



# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## CONSERVATION LEARNING CENTRE

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

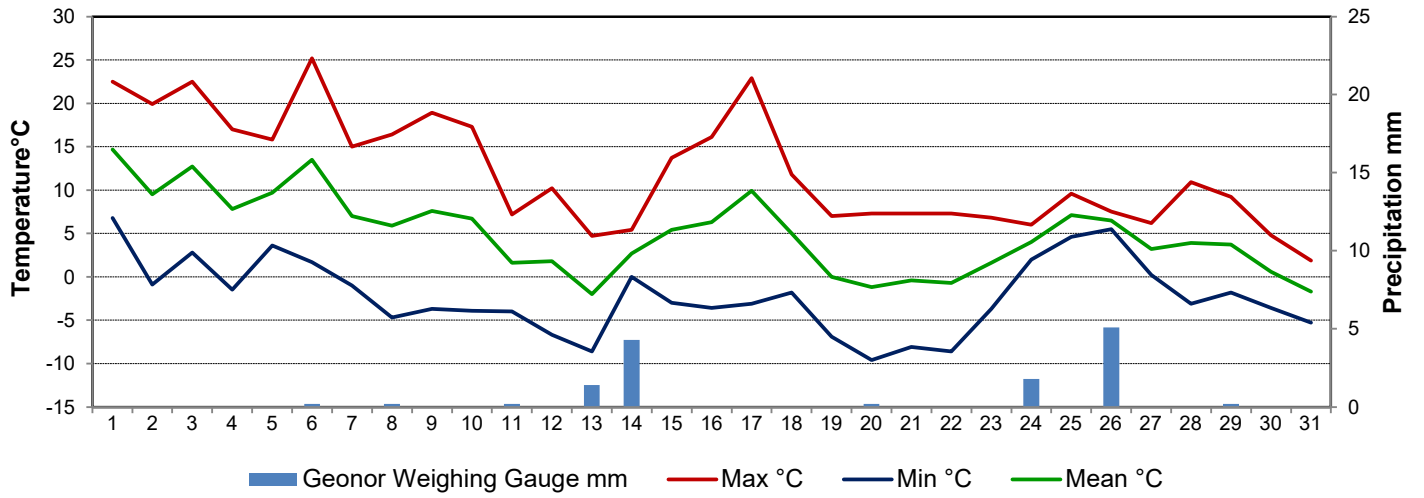
Preliminary **October 2021**

Day	Temperature			Degree-days			Precipitation			Relative Humidity		Station Pressure <i>corrected to sea level</i>	
	Max	Min	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	°C	°C	5°C base	18°C base	18°C base	mm	mm	cm	%	%	mbar	mbar
1	22.5	6.8	14.7	9.7	3.3	0.0	0.0		0	61	35	1019	1012
2	19.9	-0.9	9.5	4.5	8.5	0.0	0.0		0	98	27	1020	1008
3	22.5	2.8	12.7	7.7	5.3	0.0	0.0		0	81	24	1013	1007
4	17.0	-1.5	7.8	2.8	10.2	0.0	0.0		0	97	21	1018	1014
5	15.8	3.6	9.7	4.7	8.3	0.0	0.0		0	79	38	1016	1009
6	25.2	1.7	13.5	8.5	4.5	0.0	0.2		0	94	33	1009	1003
7	15.0	-1.0	7.0	2.0	11.0	0.0	0.0		0	88	31	1016	1004
8	16.4	-4.7	5.9	0.9	12.1	0.0	0.2		0	98	45	1016	1011
9	18.9	-3.7	7.6	2.6	10.4	0.0	0.0		0	100	24	1011	1004
10	17.3	-3.9	6.7	1.7	11.3	0.0	0.0		0	90	26	1004	998
11	7.2	-4.0	1.6	0.0	16.4	0.0	0.2		0	96	77	1017	998
12	10.2	-6.7	1.8	0.0	16.2	0.0	0.0		0	96	36	1020	1017
13	4.7	-8.6	-2.0	0.0	20.0	0.0	1.4		0	98	76	1018	1009
14	5.4	0.0	2.7	0.0	15.3	0.0	4.3		0	100	84	1009	1007
15	13.7	-3.0	5.4	0.4	12.6	0.0	0.0		0	93	35	1009	1008
16	16.1	-3.6	6.3	1.3	11.7	0.0	0.0		0	91	37	1012	1009
17	22.9	-3.1	9.9	4.9	8.1	0.0	0.0		0	99	23	1008	1000
18	11.8	-1.8	5.0	0.0	13.0	0.0	0.0		0	97	58	1021	999
19	7.0	-6.9	0.0	0.0	18.0	0.0	0.0		0	98	44	1028	1021
20	7.3	-9.6	-1.2	0.0	19.2	0.0	0.2		0	97	47	1027	1021
21	7.3	-8.1	-0.4	0.0	18.4	0.0	0.0		0	96	52	1022	1019
22	7.3	-8.6	-0.7	0.0	18.7	0.0	0.0		0	95	48	1021	1015
23	6.8	-3.7	1.6	0.0	16.4	0.0	0.0		0	97	61	1015	1010
24	6.0	2.0	4.0	0.0	14.0	0.0	1.8		0	94	75	1012	1009
25	9.6	4.6	7.1	2.1	10.9	0.0	0.0		0	88	66	1010	1001
26	7.5	5.5	6.5	1.5	11.5	0.0	5.1		0	99	90	1001	998
27	6.2	0.2	3.2	0.0	14.8	0.0	0.0		0	100	98	1007	998
28	10.9	-3.1	3.9	0.0	14.1	0.0	0.0		0	100	39	1012	1007
29	9.2	-1.8	3.7	0.0	14.3	0.0	0.2		0	89	53	1011	1006
30	4.8	-3.6	0.6	0.0	17.4	0.0	0.0		0	83	54	1020	1011
31	1.9	-5.3	-1.7	0.0	19.7	0.0	0.0		0	89	61	1025	1020
<b>Total</b>				55.3	405.6	0.0	13.6						
<b>Avg</b>	<b>12.1</b>	<b>-2.3</b>	<b>4.9</b>				242.2	<b>Cumulative ppt</b>					
<b>Extreme</b>	25.2	-9.6					5.1		0	100	21	1028	998
<b>Date</b>	6	20					26			9	4	19	10

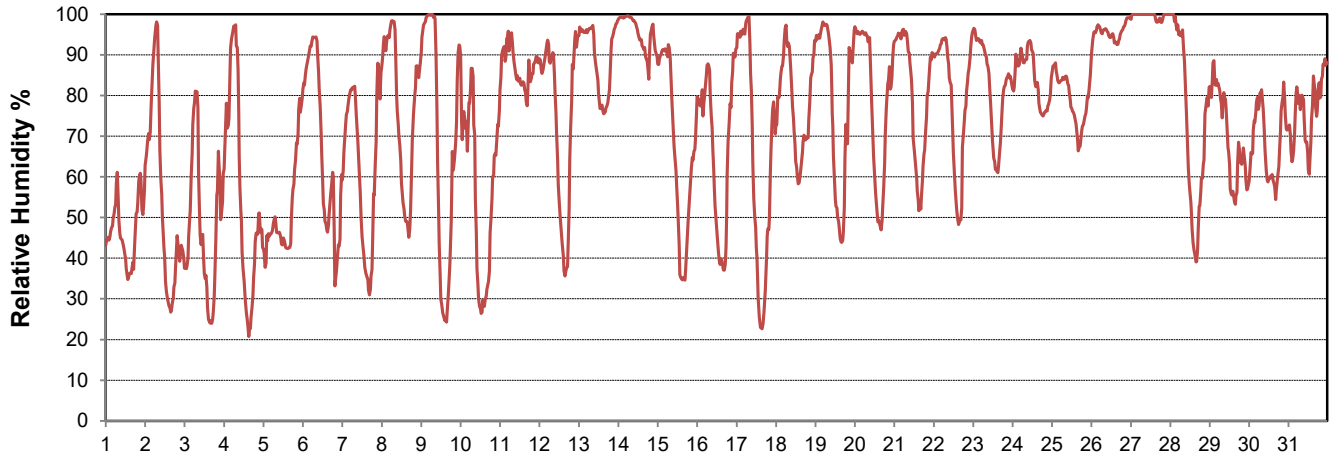
**SRC proudly recognizes the following CRS supporters:**



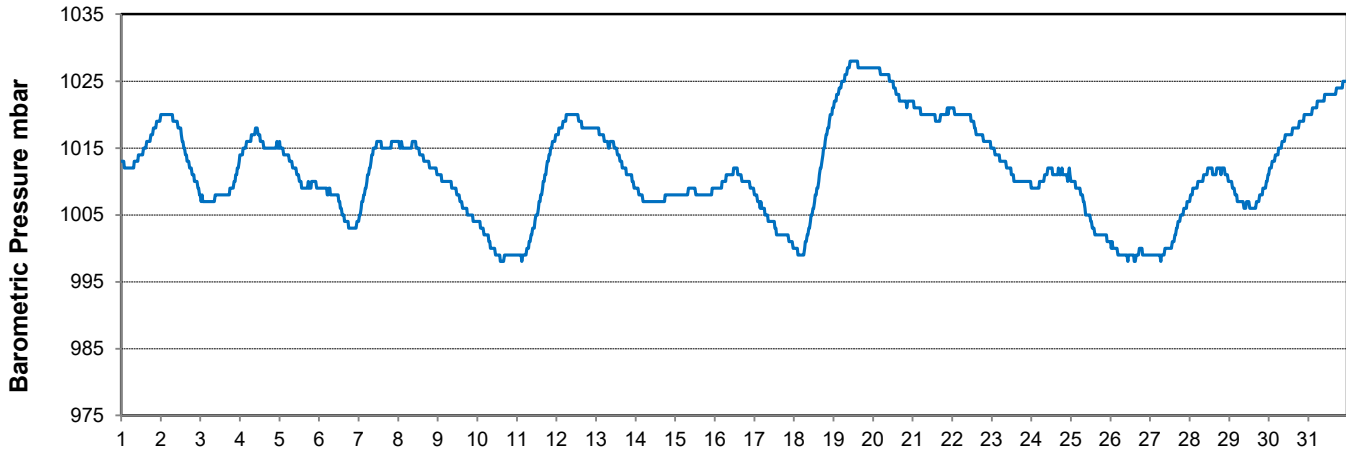
### Temperature and Precipitation for October 2021



### Relative Humidity for October 2021



### Barometric Pressure Corrected to Sea Level for October 2021





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## CONSERVATION LEARNING CENTRE

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

Preliminary

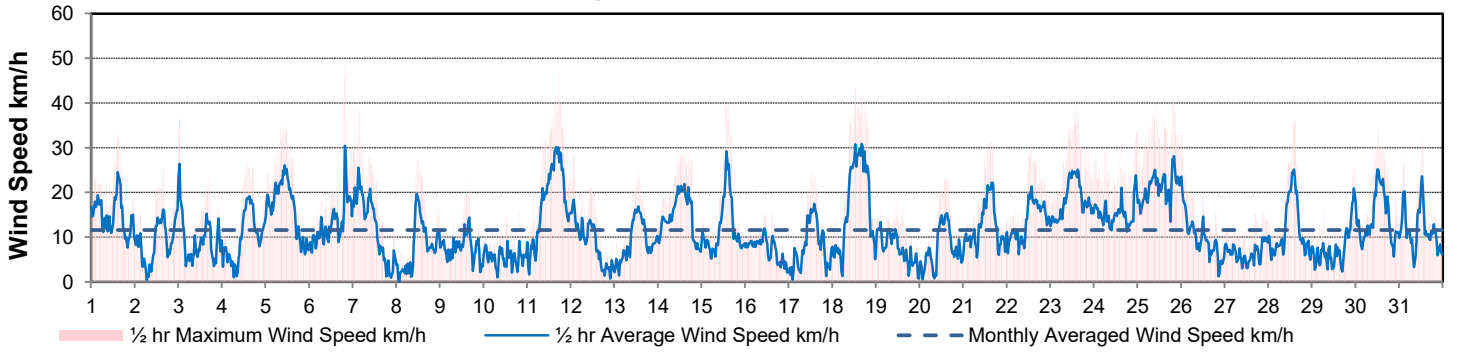
October 2021

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>
1	33.2	NW	15:19	15.0	12.0	9.5	10.0	11.0	11.5	11.0	10.5	8.5	10.5	11.6	90.8	12.7	2.0	
2	25.7	S	16:00	9.0	5.0	8.0	9.0	10.5	11.5	11.0	10.5	8.5	9.3	11.5	80.9	12.4	2.9	
3	36.4	S	0:39	9.5	9.0	8.5	9.5	10.5	11.5	11.0	10.5	8.5	10.0	11.4	87.5	12.1	3.1	
4	27.4	NNE	15:20	10.0	4.0	7.5	8.5	10.0	11.5	11.0	10.5	8.5	9.6	11.4	84.5	11.2	3.5	
5	35.6	E	9:35	16.5	7.5	8.5	8.5	9.5	11.0	11.0	10.5	8.5	6.1	11.3	54.0	8.0	4.8	
6	48.4	SSE	20:02	13.1	4.5	7.5	8.0	9.5	11.0	10.5	10.5	8.5	2.4	11.2	21.4	6.2	5.1	
7	38.4	NW	3:47	12.1	5.5	9.0	9.5	10.0	10.5	10.5	10.5	8.5	9.5	11.2	85.2	11.4	2.3	
8	27.2	S	11:32	8.0	0.0	6.0	7.0	9.0	10.5	10.5	10.5	8.5	10.1	11.1	91.1	11.5	2.6	
9	22.3	SSE	16:21	7.6	1.5	6.0	7.0	8.5	10.5	10.5	10.5	8.5	9.9	11.0	89.8	11.4	2.6	
10	15.6	W	19:52	5.5	1.0	5.0	6.0	8.0	10.0	10.5	10.0	8.5	7.0	11.0	63.9	8.1	5.7	
11	46.8	NW	17:23	18.3	6.0	5.5	6.0	8.0	9.5	10.0	10.0	8.5	0.4	10.9	3.7	3.0	2.9	
12	28.4	WNW	1:47	8.7	1.0	5.5	6.0	7.5	9.5	10.0	10.0	8.5	9.2	10.8	85.1	11.0	1.4	
13	24.5	E	13:11	9.1	-3.0	3.0	4.0	6.5	9.0	10.0	10.0	8.5	0.5	10.7	4.7	3.9	3.5	
14	29.5	NW	16:48	14.6	2.5	5.0	5.5	6.5	8.5	9.5	10.0	8.5	0.0	10.7	0.0	4.9	4.6	
15	39.4	NW	13:46	12.2	0.0	4.0	4.5	6.5	8.5	9.5	10.0	8.5	10.2	10.6	96.1	10.5	1.5	
16	15.5	SSE	14:49	7.3	0.5	3.0	4.0	6.0	8.0	9.0	9.5	8.5	9.9	10.5	93.9	9.9	1.7	
17	24.2	SW	12:17	8.0	2.5	3.0	4.0	6.0	8.0	9.0	9.5	8.5	9.4	10.5	89.8	9.3	2.6	
18	43.1	NNW	12:31	17.4	4.0	4.0	4.5	6.0	7.5	9.0	9.5	8.5	9.3	10.4	89.3	9.6	1.6	
19	19.1	ENE	11:46	7.5	-2.5	3.0	4.0	5.5	7.5	8.5	9.5	8.5	9.9	10.3	95.7	10.7	1.5	
20	23.3	SE	15:02	7.7	-6.5	1.0	2.5	4.5	7.5	8.5	9.5	8.5	9.8	10.3	95.4	10.4	1.5	
21	31.3	ESE	15:22	12.4	-4.0	1.0	2.0	4.0	7.0	8.5	9.0	8.5	9.2	10.2	90.1	10.3	2.1	
22	30.6	ESE	13:42	13.6	-6.0	0.5	1.5	3.5	6.5	8.0	9.0	8.5	9.1	10.1	89.7	10.4	1.6	
23	39.2	ESE	14:37	18.2	0.5	1.5	2.0	3.5	6.0	8.0	9.0	8.5	7.0	10.1	69.5	7.9	2.3	
24	33.5	S	23:30	15.3	2.5	3.0	3.0	4.0	6.0	7.5	9.0	8.0	0.0	10.0	0.0	2.1	2.0	
25	40.9	SSE	19:24	21.2	4.5	4.0	4.0	4.5	6.0	7.5	8.5	8.0	0.3	9.9	3.0	3.5	3.2	
26	33.6	S	0:08	9.8	5.5	5.0	5.0	5.0	6.0	7.5	8.5	8.0	0.0	9.9	0.0	1.8	1.8	
27	15.5	WSW	20:44	6.4	2.0	5.5	5.5	6.0	6.5	7.5	8.5	8.0	0.0	9.8	0.0	2.4	2.3	
28	36.1	W	14:32	11.5	-1.5	3.5	4.0	5.5	6.5	7.5	8.5	8.0	8.9	9.8	91.3	7.8	1.2	
29	25.5	NNW	23:14	7.9	2.0	3.0	3.5	4.5	6.5	7.5	8.5	8.0	2.4	9.7	24.8	4.7	3.2	
30	34.7	NW	12:40	14.1	-1.5	2.5	3.0	4.5	6.0	7.5	8.0	8.0	6.0	9.6	62.4	6.2	2.0	
31	31.7	NW	12:42	11.7	-1.5	2.0	2.5	4.0	6.0	7.0	8.0	8.0	0.5	9.6	5.2	9.1	4.7	
Total													196.4	327.0	60.1	254.4	83.8	
Mean				11.6	1.8	4.6	5.3	6.7	8.5	9.2	9.4	8.4						
Extreme	48.4	SSE	20:02															
Date	6																	

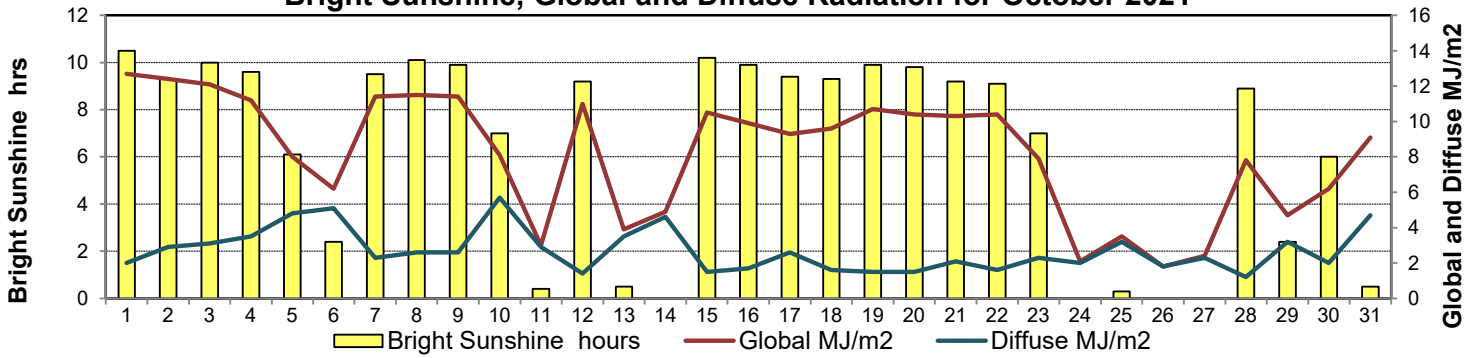
### GLOSSARY OF TERMS

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

### Wind Speed for October 2021

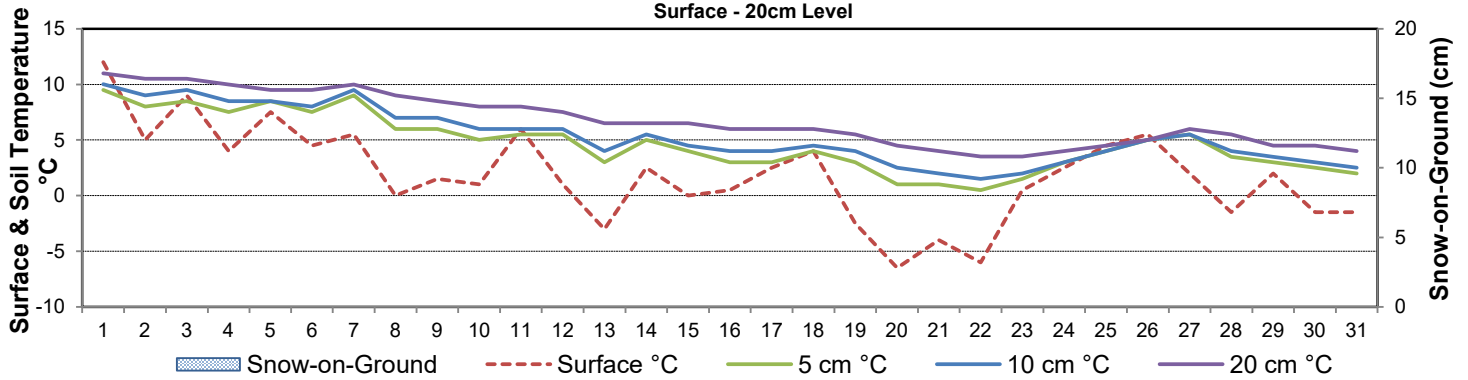


### Bright Sunshine, Global and Diffuse Radiation for October 2021



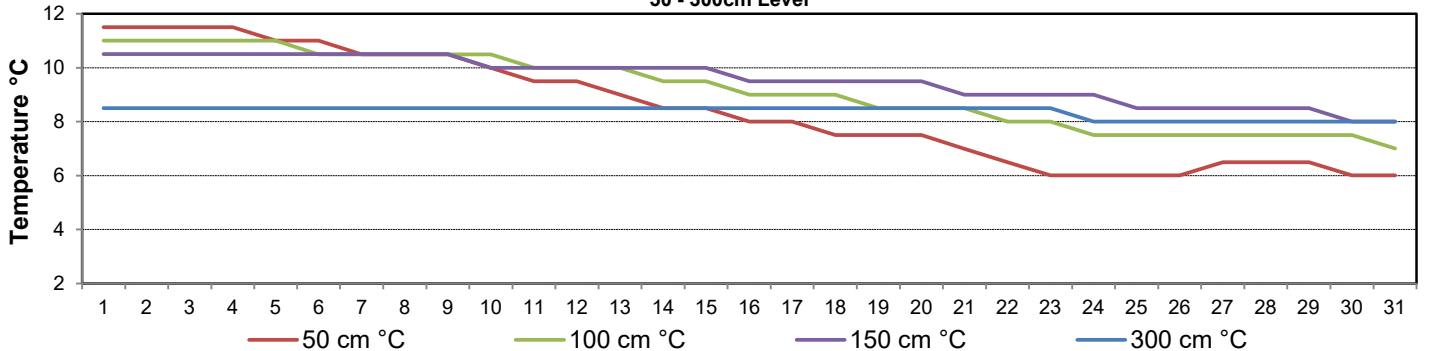
### Soil Temperatures for October 2021

Surface - 20cm Level



### Soil Temperatures for October 2021

50 - 300cm Level





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## CONSERVATION LEARNING CENTRE

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

Preliminary

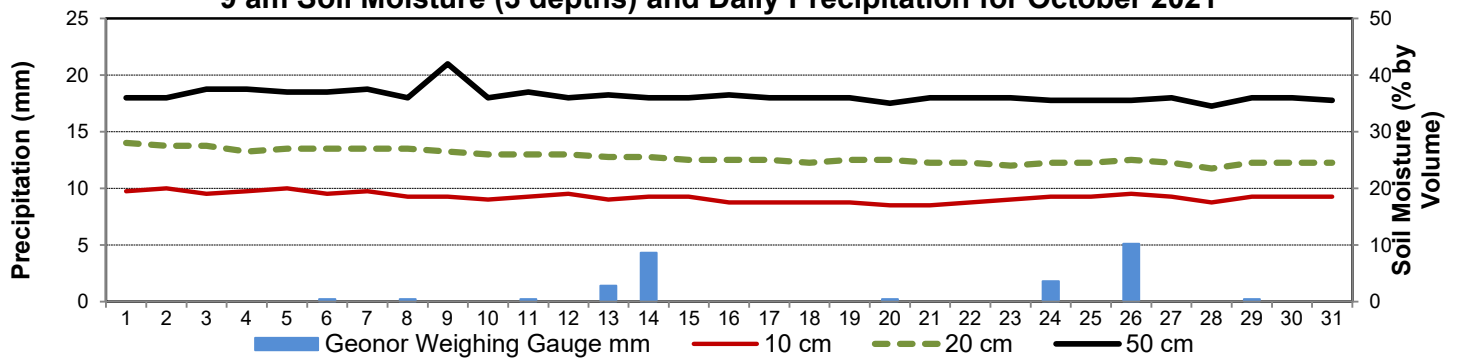
**October 2021**

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 Clay Loam)																	
1	11.0	18.6	25.8	19.5	28.0	36.0															
2	6.0	12.7	19.3	20.0	27.5	36.0															
3	7.0	18.5	28.7	19.0	27.5	37.5															
4	6.0	13.7	19.7	19.5	26.5	37.5															
5	12.0	19.1	28.3	20.0	27.0	37.0															
6	9.0	21.4	38.5	19.0	27.0	37.0															
7	10.0	18.4	27.9	19.5	27.0	37.5															
8	6.0	15.7	21.8	18.5	27.0	36.0															
9	5.0	11.4	17.4	18.5	26.5	42.0															
10	3.0	7.8	12.6	18.0	26.0	36.0															
11	13.0	22.4	33.7	18.5	26.0	37.0															
12	7.0	14.0	22.4	19.0	26.0	36.0															
13	6.0	13.0	21.0	18.0	25.5	36.5															
14	11.0	16.6	22.9	18.5	25.5	36.0															
15	9.0	22.2	30.4	18.5	25.0	36.0															
16	5.0	10.4	14.3	17.5	25.0	36.5															
17	6.0	14.0	20.4	17.5	25.0	36.0															
18	12.0	22.8	32.1	17.5	24.5	36.0															
19	5.0	9.8	16.0	17.5	25.0	36.0															
20	4.0	11.6	18.5	17.0	25.0	35.0															
21	9.0	17.1	24.3	17.0	24.5	36.0															
22	10.0	13.6	25.6	17.5	24.5	36.0															
23	12.0	15.7	25.6	18.0	24.0	36.0															
24	10.0	17.1	24.8	18.5	24.5	35.5															
25	14.0	19.1	28.9	18.5	24.5	35.5															
26	7.0	16.8	24.5	19.0	25.0	35.5															
27	5.0	8.4	12.6	18.5	24.5	36.0															
28	8.0	19.0	28.9	17.5	23.5	34.5															
29	5.0	15.0	19.5	18.5	24.5	36.0															
30	10.0	18.9	27.5	18.5	24.5	36.0															
31	8.0	9.0	24.0	18.5	24.5	35.5															
Total																					
Mean				18	26	36.3															
Extreme	14.0	22.8	38.5	20	28	42															
Date	5	6	9.5	10.5	11	8.5															

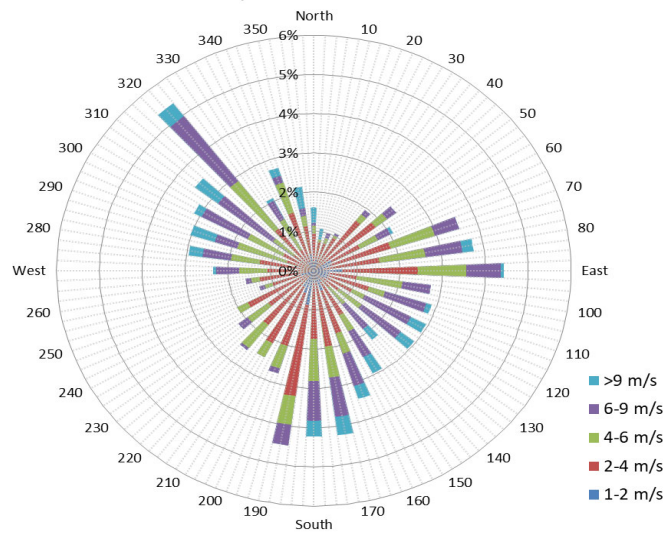
**SRC proudly recognizes the following CRS supporters:**



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



### 1/2 hr Maximum Wind Speed and Direction CLC October 2021



### 10 minute Average Wind Speed and Direction CLC October 2021

