



# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## CONSERVATION LEARNING CENTRE

Saskatchewan 53.03°N 105.77°W Estab. 2011

Preliminary

**August 2018**

Day	Temperature			Degree-days			Precipitation			Relative Humidity		Station Pressure <i>corrected to sea level</i>	
	Max	Min	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	°C	°C	5°C base	18°C base	18°C base	mm	mm		%	%	mbar	mbar
1	22.5	5.7	14.1	9.1	3.9	0.0	0.0	0.0		90	48	1019	1007
2	26.4	15.5	21.0	16.0	0.0	3.0	1.0	1.4		99	54	1008	1005
3	26.4	13.9	20.2	15.2	0.0	2.2	18.5	15.2		100	49	1006	1002
4	25.8	13.9	19.9	14.9	0.0	1.9	3.8	4.0		99	60	1010	1002
5	21.2	12.1	16.7	11.7	1.3	0.0	0.0	0.0		100	53	1016	1010
6	27.5	10.7	19.1	14.1	0.0	1.1	0.0	0.0		99	45	1015	1008
7	25.5	15.2	20.4	15.4	0.0	2.4	0.0	0.0		92	48	1009	1006
8	27.1	12.5	19.8	14.8	0.0	1.8	0.0	0.0		97	48	1012	1009
9	30.8	12.9	21.9	16.9	0.0	3.9	0.0	0.0		100	42	1014	1012
10	33.5	14.1	23.8	18.8	0.0	5.8	0.0	0.0		99	34	1013	1007
11	24.6	15.2	19.9	14.9	0.0	1.9	0.0	0.0		96	57	1015	1007
12	18.0	11.6	14.8	9.8	3.2	0.0	2.0	2.4		95	60	1017	1010
13	14.1	6.3	10.2	5.2	7.8	0.0	0.0	0.2		100	72	1018	1013
14	25.6	3.9	14.8	9.8	3.2	0.0	0.3	0.2		100	37	1017	1006
15	21.8	9.7	15.8	10.8	2.2	0.0	0.0	0.0		94	67	1013	1006
16	19.0	9.1	14.1	9.1	3.9	0.0	0.0	0.0		100	69	1019	1013
17	27.0	9.7	18.4	13.4	0.0	0.4	0.0	0.0		100	56	1016	1011
18	20.5	9.1	14.8	9.8	3.2	0.0	0.0	0.0		100	46	1018	1011
19	22.1	5.1	13.6	8.6	4.4	0.0	0.0	0.2		97	37	1022	1019
20	22.9	4.2	13.6	8.6	4.4	0.0	0.0	0.0		100	33	1025	1021
21	25.5	6.4	16.0	11.0	2.0	0.0	0.0	0.0		97	31	1021	1014
22	28.6	8.2	18.4	13.4	0.0	0.4	0.0	0.0		93	26	1014	1004
23	16.1	7.9	12.0	7.0	6.0	0.0	0.0	0.0		94	57	1009	1004
24	14.3	5.9	10.1	5.1	7.9	0.0	0.5	0.0		99	72	1008	1003
25	12.6	5.2	8.9	3.9	9.1	0.0	5.7	5.8		99	70	1012	1007
26	17.1	3.0	10.1	5.1	7.9	0.0	6.6	7.0		100	53	1012	1006
27	13.2	7.9	10.6	5.6	7.4	0.0	0.0	0.0		100	89	1014	1007
28	17.1	5.2	11.2	6.2	6.8	0.0	0.0	0.0		98	51	1015	1010
29	24.7	6.4	15.6	10.6	2.4	0.0	0.0	0.0		94	42	1010	1001
30	21.2	10.3	15.8	10.8	2.2	0.0	0.0	0.0		94	46	1003	998
31	18.3	6.5	12.4	7.4	5.6	0.0	0.0	0.0		95	48	1006	1003
Total				333.0	94.8	24.8	38.4	36.4					
Avg	22.3	9.1	15.7				274.4	Cumulative ppt					
Extreme	33.5	3.0					18.5	15.2		100	26	1025	998
Date	10	26					3	3		3	22	20	30

Site maintenance 1 Aug 2018: replaced Air Temp /RH sensor, replaced bearings in 10m RM Young, removed old soil moisture sensor, Installed new soil moisture sensors (depths 10, 20 and 30cm), general maintenance on all-season ppt gauge. Due to system failure (fuse failure) missing data for all instruments from 2 Aug 2018 8:30 to 11:30 inclusive)

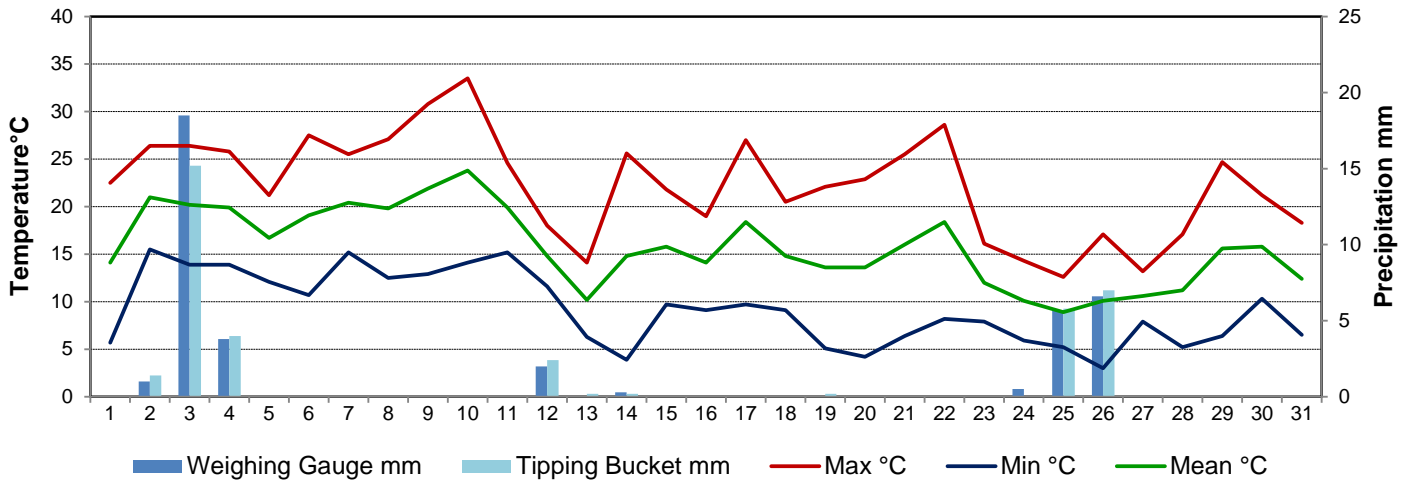
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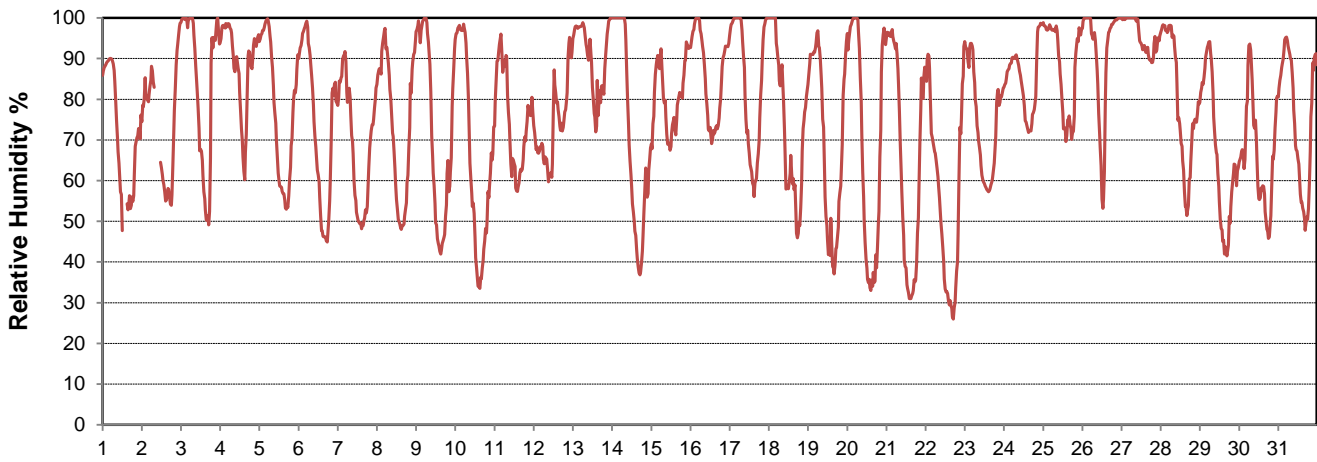
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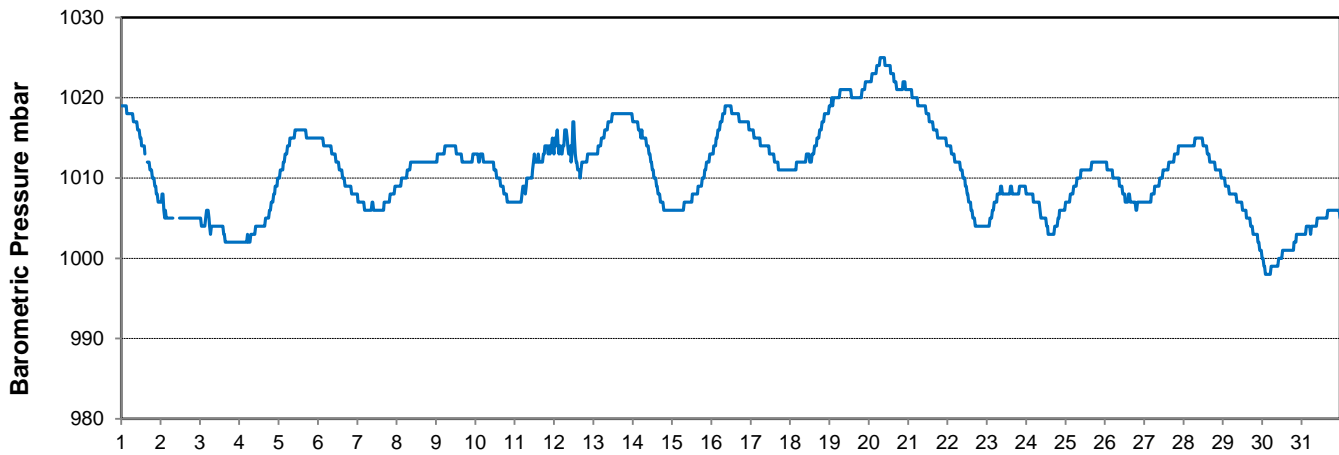
### Temperature and Precipitation for August 2018



### Relative Humidity for August 2018



### Barometric Pressure Corrected to Sea Level for August 2018





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Saskatchewan 53.03°N 105.77°W Estab. 2011

Preliminary

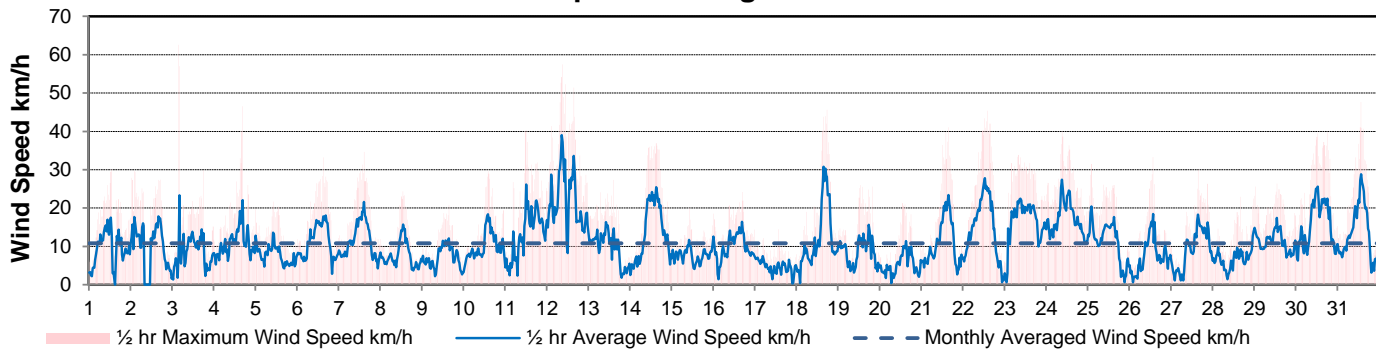
August 2018

Day	Wind Gust			Soil Temperatures at 0900hrs								Soil Moisture	Radiation		
	Max	Direction	Time	Surface	5 cm	10 cm	20 cm	50 cm	100 cm	150 cm	300 cm		0900hrs	Bright Sunshine	Global
	km/h			°C	°C	°C	°C	°C	°C	°C	°C	%	hours	MJ/m <sup>2</sup>	MJ/m <sup>2</sup>
1	30.1	S	13:15	16.5	15.5	16.0	16.0	15.0	12.5	10.0	5.5	32	10.3	19.0	7.7
2	29.7	SSE	2:18	17.0	17.0	17.0	16.5	15.0	12.5	10.0	5.5	This sensor is no longer on site. Stay tuned for new soil moisture information that provides information on 10, 20 and 50 cm levels	12.2	22.5	4.4
3	62.6	W	3:59	17.0	17.0	17.0	16.5	15.0	12.5	10.0	5.5		8.3	18.0	7.6
4	46.6	NNW	16:31	17.5	17.0	17.0	17.0	15.0	12.5	10.0	5.5		4.8	12.7	5.7
5	21.7	NNE	10:43	15.0	16.5	16.5	16.5	15.0	12.5	10.0	5.5		12.0	22.1	4.4
6	33.2	WSW	15:27	18.0	16.0	16.5	16.5	15.5	12.5	10.5	6.0		12.7	22.5	4.1
7	34.6	NW	14:39	20.0	17.0	17.5	17.0	15.5	12.5	10.5	6.0		9.6	16.6	9.0
8	24.3	WNW	13:06	18.5	17.0	17.0	17.0	15.5	13.0	10.5	6.0		11.4	18.1	8.1
9	20.8	WSW	15:46	17.5	16.5	17.0	17.0	15.5	13.0	10.5	6.0		10.7	18.2	7.2
10	29.6	S	14:00	20.5	17.5	17.5	17.5	15.5	13.0	10.5	6.0		11.9	19.4	6.6
11	40.4	NNW	12:07	19.5	17.5	18.0	17.5	16.0	13.0	10.5	6.0		3.6	8.6	6.5
12	57.4	E	9:06	15.5	16.5	17.0	17.0	15.5	13.0	11.0	6.0		2.9	8.7	6.1
13	27.3	N	14:55	11.0	15.0	15.0	15.5	14.5	12.5	10.5	5.5		0.4	7.5	6.3
14	36.9	SW	15:19	11.5	13.0	13.5	15.0	15.0	13.0	11.0	6.0		12.4	18.1	7.3
15	20.1	WSW	10:04	15.5	14.5	14.5	15.0	14.5	13.0	11.0	6.5		3.8	6.6	4.5
16	24.2	ENE	16:54	13.5	14.0	14.0	14.5	14.5	13.0	11.0	6.5		4.2	10.9	8.2
17	14.5	E	13:33	14.5	14.0	14.0	14.5	14.5	13.0	11.0	6.5	10.4	16.4	7.3	
18	45.6	NW	17:48	15.5	15.0	15.5	15.5	14.5	13.0	11.0	6.5	5.5	9.2	6.2	
19	26.0	W	13:00	12.5	13.0	13.5	14.5	14.5	13.0	11.0	6.5	9.1	16.4	6.3	
20	21.3	NW	13:15	11.5	12.5	13.0	14.5	14.0	13.0	11.0	6.5	12.0	19.9	4.5	
21	41.1	WSW	15:49	14.0	13.0	13.5	14.0	14.0	12.5	11.0	6.5	11.4	18.9	5.4	
22	45.4	WSW	14:15	16.0	13.5	13.5	14.0	14.0	12.5	11.0	6.5	10.8	18.2	5.5	
23	33.9	ENE	8:10	10.5	13.5	14.0	14.5	14.0	12.5	11.0	6.5	8.9	15.4	7.1	
24	40.1	E	9:15	8.5	12.5	13.0	13.5	13.5	12.5	11.0	6.5	0.4	6.5	5.5	
25	31.5	NW	2:04	9.0	12.5	12.5	13.5	13.5	12.5	11.0	7.0	0.3	7.5	6.5	
26	33.3	S	13:35	10.0	11.5	11.5	12.5	13.0	12.5	11.0	7.0	2.0	6.6	5.5	
27	30.1	N	15:30	12.0	12.5	12.5	13.0	13.0	12.0	11.0	7.0	0.0	2.3	2.1	
28	22.9	SSE	16:16	8.5	11.5	11.5	12.5	12.5	12.0	11.0	6.5	7.2	16.4	7.8	
29	26.4	SW	13:10	13.0	12.0	12.5	13.0	12.5	12.0	11.0	7.0	9.0	14.5	8.1	
30	39.7	W	18:15	16.0	13.5	13.5	13.5	13.0	12.0	11.0	7.0	8.3	13.6	8.0	
31	47.7	WNW	13:37	10.5	12.5	13.0	13.5	13.0	12.0	11.0	7.0	3.7	8.8	6.6	
Total													230.2	440.1	196.1
Mean				14.4	14.5	14.8	15.1	14.4	12.6	10.7	6.3	32.0			
Extreme	62.6	W	3:59												
Date	3														

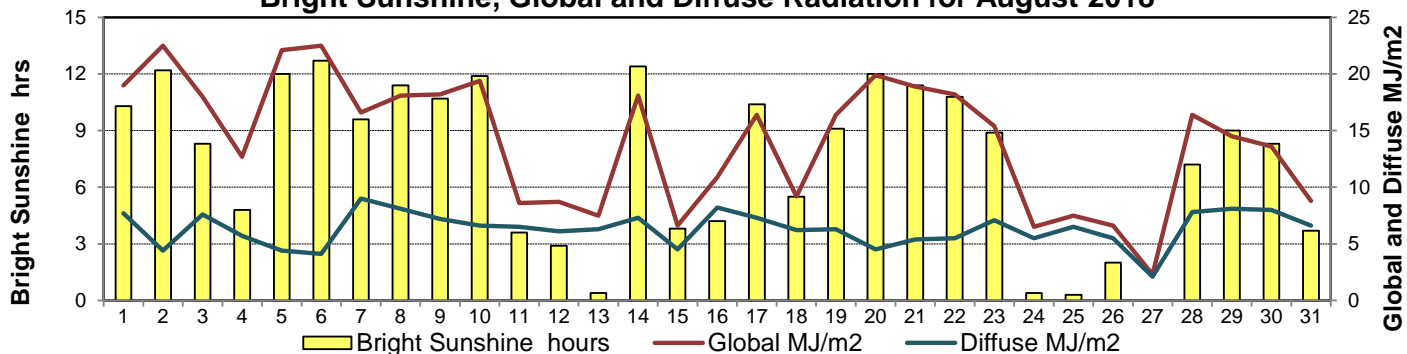
### GLOSSARY OF TERMS

<b>Degree-days</b>	<b>Radiation</b>
Tm Mean Temperature	Bright Sunshine is the unobstructed direct radiation from the sun, as opposed to the shading of a location by clouds or by other atmospheric obstructions.
Growing (Tm-5°C); if Tm ≤ 5°C then GDD = 0	
Heating (18°C-Tm); if Tm ≥ 18°C then HDD = 0	Diffuse is radiation reaching the earth's surface after having been scattered from the direct solar beam
Cooling (Tm-18°C); if Tm ≤ 18°C then CDD = 0	Global is the sum of the direct solar and diffuse radiation
T Trace of Precipitation	<b>Relative Humidity</b> The ratio of the air's water vapour content to its water vapour capacity which changes with temperature.
<b>SOG</b> Depth of snow-on-the-ground	
<b>Red Cell</b> no data available	<b>Air Pressure</b> The force exerted by the weight of a column of air above a given point
<b>Red Number</b> manual calculation	<b>Wind Gust</b> The daily highest instantaneous value recorded irrespective of direction and/or duration

### Wind Speed for August 2018

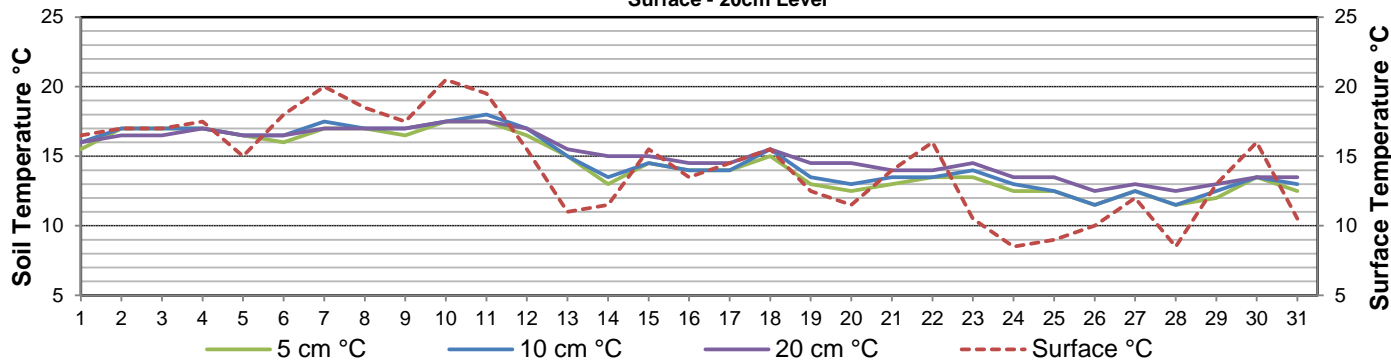


### Bright Sunshine, Global and Diffuse Radiation for August 2018



### Soil Temperatures for August 2018

Surface - 20cm Level



### Soil Temperatures for August 2018

50 - 300cm Level

