92.8
Date	11					4.3	4.7	6.2	8.3	9.2	9.6	9.4	No. of Bright Sunshine days = 20				

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

SRC proudly recognizes the following CRS supporters:

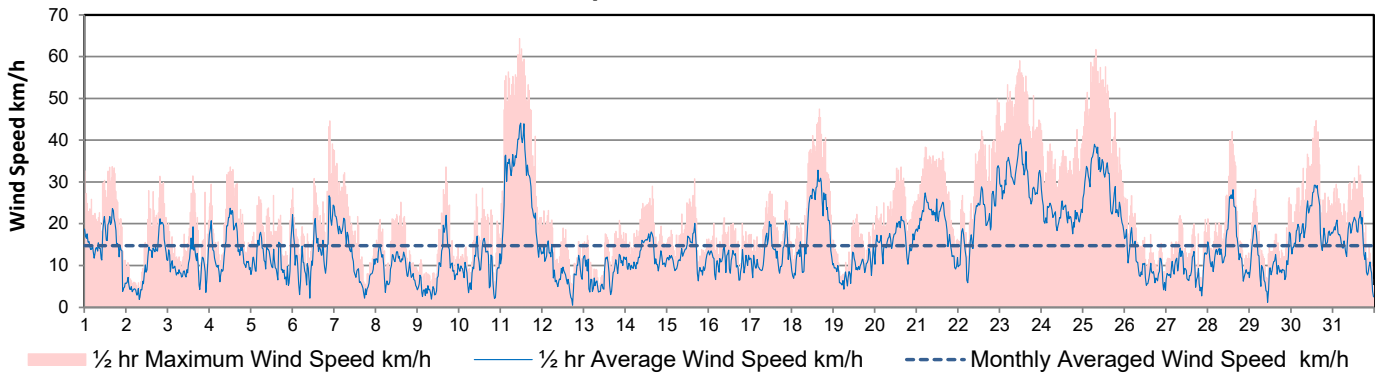


Agriculture and Agri-Food Canada

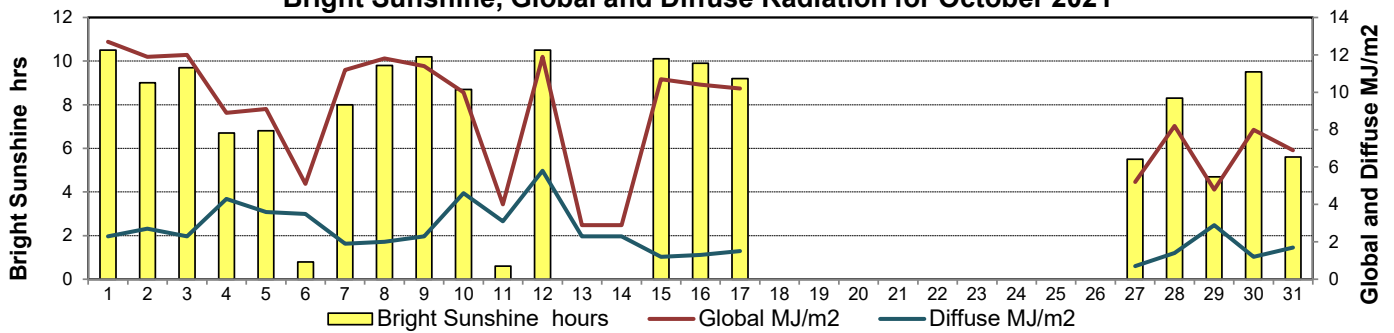
Agriculture et Agroalimentaire Canada



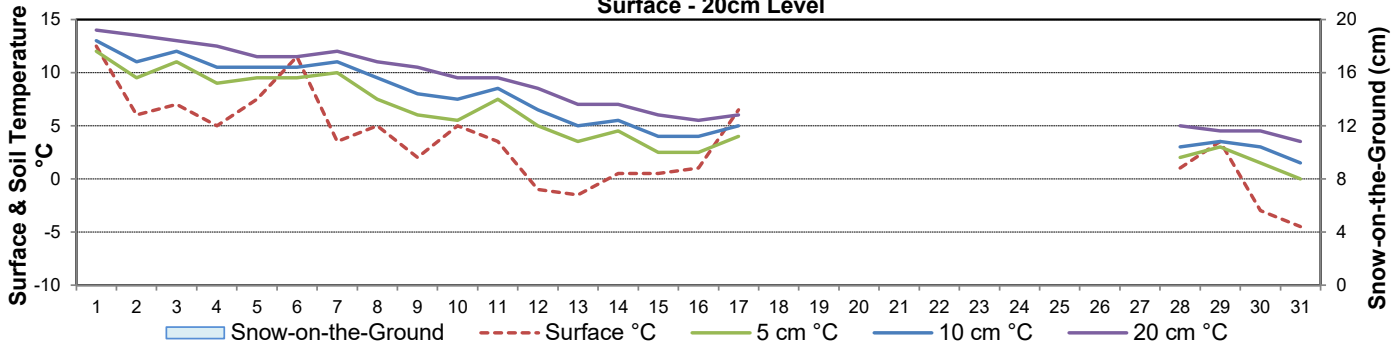
Wind Speed for October 2021



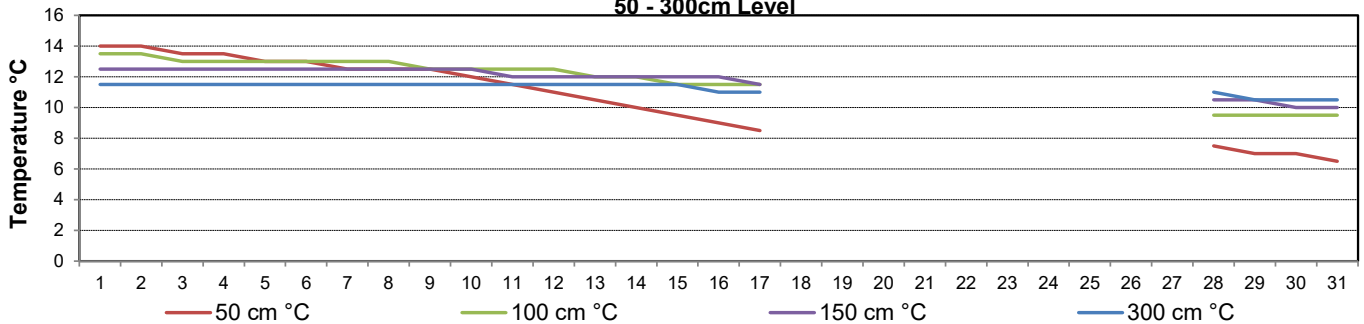
Bright Sunshine, Global and Diffuse Radiation for October 2021



Soil Temperatures for October 2021
Surface - 20cm Level



Soil Temperatures for October 2021
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 OCTOBER 2021

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
Temperature	Highest Maximum Daily	17	23.6	23.5	1986	SE	Eby	1901-1941	Normal	30 year average beginning with the decade
	1st Fall Frost	9 (05:13)		07-Oct	2009	US	Univ. of Sask.	1915-1964	SOG	Depth of snow-on-the-ground in cm
	Growing season length	138 days				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		
						K	S'toon Kernen Farm	1993-2004		
						KCS	S'toon Kernen Farm CS	1996-		
						RCS	Environment Canada	2008-		
						SF	Sutherland Forestry	1943-1970		

Fall maintenance: replaced bright sunshine sensor, global and diffuse radiation sensors with re-calibrated instruments

NOTE: the power went out in late September and because of the SRC IT issue we were not aware of that. When we did fall maintenance we discovered that problem. On site battery was replaced with one of high capacity. We were able to obtain data from other instruments/data logger at the same location for many of the parameters but unfortunately we do not have duplicates of the 2 meter wind speed, soil temperature sensors, soil moisture sensors nor radiation sensors.

SRC proudly recognizes the following CRS supporters:





SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary October 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	11.0	17.2	26.4	10.0	8.5	9.0												
2	7.0	15.2	25.2	10.0	8.5	9.0												
3	8.0	15.9	27.0	9.5	8.0	8.5												
4	10.0	17.6	27.5	9.5	8.0	8.5												
5	8.0	13.5	21.8	9.5	8.0	9.0												
6	9.0	19.6	37.9	9.5	8.0	8.5												
7	9.0	17.6	29.8	9.5	8.0	8.5												
8	6.0	10.3	18.3	9.0	8.0	8.5												
9	5.0	17.1	27.5	8.5	7.5	9.0												
10	7.0	14.2	21.8	8.5	7.5	8.5												
11	22.0	32.2	52.9	9.0	8.0	8.5												
12	7.0	12.2	18.3	8.5	7.5	8.5												
13	6.0	10.0	16.6	8.0	7.5	8.5												
14	9.0	13.6	21.8	8.5	7.5	8.5												
15	9.0	15.2	25.8	8.5	7.0	9.0												
16	8.0	11.9	16.6	8.0	7.5	8.0												
17	9.0	16.4	23.5	8.5	7.0	8.0												
18	10.0	19.6	29.8	8.0	7.5	8.5												
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27	6.0	10.6	17.2															
28	10.0	20.6	32.7	8.0	7.0	8.0												
29	8.0	15.2	22.4	8.5	7.5	8.0												
30	15.0	22.2	37.3	8.0	7.0	8.0												
31	12.0	26.0	26.0	8.0	7.0	8.0												
Total																		
Mean				9	8	8.5												
Extreme	22.0	32.2	52.9	10	8.5	9												
Date	11	11	11	1	1	1												

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

SRC proudly recognizes the following CRS supporters:

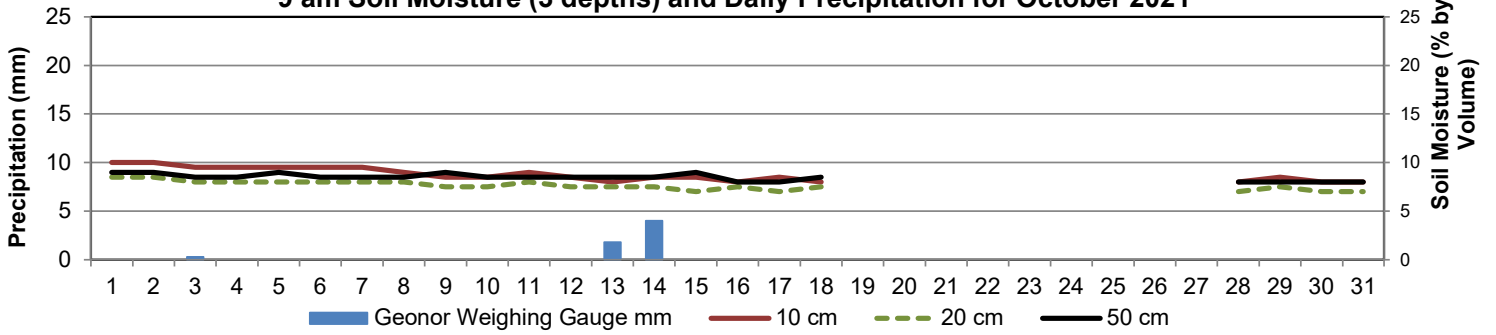


Agriculture and Agri-Food Canada

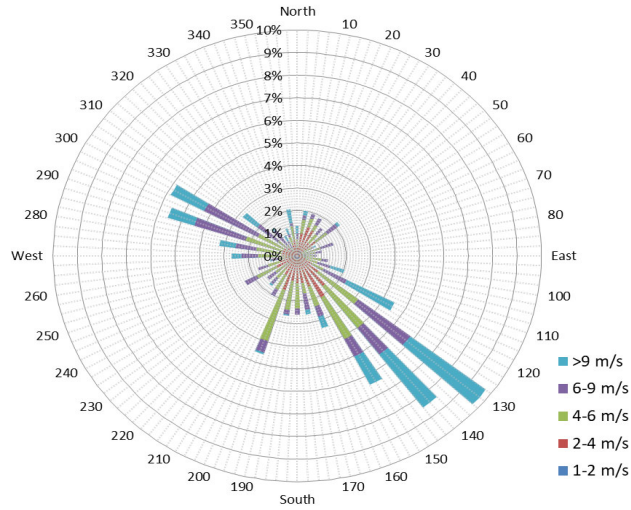
Agriculture et Agroalimentaire Canada



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



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



10 minute Average Wind Speed and Direction Saskatoon October 2021

