

Weather Observations

At least, as early as 1848 the Federal Government became interested in the weather throughout the nation. Those who received the Patent Office circular for that year were told that Edmund Burke, Commissioner of Patents, wished information on the mean temperature and amount of rainfall during the planting, growing and harvesting seasons. Daniel McCready of Fort Madison was one who responded.

McCready noted that spring wheat was sowed on March 28 that year. Oats were harvested from July 3 to July 29. Grains, not harvested until August, were greatly damaged by the rainy weather—14.2 inches falling during the month. The first fall frost was on September 22.

Charles Mason was very much interested in the matter of weather observations while he was Commissioner of Patents. During February, 1856, he had conferences with Joseph Henry of the Smithsonian Institution and Lieutenant Matthew F. Maury of the Naval Observatory. On February 9 Henry called about establishing working relations between the Smithsonian and the Patent Office. Mason noted in his diary that Henry "is very jealous of Lieut. Maury who is also desirous for

a similar cooperation with the observatory. I am willing to work with either or both." Four days later Mason had another conference with Maury regarding meteorology. After another visit with Professor Henry on February 14, Mason wrote, "I think . . . the Professor is really a man of science and [I] shall be glad to cooperate with him."

When Mason prepared his report to Congress on March 31, 1856, he stated that "in conjunction with the Smithsonian Institution an effort has already been commenced by this Office to obtain such of these meteorological statistics as are most intimately connected with agriculture."

Two months later he was still in doubt as to the extent to which he should become involved with Henry in this venture. "To a certain extent these may be very useful in connection with agriculture, but how far?" he wrote on June 2, 1856. However, the entry in Mason's diary for June 20 reads: "Had another conference with Professor Henry this evening in relation to our meteorological operations. Think I can obtain and communicate sufficient information of this nature to justify the expenditure of some \$2000 per annum."

From 1849 to 1858 reports were received from nine Iowa towns. Of these the record received from Daniel McCready was by far the most complete, covering at least in part, seven years. Others varied from one to five years.

In addition to mean temperatures, high and low

temperatures, rainfall and snowfall, the weather reporters frequently furnished other information. McCready of Fort Madison noted that the ice broke up in the Mississippi on February 19 in 1850, with the first steamboat going up six days later. One can conclude there was a rapid change in the weather that year as February 5 had been the coldest day—12° below zero and not above zero all day. In 1851 a late snowstorm of ten inches started the night of April 4 and continued to storm and drift until 3 p.m. on the 5th. He also reported cholera outbreaks in Fort Madison and West Point during July and August, 1851.

In 1858 the shortest period without frost was 114 days at Border Plains as reported by William K. Goss. McCready reported 167 days at Fort Madison, J. M. Shaffer, 165 days at Fairfield, and T. S. Parvin, 164 days at Muscatine.

Year and Town	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1848 Fort Madison ¹			44.98	53.35	68.24	72.89	72.28	73.41	61.30	54.82		
1849 Fort Madison	16.56	21.31	40.36	49.79	59.37	74.26	73.56	71.59	66.94	52.28	47.54	21.94
1850 Fort Madison	28.99	29.83	37.28	44.66	58.66	73.12	77.29	75.47	64.60	54.05	43.21	25.03
1851 Fort Madison	30.13	34.25	43.44	48.03	62.37	68.88	77.23	71.91	71.34	54.32	36.90	
1852 Fort Madison	23.96	33.05	41.08	46.48	62.32	69.13	74.93	72.96	65.07	57.50	33.54	27.70
1853 Bowen's Prairie			44.4	-	-	72.3	68.7	70.5	62.2			
Dubuque ²			45.3	56.8	73.7	73.7	69.6	70.6	63.7			
Fort Madison			50.5	60.7	76.7	76.7	75.9	76.0	67.6			
Keokuk			50.3	60.9	75.8	75.8	76.1	76.3	-			
Muscatine ³			47.9	56.3	70.8	70.8	68.6	70.9	-			
Poultney ⁴			-	57.4	70.5	70.5	68.8	68.6	55.6			
1854 Dubuque	15.35	27.84	39.00	52.19	60.73	70.23	77.27	74.60	68.07	56.57	37.92	27.35
Fort Madison	21.16	32.97	42.67	56.20	65.96	76.33	85.77	81.57	72.70	58.40	39.25	30.44
Muscatine	16.21	28.39	38.91	51.44	58.55	69.02	76.39	73.19	68.12	55.41	36.85	29.60
Poultney	9.94	23.05	36.44	49.42	57.46	67.67	73.67	70.40	63.80	53.54	33.54	24.36
1855 Dubuque	24.22	18.75	31.33	55.43	63.90	68.05	73.23	69.32	64.61	48.45	39.58	21.63
Fort Madison	23.95	21.15	33.87	57.37	64.73	72.21	79.26	73.49	70.39	49.73	41.26	24.04
Muscatine	24.24	19.85	30.30	54.30	60.43	67.67	73.05	70.45	67.66	47.11	37.69	21.23
Poultney	21.86	14.37	27.90	51.93	61.23	67.09	72.63	68.56	63.62	45.08	33.83	17.49
1857 Bellevue ⁵	4.26	26.46	27.17	35.61	54.54	68.45	74.89	69.68	64.38	48.86	29.95	30.59
Muscatine	6.23	28.99	29.02	36.33	53.20	65.36	71.50	68.88	63.58	47.78	31.67	31.67
1858 Bellevue	31.03	17.07	38.85	45.88	55.92	71.75	73.46	71.54	63.41	50.56	31.85	22.27
Border Plains ⁶	29.19	15.71	40.98	47.01	54.32	72.66	74.39	73.96	64.43	50.83	30.12	30.12
Dubuque	31.07	16.86	39.12	46.81	56.23	72.92	73.48	71.98	64.42	51.13	32.90	23.27
Fairfield ⁷	34.79	17.66	41.84	49.73	56.63	72.72	75.88	73.34	65.18	52.61	32.12	26.35
Fort Madison	34.54	18.40	41.88	50.01	57.92	74.17	76.20	78.96	65.29	52.70	33.90	28.39
Muscatine	29.78	16.06	38.54	46.21	56.75	70.64	72.57	70.14	63.47	52.17	32.58	25.15

OBSERVERS:

¹Daniel McCready,⁸ Fort Madison
²Dr. Asa Horr, Dubuque

³T. S. Parvin, Muscatine

⁴Dr. B. F. Odell, Poultney

⁵John C. Fory, Bellevue

⁶William K. Goss, Border Plains

⁷J. M. Shaffer, Fairfield

HIGH AND LOW TEMPERATURES, 1850-1858

Year and Town	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<u>1850</u>												
Fort Madison	48 -4	58 -12	66 14	80 24	86 30	92 44	100 55	98 52	86 40	82 24	68 21	46 -2
<u>1851</u>												
Fort Madison	58 -12	66 4	76 15	76 28	86 40	96 50	102 51	93 66	94 32	80 18	54 19	- -
<u>1852</u>												
Fort Madison	56 -22	54 8	80 4	79 21	88 30	94 42	99 48	97 48	94 38	83 30	54 9	53 0
<u>1857</u>												
Bellevue	37 -32	46 -14	58 -8	60 16	84 33	88 46	97 52	92 50	87 33	75 20	60 -6	52 12
Muscatine	41 -30	57 -12	58 -5	65 17	83 29	89 38	97 45	92 47	88 36	74 22	60 0	52 15
<u>1858</u>												
Bellevue	54 8	46 -12	71 2	81 26	80 40	94 50	92 61	96 48	90 40	84 27	51 4	42 -18
Border Plains	52 -8	46 -14	75 10	83 20	84 38	92 55	98 61	90 51	87 50	87 31	47 0	47 -22
Dubuque	51 8	49 -14	70 4	80 27	80 41	93 55	90 61	96 49	88 44	82 33	49 5	43 -11
Fairfield	59 8	52 -15	76 1	80 30	83 41	90 56	92 60	94 53	87 50	88 32	47 5	49 -8
Fort Madison	57 11	46 -16	74 1	80 24	82 39	95 54	94 64	95 46	90 42	82 29	48 6	51 -6
Muscatine	52 8	46 -22	70 2	78 24	81 32	91 52	89 52	93 46	87 42	85 30	52 4	48 -15

RAIN AND SNOW FALL, 1848-1858
(in inches)

Year and

Year and Town	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<u>1848</u>												
Fort Madison					4.67	5.90	4.75	14.20	4.50	4.40		
<u>1849</u>												
Fort Madison	12.0(s)	2.5(s) 1.5(r)	11.05	5.47	2.90	3.32	.70	10.91	7.80	3.30	8.15	6.00(s) .1(r)
<u>1850</u>												
Fort Madison	8.75(s) 1.05(r)	1.05(s) .80(r)	1.00(s) 1.65(r)	3.00(s) 4.90(r)	4.70	4.90	6.55	9.15	6.95	2.55	3.12(r) 2.40(s)	2.37(s) 2.0(r)
<u>1851</u>												
Fort Madison	.55(r) .75(s)	1.70(r) .05(s)	1.66(r) .05(s)	2.45(r) 10.00(s)	10.80	8.60	5.95	2.95	1.90	2.70	2.97(r) .50(s)	
<u>1852</u>												
Fort Madison	1.45(r) 4.70(s)	.15(r)	8.05(r) 1.10(s)	2.85(r) 4.75(s)	6.85	4.97	2.60	3.10	6.55	6.40	6.40(r) 21.25(s)	1.80(r) 6.00(s)
<u>1857</u>												
Bellevue Muscatine	0.95 0.61	4.80 5.70	1.90 2.44	1.83 1.90	4.19 2.75	3.92 0.90	3.51 4.67	5.27 6.60	2.47 1.88	2.47 1.95	3.57 3.77	1.17 1.88
<u>1858</u>												
Bellevue Border Plains Dubuque Fairfield Fort Madison Muscatine	2.71 - 1.91 - 1.72 1.60	1.05 - 0.78 - 2.28 2.00	1.84 - 1.84 - 6.85 2.20	5.21 - 4.37 6.84 8.10 5.67	9.59 4.19 8.23 8.47 6.36 8.40	6.66 9.13 4.86 5.59 5.90 6.77	6.61 13.69 8.69 9.44 5.90 7.30	2.54 4.88 1.37 - 1.59 4.12	4.08 1.79 5.55 4.65 3.11 6.10	3.96 6.13 5.63 6.20 5.93 4.95	4.83 1.12 3.01 - 4.64 4.54	2.43 0.88 0.95 - 2.78 2.90