



# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## CONSERVATION LEARNING CENTRE

Saskatchewan 53.03°N 105.77°W 451m asl Estab. 2011

Preliminary **October 2023**

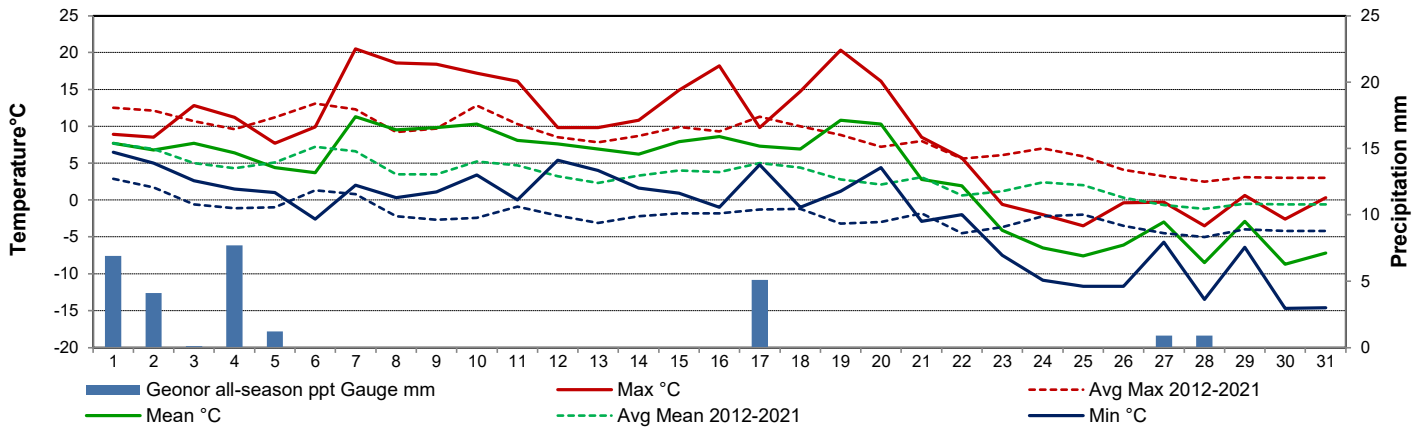
Day	Temperature						Degree-days			Precipitation			Relative Humidity		Station Pressure <i>corrected to sea level</i>	
	Max	Avg Max	Min	Avg Min	Mean	Avg Mean	Growing	Heating	Cooling	Geonor all-season ppt Gauge	Tipping Bucket	Snow-on-Ground 0900h	Max ½ hr Avg	Min ½ hr Avg	Max ½ hr Avg	Min ½ hr Avg
	°C	2012-2021	°C	2012-2021	°C	2012-2021	5°C base	18°C base	18°C base	mm	mm	cm	%	%	mbar	mbar
1	8.9	12.5	6.5	2.9	7.7	7.7	2.7	10.3	0.0	6.9	7.4	0	100	94	1021	1017
2	8.5	12.1	5.0	1.7	6.8	6.9	1.8	11.2	0.0	4.1	4.2	0	100	97	1016	1008
3	12.8	10.7	2.6	-0.6	7.7	5.0	2.7	10.3	0.0	0.1	0.4	0	100	82	1009	1006
4	11.2	9.6	1.5	-1.1	6.4	4.3	1.4	11.6	0.0	7.7	8.6	0	100	86	1010	1003
5	7.7	11.2	1.0	-1.0	4.4	5.1	0.0	13.6	0.0	1.2	1.6	0	95	81	1027	1010
6	9.9	13.1	-2.6	1.3	3.7	7.2	0.0	14.3	0.0	0.0	0.0	0	94	42	1028	1013
7	20.5	12.3	2.0	0.8	11.3	6.6	6.3	6.7	0.0	0.0	0.0	0	96	39	1016	1011
8	18.6	9.2	0.3	-2.2	9.5	3.5	4.5	8.5	0.0	0.0	0.0	0	100	37	1019	1015
9	18.4	9.7	1.1	-2.7	9.8	3.5	4.8	8.2	0.0	0.0	0.0	0	94	48	1015	1008
10	17.2	12.8	3.4	-2.4	10.3	5.2	5.3	7.7	0.0	0.0	0.0	0	84	48	1008	1004
11	16.1	10.3	0.0	-0.9	8.1	4.7	3.1	9.9	0.0	0.0	0.0	0	97	32	1014	1005
12	9.8	8.5	5.4	-2.1	7.6	3.2	2.6	10.4	0.0	0.0		0	99	79	1026	1014
13	9.8	7.8	4.0	-3.1	6.9	2.3	1.9	11.1	0.0	0.0		0	94	65	1028	1026
14	10.8	8.7	1.6	-2.2	6.2	3.3	1.2	11.8	0.0	0.0		0	90	54	1027	1026
15	14.9	9.9	0.9	-1.8	7.9	4.0	2.9	10.1	0.0	0.0		0	89	47	1026	1017
16	18.2	9.3	-1.0	-1.8	8.6	3.8	3.6	9.4	0.0	0.0		0	99	42	1017	1010
17	9.8	11.3	4.8	-1.3	7.3	5.0	2.3	10.7	0.0	5.1		0	98	78	1009	1002
18	14.7	10.0	-1.0	-1.2	6.9	4.4	1.9	11.1	0.0	0.0		0	100	67	1012	1005
19	20.3	8.8	1.2	-3.2	10.8	2.8	5.8	7.2	0.0	0.0		0	100	32	1006	1002
20	16.1	7.2	4.4	-3.0	10.3	2.1	5.3	7.7	0.0	0.0		0	91	43	1013	1001
21	8.5	8.0	-2.9	-1.8	2.8	3.1	0.0	15.2	0.0	0.0		0	97	56	1018	1012
22	5.7	5.6	-2.0	-4.5	1.9	0.6	0.0	16.1	0.0	0.0		0	99	78	1014	1010
23	-0.6	6.1	-7.5	-3.7	-4.1	1.2	0.0	22.1	0.0	0.0		0	90	43	1018	1014
24	-2.0	7.0	-10.9	-2.2	-6.5	2.4	0.0	24.5	0.0	0.0		0	84	47	1020	1018
25	-3.5	5.9	-11.7	-2.0	-7.6	2.0	0.0	25.6	0.0	0.0		0	87	52	1022	1020
26	-0.4	4.1	-11.7	-3.5	-6.1	0.3	0.0	24.1	0.0	0.0		0	82	52	1023	1021
27	-0.3	3.2	-5.7	-4.5	-3.0	-0.7	0.0	21.0	0.0	0.9		0	95	64	1022	1019
28	-3.5	2.5	-13.5	-5.0	-8.5	-1.2	0.0	26.5	0.0	0.9		1	97	78	1023	1019
29	0.6	3.1	-6.4	-4.0	-2.9	-0.5	0.0	20.9	0.0	0.0		2	91	68	1024	1017
30	-2.6	3.0	-14.7	-4.2	-8.7	-0.6	0.0	26.7	0.0	0.0		1	92	54	1027	1015
31	0.3	3.0	-14.6	-4.2	-7.2	-0.6	0.0	25.2	0.0	0.0		2	92	68	1025	1014
Total							60.1	449.7	0.0	26.9			Extreme / Date	Extreme / Date	Extreme / Date	Extreme / Date
Avg	8.9	8.3	-2.0	-2.1	3.5	3.1	Monthly 2012 - 2021 Average			20.0	2012-2021 Average					
Extreme	20.5	25.2	-14.7	-15.5			37.4	461.4	0	231.4	2023 Cumulative ppt		100	32	1028	1001
Date	7	2021	30	2019						343.6	Cumulative Average		1	11	6	20

Note: Red numbers indicate manual calculation; Red cell indicate data not available  
 site maintenance: 12 Oct 2023

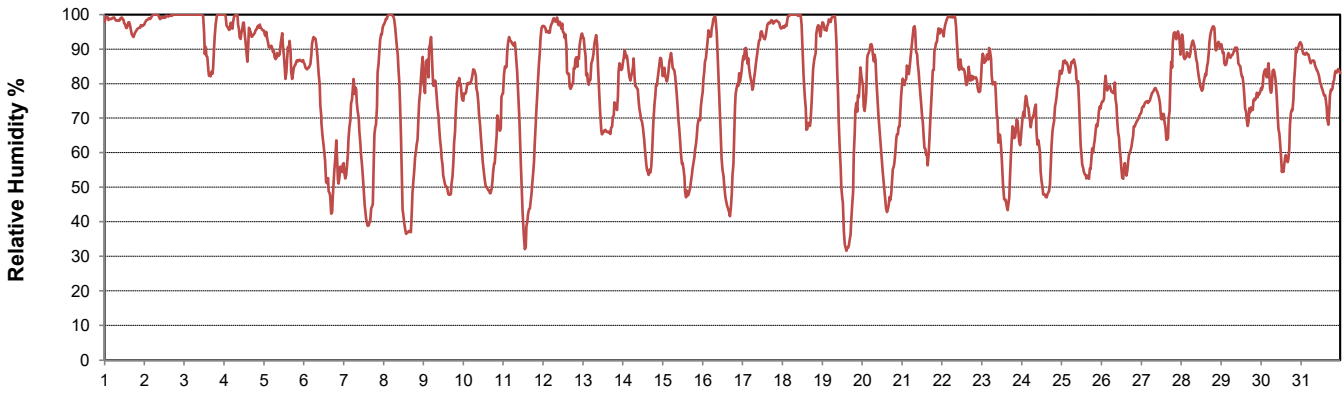
**SRC proudly recognizes the following CRS supporters:**



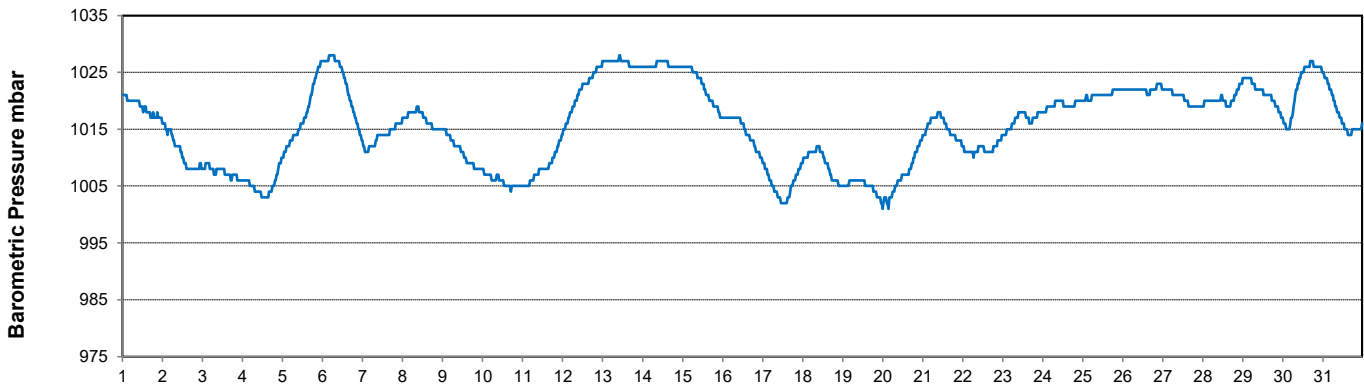
### Temperature and Precipitation for October 2023



### Relative Humidity for October 2023



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





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## CONSERVATION LEARNING CENTRE

Saskatchewan 53.03°N 105.77°W 451m asl Estab. 2011

Preliminary

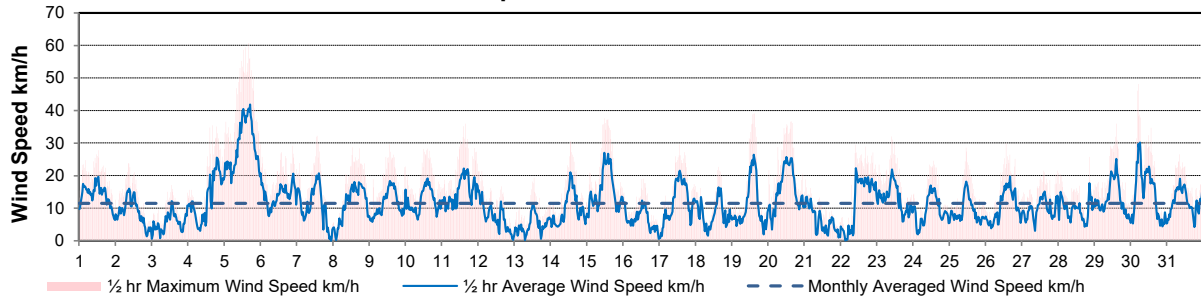
October 2023

Day	Wind Gust (10 meter)			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	27.7	NE	12:32	13.9	8.0	10.5	11.0	11.5	12.5	11.5	11.0	8.5	0.0	11.6	0.0	2.3	2.2
2	23.8	E	8:47	8.9	5.5	9.5	10.0	10.5	12.0	11.5	10.5	8.0	0.0	11.5	0.0	3.4	3.2
3	17.0	ENE	13:09	5.5	6.0	9.0	9.5	10.5	11.5	11.5	11.0	8.0	5.7	11.5	49.7	8.5	4.3
4	35.4	NNW	16:34	13.1	4.5	7.5	8.5	10.0	11.5	11.0	10.5	8.5	0.4	11.4	3.5	3.3	3.0
5	60.7	NNW	16:23	29.1	5.5	8.0	8.5	9.5	11.0	11.0	10.5	8.0	0.0	11.3	0.0	4.0	3.7
6	29.5	NW	0:15	14.2	-0.5	5.0	6.0	8.0	10.5	11.0	10.5	8.0	7.3	11.3	64.8	9.6	5.3
7	32.2	NNW	13:38	10.7	8.5	6.0	6.5	8.0	10.0	10.5	10.5	8.5	10.4	11.2	92.9	11.3	2.0
8	28.6	SE	13:07	11.4	5.0	6.0	7.0	8.0	9.5	10.5	10.5	8.5	10.6	11.1	95.3	11.6	1.4
9	29.6	ESE	13:57	11.4	7.5	6.5	7.0	8.0	9.5	10.5	10.5	8.5	10.5	11.1	95.0	11.4	1.4
10	28.3	ESE	14:48	12.1	7.5	7.0	7.5	8.5	9.5	10.0	10.5	8.5	10.5	11.0	95.6	11.2	1.4
11	35.9	ESE	15:41	15.2	2.0	6.0	7.0	8.5	9.5	10.0	10.5	8.5	10.2	10.9	93.5	11.2	1.5
12	21.4	ESE	2:59	7.0	6.0	7.5	7.5	8.5	9.5	10.0	10.0	8.5	0.8	10.9	7.4	4.8	4.3
13	19.3	SSE	13:08	4.9	6.0	7.5	8.0	8.5	9.5	10.0	10.0	8.5	0.0	10.8	0.0	3.5	3.3
14	30.6	SSE	13:32	9.6	7.0	7.5	8.0	8.5	9.5	10.0	10.0	8.5	3.3	10.7	30.8	4.7	3.2
15	37.6	S	11:51	15.6	4.0	5.5	6.0	7.5	9.0	9.5	10.0	8.5	6.1	10.6	57.3	8.0	3.5
16	19.0	NW	13:50	6.6	2.0	5.5	6.0	7.5	9.0	9.5	10.0	8.5	9.6	10.6	90.8	10.2	1.4
17	29.5	NE	13:32	11.8	8.5	7.5	7.5	8.0	9.0	9.5	10.0	8.5	0.0	10.5	0.0	1.5	1.4
18	22.6	S	15:07	8.3	0.5	6.0	6.5	8.0	9.0	9.5	9.5	8.5	7.3	10.4	69.9	7.9	4.0
19	39.1	W	15:27	10.7	4.0	6.0	6.5	7.5	9.0	9.5	9.5	8.5	9.8	10.4	94.5	9.6	1.2
20	36.6	WNW	15:31	15.6	8.0	6.5	6.5	7.5	8.5	9.0	9.5	8.5	9.8	10.3	95.1	9.3	1.3
21	18.8	NW	1:22	6.4	-1.0	5.0	5.5	7.5	8.5	9.0	9.5	8.5	6.7	10.2	65.4	7.5	3.8
22	29.4	NE	10:03	11.9	-1.5	4.5	5.0	6.5	8.5	9.0	9.5	8.5	2.6	10.2	25.6	4.4	3.1
23	32.0	N	10:25	12.9	-2.5	3.5	4.5	6.0	8.0	9.0	9.5	8.5	5.8	10.1	57.4	6.4	4.0
24	24.5	NNW	13:32	9.2	-5.0	1.5	2.5	4.5	7.5	9.0	9.5	8.5	7.5	10.0	74.7	7.8	3.7
25	28.6	NNW	11:13	9.1	-7.0	0.5	1.5	3.5	6.5	8.5	9.0	8.5	0.0	10.0	0.0	3.2	3.1
26	29.9	WNW	13:48	10.5	-8.0	0.0	1.0	3.0	6.0	8.5	9.0	8.5	6.2	9.9	62.6	7.1	2.3
27	21.5	N	23:45	9.7	-4.5	0.0	1.0	2.5	5.5	8.0	9.0	8.5	1.3	9.8	13.2	3.8	3.2
28	25.7	NNW	20:44	9.6	-9.5	0.0	0.5	2.5	5.0	7.5	9.0	8.5	2.5	9.8	25.6	5.5	4.6
29	35.9	NW	14:33	13.3	-4.5	0.5	0.5	2.0	4.5	7.5	8.5	8.5	2.2	9.7	22.7	4.2	3.3
30	48.1	N	5:01	14.4	-8.0	0.5	0.5	2.0	4.5	7.0	8.5	8.5	9.2	9.7	95.3	8.2	1.6
31	26.5	SSW	8:57	12.1	-7.0	-0.5	0.5	2.0	4.5	7.0	8.5	8.5	1.5	9.6	15.7	3.0	2.7
Total													157.8	328.0	48.1	208.4	88.4
Mean				11.4	1.5	5.0	5.6	6.9	8.6	9.5	9.7	8.4					
Extreme	60.7	NNW	16:23														
Date	5																

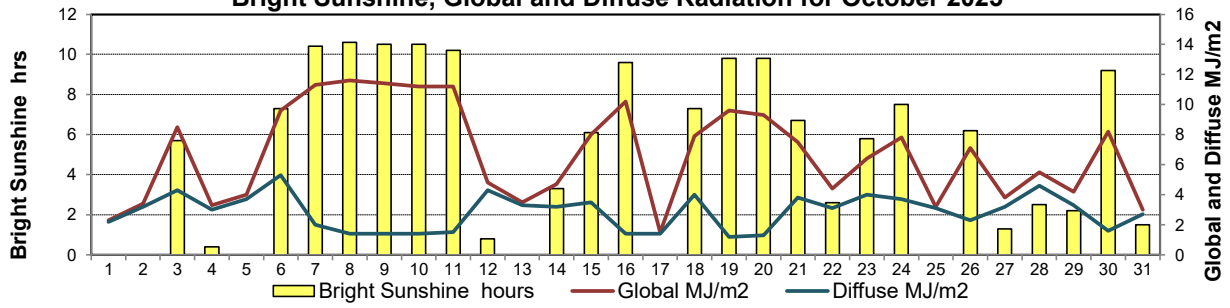
GLOSSARY OF TERMS

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

**Wind Speed for October 2023**

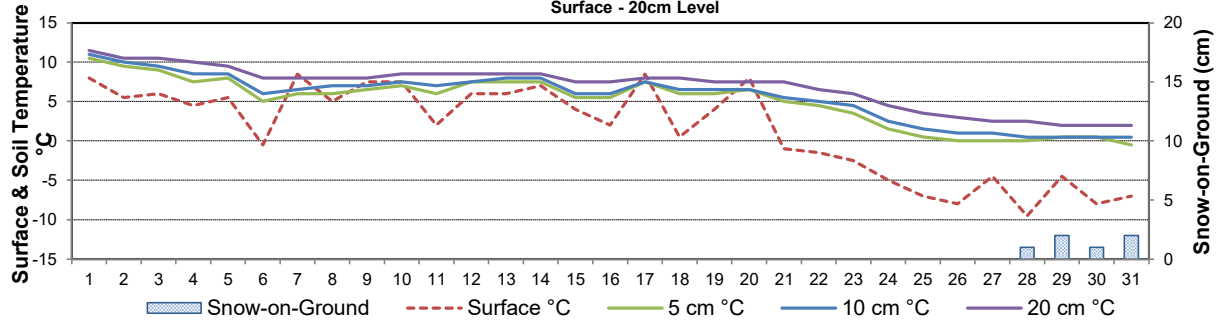


**Bright Sunshine, Global and Diffuse Radiation for October 2023**



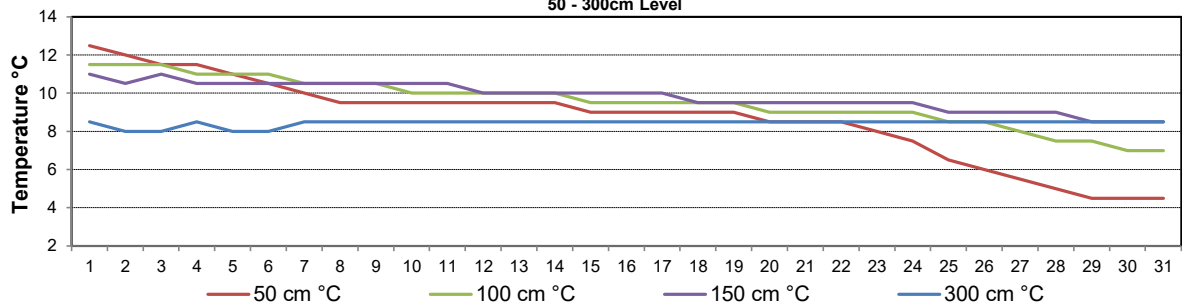
**Soil Temperatures for October 2023**

Surface - 20cm Level



**Soil Temperatures for October 2023**

50 - 300cm Level





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## CONSERVATION LEARNING CENTRE

Saskatchewan 53.03°N 105.77°W 451m asl Estab. 2011

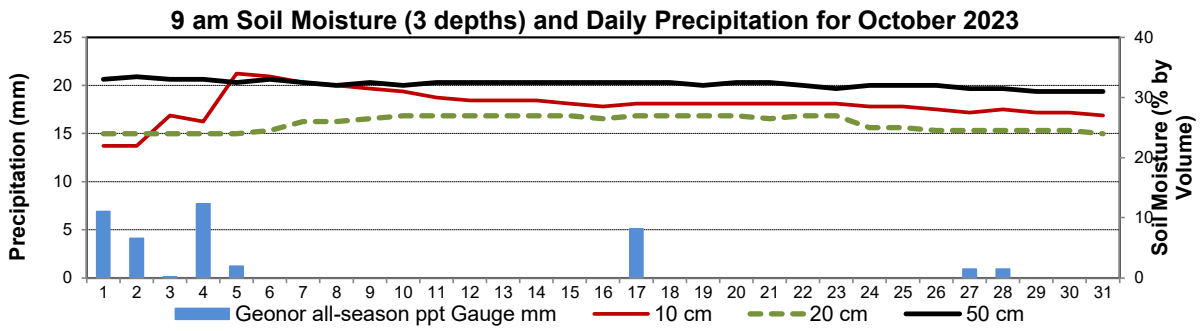
Preliminary

**October 2023**

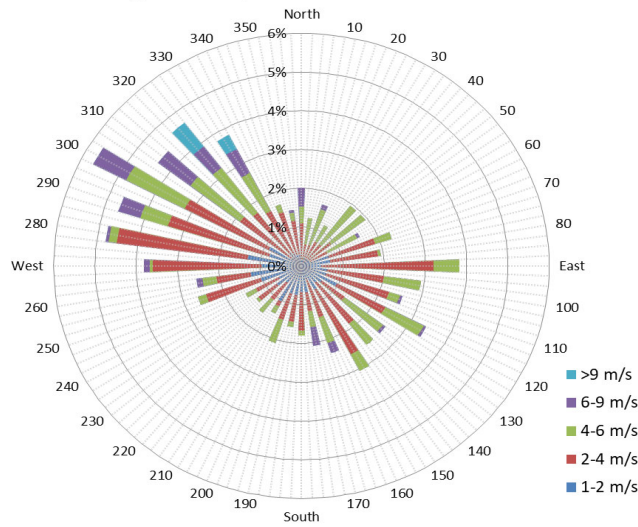
Day	2 meter Wind Speed			Soil Moisture at 0900 hrs (rounded to the 0.5%)											
	Daily Average	Max ½ hr Avg	½ hr Extreme Max	10 cm	20 cm	50 cm									
	km/h	km/h	km/h	% by volume (soil type is Clay Loam)											
1	10.0	14.2	21.2	22.0	24.0	33.0									
2	7.0	12.6	18.1	22.0	24.0	33.5									
3	3.0	10.8	15.1	27.0	24.0	33.0									
4	8.0	18.5	26.4	26.0	24.0	33.0									
5	21.0	30.1	42.1	34.0	24.0	32.5									
6	11.0	15.3	23.3	33.5	24.5	33.0									
7	7.0	15.4	24.5	32.5	26.0	32.5									
8	7.0	13.2	23.1	32.0	26.0	32.0									
9	6.0	11.7	21.6	31.5	26.5	32.5									
10	7.0	12.2	20.2	31.0	27.0	32.0									
11	11.0	15.9	24.8	30.0	27.0	32.5									
12	5.0	11.8	18.5	29.5	27.0	32.5									
13	2.0	8.4	14.9	29.5	27.0	32.5									
14	5.0	15.5	24.5	29.5	27.0	32.5									
15	10.0	19.4	30.2	29.0	27.0	32.5									
16	2.0	9.0	17.0	28.5	26.5	32.5									
17	8.0	16.7	22.4	29.0	27.0	32.5									
18	5.0	12.6	18.5	29.0	27.0	32.5									
19	5.0	19.5	33.3	29.0	27.0	32.0									
20	10.0	19.3	28.1	29.0	27.0	32.5									
21	3.0	8.4	13.5	29.0	26.5	32.5									
22	8.0	16.9	23.3	29.0	27.0	32.0									
23	10.0	16.7	25.0	29.0	27.0	31.5									
24	7.0	13.2	20.8	28.5	25.0	32.0									
25	6.0	13.7	20.4	28.5	25.0	32.0									
26	7.0	14.7	24.1	28.0	24.5	32.0									
27	8.0	11.7	18.7	27.5	24.5	31.5									
28	7.0	12.7	19.7	28.0	24.5	31.5									
29	10.0	18.9	27.2	27.5	24.5	31.0									
30	11.0	23.1	41.0	27.5	24.5	31.0									
31	9.0	8.0	23.0	27.0	24.0	31.0									
Total															
Mean				29	26	32.2									
Extreme	21.0	30.1	42.1	34	27	33.5									
Date	9	9	9	9	8.5	10.5									

**SRC proudly recognizes the following CRS supporters:**

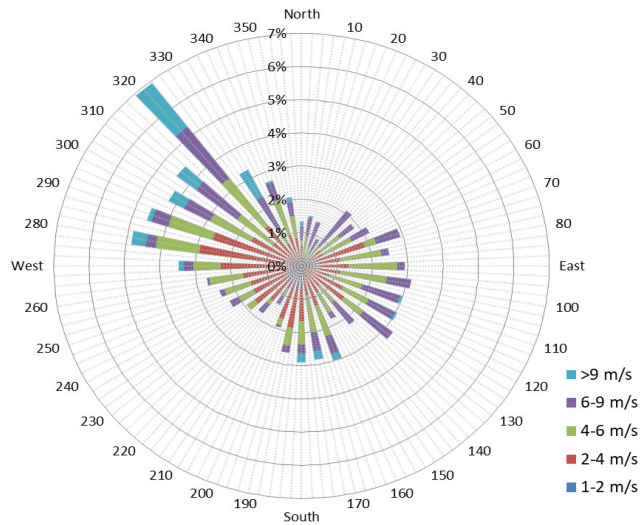




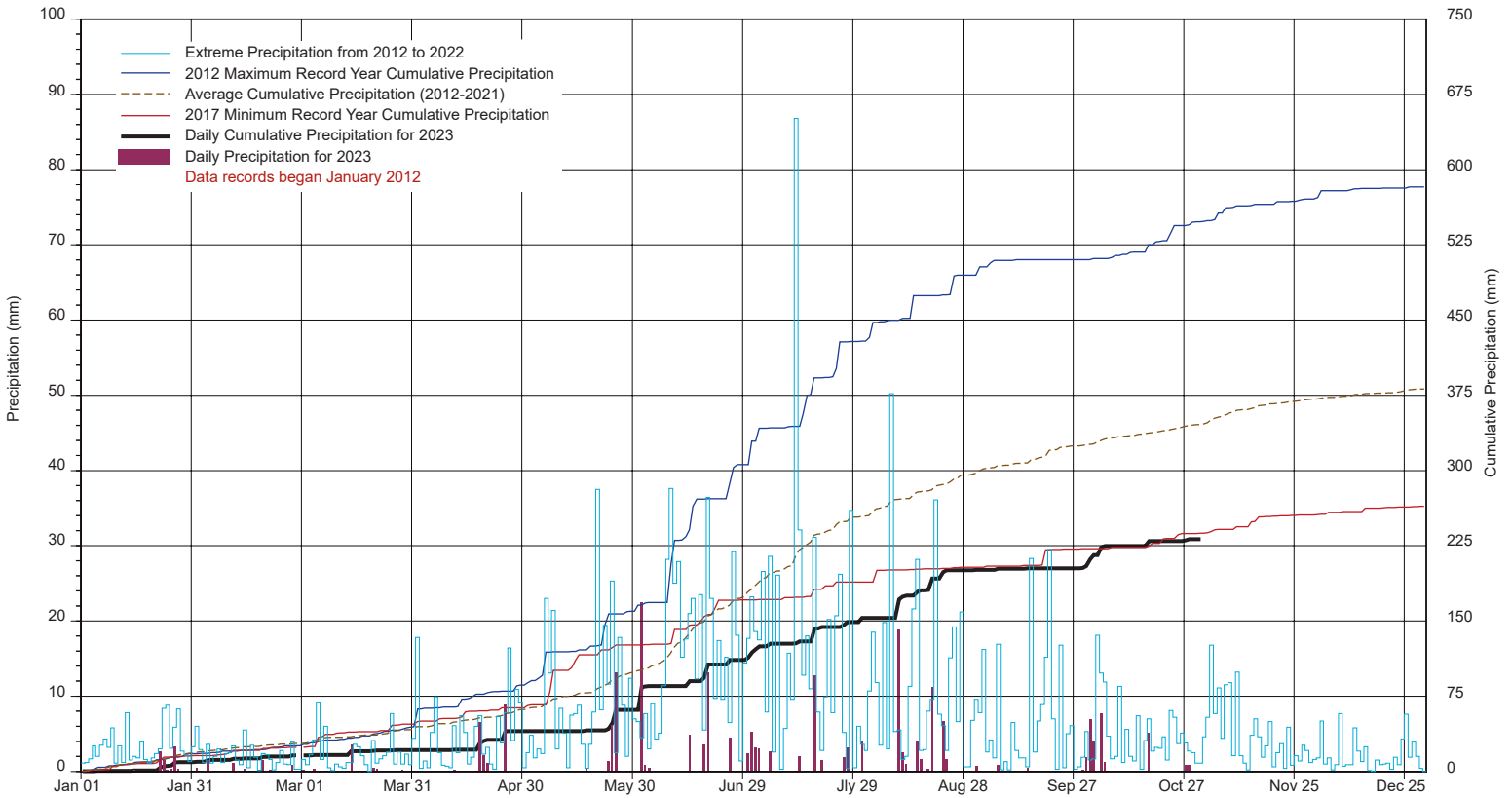
10 minute Average Wind Speed and Direction CLC October 2023



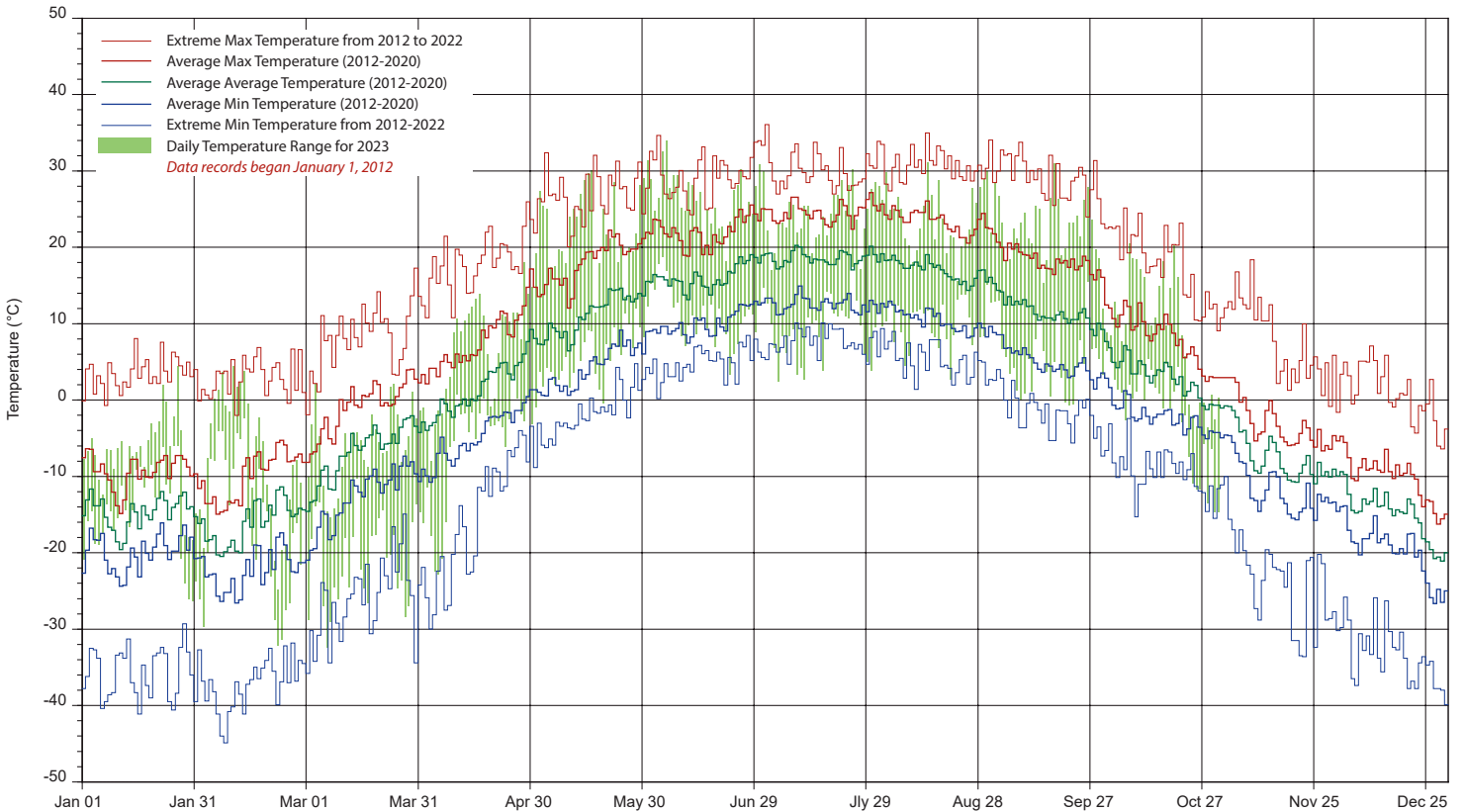
1/2 hr Maximum Wind Speed and Direction CLC October 2023



# SRC's CLIMATE REFERENCE STATION at the Conservation Learning Centre 2023 PRECIPITATION AND AVERAGE



## 2023 TEMPERATURES AND AVERAGES



SRC proudly recognizes the following CRS supporters:

