



SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

CONSERVATION LEARNING CENTRE

Saskatchewan 53.03°N 105.77°W Estab. 2011

Preliminary **November 2019**

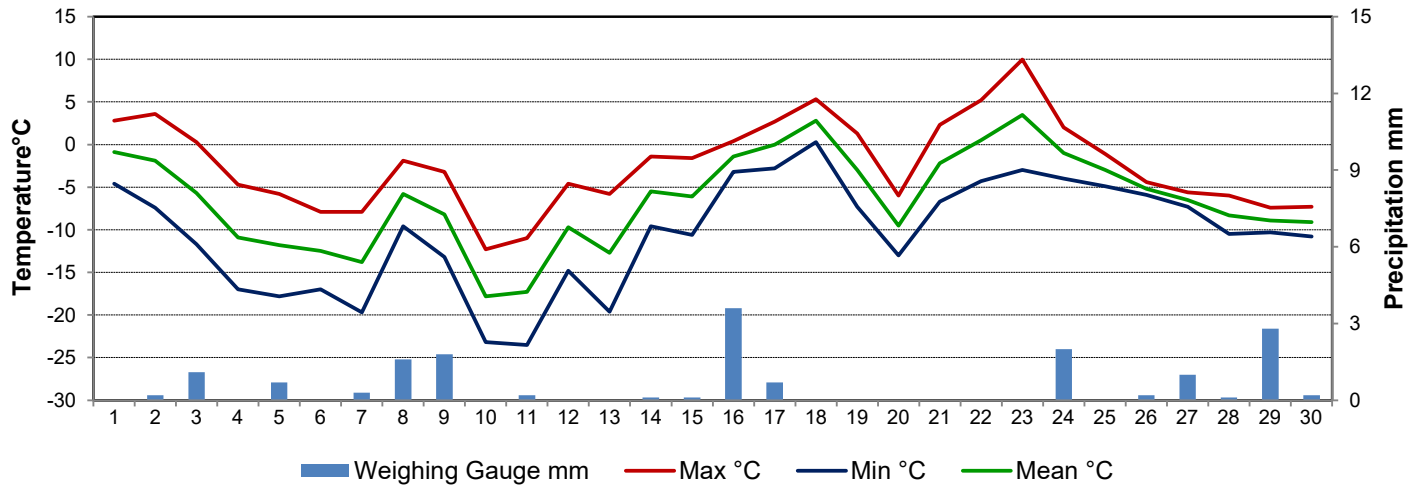
Day	Temperature			Degree-days			Precipitation			Relative Humidity		Station Pressure <i>corrected to sea level</i>	
	Max	Min	Mean	Growing	Heating	Cooling	Weighing Gauge	Notes	Snow-on-Ground 0900h	Max ½ hr Avg	Min ½ hr Avg	Max ½ hr Avg	Min ½ hr Avg
	°C	°C	°C	5°C base	18°C base	18°C base	mm		cm	%	%	mbar	mbar
1	2.8	-4.6	-0.9	0.0	18.9	0.0	0.0		1	100	81	1019	1014
2	3.6	-7.4	-1.9	0.0	19.9	0.0	0.2		0	99	74	1016	1010
3	0.3	-11.7	-5.7	0.0	23.7	0.0	1.1		0	99	72	1018	1010
4	-4.7	-17.0	-10.9	0.0	28.9	0.0	0.0		1	92	62	1021	1018
5	-5.8	-17.8	-11.8	0.0	29.8	0.0	0.7		1	92	65	1029	1019
6	-7.9	-17.0	-12.5	0.0	30.5	0.0	0.0		0	91	64	1032	1025
7	-7.9	-19.7	-13.8	0.0	31.8	0.0	0.3		0	93	76	1025	1014
8	-1.9	-9.6	-5.8	0.0	23.8	0.0	1.6		0	94	85	1014	1008
9	-3.2	-13.2	-8.2	0.0	26.2	0.0	1.8		3	96	59	1026	1012
10	-12.3	-23.2	-17.8	0.0	35.8	0.0	0.0		3	86	65	1034	1026
11	-11.0	-23.5	-17.3	0.0	35.3	0.0	0.2		3	86	72	1034	1012
12	-4.6	-14.8	-9.7	0.0	27.7	0.0	0.0		3	90	71	1012	1006
13	-5.8	-19.6	-12.7	0.0	30.7	0.0	0.0		2	96	81	1017	1010
14	-1.4	-9.6	-5.5	0.0	23.5	0.0	0.1		2	97	61	1019	1011
15	-1.6	-10.6	-6.1	0.0	24.1	0.0	0.1		2	99	77	1018	1002
16	0.4	-3.2	-1.4	0.0	19.4	0.0	3.6		4	100	92	1014	1002
17	2.7	-2.8	0.0	0.0	18.0	0.0	0.7		5	100	87	1012	995
18	5.3	0.3	2.8	0.0	15.2	0.0	0.0		4	91	81	1005	995
19	1.3	-7.3	-3.0	0.0	21.0	0.0	0.0		0	89	83	1016	1005
20	-6.0	-13.0	-9.5	0.0	27.5	0.0	0.0		0	93	76	1020	1016
21	2.3	-6.7	-2.2	0.0	20.2	0.0	0.0		0	97	72	1018	1007
22	5.2	-4.3	0.5	0.0	17.5	0.0	0.0		0	88	67	1007	1000
23	10.0	-3.0	3.5	0.0	14.5	0.0	0.0		0	89	54	1002	997
24	2.0	-4.0	-1.0	0.0	19.0	0.0	2.0		0	99	85	998	993
25	-1.1	-4.9	-3.0	0.0	21.0	0.0	0.0		0	94	78	1008	998
26	-4.4	-5.9	-5.2	0.0	23.2	0.0	0.2		0	93	81	1018	1008
27	-5.6	-7.3	-6.5	0.0	24.5	0.0	1.0		1	96	92	1030	1018
28	-6.0	-10.5	-8.3	0.0	26.3	0.0	0.1		1	97	86	1030	1023
29	-7.4	-10.3	-8.9	0.0	26.9	0.0	2.8		5	94	89	1023	1019
30	-7.3	-10.8	-9.1	0.0	27.1	0.0	0.2		4	95	83	1022	1019
Total				0.0	731.9	0.0	16.7						
Avg	-2.3	-10.4	-6.4				303.8	Cumulative ppt					
Extreme	10.0	-23.5					3.6		5	100	54	1034	993
Date	23	11					16		17	1	23	10	24

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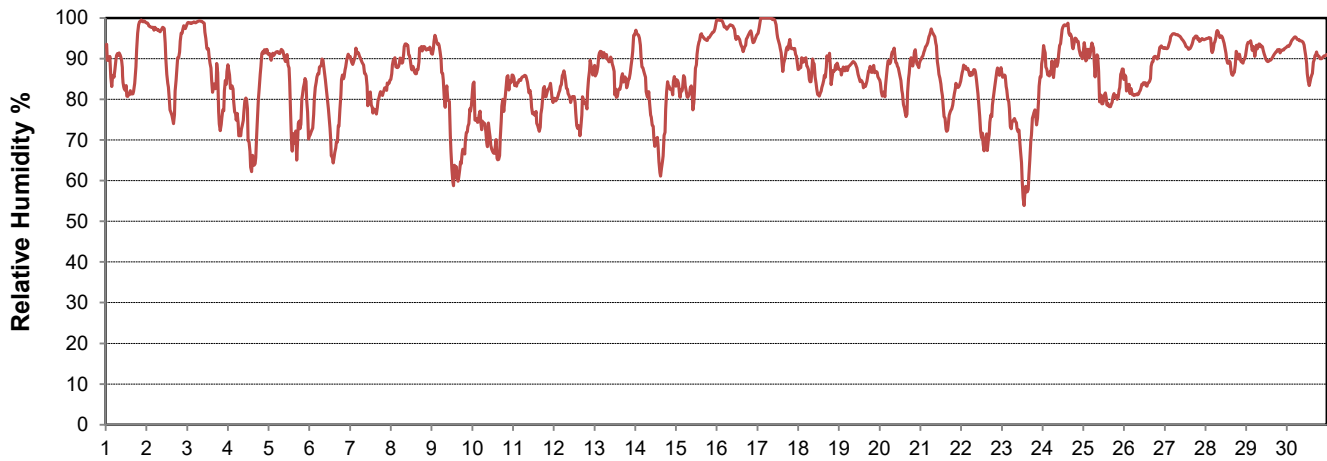


Equipment maintenance Nov 29, 2018.

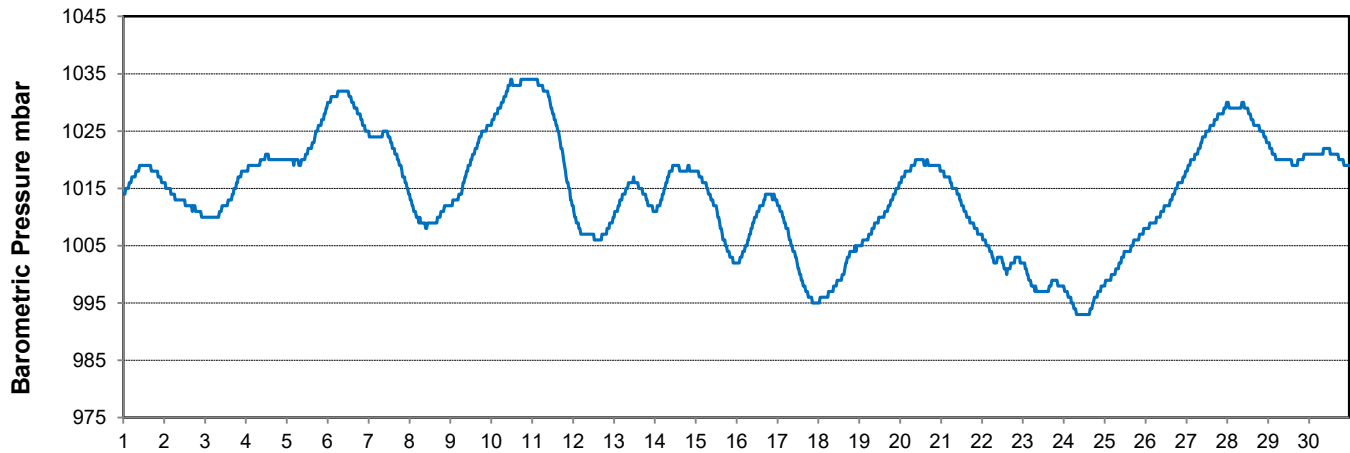
Temperature and Precipitation for November 2019



Relative Humidity for November 2019



Barometric Pressure Corrected to Sea Level for November 2019





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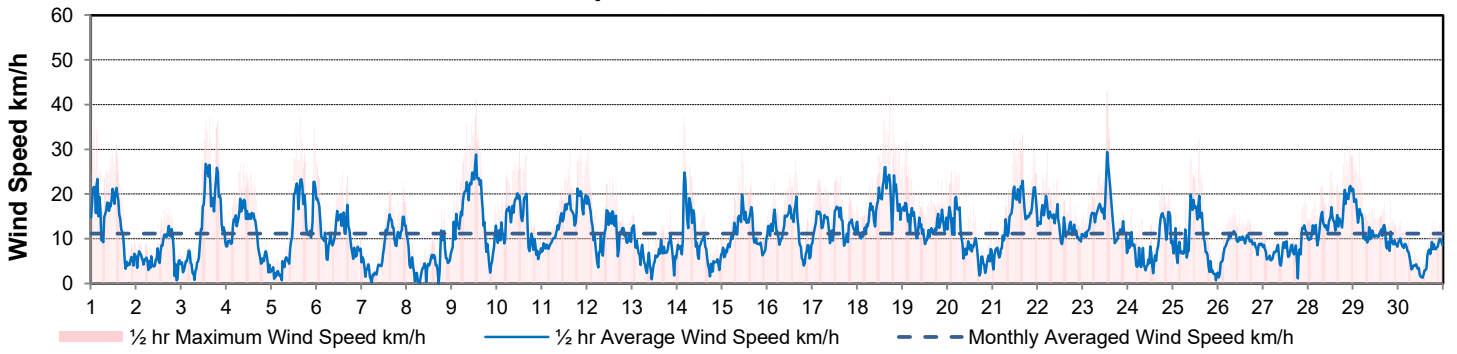
November 2019

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	36.2	NW	2:20	0.5	1.0	1.0	2.0	3.5	5.5	7.0	7.5	0.5	9.5	5.3	3.8	3.4
2	17.1	NW	17:39	-6.0	0.5	1.0	2.0	3.5	5.5	7.0	7.5	6.9	9.5	72.9	7.0	1.9
3	37.3	NNW	15:24	-2.0	0.5	1.0	2.0	3.5	5.5	7.0	7.5	0.1	9.4	1.1	1.8	1.6
4	26.7	WNW	7:36	-7.0	0.5	0.5	1.5	3.5	5.5	7.0	7.5	2.5	9.3	26.8	4.8	3.6
5	37.2	NW	15:50	-10.5	-0.5	0.0	1.5	3.0	5.5	7.0	7.5	2.2	9.3	23.7	4.3	3.2
6	27.5	NNW	0:05	-15.0	-1.5	-0.5	1.0	3.0	5.0	6.5	7.5	5.6	9.2	60.8	5.8	3.0
7	22.8	SSE	22:07	-17.5	-2.0	-1.0	0.5	3.0	5.0	6.5	7.5	7.4	9.2	80.9	6.8	3.0
8	16.7	NW	18:36	-5.0	-1.5	-1.0	0.5	2.5	5.0	6.5	7.5	0.6	9.1	6.6	2.9	2.7
9	41.3	N	13:05	-8.5	-1.0	-0.5	0.5	2.0	4.5	6.5	7.5	3.3	9.0	36.5	4.5	2.7
10	29.5	NNW	12:10	-14.0	-1.5	-0.5	0.5	2.0	4.5	6.0	7.5	4.6	9.0	51.3	5.3	3.7
11	33.2	SSW	20:55	-22.0	-2.5	-1.5	0.0	2.0	4.5	6.0	7.5	8.3	8.9	93.2	7.5	1.5
12	29.8	SSW	0:58	-9.0	-2.5	-1.5	0.0	2.0	4.5	6.0	7.5	1.6	8.9	18.1	3.8	3.3
13	16.7	SSW	20:39	-16.0	-3.0	-2.0	0.0	2.0	4.0	6.0	7.5	1.8	8.8	20.5	4.1	3.3
14	37.5	NW	4:27	-5.5	-1.5	-1.5	-0.5	1.5	4.0	6.0	7.0	5.7	8.7	65.2	5.0	1.7
15	30.8	S	10:56	-7.0	-1.5	-1.5	-0.5	1.5	4.0	5.5	7.0	0.9	8.7	10.4	3.0	2.8
16	27.9	NNW	15:25	-2.5	-1.0	-1.0	-0.5	1.5	3.5	5.5	7.0	0.0	8.6	0.0	2.0	1.9
17	24.2	S	13:02	-2.5	-1.0	-1.0	-0.5	1.0	3.5	5.0	6.5	0.7	8.6	8.2	3.5	3.0
18	42.0	NW	17:10	3.0	-0.5	-0.5	-0.5	1.0	3.5	5.0	7.0	0.0	8.5	0.0	2.0	1.9
19	31.6	NW	2:12	-3.0	-0.5	-0.5	-0.5	1.0	3.5	5.0	7.0	0.0	8.5	0.0	1.6	1.5
20	25.6	NW	4:10	-12.5	-0.5	-0.5	0.0	1.0	3.5	5.0	7.0	4.6	8.4	54.6	3.9	2.1
21	33.3	SW	16:17	-4.0	-1.5	-1.0	0.0	1.0	3.0	5.0	6.5	6.9	8.4	82.3	4.7	1.5
22	29.5	SW	5:00	-4.5	-1.5	-1.0	0.0	1.5	3.0	5.0	7.0	6.1	8.3	73.2	4.1	1.7
23	43.0	WNW	13:29	2.0	-1.0	-1.0	0.0	1.5	3.0	5.0	7.0	4.7	8.3	56.8	3.7	1.7
24	22.8	NW	18:51	0.0	-1.0	-1.0	0.0	1.0	3.0	5.0	7.0	0.0	8.2	0.0	0.9	0.9
25	32.4	NW	14:01	-3.5	-1.0	-0.5	0.0	1.0	3.0	5.0	7.0	0.0	8.2	0.0	1.7	1.6
26	16.9	E	8:46	-5.0	-1.5	-1.0	0.0	1.0	3.0	4.5	6.5	0.0	8.2	0.0	1.0	0.9
27	19.2	E	22:03	-6.5	-1.5	-1.0	-0.5	1.0	3.0	4.5	6.5	0.0	8.1	0.0	1.3	1.2
28	30.7	ENE	22:36	-9.0	-1.5	-1.0	-0.5	1.0	3.0	4.5	6.5	0.0	8.1	0.0	1.9	1.8
29	29.7	SE	3:56	-8.5	-1.5	-1.0	-0.5	1.0	3.0	4.5	6.5	0.0	8.0	0.0	2.4	2.2
30	14.1	NE	1:14	-8.5	-1.0	-1.0	-0.5	1.0	2.5	4.5	6.5	0.0	8.0	0.0	2.1	2.0
Total												75.0	260.82	28.8	107.2	67.3
Mean				-7.0	-1.1	-0.7	0.2	1.8	4.0	5.7	7.1					
Extreme	43.0	WNW	13:29													
Date	23															

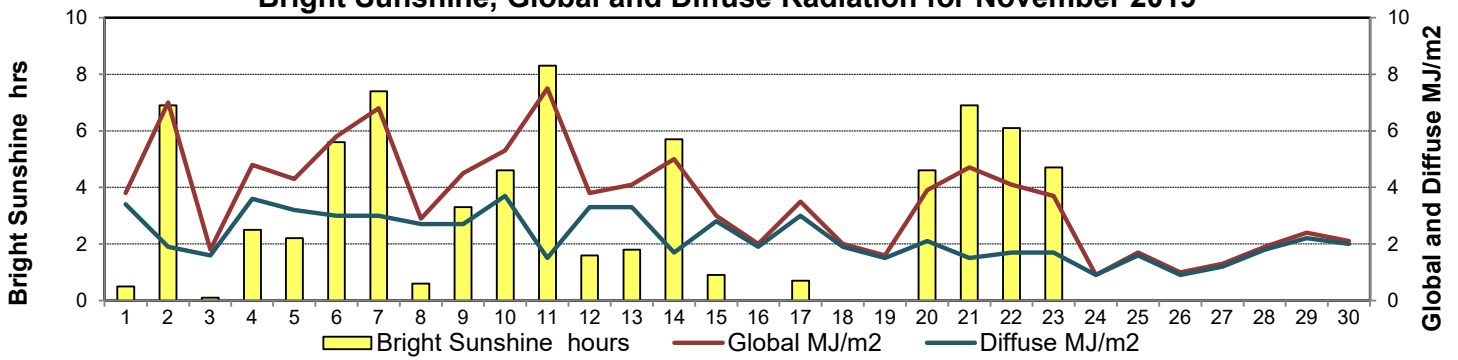
GLOSSARY OF TERMS

Degree-days	Radiation
T _m 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 _m -5°C); if T _m ≤ 5°C then GDD = 0	
Heating (18°C-T _m); if T _m ≥ 18°C then HDD = 0	Diffuse is radiation reaching the earth's surface after having been scattered from the direct solar beam
Cooling (T _m -18°C); if T _m ≤ 18°C then CDD = 0	Global is the sum of the direct solar and diffuse radiation
T Trace of Precipitation	Relative Humidity The ratio of the air's water vapour content to its water vapour capacity which changes with temperature.
SOG Depth of snow-on-the-ground	
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 November 2019

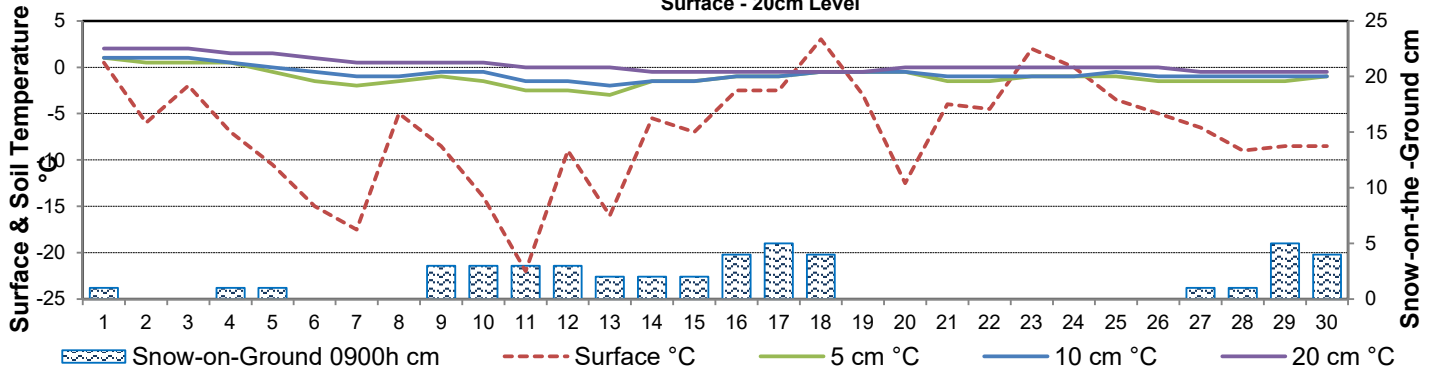


Bright Sunshine, Global and Diffuse Radiation for November 2019



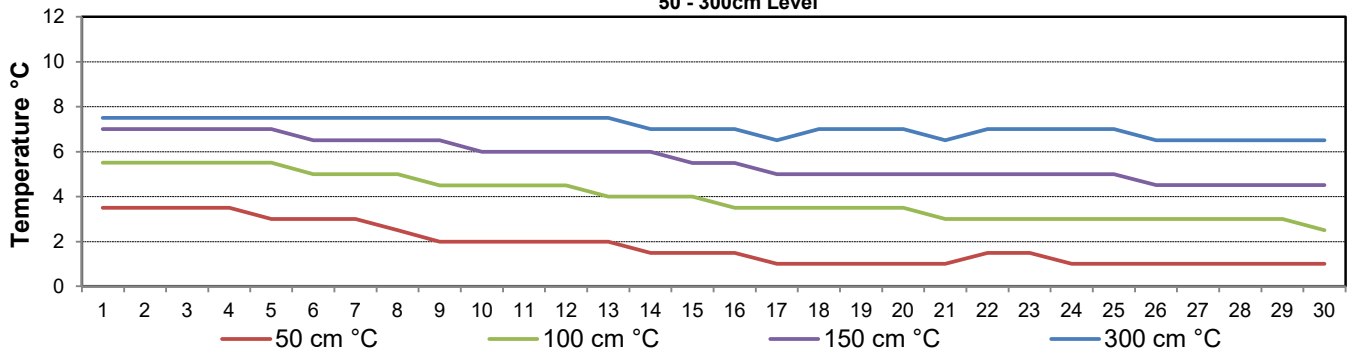
Soil Temperatures for November 2019

Surface - 20cm Level



Soil Temperatures for November 2019

50 - 300cm Level





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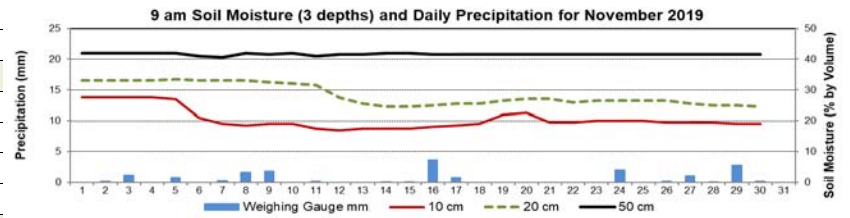
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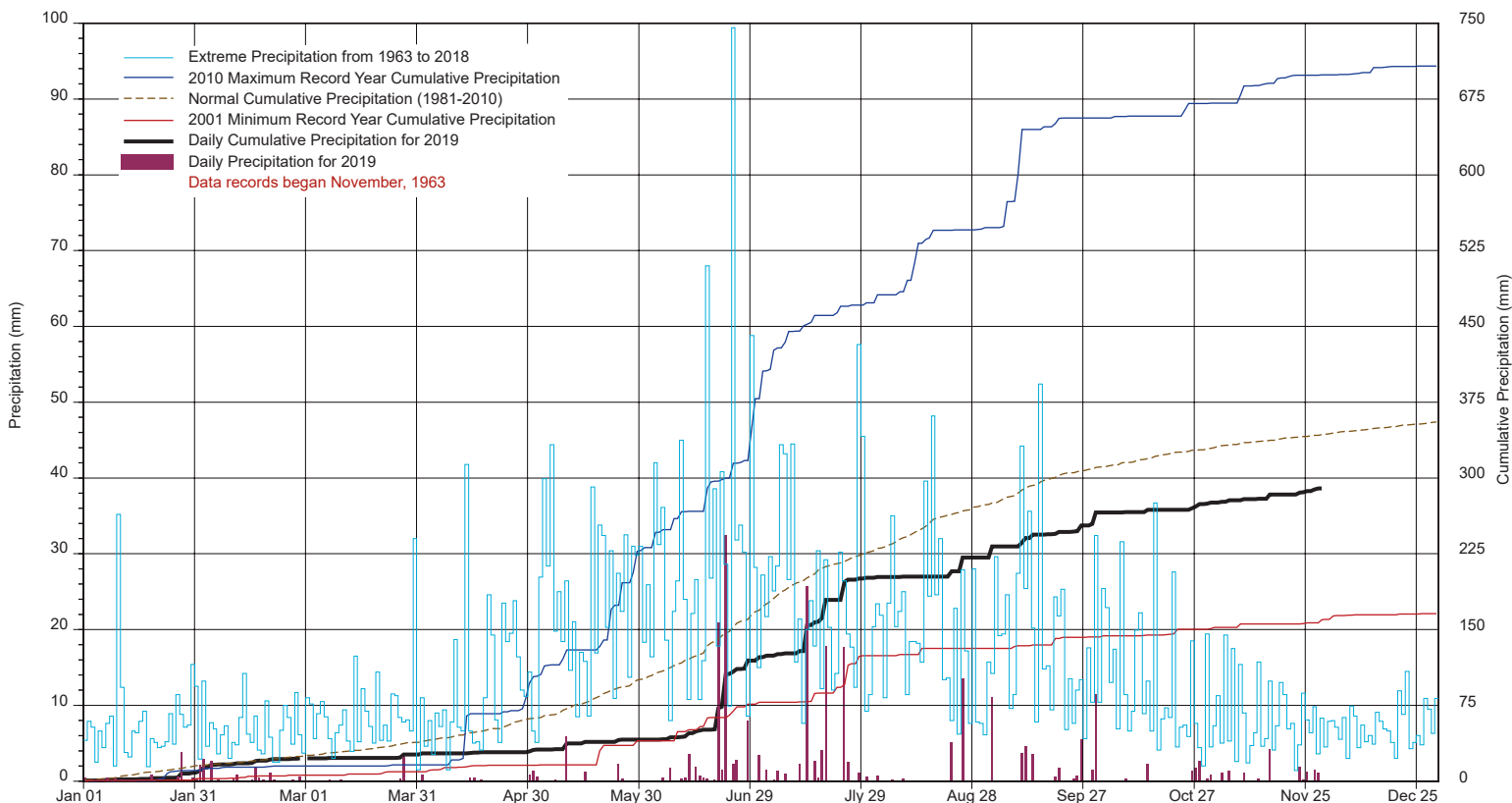
Day	2 meter Wind Speed			Soil Moisture at 0900 hrs (rounded to the 0.5%)		
	Daily Average	Max ½ hr Avg	½ hr Extreme Max	10 cm	20 cm	50 cm
	km/h	km/h	km/h	% by volume (soil type is Clay Loam)		
1	10.0	17.4	28.5	27.5	33.0	42.0
2	5.0	9.3	13.1	27.5	33.0	42.0
3	9.0	19.9	29.6	27.5	33.0	42.0
4	9.0	14.6	21.0	27.5	33.0	42.0
5	9.0	17.6	25.6	27.0	33.5	42.0
6	9.0	14.2	20.6	21.0	33.0	41.0
7	6.0	12.6	17.6	19.0	33.0	40.5
8	5.0	9.2	13.5	18.5	33.0	42.0
9	12.0	21.9	30.6	19.0	32.5	41.5
10	10.0	15.9	22.5	19.0	32.0	42.0
11	11.0	17.5	24.8	17.5	31.5	41.0
12	9.0	15.8	24.8	17.0	27.5	41.5
13	5.0	9.3	13.9	17.5	25.5	41.5
14	8.0	18.5	29.8	17.5	24.5	42.0
15	8.0	14.0	24.7	17.5	24.5	42.0
16	10.0	15.3	20.8	18.0	25.0	41.5
17	11.0	13.9	19.9	18.5	25.5	41.5
18	13.0	19.5	33.9	19.0	25.5	41.5
19	11.0	13.7	22.5	22.0	26.5	41.5
20	7.0	14.7	21.0	22.5	27.0	41.5
21	11.0	17.9	26.6	19.5	27.0	41.5
22	10.0	15.3	21.2	19.5	26.0	41.5
23	11.0	22.3	32.0	20.0	26.5	41.5
24	6.0	11.6	16.8	20.0	26.5	41.5
25	7.0	15.1	24.5	20.0	26.5	41.5
26	7.0	9.7	13.5	19.5	26.5	41.5
27	6.0	10.1	14.7	19.5	25.5	41.5
28	11.0	17.0	24.5	19.5	25.0	41.5
29	9.0	16.4	22.5	19.0	25.0	41.5
30	6.0	8.7	12.8	19.0	24.5	41.5
Total						
Mean				21	28	41.6
Extreme	13.0	22.3	33.9	27.5	33.5	42
Date	0	0	0	2	1	2



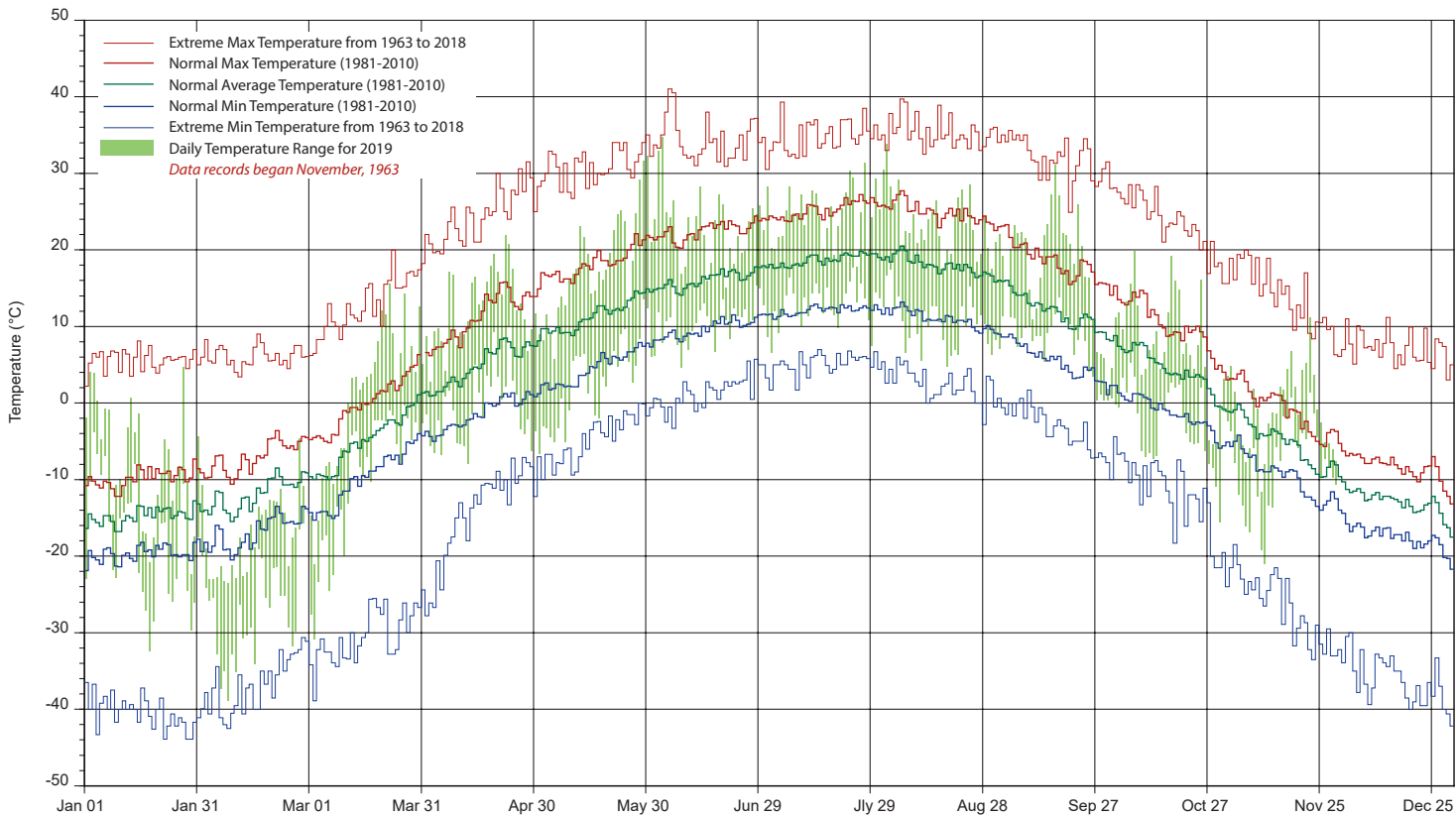
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2019 TEMPERATURES AND NORMALS



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