

Summary of Monthly Normals  
1991-2020

Generated on 06/04/2024

Current Location: Elev: 1387 ft. Lat: 47.6308° N Lon: 93.6522° W

Station: MARCELL 5NE, MN US USC00215175

| 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               | 15.7      | -4.7      | 5.5  | 5.3                   | 8.0                   | 6.6                   | 0.0                 | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 1533.9              | 1596.1 | 1689.2 | 1844.3 | 0.0                 | 0.0       | 0.0       | 28.4      | 31.0      | 18.7     |
| 02               | 22.1      | -2.6      | 9.7  | 6.1                   | 8.3                   | 7.1                   | 0.0                 | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 1266.5              | 1322.6 | 1406.7 | 1546.8 | 0.0                 | 0.0       | 0.2       | 21.1      | 27.8      | 13.6     |
| 03               | 35.6      | 12.0      | 23.8 | 4.5                   | 6.5                   | 5.4                   | 0.0                 | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 967.3               | 1029.3 | 1122.3 | 1277.2 | 0.0                 | 0.0       | 3.6       | 11.3      | 29.8      | 7.3      |
| 04               | 49.3      | 26.9      | 38.1 | 4.9                   | 3.3                   | 4.0                   | 3.6                 | 1.8   | 0.4   | 0.0  | 0.0  | 0.0  | 510.6               | 568.8  | 657.4  | 807.1  | 0.0                 | 0.0       | 15.1      | 1.3       | 23.1      | 0.1      |
| 05               | 62.9      | 40.2      | 51.5 | 3.7                   | 3.0                   | 3.2                   | 66.6                | 47.7  | 27.0  | 7.4  | 0.9  | 0.2  | 173.7               | 216.8  | 289.0  | 424.4  | 0.0                 | 0.1       | 27.6      | 0.0       | 5.8       | 0.0      |
| 06               | 71.9      | 51.9      | 61.9 | 2.9                   | 2.6                   | 2.6                   | 226.3               | 178.8 | 118.0 | 46.5 | 12.6 | 6.9  | 19.6                | 32.1   | 61.2   | 139.6  | 0.0                 | 0.3       | 29.7      | 0.0       | 0.1       | 0.0      |
| 07               | 76.8      | 55.8      | 66.3 | 3.7                   | 1.9                   | 2.7                   | 351.1               | 290.8 | 206.1 | 92.0 | 25.6 | 12.2 | 1.0                 | 2.7    | 10.9   | 51.8   | 0.0                 | 0.1       | 31.0      | 0.0       | 0.0       | 0.0      |
| 08               | 74.8      | 54.8      | 64.8 | 2.9                   | 2.0                   | 2.4                   | 308.7               | 251.2 | 172.1 | 69.6 | 20.3 | 11.1 | 5.2                 | 9.6    | 23.4   | 75.9   | 0.0                 | 0.3       | 31.0      | 0.0       | 0.0       | 0.0      |
| 09               | 66.0      | 46.9      | 56.5 | 3.3                   | 2.8                   | 2.9                   | 118.1               | 86.9  | 50.5  | 15.2 | 2.7  | 1.2  | 74.9                | 103.5  | 157.1  | 271.8  | 0.0                 | 0.0       | 28.4      | 0.0       | 1.1       | 0.0      |
| 10               | 50.9      | 34.6      | 42.7 | 3.9                   | 2.8                   | 3.2                   | 14.5                | 8.8   | 3.6   | 0.4  | 0.0  | 0.0  | 394.4               | 450.6  | 538.4  | 690.2  | 0.0                 | 0.0       | 16.4      | 0.9       | 14.6      | 0.0      |
| 11               | 33.9      | 19.9      | 26.9 | 6.1                   | 5.5                   | 5.8                   | 0.0                 | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 842.9               | 902.9  | 992.9  | 1142.9 | 0.0                 | 0.0       | 2.2       | 15.1      | 27.4      | 2.3      |
| 12               | 21.2      | 5.1       | 13.2 | 5.8                   | 7.1                   | 6.3                   | 0.0                 | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 1297.0              | 1359.1 | 1452.2 | 1607.2 | 0.0                 | 0.0       | 0.0       | 25.0      | 30.9      | 11.6     |
| Summary          | 48.4      | 28.4      | 38.4 | 4.4                   | 4.5                   | 4.3                   | 1089                | 866   | 578   | 231  | 62   | 32   | 7087                | 7594   | 8401   | 9879   | 0.0                 | 0.8       | 185.2     | 103.1     | 191.6     | 53.6     |

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<br>Probability that precipitation will be<br>equal to or less than<br>the indicated amount |       |       |  |
|                     | Means  | Daily Precipitation |         |         |         | Monthly Precipitation<br>vs. Probability Levels                                                                        |       |       |  |
| Month               | Mean   | >= 0.01             | >= 0.10 | >= 0.50 | >= 1.00 | 0.25                                                                                                                   | 0.50  | 0.75  |  |
| 01                  | 0.91   | 10.4                | 2.9     | 0.2     | 0.1     | 0.53                                                                                                                   | 0.81  | 1.04  |  |
| 02                  | 0.77   | 8.0                 | 2.2     | 0.1     | 0.0     | 0.40                                                                                                                   | 0.77  | 1.08  |  |
| 03                  | 1.32   | 7.8                 | 3.0     | 0.3     | 0.1     | 0.72                                                                                                                   | 1.15  | 1.58  |  |
| 04                  | 2.20   | 9.2                 | 4.5     | 0.9     | 0.1     | 1.07                                                                                                                   | 1.96  | 2.72  |  |
| 05                  | 3.15   | 12.7                | 7.3     | 2.0     | 0.3     | 2.27                                                                                                                   | 2.91  | 3.99  |  |
| 06                  | 4.21   | 12.5                | 7.9     | 2.5     | 0.9     | 3.45                                                                                                                   | 4.07  | 4.63  |  |
| 07                  | 5.90   | 11.8                | 8.4     | 3.0     | 1.6     | 3.81                                                                                                                   | 5.24  | 7.08  |  |
| 08                  | 3.46   | 9.6                 | 6.7     | 1.9     | 0.8     | 2.59                                                                                                                   | 3.27  | 4.40  |  |
| 09                  | 3.71   | 11.3                | 6.1     | 2.0     | 0.9     | 1.90                                                                                                                   | 3.45  | 4.22  |  |
| 10                  | 2.66   | 11.0                | 5.6     | 1.4     | 0.5     | 1.72                                                                                                                   | 2.56  | 3.54  |  |
| 11                  | 1.57   | 10.3                | 4.8     | 0.9     | 0.2     | 1.04                                                                                                                   | 1.42  | 1.99  |  |
| 12                  | 1.26   | 10.2                | 3.3     | 0.3     | 0.0     | 0.86                                                                                                                   | 1.20  | 1.65  |  |
| Summary             | 31.12  | 124.8               | 62.7    | 15.5    | 5.5     | 20.36                                                                                                                  | 28.81 | 37.92 |  |

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Station: MARCELL 5NE, MN US USC00215175

| Snow (in.) |                  |                        |      |     |      |       |                          |       |       |      |                                                                                                   |       |       |
|------------|------------------|------------------------|------|-----|------|-------|--------------------------|-------|-------|------|---------------------------------------------------------------------------------------------------|-------|-------|
|            | Totals           | Mean Number of Days    |      |     |      |       |                          |       |       |      | Snow Probabilities<br>Probability that snow will be equal to<br>or less than the indicated amount |       |       |
|            | Means            | Snowfall >= Thresholds |      |     |      |       | Snow Depth >= Thresholds |       |       |      | Monthly Snow vs. Probability Levels<br>Values derived from the<br>incomplete gamma distribution.  |       |       |
| Month      | Snowfall<br>Mean | 0.01                   | 1.0  | 3.0 | 5.00 | 10.00 | 1                        | 3     | 5     | 10   | .25                                                                                               | .50   | .75   |
| 01         | 14.10            | 10.3                   | 4.1  | 1.1 | 0.3  | 0.1   | 31.0                     | 30.3  | 26.6  | 18.7 | 8.70                                                                                              | 12.40 | 15.90 |
| 02         | 10.00            | 7.3                    | 2.7  | 0.7 | 0.3  | 0.1   | 28.1                     | 27.8  | 26.2  | 21.1 | 4.80                                                                                              | 8.70  | 13.30 |
| 03         | 7.70             | 6.1                    | 2.2  | 0.6 | 0.2  | 0.1   | 25.6                     | 24.3  | 23.0  | 15.5 | 5.40                                                                                              | 7.40  | 9.50  |
| 04         | 5.20             | 2.9                    | 1.4  | 0.5 | 0.1  | 0.0   | 5.8                      | 3.9   | 2.4   | 1.6  | 2.50                                                                                              | 5.40  | 7.10  |
| 05         | 0.20             | 0.3                    | 0.1  | 0.0 | 0.0  | 0.0   | 0.1                      | 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   | 0.0                      | 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   | 0.0                      | 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   | 0.0                      | 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   | 0.0                      | 0.0   | 0.0   | 0.0  | 0.00                                                                                              | 0.00  | 0.00  |
| 10         | 1.20             | 1.2                    | 0.5  | 0.2 | 0.1  | 0.0   | 1.1                      | 0.6   | 0.2   | 0.0  | 0.00                                                                                              | 0.30  | 1.20  |
| 11         | 12.90            | 7.5                    | 3.8  | 1.6 | 0.5  | 0.1   | 16.4                     | 12.2  | 6.4   | 1.3  | 8.20                                                                                              | 13.90 | 18.90 |
| 12         | 12.80            | 9.3                    | 4.1  | 0.7 | 0.5  | 0.0   | 28.7                     | 25.0  | 20.1  | 9.6  | 9.00                                                                                              | 13.40 | 15.30 |
| Summary    | 64.1             | 44.9                   | 18.9 | 5.4 | 2.0  | 0.4   | 136.8                    | 124.1 | 104.9 | 67.8 | 38.6                                                                                              | 61.5  | 81.2  |

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Current Location: Elev: 1387 ft. Lat: 47.6308° N Lon: 93.6522° W  
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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 | 0.0 | 6.3 | 85.2 | 370.5 | 656.8 | 815.1 | 768.6 | 494.6 | 161.5 | 15.3 | 0.0 |
| 45                                      | 0.0 | 0.0 | 1.3 | 39.5 | 243.5 | 507.1 | 660.2 | 613.6 | 350.8 | 82.4  | 3.9  | 0.0 |
| 50                                      | 0.0 | 0.0 | 0.3 | 14.0 | 138.6 | 360.6 | 505.2 | 459.0 | 220.7 | 37.2  | 0.4  | 0.0 |
| 55                                      | 0.0 | 0.0 | 0.0 | 3.6  | 66.6  | 226.3 | 351.1 | 308.7 | 118.1 | 14.5  | 0.0  | 0.0 |
| 60                                      | 0.0 | 0.0 | 0.0 | 0.4  | 27.0  | 118.0 | 206.1 | 172.1 | 50.5  | 3.6   | 0.0  | 0.0 |
| Growing Degree Units for Corn (Monthly) |     |     |     |      |       |       |       |       |       |       |      |     |
| 50/86                                   | 0.0 | 0.3 | 6.6 | 67.4 | 219.3 | 386.7 | 508.7 | 467.1 | 268.6 | 78.3  | 7.1  | 0.0 |

| Growing Degree Units (Accumulated Monthly)          |   |   |   |    |     |      |      |      |      |      |      |      |
|-----------------------------------------------------|---|---|---|----|-----|------|------|------|------|------|------|------|
| 40                                                  | 0 | 0 | 6 | 92 | 462 | 1119 | 1934 | 2702 | 3197 | 3359 | 3374 | 3374 |
| 45                                                  | 0 | 0 | 1 | 41 | 284 | 791  | 1452 | 2065 | 2416 | 2498 | 2502 | 2502 |
| 50                                                  | 0 | 0 | 0 | 14 | 153 | 514  | 1019 | 1478 | 1698 | 1736 | 1736 | 1736 |
| 55                                                  | 0 | 0 | 0 | 4  | 70  | 296  | 648  | 956  | 1074 | 1089 | 1089 | 1089 |
| 60                                                  | 0 | 0 | 0 | 0  | 27  | 145  | 352  | 524  | 574  | 578  | 578  | 578  |
| Growing Degree Units for Corn (Monthly Accumulated) |   |   |   |    |     |      |      |      |      |      |      |      |
| 50/86                                               | 0 | 0 | 7 | 74 | 294 | 680  | 1189 | 1656 | 1925 | 2003 | 2010 | 2010 |

Note: For corn, temperatures below 50 are set to 50, and temperatures above 86 are set to 86.  
Empty or blank cells indicate data is missing or insufficient occurrences to compute value.