



SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

SASKATOON STATION 4057180

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

Preliminary SEPTEMBER 2019

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	1981-2010	°C	1981-2010	°C	1981-2010	5°C base	18°C base	18°C base	mm	mm		%	%	mbar	mbar
1	22.0	23.0	7.0	9.0	14.5	16.0	9.5	3.5	0.0	0.0	0.0		91	33	1020	1017
2	19.1	23.1	11.3	8.6	15.2	15.9	10.2	2.8	0.0	11.1	9.6	t-storms	91	60	1017	1008
3	25.6	23.3		8.6		16.0				0.0	0.0		77	33	1015	1013
4	20.1	21.6	11.3	9.0	15.7	15.3	10.7	2.3	0.0	0.0	0.2	light shower	92	62	1013	1009
5	23.2	20.3	11.1	8.5	17.2	14.4	12.2	0.8	0.0	0.0	0.2	fog/ligh drizzle	95	33	1022	1012
6	22.2	20.3	7.4	7.8	14.8	14.1	9.8	3.2	0.0	0.0	0.0		89	30	1024	1022
7	22.3	20.7	8.5	7.4	15.4	14.1	10.4	2.6	0.0	0.0	0.0		86	31	1022	1017
8	21.5	20.9	9.8	7.7	15.7	14.3	10.7	2.3	0.0	0.0	0.0		84	43	1017	1014
9	14.8	19.4	9.9	6.6	12.4	13.0	7.4	5.6	0.0	0.0	0.0		90	66	1017	1015
10	10.9	18.8	8.1	6.5	9.5	12.7	4.5	8.5	0.0	3.7	3.8	light rain	92	85	1022	1017
11	12.3	20.2	8.7	6.0	10.5	13.1	5.5	7.5	0.0	4.6	4.6	drizzle	93	89	1023	1021
12	16.3	19.1	8.8	6.7	12.6	12.9	7.6	5.4	0.0	0.0	0.2		91	61	1023	1018
13	21.9	18.2	5.4	5.8	13.7	12.0	8.7	4.3	0.0	3.6	3.8	light rain	95	48	1018	1006
14	23.3	19.1	9.1	5.5	16.2	12.3	11.2	1.8	0.0	0.0	0.2		92	40	1008	1005
15	27.2	19.1	10.1	6.1	18.7	12.6	13.7	0.0	0.7	0.0	0.0		83	25	1007	1004
16	31.1	19.3	11.6	5.7	21.4	12.5	16.4	0.0	3.4	0.0	0.0		88	29	1004	1000
17	27.1	17.6	13.9	6.1	20.5	11.9	15.5	0.0	2.5	0.1	0.8	showers	90	29	1005	1000
18	22.1	16.9	10.8	4.4	16.5	10.6	11.5	1.5	0.0	0.0	0.0		84	33	1013	1005
19	21.9	17.3	11.3	4.9	16.6	11.1	11.6	1.4	0.0	0.6	1.4	fog/showers	88	53	1013	1007
20	20.8	15.5	10.4	4.0	15.6	9.7	10.6	2.4	0.0	1.7	2.2	showers	93	45	1009	1006
21	18.2	15.9	6.3	3.2	12.3	9.6	7.3	5.7	0.0	0.0	0.0		91	41	1011	1008
22	26.0	16.6	8.3	3.3	17.2	10.0	12.2	0.8	0.0	0.0	0.0		77	27	1007	1004
23	20.5	18.7	11.6	3.4	16.1	11.1	11.1	1.9	0.0	0.0	0.0		71	26	1006	1002
24	16.4	18.5	8.1	4.7	12.3	11.6	7.3	5.7	0.0	0.3	0.8	showers	83	36	1006	1003
25	16.3	18.1	4.1	4.3	10.2	11.2	5.2	7.8	0.0	0.7	1.8	showers	86	42	1010	1007
26	10.8	17.1	3.5	4.6	7.2	10.9	2.2	10.8	0.0	5.5	7.2	showers	92	69	1007	1001
27	6.7	15.5	0.4	2.9	3.6	9.2	0.0	14.4	0.0	0.0	0.0		93	55	1022	1006
28	6.3	15.7	1.1	2.8	3.7	9.3	0.0	14.3	0.0	0.0	0.0		83	43	1027	1022
29	5.9	15.6	0.4	2.7	3.2	9.2	0.0	14.8	0.0	1.5	1.0	rain/snow	96	48	1027	1022
30	1.8	15.5	0.3	1.1	1.1	8.3	0.0	16.9	0.0	11.4	9.8	snow/rain	96	91	1022	1019
Total							243.0	149.0	6.6	44.8	47.6		Extreme /	Extreme /	Extreme /	Extreme /
Avg	18.5	18.7	7.9	5.6	13.1	12.2	1981-2010 Normal			37.0	Normal		Date	Date	Date	Date
Extreme	31.1		0.3				219.9	182.5	7.6	265.9	Cumulative		96	25	1027	1000
Date	16		30							310.0	Cumulative No		29	15	28	16

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

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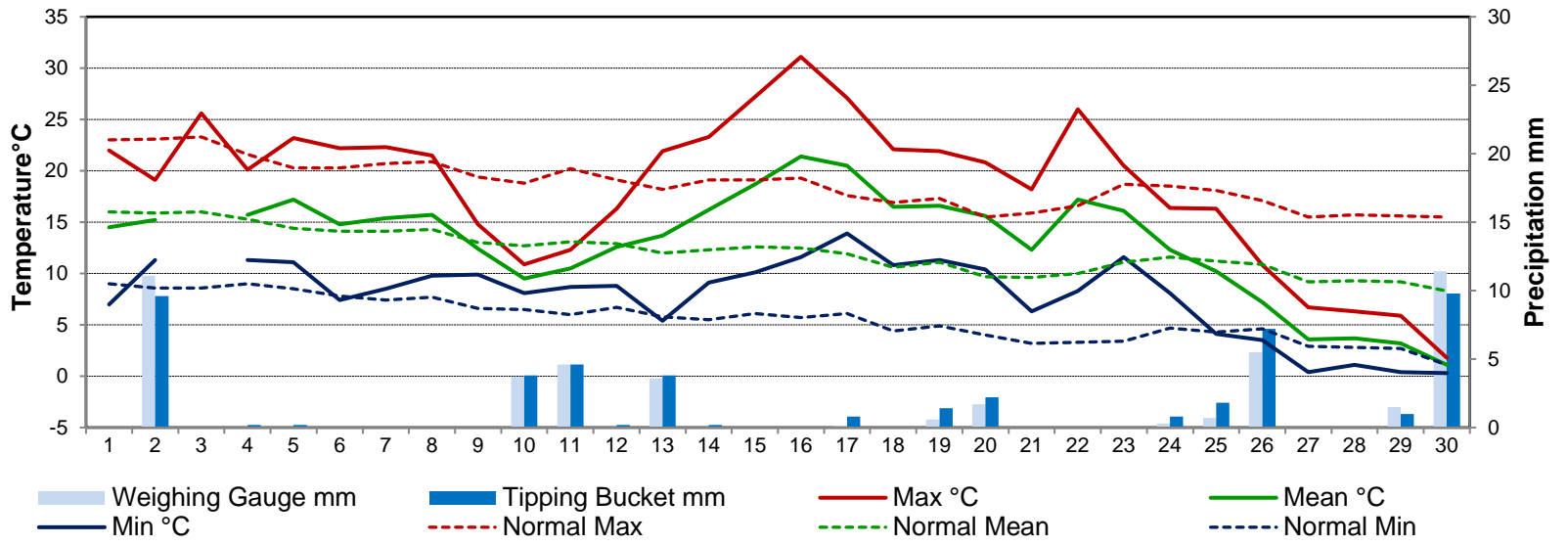


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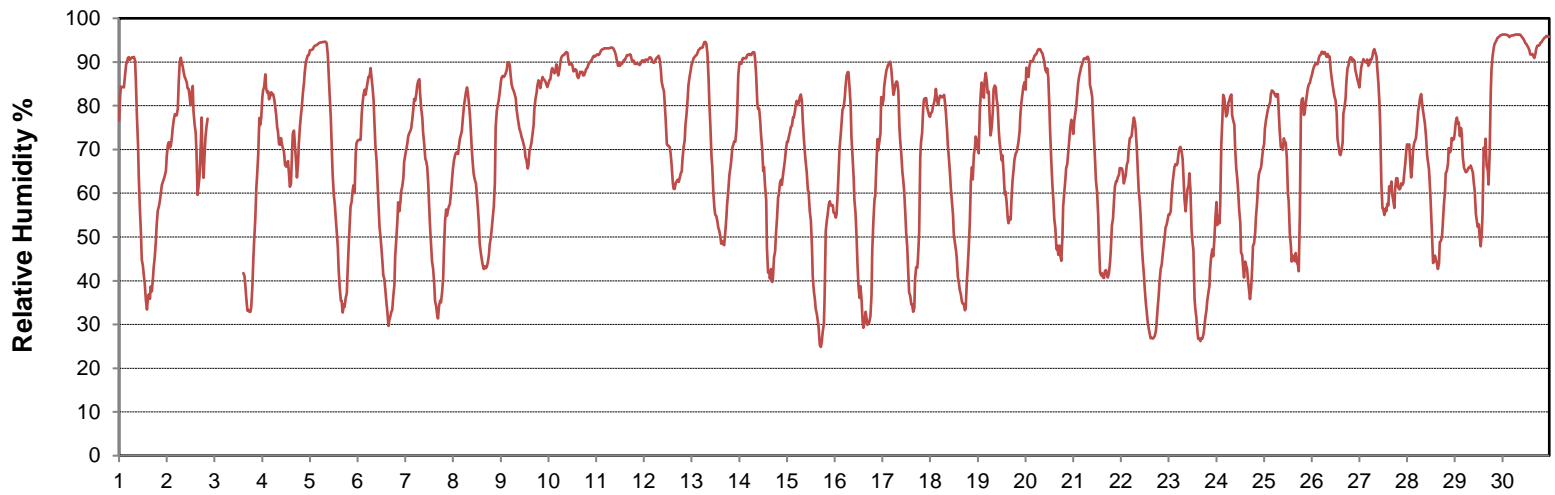


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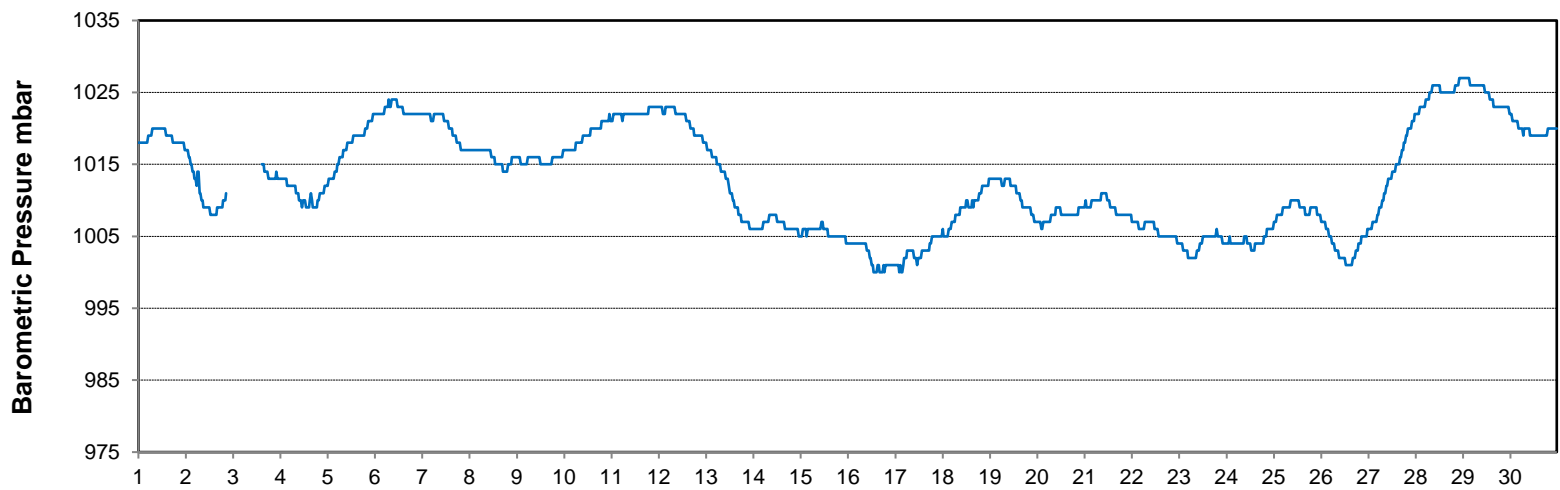
Temperature and Precipitation for September 2019



Relative Humidity for September 2019



Barometric Pressure Corrected to Sea Level for September 2019





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SASKATOON STATION 4057180

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

Preliminary **SEPTEMBER 2019**

Day	Wind Gust			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	33.4	SE	23:50	10.5	13.0	14.0	15.0	15.5	14.0	12.5	10.5	10.2	13.6	74.9	18.4	3.2
2	48.1	NNW	18:34	12.5	14.5	15.0	16.0	15.5	14.0	12.5	10.5	2.5	13.5	18.5	8.5	5.3
3	32.0	SW	15:47									4.2	13.5	31.2	5.0	1.3
4	27.2	ENE	13:57	15.0	14.5	15.0	15.5	15.5	14.0	12.5	10.5	3.4	13.4	25.4	6.8	4.1
5	41.2	WNW	13:00	13.0	14.5	14.5	15.0	15.5	14.0	12.5	10.5	8.9	13.3	66.7	16.7	3.8
6	24.8	NNE	13:43	13.0	12.5	13.5	15.0	15.5	14.0	12.5	10.5	9.7	13.3	73.0	18.2	3.5
7	28.8	SE	8:50	12.5	13.5	14.5	15.5	15.5	14.0	12.5	10.5	10.0	13.2	75.7	16.9	5.0
8	32.9	ENE	21:43	12.0	14.0	15.0	15.5	15.5	14.0	12.5	10.5	8.0	13.2	60.8	15.0	5.7
9	43.6	NE	17:04	12.5	15.0	15.5	16.0	15.5	14.0	12.5	10.5	0.0	13.1	0.0	5.6	4.3
10	34.2	NE	16:58	8.5	13.0	13.5	14.5	15.5	14.0	12.5	10.5	0.0	13.0	0.0	4.7	3.7
11	31.2	SE	14:37	10.0	12.0	12.5	13.0	14.5	14.0	12.5	10.5	0.0	13.0	0.0	3.1	2.4
12	23.0	ESE	22:21	12.0	12.0	12.5	13.0	14.0	13.5	12.5	10.5	1.8	12.9	14.0	8.2	5.5
13	35.5	SE	6:34	9.5	10.5	11.5	13.0	14.0	13.5	12.5	10.5	10.9	12.8	85.0	17.0	2.6
14	25.5	WSW	15:30	13.0	12.5	13.5	14.0	14.0	13.5	12.5	10.5	8.5	12.8	66.7	14.4	4.2
15	26.7	SW	15:31	13.0	13.0	14.0	14.5	14.5	13.5	12.5	10.5	8.4	12.7	66.2	14.3	3.4
16	44.1	ESE	13:10	16.0	13.5	14.5	15.0	14.5	13.5	12.5	10.5	10.2	12.6	80.8	15.3	4.2
17	43.7	NE	11:18	17.0	15.5	16.0	16.0	15.0	13.5	12.0	10.5	8.5	12.6	67.7	14.0	3.5
18	24.0	N	11:59	15.0	15.5	16.0	16.5	15.5	13.5	12.0	10.5	10.8	12.5	86.5	16.0	2.3
19	34.7	WNW	23:52	12.5	14.5	15.5	16.0	15.5	13.5	12.0	10.5	3.8	12.4	30.6	9.8	5.3
20	27.9	W	14:10	11.5	14.5	15.5	16.0	15.5	13.5	12.0	10.5	5.8	12.4	47.0	10.4	3.2
21	31.2	NNW	11:57	9.5	11.5	13.0	14.5	15.5	13.5	12.5	10.5	11.0	12.3	89.6	15.1	3.5
22	25.1	SSW	17:05	12.0	11.0	12.5	13.5	14.5	13.5	12.5	10.5	11.8	12.2	96.6	15.4	1.5
23	48.3	WNW	12:06	15.5	12.5	13.5	14.0	14.5	13.5	12.5	10.5	7.6	12.2	62.6	12.2	4.0
24	49.5	WNW	14:15	10.0	12.0	13.0	14.0	14.5	13.5	12.5	11.0	5.7	12.1	47.2	9.8	4.4
25	76.5	WNW	18:18	8.0	9.5	11.0	12.5	14.0	13.5	12.5	11.0	6.7	12.0	55.7	11.1	4.1
26	19.5	SE	10:20	5.5	9.0	10.0	11.5	13.5	13.5	12.0	11.0	0.0	12.0	0.0	4.9	3.8
27	36.7	N	18:54	2.0	7.5	9.0	10.5	13.0	13.0	12.0	11.0	3.6	11.9	30.3	7.6	5.0
28	21.8	ENE	13:16	2.0	6.0	7.0	9.0	12.0	13.0	12.0	11.0	1.1	11.8	9.3	6.5	4.4
29	47.3	E	13:31	3.0	5.5	6.5	8.0	11.5	12.5	12.0	11.0	0.0	11.8	0.0	4.2	3.3
30	35.9	ENE	11:46	0.0	4.5	5.5	7.0	10.5	12.5	12.0	11.0	0.0	11.7	0.0	4.3	3.4
Total												173.1	379.4	45.6	329.4	113.9
Mean				10.6	12.0	12.9	13.8	14.5	13.6	12.3	10.6	1981-2010 Normal for Radiation				
Extreme	76.5	WNW	18:18	1971- 2000 Normal for Soil Temperatures								197.4	379.1	52.1	374.1	125.5
Date	25			10.5	11.0	12.5	13.2	12.4	11.7	9.9	No. of Bright Sunshine days = 24					

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

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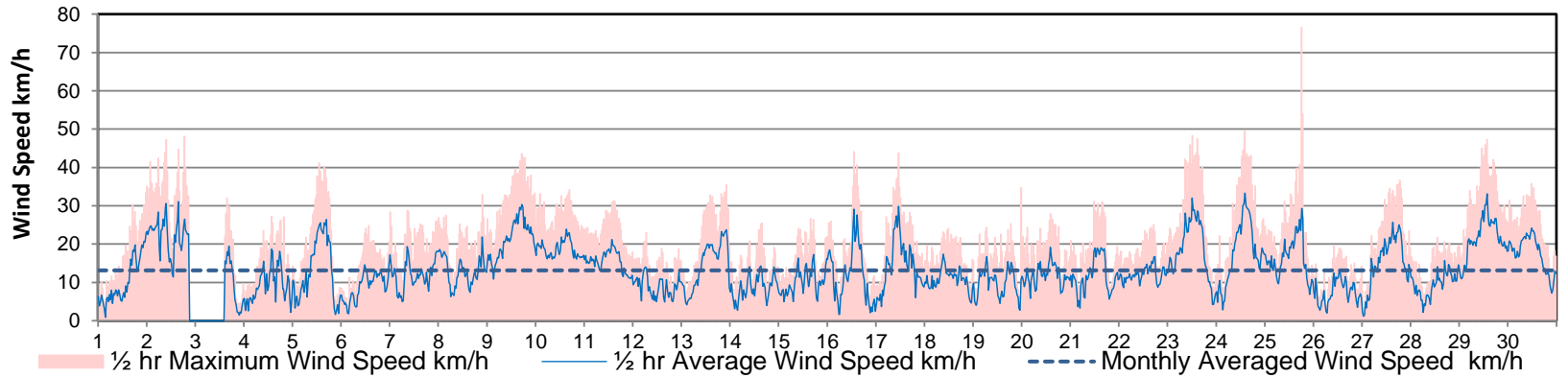


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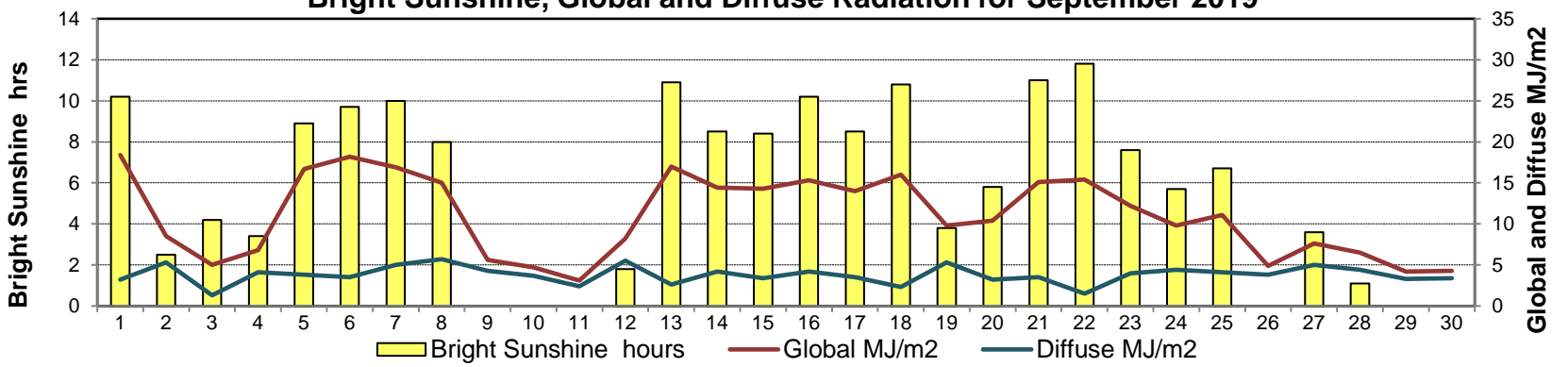
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Wind Speed for September 2019

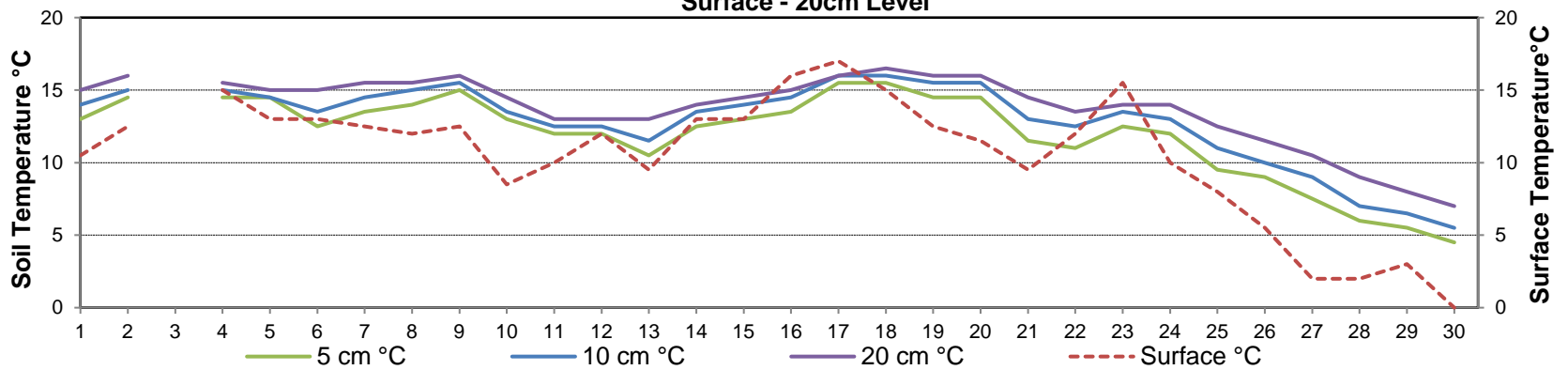


Bright Sunshine, Global and Diffuse Radiation for September 2019



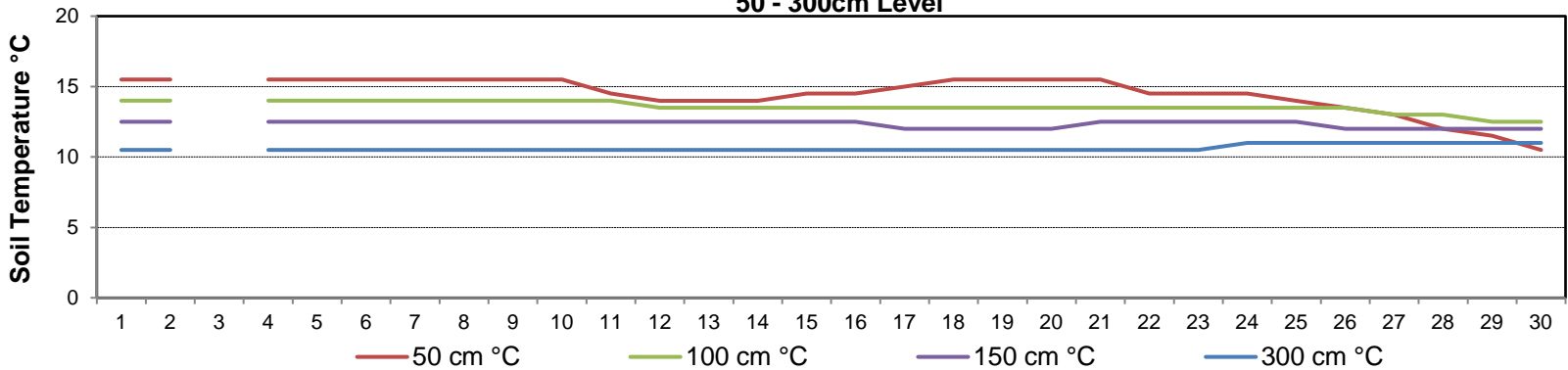
Soil Temperatures for September 2019

Surface - 20cm Level



Soil Temperatures for September 2019

50 - 300cm Level





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Preliminary **SEPTEMBER 2019**

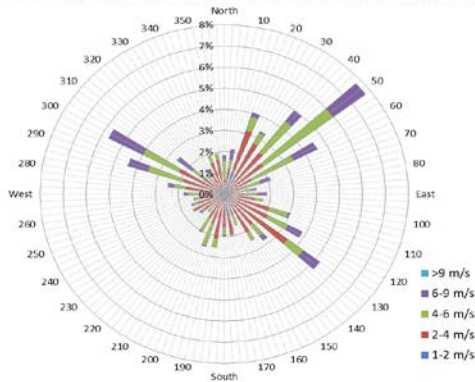
Extreme Records for September

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	35.6	04/1978	128.8	2006	SWT	128.4	2006	148 ^W	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

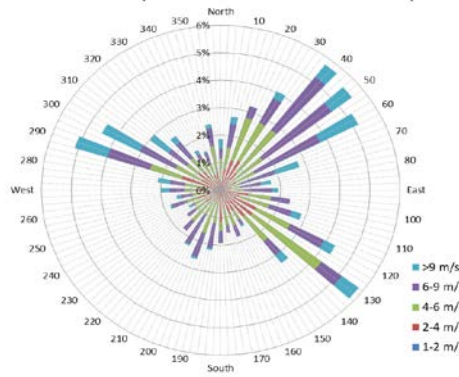
**1975 forward * more than one year

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 Minimum Daily	23	11.6	10.9	2014	SM	NWMP	c. 1892-1901	T	Trace of precipitation
	Highest Mean Daily	20	15.6	15.3	2014 & 2009	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	t-storm on Sept 2 knocked out power to the climate station Aug 5 - two tours of the S'toon climate station	
						K	S'toon Kernen Farm	1993-2004		
						KCS	S'toon Kernen Farm CS	1996-		
						RCS	Environment Canada	2008-		
						SF	Sutherland Forestry	1943-1970		

10 minute Average Wind Speed and Direction Saskatoon September 2019



1/2 hr Maximum Wind Speed and Direction Saskatoon September 2019



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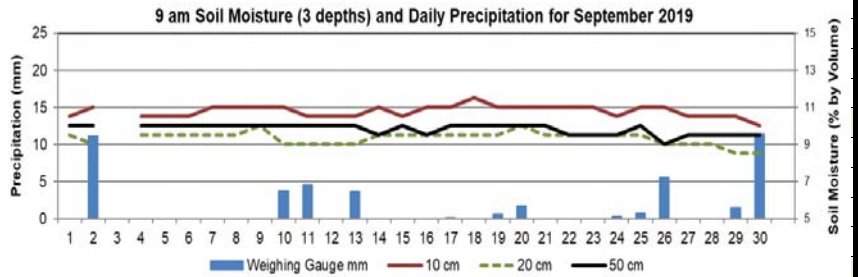
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52°09' N 106°36' W 497 m asl Estab. 1963

Preliminary September 2019

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	8.0	16.9	26	10.5	9.5	10.0
2	16.0	22.5	35	11.0	9.0	10.0
3	7.0	14.1	22	10.5	9.5	10.0
4	7.0	14.1	22	10.5	9.5	10.0
5	10.0	19.2	33	10.5	9.5	10.0
6	7.0	11.8	24	10.5	9.5	10.0
7	9.0	14.0	24	11.0	9.5	10.0
8	10.0	16.3	24	11.0	9.5	10.0
9	16.0	22.1	34	11.0	10.0	10.0
10	14.0	18.1	29	11.0	9.0	10.0
11	12.0	16.2	26	10.5	9.0	10.0
12	7.0	10.7	17	10.5	9.0	10.0
13	10.0	17.9	29	10.5	9.0	10.0
14	6.0	11.8	21	11.0	9.5	9.5
15	7.0	13.2	24	10.5	9.5	10.0
16	9.0	21.8	35	11.0	9.5	9.5
17	10.0	22.6	33	11.0	9.5	10.0
18	8.0	13.1	20	11.5	9.5	10.0
19	7.0	12.2	24	11.0	9.5	10.0
20	9.0	14.6	24	11.0	10.0	10.0
21	9.0	14.9	26	11.0	9.5	10.0
22	9.0	12.8	22	11.0	9.5	9.5
23	13.0	23.2	38	11.0	9.5	9.5
24	13.0	23.8	37	10.5	9.5	9.5
25	12.0	21.2	59	11.0	9.5	10.0
26	6.0	10.0	16	11.0	9.0	9.0
27	11.0	18.8	28	10.5	9.0	9.5
28	8.0	11.3	18	10.5	9.0	9.5
29	16.0	23.5	36	10.5	8.5	9.5
30	13.0	18.8	29	10.0	8.5	9.5
Total						
Mean				11	9	9.8
Extreme	16.0	23.8	58.6	11.5	10	10
Date	2	24	25	18	9	1



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

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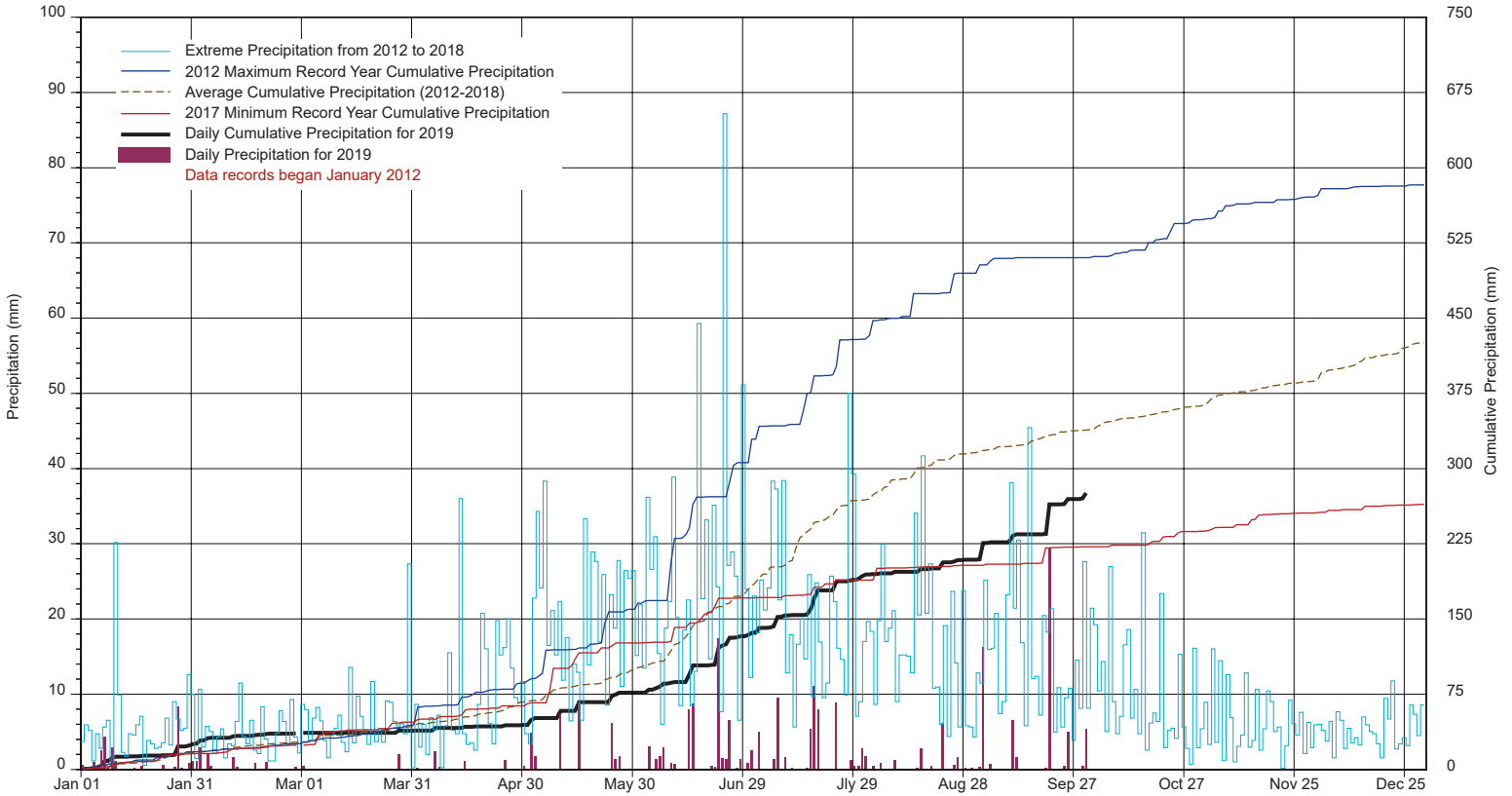


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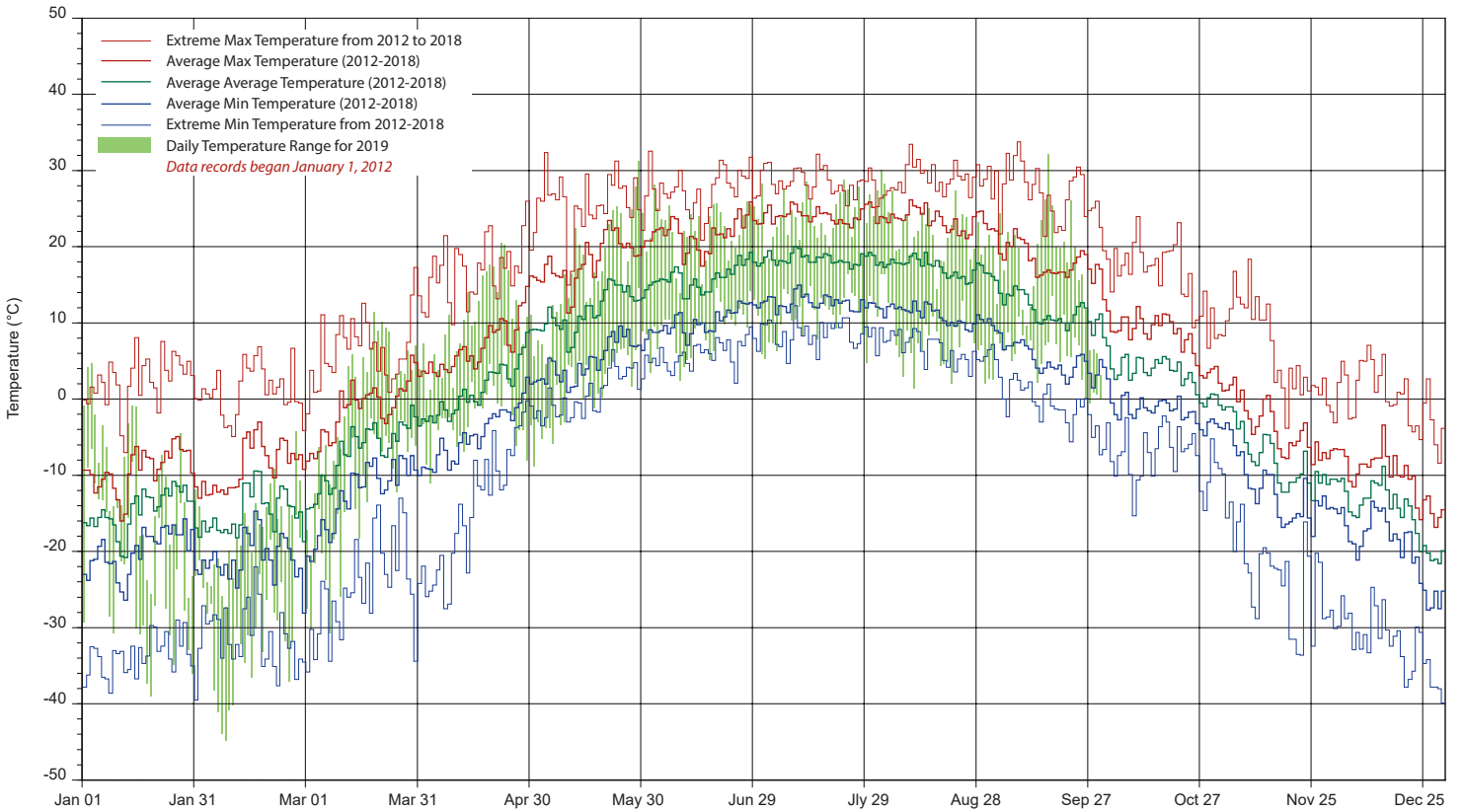
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SRC's CLIMATE REFERENCE STATION at the Conservation Learning Centre 2019 PRECIPITATION AND AVERAGE



2019 TEMPERATURES AND AVERAGES



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