

Summary of Monthly Normals
1991-2020

Generated on 06/04/2024

Current Location: Elev: 1100 ft. Lat: 45.1078° N Lon: 95.0358° W

Station: WILLMAR WWTP, MN US USC00219004

Temperature (°F)																						
Mean							Cooling Degree Days						Heating Degree Days				Mean Number of Days					
							Base (above)						Base (above)									
Month	Daily Max	Daily Min	Mean	Long Term Max Std Dev	Long Term Min Std Dev	Long Term Avg Std Dev	55	57	60	65	70	72	55	57	60	65	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0
01	20.5	2.9	11.7	4.9	6.2	5.5	0.0	0.0	0.0	0.0	0.0	0.0	1341.9	1403.9	1497.0	1652.1	0.0	0.0	0.1	25.6	31.0	14.6
02	25.7	6.0	15.8	6.5	7.8	7.1	0.0	0.0	0.0	0.0	0.0	0.0	1095.8	1151.8	1235.9	1376.0	0.0	0.0	0.5	19.6	27.3	9.4
03	38.2	20.1	29.1	5.8	5.4	5.5	0.4	0.2	0.0	0.0	0.0	0.0	801.8	863.6	956.4	1111.4	0.0	0.0	5.0	9.0	26.6	3.0
04	54.0	33.6	43.8	5.6	3.5	4.4	19.0	11.9	5.5	1.1	0.1	0.0	355.0	408.0	491.6	637.1	0.0	0.1	19.7	0.9	12.7	0.0
05	67.6	47.1	57.4	3.9	2.9	3.2	154.6	119.5	78.2	33.7	10.7	5.8	81.9	108.8	160.5	270.9	0.0	0.8	29.4	0.0	1.0	0.0
06	77.9	57.8	67.9	2.8	2.2	2.4	388.8	332.2	251.5	136.4	55.6	34.9	3.5	7.0	16.2	51.1	0.0	1.8	30.0	0.0	0.0	0.0
07	81.5	61.9	71.7	3.0	2.6	2.7	517.5	455.6	363.9	217.6	98.9	65.1	0.0	0.2	1.4	10.0	0.0	3.1	31.0	0.0	0.0	0.0
08	79.4	58.9	69.1	2.4	2.1	2.1	439.0	377.9	287.9	150.9	54.2	31.4	0.5	1.4	4.3	22.3	0.0	1.7	31.0	0.0	0.0	0.0
09	72.1	50.1	61.1	3.1	3.2	2.9	220.0	176.6	120.9	52.6	15.0	7.4	37.3	53.9	88.2	169.7	0.0	0.6	29.8	0.0	0.6	0.0
10	57.4	36.5	46.9	4.1	2.6	3.2	37.4	26.4	14.5	4.1	0.5	0.2	286.9	337.9	419.0	563.6	0.0	0.1	22.9	0.3	10.1	0.0
11	40.1	23.5	31.8	6.9	4.8	5.7	1.5	0.7	0.1	0.0	0.0	0.0	697.5	756.7	846.1	996.0	0.0	0.0	6.6	9.4	25.5	0.8
12	26.4	10.1	18.3	5.4	5.5	5.3	0.0	0.0	0.0	0.0	0.0	0.0	1138.9	1200.9	1294.0	1449.1	0.0	0.0	0.5	21.1	30.8	8.1
Summary	53.4	34.0	43.7	4.5	4.1	4.2	1778	1501	1122	596	235	145	5841	6294	7011	8309	0.0	8.2	206.5	85.9	165.6	35.9

Empty or blank cells indicate data is missing or insufficient occurrences to compute value

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Precipitation (in.)								
	Totals	Mean Number of Days				Precipitation Probabilities Probability that precipitation will be equal to or less than the indicated amount		
	Means	Daily Precipitation				Monthly Precipitation vs. Probability Levels		
Month	Mean	>= 0.01	>= 0.10	>= 0.50	>= 1.00	0.25	0.50	0.75
01	0.68	6.0	2.5	0.2	0.0	0.28	0.53	1.06
02	0.67	4.9	2.4	0.3	0.1	0.33	0.63	0.88
03	1.39	6.6	3.8	0.6	0.1	1.00	1.28	1.40
04	2.63	8.4	4.8	2.0	0.6	1.37	2.76	3.30
05	3.33	11.2	7.1	2.1	0.5	2.09	3.25	4.16
06	4.79	12.0	7.8	3.0	1.1	3.41	4.38	6.56
07	3.99	9.6	6.2	2.3	1.4	3.20	4.19	4.72
08	3.89	8.8	5.5	2.4	1.4	2.68	3.61	4.63
09	2.64	8.6	4.8	1.7	0.7	1.17	2.35	3.65
10	2.40	9.2	5.0	1.9	0.6	1.08	2.08	3.30
11	1.42	5.8	3.0	0.9	0.3	0.54	0.98	1.69
12	0.84	6.6	2.9	0.2	0.0	0.29	0.66	1.24
Summary	28.67	97.7	55.8	17.6	6.8	17.44	26.70	36.59

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Snow (in.)													
	Totals	Mean Number of Days									Snow Probabilities Probability that snow will be equal to or less than the indicated amount		
	Means	Snowfall >= Thresholds					Snow Depth >= Thresholds				Monthly Snow vs. Probability Levels Values derived from the incomplete gamma distribution.		
Month	Snowfall Mean	0.01	1.0	3.0	5.00	10.00	1	3	5	10	.25	.50	.75
01	9.20	5.8	3.1	1.1	0.6	0.0					1.60	6.80	17.90
02	7.80	4.4	2.9	1.0	0.4	0.1					4.00	5.50	11.00
03	6.90	4.1	2.5	1.0	0.3	0.1					3.30	6.90	9.30
04	3.80	1.3	1.1	0.6	0.2	0.0					0.10	2.40	4.90
05	0.00	0.0	0.0	0.0	0.0	0.0					0.00	0.00	0.00
06	0.00	0.0	0.0	0.0	0.0	0.0					0.00	0.00	0.00
07	0.00	0.0	0.0	0.0	0.0	0.0					0.00	0.00	0.00
08	0.00	0.0	0.0	0.0	0.0	0.0					0.00	0.00	0.00
09	0.00	0.0	0.0	0.0	0.0	0.0					0.00	0.00	0.00
10	0.50	0.4	0.2	0.0	0.0	0.0					0.00	0.00	0.50
11	7.80	3.4	2.1	0.9	0.5	0.1					0.20	5.90	10.10
12	10.10	5.7	3.4	0.9	0.4	0.0					4.20	9.40	14.50
Summary	46.1	25.1	15.3	5.5	2.4	0.3	0.0	0.0	0.0	0.0	13.4	36.9	68.2

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Growing Degree Units (Monthly)												
Base	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Growing Degree Units (Monthly)												
Base	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	0.0	1.2	25.2	185.3	539.3	835.2	982.4	903.4	633.0	259.7	44.6	1.5
45	0.0	0.1	9.1	104.4	392.3	685.2	827.5	748.5	485.4	154.4	18.0	0.3
50	0.0	0.0	2.5	49.8	261.6	535.5	672.5	593.5	345.0	80.8	6.1	0.0
55	0.0	0.0	0.4	19.0	154.6	388.8	517.5	439.0	220.0	37.4	1.5	0.0
60	0.0	0.0	0.0	5.5	78.2	251.5	363.9	287.9	120.9	14.5	0.1	0.0
Growing Degree Units for Corn (Monthly)												
50/86	0.1	1.1	16.8	112.4	307.1	533.0	658.6	587.5	380.2	151.3	28.3	1.1

Growing Degree Units (Accumulated Monthly)												
40	0	1	26	212	751	1586	2569	3472	4105	4365	4409	4411
45	0	0	9	114	506	1191	2019	2767	3253	3407	3425	3425
50	0	0	2	52	314	849	1522	2115	2460	2541	2547	2547
55	0	0	0	19	174	563	1080	1519	1739	1777	1778	1778
60	0	0	0	6	84	335	699	987	1108	1122	1122	1122
Growing Degree Units for Corn (Monthly Accumulated)												
50/86	0	1	18	130	438	970	1629	2217	2597	2748	2776	2778

Note: For corn, temperatures below 50 are set to 50, and temperatures above 86 are set to 86.
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