



# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## CONSERVATION LEARNING CENTRE

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

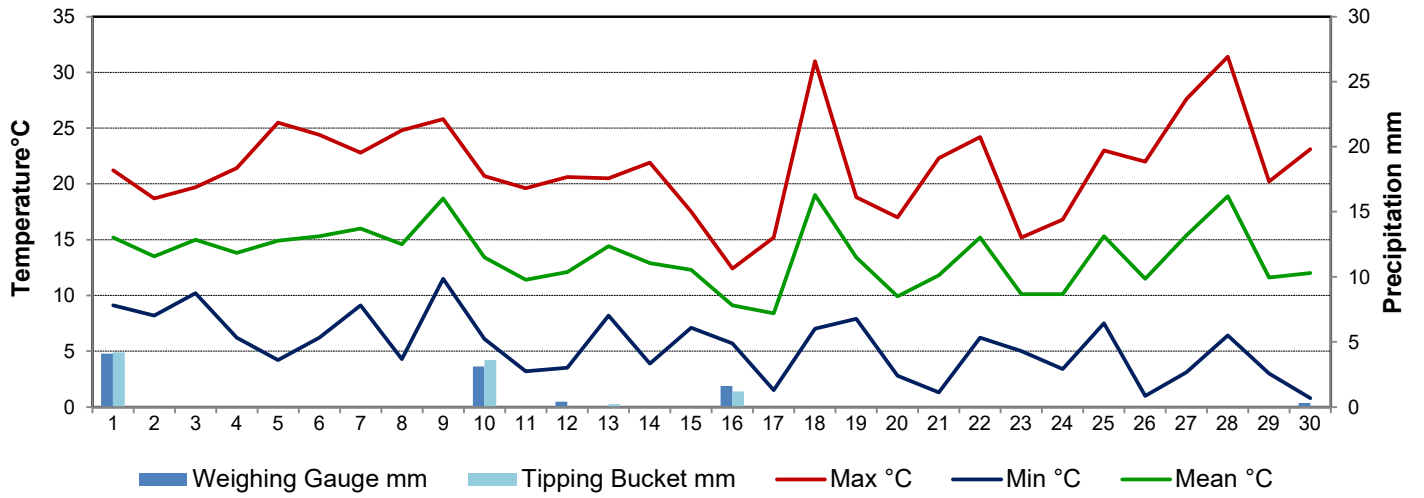
Preliminary **September 2021**

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	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	21.2	9.1	15.2	10.2	2.8	0.0	4.1	4.2	-	100	58	1005	1003
2	18.7	8.2	13.5	8.5	4.5	0.0	0.0	0.0	-	97	68	1011	1005
3	19.7	10.2	15.0	10.0	3.0	0.0	0.0	0.0	-	96	64	1013	1011
4	21.4	6.2	13.8	8.8	4.2	0.0	0.0	0.0	-	100	47	1014	1012
5	25.5	4.2	14.9	9.9	3.1	0.0	0.0	0.0	-	100	42	1012	1003
6	24.4	6.2	15.3	10.3	2.7	0.0	0.0	0.0	-	100	31	1009	1005
7	22.8	9.1	16.0	11.0	2.0	0.0	0.0	0.0	-	83	43	1017	1009
8	24.8	4.3	14.6	9.6	3.4	0.0	0.0	0.0	-	99	31	1019	1012
9	25.8	11.5	18.7	13.7	0.0	0.7	0.0	0.0	-	93	36	1013	1005
10	20.7	6.1	13.4	8.4	4.6	0.0	3.1	3.6	-	96	43	1016	1007
11	19.6	3.2	11.4	6.4	6.6	0.0	0.0	0.0	-	100	45	1019	1016
12	20.6	3.5	12.1	7.1	5.9	0.0	0.4	0.0	-	100	37	1018	1010
13	20.5	8.2	14.4	9.4	3.6	0.0	0.0	0.2	-	98	42	1010	1009
14	21.9	3.9	12.9	7.9	5.1	0.0	0.0	0.0	-	98	33	1012	1004
15	17.5	7.1	12.3	7.3	5.7	0.0	0.0	0.0	-	83	34	1003	995
16	12.4	5.7	9.1	4.1	8.9	0.0	1.6	1.2	-	86	55	1008	999
17	15.2	1.5	8.4	3.4	9.6	0.0	0.0	0.0	-	92	35	1014	1003
18	31.0	7.0	19.0	14.0	0.0	1.0	0.0	0.0	-	72	20	1002	992
19	18.8	7.9	13.4	8.4	4.6	0.0	0.0	0.0	-	90	41	1007	994
20	17.0	2.8	9.9	4.9	8.1	0.0	0.0	0.0	-	97	45	1017	1007
21	22.3	1.3	11.8	6.8	6.2	0.0	0.0	0.0	-	99	26	1019	1013
22	24.2	6.2	15.2	10.2	2.8	0.0	0.0	0.0	-	73	33	1013	1004
23	15.2	5.0	10.1	5.1	7.9	0.0	0.0	0.0	-	87	28	1016	1007
24	16.8	3.4	10.1	5.1	7.9	0.0	0.0	0.0	-	77	29	1017	1006
25	23.0	7.5	15.3	10.3	2.7	0.0	0.0	0.0	-	73	34	1006	1003
26	22.0	1.0	11.5	6.5	6.5	0.0	0.0	0.0	-	99	37	1008	1001
27	27.6	3.1	15.4	10.4	2.6	0.0	0.0	0.0	-	99	28	1001	1000
28	31.4	6.4	18.9	13.9	0.0	0.9	0.0	0.0	-	91	19	1002	998
29	20.2	3.0	11.6	6.6	6.4	0.0	0.0	0.0	-	94	32	1017	1000
30	23.1	0.8	12.0	7.0	6.0	0.0	0.3	0.0	-	99	23	1018	1013
Total				255.2	137.4	2.6	9.5	9.2					
Avg	21.5	5.5	13.5				228.6	Cumulative ppt					
Extreme	31.4	0.8					4.1	4.2	0	100	19	1019	992
Date	28	30					1	1		1	28	8	18

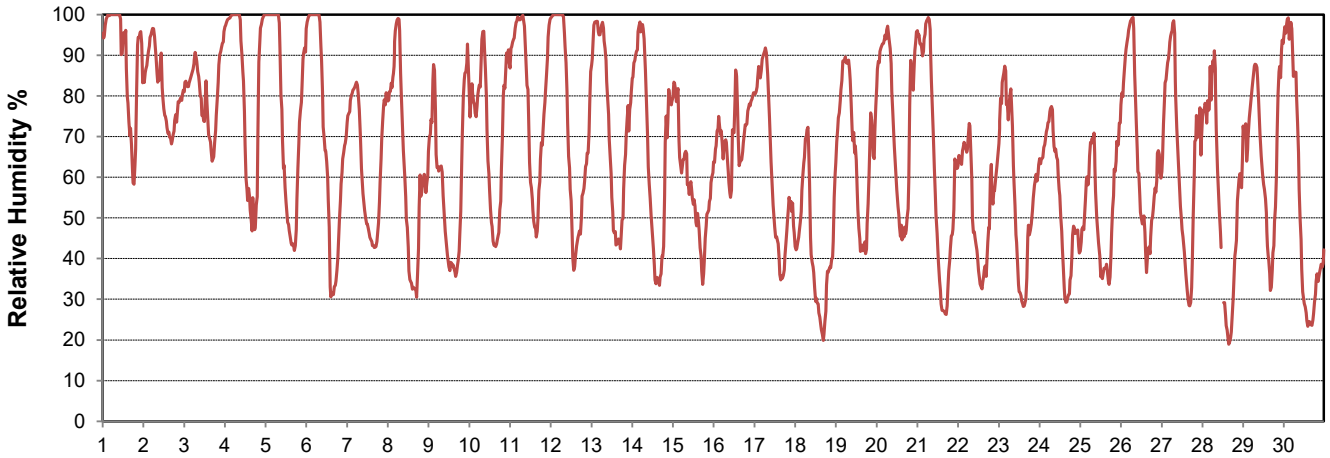
**SRC proudly recognizes the following CRS supporters:**



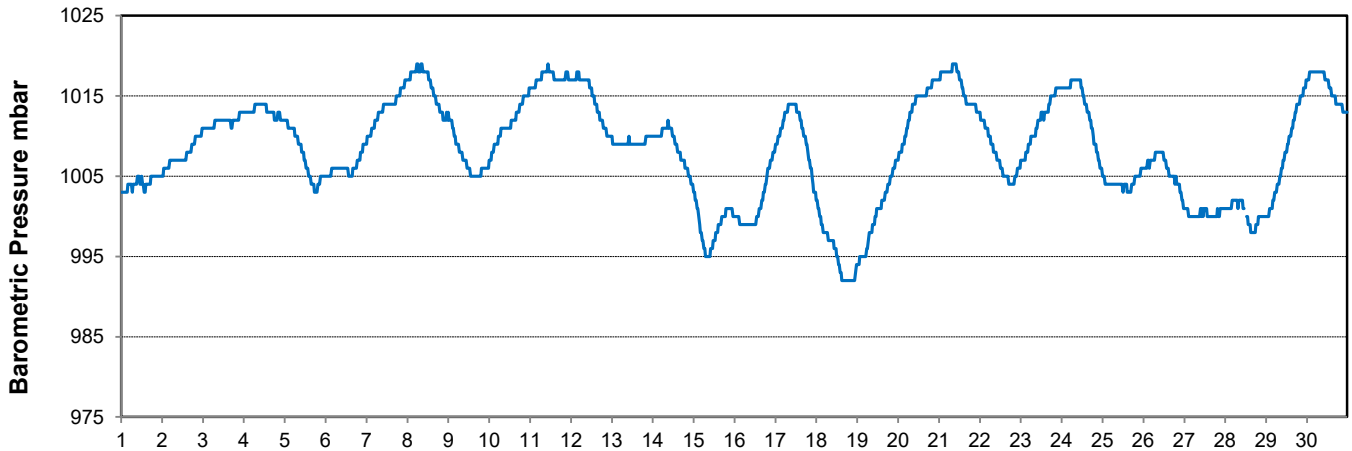
### Temperature and Precipitation for September 2021



### Relative Humidity for September 2021



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





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## CONSERVATION LEARNING CENTRE

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

Preliminary

September 2021

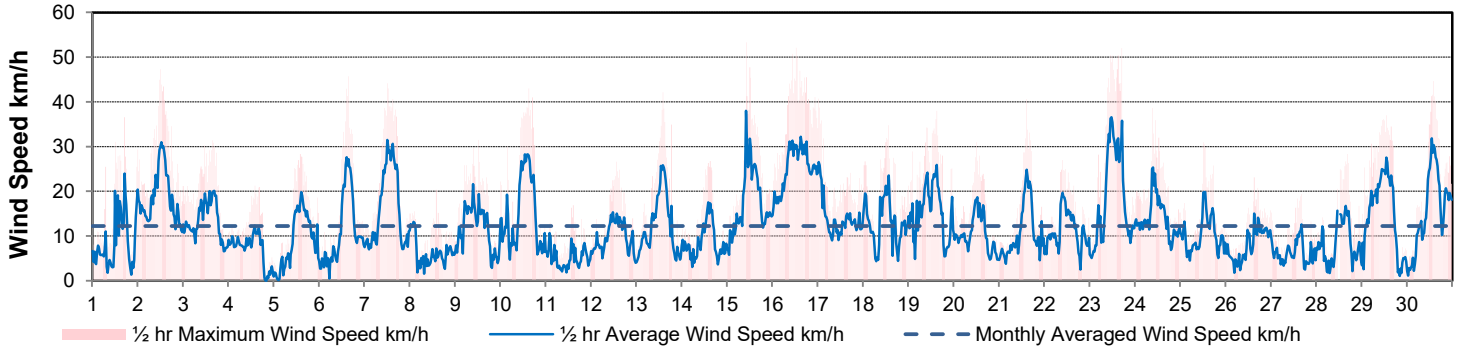
Day	Wind Gust (10 meter)			Wind Speed (10 meters)	Soil Temperatures at 0900hrs								Radiation					
	Max	Direction	Time		Daily Average	Surface	5 cm	10 cm	20 cm	50 cm	100 cm	150 cm	300 cm	Bright Sunshine	Possible	% Possible	Global	Diffuse
	km/h					km/h	°C	°C	°C	°C	°C	°C	°C	°C	hours	hours		MJ/m <sup>2</sup>
1	36.5	SW	17:14	8.8	13.0	14.0	14.5	15.0	11.5	12.5	11.5	8.0	5.8	13.6	42.6	10.4	5.4	
2	47.3	W	12:02	18.8	13.0	12.5	13.0	14.0	12.0	12.5	11.5	7.5	3.3	13.6	24.4	8.8	6.7	
3	31.4	NW	15:55	13.5	14.0	14.0	14.0	14.0	12.0	12.5	11.5	8.0	4.4	13.5	32.6	10.8	7.4	
4	21.2	NNW	14:08	7.2	11.5	12.5	13.0	14.0	12.0	12.5	11.5	8.0	9.5	13.4	70.8	16.2	6.4	
5	28.3	SE	14:18	9.0	12.5	12.0	12.5	13.5	12.0	12.5	11.5	8.0	6.4	13.4	47.9	12.3	8.0	
6	45.7	NW	15:45	11.0	12.5	12.5	12.5	13.5	12.0	12.5	11.5	8.0	6.9	13.3	52.0	12.8	4.8	
7	44.1	NW	12:28	16.1	15.0	12.0	12.5	13.5	12.0	12.5	11.5	8.0	12.6	13.2	95.3	18.8	2.7	
8	20.3	SSW	14:14	6.1	13.0	11.5	12.0	13.0	12.0	12.5	11.5	8.0	11.3	13.2	85.9	17.8	2.1	
9	31.5	SSW	12:41	11.8	17.0	13.5	13.5	14.0	12.5	12.5	11.5	8.0	11.2	13.1	85.6	15.8	5.2	
10	43.0	NNW	15:07	15.1	12.0	13.5	13.5	14.0	11.5	12.5	11.5	8.0	9.4	13.0	72.3	16.5	3.7	
11	16.9	NNW	14:34	5.1	8.5	11.5	12.0	13.0	11.5	12.5	11.5	8.0	6.9	12.9	53.3	14.0	4.9	
12	26.6	SSW	13:41	9.6	10.5	11.0	11.5	13.0	13.0	12.5	11.5	8.0	10.3	12.9	80.0	15.2	6.1	
13	42.2	NW	14:08	12.1	12.0	12.5	12.5	13.0	12.5	12.5	11.5	8.0	10.4	12.8	81.2	15.7	3.1	
14	26.7	NW	15:18	8.4	11.0	11.0	11.5	12.5	13.0	12.5	11.5	8.0	10.9	12.7	85.6	16.6	3.8	
15	53.3	NW	10:08	17.8	16.0	12.0	12.0	12.5	13.0	12.5	11.5	8.0	7.8	12.7	61.6	12.0	6.5	
16	52.1	WNW	12:46	25.0	10.0	10.0	11.0	12.0	12.5	12.0	11.5	8.0	5.3	12.6	42.1	9.6	6.0	
17	40.7	NW	0:42	13.9	5.5	9.0	10.0	11.0	12.0	12.0	11.0	8.0	8.5	12.5	67.8	13.9	4.7	
18	34.7	SSE	13:33	13.0	12.0	10.0	10.5	11.0	12.0	12.0	11.0	8.0	8.9	12.5	71.4	13.0	5.9	
19	37.9	NW	15:13	15.6	10.0	11.5	11.5	12.0	12.0	12.0	11.0	8.0	7.9	12.4	63.8	12.7	4.3	
20	31.0	E	12:16	10.4	8.5	10.0	10.5	11.5	12.0	11.5	11.0	8.0	9.1	12.3	73.9	12.6	3.5	
21	40.7	SSW	15:00	10.8	7.5	9.0	9.5	11.0	12.0	11.5	11.0	8.0	11.0	12.3	89.7	14.6	4.4	
22	27.0	SSW	9:57	11.3	13.5	9.5	10.0	11.0	11.5	11.5	11.0	8.5	9.2	12.2	75.5	12.6	4.2	
23	52.0	NNW	17:05	18.7	12.0	11.0	11.0	11.5	11.5	11.5	11.0	8.5	9.7	12.1	80.0	13.8	2.8	
24	38.6	NW	9:25	14.1	6.5	8.5	9.5	10.5	11.5	11.5	11.0	8.5	9.1	12.1	75.5	13.7	5.0	
25	31.0	NW	12:18	10.2	13.0	10.0	10.0	11.0	10.0	11.5	11.0	8.5	4.8	12.0	40.1	8.7	5.8	
26	23.1	S	15:20	8.1	8.5	9.0	9.5	11.0	11.0	11.0	11.0	8.5	7.5	11.9	63.0	9.8	5.1	
27	19.4	SSW	16:02	6.3	10.5	9.5	10.0	11.0	11.0	11.0	11.0	8.5	11.1	11.8	93.8	13.3	2.1	
28	28.3	SSE	16:57	8.3	11.5	9.5	10.0	11.0	11.0	11.0	10.5	8.5	9.5	11.8	80.7	9.4	3.3	
29	37.0	NW	13:11	14.9	13.0	11.5	11.5	11.5	12.0	11.0	10.5	8.5	8.9	11.7	76.1	12.5	2.4	
30	44.6	S	14:01	15.4	9.0	8.5	9.5	11.0	12.0	11.0	10.5	8.5	10.9	11.6	93.6	13.3	2.6	
Total													258.5	379.0	68.2	397.2	138.9	
Mean				12.2	11.4	11.1	11.5	12.4	11.9	12.0	11.2	8.1						
Extreme	53.3	NW	10:08															
Date	15																	

New 50 cm soil temp gauge install September 28

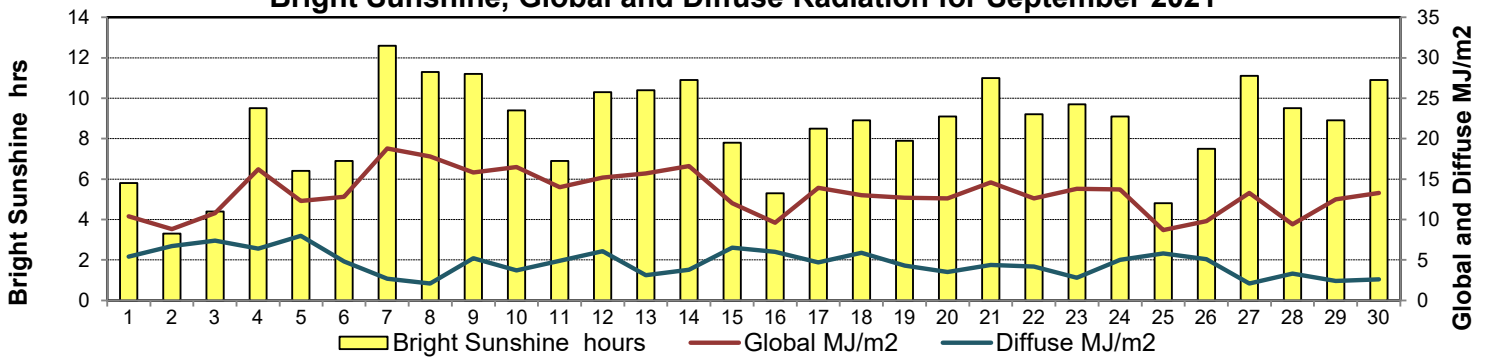
### GLOSSARY OF TERMS

<b>Degree-days</b>	<b>Radiation</b>
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	Diffuse is radiation reaching the earth's surface after having been scattered from the direct solar beam
Heating (18°C-T <sub>m</sub> ); if T <sub>m</sub> ≥ 18°C then HDD = 0	Global is the sum of the direct solar and diffuse radiation
Cooling (T <sub>m</sub> -18°C); if T <sub>m</sub> ≤ 18°C then CDD = 0	<b>Relative Humidity</b> The ratio of the air's water vapour content to 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 September 2021

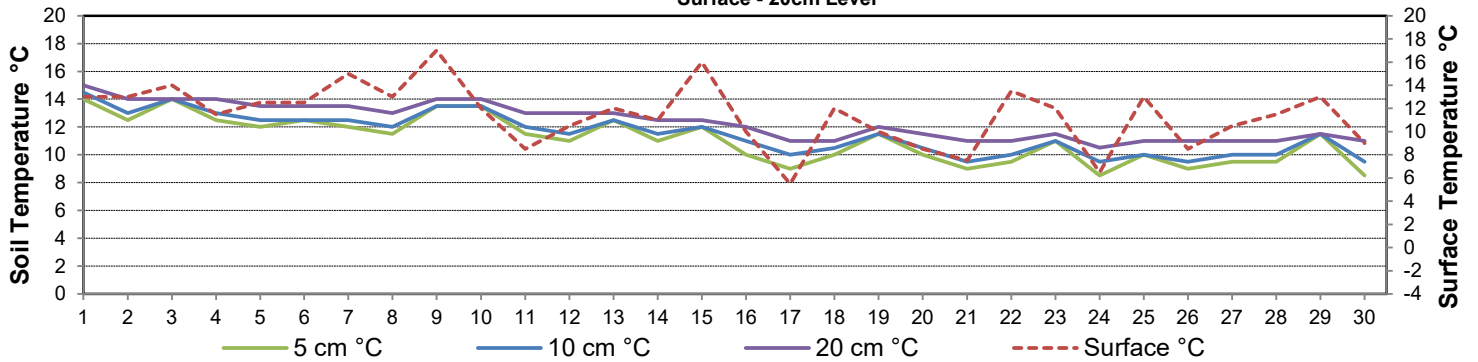


### Bright Sunshine, Global and Diffuse Radiation for September 2021



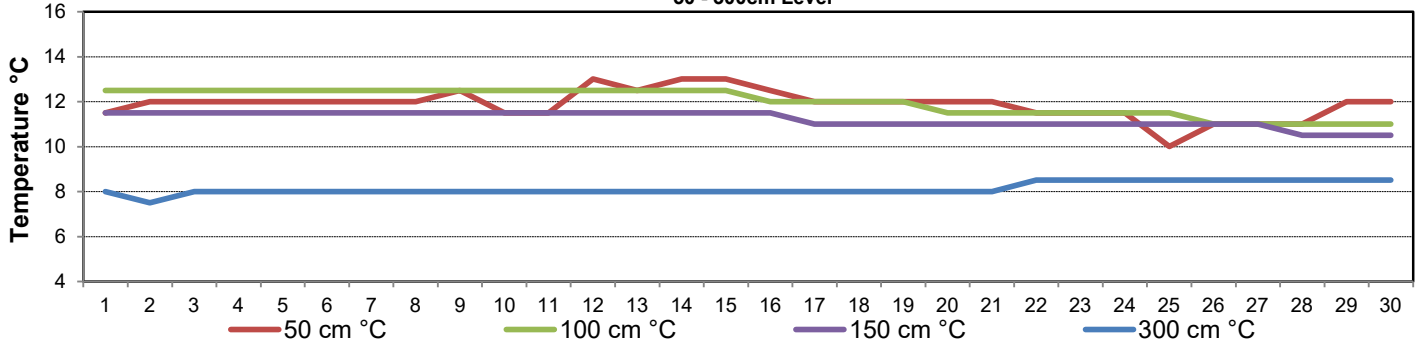
### Soil Temperatures for September 2021

Surface - 20cm Level



### Soil Temperatures for September 2021

50 - 300cm Level





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## CONSERVATION LEARNING CENTRE

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

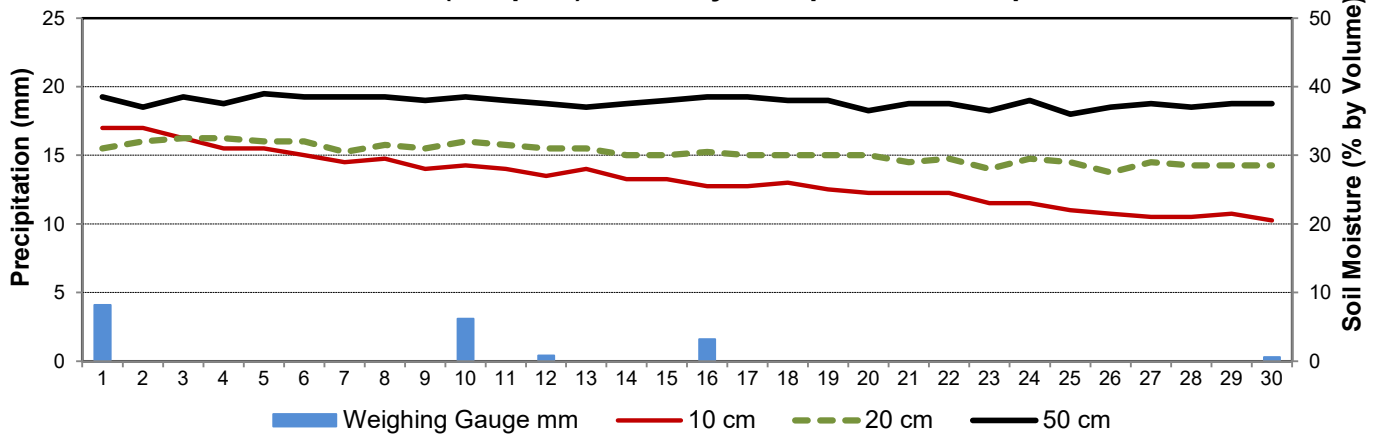
**September 2021**

Day	2 meter Wind Speed			Soil Moisture at 0900 hrs (rounded to the 0.5%)			Comments
	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	6.0	18.1	27.2	34.0	31.0	38.5	
2	14.0	23.0	33.3	34.0	32.0	37.0	
3	10.0	15.1	22.7	32.5	32.5	38.5	
4	5.0	10.2	17.2	31.0	32.5	37.5	
5	5.0	12.5	22.5	31.0	32.0	39.0	
6	8.0	20.5	35.6	30.0	32.0	38.5	
7	12.0	22.6	32.3	29.0	30.5	38.5	
8	5.0	8.5	14.3	29.5	31.5	38.5	
9	8.0	15.9	22.9	28.0	31.0	38.0	
10	11.0	20.6	31.6	28.5	32.0	38.5	
11	4.0	8.4	14.7	28.0	31.5	38.0	
12	7.0	12.2	21.6	27.0	31.0	37.5	
13	10.0	19.8	32.1	28.0	31.0	37.0	
14	7.0	13.7	25.4	26.5	30.0	37.5	
15	12.0	26.8	38.3	26.5	30.0	38.0	
16	19.0	23.9	37.9	25.5	30.5	38.5	
17	10.0	19.4	33.3	25.5	30.0	38.5	
18	9.0	17.0	26.4	26.0	30.0	38.0	
19	12.0	19.6	29.1	25.0	30.0	38.0	
20	8.0	14.7	23.3	24.5	30.0	36.5	
21	8.0	19.4	28.9	24.5	29.0	37.5	
22	8.0	15.9	21.8	24.5	29.5	37.5	
23	14.0	27.9	39.6	23.0	28.0	36.5	
24	11.0	19.2	28.3	23.0	29.5	38.0	
25	8.0	15.6	23.9	22.0	29.0	36.0	
26	6.0	11.2	17.9	21.5	27.5	37.0	
27	4.0	10.3	17.9	21.0	29.0	37.5	
28	5.0	12.0	21.4	21.0	28.5	37.0	
29	11.0	20.9	30.2	21.5	28.5	37.5	
30	11.0	23.5	33.3	20.5	28.5	37.5	
31							
<b>Total</b>							
<b>Mean</b>				26	30	37.7	
<b>Extreme</b>	19.0	27.9	39.6	34	32.5	39	
<b>Date</b>	12	11.5	11.5	15	14.5	13.5	

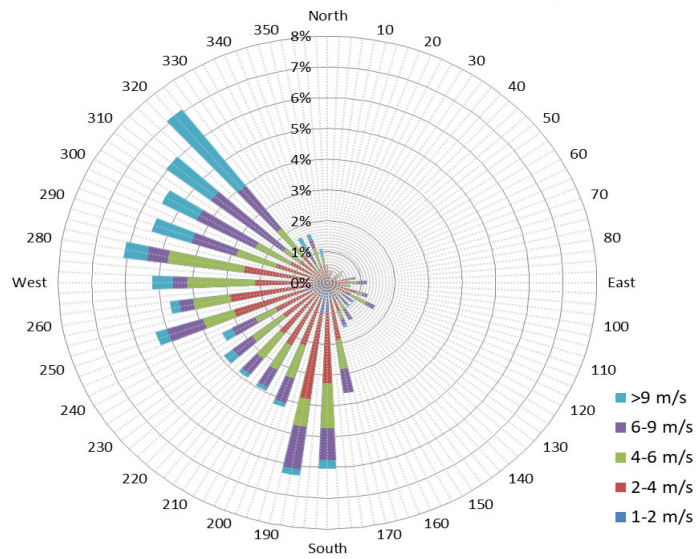
**SRC proudly recognizes the following CRS supporters:**



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



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



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

