U. S. DEPARTMENT OF AGRICULTURE WEATHER BUREAU
CHARLES F. MARVIN, Chief

CLIMATOLOGICAL DATA.

IOWA SECTION

11

In co-operation with

IOWA WEATHER AND CROP BUREAU

C. D. REED

VOL. XLV DES MOINES, IOWA, JANUARY, 1934 No. 1

GENERAL SUMMARY

Mild weather was experienced during most of January. Although there was a cold spell at the beginning of the month and a moderate cold wave on the 29th, the average temperature was considerably above the 62-year average, thus being similar to the warm record breaking January of last year.

After the first two or three cool days at the beginning of the month, temperatures rose and remained unseasonably high till the 29th, with the exception of the cool temperatures on the 25th. High peaks of the month were reached on the 24th and 27th. Several stations established new high temperature records for those dates. On the 28th a cold wave swept southeastward over the State giving sub-zero temperatures, and the lowest for the month, on the morning of the 29th. Drops of 60 degrees in 38 hours occurred. There was a quick and decided recovery from this cold wave on the 30th causing the month to close mild.

As has been the case for several consecutive months previous, January was deficient in precipitation. The west central and central districts had a slight excess, while in the remainder of the State, the amounts were considerably less than normal. Only two general periods of precipitation occurred with no large amounts. During the first period, 4th-5th, a mixture of rain, sleet and snow fell, forming glaze in parts of the State. The second precipitation period was on the 12th-13th. This was mostly snow. The rest of the month was dry except for some light scattered precipitation on the 21st and 22d.

Snowfall also was deficient especially in the southeast district, with two stations reporting no measurable amounts. One of these, Keosauqua, has had no measurable amount of snowfall so far this winter. The central district had the greatest amount with Waukee reporting 11.5 inches.

Cloudy days were above the average. The sun was hardly seen the first half of the month. This made the percentage of possible sunshine considerably below the usual amount. High winds and dust storms occurred on the 28th and 31st. The rivers remained at extremely low stages, but with a gradual rising trend. The rivers were frozen for the most part in the northern half of the State.

W. A. M.

TEMPERATURE

The average temperature for the State, obtained from the averages of nine districts of nearly equal area and based on records from 106 stations, was 26.9°, which is 8.3° above the 62-year average. The entire State was more than 8° above normal. Keokuk No. 2 averaged the highest, 34.1°, while Lake Park (near) had the lowest average, 21.4°. The highest temperature, 67° on the 24th, was recorded at Keokuk, while Forest City, Northwood and Osage reported the lowest temperature, —14° on the 29th. This made the absolute range for the month 81°. It is unusual for the absolute high and low to occur within a two-day period. The greatest daily range was 54° which was equalled, or nearly so, by many stations. There was an average of 12 days with maximum readings of 32° or below, 29 days with minimum temperatures of 32° or below, and 3 days with minimum readings of zero or below.

PRECIPITATION

The average total State precipitation, derived from the averages of nine districts of nearly equal area and based on reports from 121 stations, was 0.83 inch, or 0.24 inch below 62-year average. The central district averaged the greatest, 1.34 inches, while the northwest district had the least, 0.61 inch. The southern third of the State had the greatest deficiency while the central portions had a slight excess. The station recording the greatest total amount was Iowa Falls, and the least total, 0.19 inch, fell at Olin. The greatest amount occurring in any 24-hour

COMPARATIVE DATA FOR JANUARY

YEAR	Temperature				Precipitation					Number of days			
	Average	Departure	Highest	Lowest	Average	Departure	Greatest monthly	Least monthly	Average snowfall	Precip. .01 in. or more	Clear	Partly cloudy	Cloudy
1873	12.0	— 6.6	55	—38	2.53	+ 1.46	3.56	0.50	.....	.....	.....	.....	.....
1874	19.6	+ 1.0	64	—24	1.67	+ 0.60	4.72	0.22	.....	.....	.....	.....	.....
1875	4.9	—13.7	48	—30	0.82	— 0.25	1.61	0.38	.....	.....	.....	.....	.....
1876	23.5	+ 4.9	62	—16	1.49	+ 0.42	3.96	0.00	.....	.....	.....	.....	.....
1877	13.7	— 4.9	58	—31	1.09	+ 0.02	3.04	0.37	.....	.....	.....	.....	.....
1878	25.4	+ 6.8	55	—13	0.48	— 0.59	5.00	0.00	.....	.....	.....	.....	.....
1879	16.1	— 2.5	54	—30	0.48	— 0.59	1.48	0.00	.....	.....	.....	.....	.....
1880	32.0	+13.4	68	— 6	1.36	+ 0.29	4.52	0.20	.....	.....	.....	.....	.....
1881	9.6	— 9.0	48	—40	0.94	— 0.13	3.10	0.04	.....	.....	.....	.....	.....
1882	23.4	+ 4.8	60	—17	0.65	— 0.42	1.80	0.09	.....	.....	.....	.....	.....
1883	8.0	—10.6	46	—38	1.31	+ 0.16	2.85	0.35	.....	.....	.....	.....	.....
1884	13.3	— 5.3	52	—38	0.52	— 0.55	1.50	0.02	.....	.....	.....	.....	.....
1885	9.4	— 9.2	51	—42	1.28	+ 0.21	3.72	0.18	.....	.....	.....	.....	.....
1886	8.1	—10.5	52	—33	2.59	+ 1.52	4.85	0.68	.....	.....	.....	.....	.....
1887	8.8	— 9.8	55	—34	1.13	+ 0.06	2.92	0.04	.....	.....	.....	.....	.....
1888	5.4	—13.2	58	—43	1.30	+ 0.23	4.00	0.40	.....	.....	.....	.....	.....
1889	21.6	+ 3.0	62	—25	1.22	+ 0.15	2.30	0.50	.....	.....	.....	.....	.....
1890	18.0	— 0.6	64	—27	1.79	+ 0.72	3.46	0.35	.....	.....	.....	.....	.....
1891	26.0	+ 7.4	58	— 4	1.75	+ 0.68	3.90	0.61	.....	4	13	7	11
1892	15.3	— 3.3	76	—38	1.09	+ 0.02	3.13	0.10	6.9	5	16	9	6
1893	9.3	— 9.3	54	—34	0.74	— 0.33	3.20	0.13	6.9	6	11	9	11
1894	19.3	+ 0.7	69	—37	1.09	+ 0.02	2.24	0.31	6.0	5	14	9	8
1895	13.6	— 5.0	68	—31	0.85	— 0.22	2.65	0.09	8.7	4	15	7	9
1896	23.4	+ 4.8	68	—20	0.48	— 0.59	2.10	T.	2.8	3	10	10	11
1897	17.2	— 1.4	66	—30	2.01	+ 0.94	6.16	0.15	8.2	7	12	7	12
1898	23.4	+ 4.8	52	—11	1.60	+ 0.53	5.32	T.	12.6	5	15	6	10
1899	19.8	+ 1.2	68	—34	0.28	— 0.79	1.15	T.	1.5	3	15	10	6
1900	25.6	+ 7.0	66	—20	0.53	— 0.54	2.47	T.	2.3	3	16	7	8
1901	23.7	+ 5.1	60	—21	0.74	— 0.33	2.34	0.04	6.2	4	14	9	8
1902	22.4	+ 3.8	63	—31	0.88	— 0.19	2.83	0.19	9.4	4	17	8	6
1903	23.0	+ 4.4	60	—12	0.28	— 0.79	1.46	T.	2.0	4	13	7	11
1904	14.0	— 4.6	57	—32	1.18	+ 0.11	3.68	0.02	6.1	6	12	8	11
1905	11.2	— 7.4	56	—30	0.91	— 0.16	1.82	0.12	11.1	7	14	7	10
1906	24.6	+ 6.0	69	—19	1.52	+ 0.45	4.71	0.28	11.3	5	14	6	11
1907	18.8	+ 0.2	68	—22	1.52	+ 0.45	5.30	0.10	6.0	7	8	7	16
1908	24.9	+ 6.3	60	—18	0.44	— 0.63	1.50	0.06	4.8	2	17	8	6
1909	21.2	+ 2.6	72	—25	1.66	+ 0.59	3.74	0.41	7.8	6	9	6	16
1910	18.1	— 0.5	56	—35	1.57	+ 0.50	3.15	0.55	12.6	6	13	7	11
1911	20.2	+ 1.6	66	—35	0.97	— 0.10	3.73	0.11	7.3	5	9	8	14
1912	4.2	—14.4	49	—47	0.53	— 0.54	1.90	T.	5.5	5	14	7	10
1913	20.9	+ 2.3	62	—25	0.77	— 0.30	2.05	0.04	7.2	5	14	9	8
1914	27.8	+ 9.2	64	—10	0.88	— 0.19	2.34	0.27	5.1	5	11	8	12
1915	17.5	— 1.1	59	—32	1.63	+ 0.56	3.15	0.10	7.3	8	13	8	10
1916	17.8	— 0.8	63	—34	2.62	+ 1.55	6.07	0.85	7.2	10	12	6	13
1917	17.0	— 1.6	60	—28	0.83	— 0.24	2.07	0.17	7.2	4	17	8	6
1918	8.6	—10.0	53	—35	1.02	— 0.05	2.79	0.26	11.2	7	13	8	10
1919	26.8	+ 8.2	64	—32	0.24	— 0.83	0.86	T.	2.8	2	20	5	6
1920	16.7	— 1.9	58	—26	0.42	— 0.65	1.05	T.	4.6	4	12	8	11
1921	28.4	+ 9.8	67	— 9	0.51	— 0.56	1.92	0.10	4.1	4	11	7	13
1922	19.8	+ 1.2	57	—20	0.89	— 0.18	2.30	0.32	5.3	4	17	6	8
1923	26.7	+ 8.1	58	—10	0.85	— 0.22	2.34	T.	6.5	6	10	7	14
1924	13.9	— 4.7	59	—36	0.89	— 0.18	2.47	0.06	5.5	5	17	7	7
1925	19.4	+ 0.8	55	—24	0.40	— 0.67	1.23	0.05	4.2	3	17	7	7
1926	22.7	+ 4.1	58	—22	1.09	+ 0.02	2.68	0.31	5.0	7	11	8	12
1927	21.7	+ 3.1	59	—27	0.29	— 0.78	1.10	T.	3.0	4	14	8	9
1928	25.2	+ 6.6	70	—20	0.17	— 0.90	1.04	T.	0.9	3	15	8	8
1929	10.2	— 8.4	47	—29	2.06	+ 0.99	4.10	0.40	17.5	9	11	6	14
1930	10.5	— 8.1	58	—37	1.33	+ 0.26	2.51	0.51	14.7	8	14	8	9
1931	28.9	+10.3	64	—15	0.50	— 0.57	0.97	T.	5.1	2	18	6	7
1932	22.5	+ 3.9	61	—22	1.81	+ 0.74	3.40	0.42	13.6	8	9	6	16
1933	32.5	+13.9	62	—10	0.95	— 0.12	2.43	0.18	1.4	5	13	8	10
1934	26.9	+ 8.3	67	—14	0.83	— 0.24	2.15	0.19	4.4	5	10	7	14
Period	18.6	.....	76	—47	1.07	.....	6.16	0.00	6.7	5	13	8	10

T. indicates an amount too small to measure, or less than .005 inch rainfall and less than .05 inch snowfall.

Climatological Data for January, 1934

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperatures, in Degrees Fahrenheit: Average	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Precipitation, in inches: Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	Number of days: Precipitation, .01 in. or more	Clear	Partly cloudy	Cloudy	Prevailing direction of wind	OBSERVERS
Northwest District																				
Akron	Plymouth	1,153	8								0.42	− 0.18	0.31	3.0	2	13	12	6	s.	Orlan C. Moore
Alta	Buena Vista	1,513	45	23.8	+ 9.0	56	27	− 7	29	44	0.68	− 0.05	0.45	5.5	5	12	5	14	s.	D. E. Hadden
Alton	Sioux	1,305	30	24.8	+ 9.9	60	27	− 5	1†	48	0.59	− 0.15	0.20	3.0	4	8	10	13	s.	W. S. Slagle
Cherokee	Cherokee	1,196	15	24.2	+ 8.8	57	27	− 5	29	45	0.50	− 0.10	0.34	4.0	3	10	6	15	s.	J. E. Wirth
Estherville	Emmet	1,298	41	22.2	+ 9.2	48	27	−11	29	50	0.79	+ 0.19	0.30	4.1	9	10	13	8	se.	A. O. Peterson
Hawarden	Sioux	1,181	8								0.38	− 0.22	0.28	3.3	2	16	3	12	nw.	Earl V. Slife
Inwood (near)	Lyon	1,474	32	22.4	+ 9.3	57	27	− 8	1†	53	0.54	− 0.10	0.30	3.4	3	11	5	15	nw.	A. C. Hanson
Lake Park (near)	Dickinson	1,489	23	21.4	+ 8.9	50	27	−12	29	47	0.90	+ 0.27	0.43	5.0	5	12	3	16	nw.	P. M. Lawrence
Le Mars	Plymouth	1,230	48	26.0	+10.0	61	27	− 4	1	50	0.39	− 0.20	0.39	4.5	1	10	6	15	sw.	Theo. Love
Marathon	Buena Vista	1,390	8								0.48	− 0.22	0.30	2.0	2	11	5	15	w.	A. M. Cox
Pocahontas	Pocahontas	1,248	31	24.3	+ 9.2	57	27	− 7	29	48	0.60	− 0.12	0.48	2.4	5	10	9	12	s.	F. E. Hronek
Rock Rapids	Lyon	1,341	38	22.2	+ 8.7	55	27	− 7	29	45	0.56	− 0.12	0.27	5.0	3	4	15	12	w.	George Raveling
Sanborn	O'Brien	1,552	22	21.8	+ 8.8	54	27	−11	29	50	0.71	− 0.03	0.50	6.5	3	4	12	15	w.	J. W. Dow
Sheldon	O'Brien	1,418	29	22.8	+ 9.5	53	27	− 7	1†	47	0.64	− 0.17	0.40	4.6	3	10	7	14	nw.	Ross E. Forward
Sioux Center	Sioux	1,455	36	22.8	+ 8.7	57	27	− 8	1†	50	0.90	+ 0.16	0.65	4.7	3	8	9	14	n.	Joe te Veltrup
Spencer	Clay	1,319	27	22.6	+ 9.0	53	27	−10	29	49	0.74	+ 0.08	0.33	5.6	5	11	3	17	nw.	E. W. Little
Storm Lake	Buena Vista	1,442	45	23.8	+ 8.3	58	27	− 7	29	47	0.65	+ 0.01	0.50	4.3	5	12	3	16	nw.	Russel M. Edwards
West Bend	Palo Alto	1,197	48	23.6	+ 9.2	56	27	− 9	29	41	0.48	− 0.36	0.40	1.0	2	6	13	12	nw.	Jos. Dorweiler
Means and Extremes				23.2	+ 8.9	61	27	−12	29	53	0.61	− 0.07	0.65	4.0	4	10	8	13	nw.	
North Central District																				
Algona	Kossuth	1,207	74	23.0	+ 8.1	54	27	−12	29	53	0.49	− 0.42	0.27	4.5	6	8	7	16	nw.	Leon M. Merritt
Allison (near)	Butler	1,000	21	23.1	+ 8.1	56	27	−12	29	46	0.74	− 0.26	0.40	5.5	7	5	9	17	nw.	George H. Bell
Belmond	Wright	1,178	26	23.0	+ 8.8	53	27	−12	29	48	0.78	− 0.34	0.40	4.8	4	5	11	15	sw.	T. A. Davenport
Britt	Hancock	1,238	50	23.0	+ 8.4	50	27	−13	29	48	0.31	− 0.44	0.15	1.3	5					E. . Healy
Charles City	Floyd	1,015	60	23.6	+ 9.9	49	27	−11	29	48	0.61	− 0.44	0.38	2.4	6	8	5	18	nw.	U. S. Weather Bureau
Dumont (near)	Butler	998									0.82	− 0.18	0.43	4.0	7	5	12	14	sw.	L. H. Overturf
Forest City	Winnebago	1,226	45	22.4	+ 8.2	50	27	−14	29	52	1.15	+ 0.23	0.30	6.0	7	10	1	20	sw.	Dr. M. B. Neil
Hampton	Franklin	1,142	44	23.6	+ 8.7	50	27	−12	29	48	0.55	− 0.56	0.25	3.5	3	17	1	13	sw.	Howard J. Haydon
Humboldt	Humboldt	1,095	51	23.2	+ 7.9	54	27	− 9	29	50	0.83	− 0.07	0.78	3.5	3	8	5	18	nw.	H. C. Snitkey
Mason City	Cerro Gordo	1,148	43	22.8	+ 9.3	49	27	−12	29	52	0.57	− 0.35	0.24	5.0	8	7	7	17	nw.	American Beet Sugar Co.
Northwood	Worth	1,222	39	21.9	+ 8.8	49	27	−14	29	54	0.65	− 0.36	0.35	2.5	4	10	7	14	sw.	Charles H. Dwelle
Osage	Mitchell	1,163	50	22.0	+ 8.6	47	27	−14	29	49	0.52	− 0.58	0.33	3.0	3	6	8	17	sw.	Dr. C. E. Juhl
Means and Extremes				22.9	+ 8.6	54	27	−14	29	54	0.67	− 0.31	0.78	3.8	5	8	7	16	sw.	
Northeast District																				
Cedar Falls	Black Hawk	875	14								0.80	− 0.30	0.52	3.4	5	8	8	15	nw.	E. J. Cable
Decorah	Winneshiek	986	52	23.7	+ 9.1	48	24	−12	29	46	0.77	− 0.36	0.53	5.0	6	6	6	19	nw.	M. D. Whitney
Delaware (near)	Delaware	1,083	56	24.8	+ 7.8	49	24	−12	29	46	0.85	− 0.34	0.24	2.5	6	12	4	15	sw.	E. J. Paris
Dubuque	Dubuque	700	84	28.4	+ 9.3	53	24	− 8	29	46	0.90	− 0.40	0.46	1.8	6	7	6	18	nw.	U. S. Weather Bureau
Fayette	Fayette	1,009	47	25.2	+ 9.2	50	24	−10	29	46	1.06	− 0.14	0.53	2.7	7	10	3	18	sw.	W. C. Van Ness
Independence	Buchanan	956	75	25.2	+ 7.5	49	24	−10	29	47	0.80	− 0.34	0.33	3.8	7	8	5	18	nw.	Dr. Geo. Boody
New Hampton	Chickasaw	1,169	38	23.0	+ 8.8	46	27	−12	29	45	0.93	− 0.03	0.25	2.6	7	6	5	20	w.	D. W. Dawson
Oelwein	Fayette	1,036	12	25.1	+ 8.6	48	24	−10	29	43	0.45	− 0.70	0.30	2.0	2	5	3	23	nw.	John T. Ridler
Postville (near)	Clayton	1,192	44	23.6	+ 8.3	48	24	−12	29	42	0.51	− 0.65	0.14	4.3	6	6	8	17	sw.	F. L. Williams
Waterloo	Black Hawk	850	53	25.6	+ 8.4	51	24†	−10	29	46	1.20	+ 0.15	0.50	10.5	6	13	5	13	se.	R. B. Slippy
Waverly	Bremer	1,010	46	24.6	+ 9.0	49	27	−11	29	48	0.68	− 0.44	0.30	4.5	6	14	8	9	nw.	G. N. Fader
Means and Extremes				24.9	+ 8.6	53	24	−12	29	48	0.81	− 0.32	0.53	3.9	6	9	5	17	nw.	
West Central District																				
Audubon (near)	Audubon	1,297	42	25.4	+ 7.3	55	27	− 3	29†	44	1.11	+ 0.26	0.58	8.0	5	10	7	14	w.	Geo. Kibby
Carroll	Carroll	1,265	49	25.4	+ 7.9	57	27	− 3	29†	44	1.08	+ 0.33	0.40	5.5	5	16	2	13	nw.	Mrs. J. J. Wolfe
Cushing (near)	Ida	1,350		25.8	+ 9.0	58	27	− 4	30	39	1.03	+ 0.33	0.40	10.0	5					H. P. Lasher
Denison	Crawford	1,307	51	25.6	+ 8.1	55	27	− 2	30	44	0.70	− 0.01	0.48	3.5	4	10	7	14	sw.	E. M. Hugg
Guthrie Center	Guthrie	1,028	40	27.0	+ 8.1	57	27	− 4	30	49	1.03	+ 0.18	0.75	4.5	5	12	4	15	nw.	Kenneth Hoyt
Harlan	Shelby	1,210	43	26.3	+ 8.2	58	27	− 3	30	43	0.64	− 0.06	0.38	5.4	5	10	7	14	nw.	Elmer Buss
Jefferson	Greene	1,052	43	25.8	+ 8.1	58	27	− 3	29†	47	1.74	+ 0.85	0.53	9.0	6	15	1	15	sw.	Will I. Lyon
Little Sioux	Harrison	1,040	34	28.0	+ 8.8	66	27	− 2	1	41	0.62	− 0.06	0.26	5.7	6	10	10	11	s.	H. W. Kerr
Logan	Harrison	1,120	69	27.2	+ 7.4	53	27	0	1†	45	0.76	− 0.20	0.35	6.0	6	10	13	8	s.	Amy Ann Stern
Onawa	Monona	1,051	50	26.8	+ 8.2	63	27	− 2	1	49	0.78	− 0.09	0.49	6.2	3	14	5	12	s.	Mrs. Mary Long
Rockwell City	Calhoun	1,226	48	24.7	+ 8.5	56	27	− 5	29†	51	0.84	− 0.15	0.55	3.3	6	9	8	14	nw.	E. H. Boicourt
Sac City	Sac	1,209	66	24.4	+ 8.4	58	27	− 5	30	43	0.80††	− 0.18	0.50	4.9	6	5	9	17	nw.	F. P. Kessler
Sioux City	Woodbury	1,135	60	27.3	+ 9.5	63	27	− 5	1	49	0.50	− 0.24	0.38	5.0	5	6	10	15	nw.	U. S. Weather Bureau
Means and Extremes				26.1	+ 8.1	66	27	− 5	1†	51	0.90	+ 0.07	0.75	6.4	5	11	7	13	nw.	
Central District																				
Ames	Story	1,007	59	24.8	+ 6.7	55	27	− 5	29	44	1.46	+ 0.62	0.64	10.1	7	9	10	12	nw.	Chas. Brown
Baxter	Jasper	993	36	26.5	+ 7.9	57	27	− 5	29†	49	1.13	+ 0.30	0.41	7.0	4	10	11	10	nw.	Geo. R. Geise
Boone (near)	Boone	894	51	26.4	+ 8.8	58	27	− 7	30	47	1.46	+ 0.59	0.58	7.0	6	11	4	16	nw.	Carl Fritz Henning
Des Moines	Polk	861	58	28.4	+ 8.3	59	27	− 1	29	49	1.22	+ 0.15	0.57	8.0	5	7	7	17	nw.	U. S. Weather Bureau
Fort Dodge	Webster	1,114	47	24.2	+ 8.6	54	27	− 8	29	48	1.11	+ 0.35	0.46	8.2	10	13	3	15	sw.	Mrs. Emma Sampson
Grinnell	Poweshiek	1,081	51	28.0	+ 8.6	56	24†	− 6	29†	52	1.20	+ 0.14	0.60	7.1	7	13	8	10	s.	R. E. Bates
Grundy Center	Grundy	976	44	26.2	+ 8.5	51	27	−11	29	39	1.08	+ 0.12	0.40	7.0	5	9	5	17	nw.	M. G. Heiberger
Iowa Falls	Hardin	1,127	53	23.4	+ 7.7	51	27	−10	29	50	2.15	+ 0.99	0.70	9.0	7	13	3	15	nw.	C. H. Gilbert
Marshalltown	Marshall	947	57	26.0	+ 7.3	53	24†	− 8	29	49	1.32	+ 0.24	0.45	10.5	7	9	7	15	sw.	C. C. Pigman
Monroe	Jasper	922	24	28.9	+ 8.8	59	24†	− 5	29†	51	1.24	+ 0.41	0.57	7.9	4	14	2	15	w.	J. A. Dibel
Newton	Jasper	943	37	27.4	+ 8.0	60	27	− 5	29†	48	1.52	+ 0.62	0.79	8.8	5	9	10	12	sw.	E. D. Finch
Perry	Dallas	975	35	25.0	+ 6.6	57	27	− 3	29†	47	1.20	+ 0.31	0.49	6.8	7	12	5	14	nw.	Eugene N. Hastie
Toledo	Tama	847	41	26.4	+ 8.2	55	24†	− 9	29	49	1.24	+ 0.18	0.55	10.0	6	10	8	13	sw.	H. P. Giger
Van Meter	Dallas	872	14								1.52	+ 0.52	0.70	6.0	3					George Cotton
Waukee	Dallas	1,000	37	27.1	+ 8.1	58	27	− 4	30	49	1.75	+ 0.66	0.95	11.5	2	12	8	11	nw.	F. R. Stump
Webster City	Hamilton	1,042	51	24.6	+ 8.8	55	27	− 7	29	49	0.92	− 0.04	0.37	5.5	4	4	8	19	sw.	Frank A. Bonebright
Means and Extremes				26.2	+ 8.0	60	27	−11	29	52	1.34	+ 0.38	0.95	8.2	6	10	7	14	nw.	

Climatological Data for January, 1934—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperatures, in Degrees Fahrenheit: Average	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Precipitation, in inches: Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	Number of days: Precipitation, .01 in. or more	Clear	Partly cloudy	Cloudy	Prevailing direction of wind	OBSERVERS
East Central District																				
Belle Plaine	Benton	866	59	27.0	+ 7.9	56	27	— 7	29	45	1.20	— 0.19	0.48	5.4	7	8	9	14	nw.	O. C. Burrows
Cedar Rapids	Linn	737	53	26.9	+ 7.9	56	24	— 9	29	47	0.60	— 0.58	0.25	2.2	5	9	5	17	nw.	J. T. Wurster
Clarence	Cedar	850									0.42		0.16	2.0	4	10	7	14	sw.	H. J. Klatt
Clinton	Clinton	595	64	29.6	+ 8.5	56	24	— 6	29	44	0.66	— 1.01	0.32	1.8	4	11	4	16	s.	Dr. A. P. Bryant
Davenport	Scott	580	64	30.8	+ 9.0	58	24	— 5	29	48	0.77	— 0.65	0.32	1.7	6	8	6	17	sw.	U. S. Weather Bureau
Iowa City	Johnson	733	78	29.2	+ 9.0	58	24	— 6	29	43	0.70	— 0.83	0.38	2.5	4	8	14	9	nw.	Prof. J. F. Reilly
Le Claire	Scott	576	58								0.80	— 0.67	0.34	1.0	5					Margaret T. Disney
Maquoketa (near)	Jackson	692	42	27.6	+ 8.7	54	24	— 8	29†	47	0.67	— 0.61	0.26	2.1	5	13	6	12	sw.	John Strodthoff
Muscatine	Muscatine	546	89								0.57	— 1.22	0.26	1.0	4					William Molis
Olin	Jones	750	37	28.0	+ 9.4	55	24	— 8	30	48	0.19	— 1.15	0.14	2.0	2	7	9	15	sw.	Mrs. Lura Stingley
Tipton (near)	Cedar	806	43	29.2	+ 9.5	56	24	— 7	29†	46	0.41	— 0.94	0.18	3.0	4	3	11	17	w.	John Kroeplen
Williamsburg	Iowa	805	19	28.2	+ 8.2	59	24	— 8	29	47	0.61	— 0.69	0.45	3.2	3	12	8	11	se.	Dr. F. C. Schadt
Means and Extremes				28.5	+ 8.7	59	24	— 9	29	48	0.65	— 0.78	0.48	2.3	4	9	8	14	sw.	
Southwest District																				
Atlantic	Cass	1,110	48	26.7	+ 7.7	54	24	— 3	30	46	0.91	+ 0.02	0.52	4.1	6	6	12	13	nw.	Roy L. Fancolly
Bedford	Taylor	1,200	31								0.94	— 0.06	0.44	4.0	3	14	4	13	sw.	Arthur L. Bishop
Clarinda	Page	1,009	63	30.3	+ 8.5	66	27	— 2	30	45	0.68	— 0.23	0.37	3.0	3	16	6	9	n.	Dr. H. C. Hawley
Corning	Adams	1,294	47	28.5	+ 8.3	60	27	— 2	30	49	0.95	+ 0.04	0.40	5.3	3	11	6	14	s.	W. J. Wagner
Cumberland (near)	Cass	1,225	36								1.17	+ 0.45	0.31	7.0	6	14	2	15	nw.	Carl E. Pollock
Glenwood	Mills	1,100	45	30.4	+ 8.9	64	27	2	29†	50	0.54	— 0.14	0.32	5.4	5	10	11	10	nw.	Dr. Geo. Mogridge
Greenfield	Adair	1,368	39								0.78	— 0.13	0.48	6.0	5	4	15	12	nw.	P. C. Cornell
Lenox	Taylor	1,250	40	29.4	+ 8.4	62	27	— 2	30	44	0.60	— 0.11	0.50	6.0	4	14	6	11	nw.	J. L. Hurley
Oakland	Pottawattamie	1,139	22	28.5	+ 8.6	63	27	0	30	46	0.48	— 0.32	0.28	3.5	4	12	4	15	sw.	W. S. Matthews
Red Oak (near)	Montgomery	1,030	28								1.23	+ 0.51	0.90	7.5	4	10	11	10	s.	B. R. Bridge
Riverton (near)	Fremont	920	9								0.59	— 0.16	0.25	4.0	5	9	7	15	s.	Geo. C. Rader
Thurman	Fremont	980	48	30.0	+ 8.7	66	27	0	30	48	0.90	+ 0.28	0.65	5.5	3	10	9	12	nw.	Onie Holloway
Omaha, Nebr.		1,105	70	30.0	+ 8.1	64	27	1	1	46	0.53	— 0.17	0.28	5.1	5	7	9	15	nw.	U. S. Weather Bureau
Means and Extremes				29.2	+ 8.4	66	27	— 3	30	50	0.80	0.00	0.90	5.1	4	10	8	13	nw.	
South Central District																				
Afton	Union	1,212	54	28.6	+ 7.8	61	27	— 2	30	47	0.85	0.00	0.37	6.0	4	13	6	12	nw.	S. R. Brown
Albia	Monroe	964	44	31.4	+ 9.7	62	27	— 4	30	49	0.69	— 0.38	0.40	2.1	3	9	8	14	sw.	S. L. Gasaway
Centerville	Appanoose	1,013	42	31.1	+ 8.8	61	27	— 3	30	48	0.69	— 0.33	0.40	1.7	5	13	4	14	se.	Thos. Wood, Jr.
Chariton (near)	Lucas	1,042	41	29.4	+ 8.3	63	27	— 4	30	53	0.78	— 0.15	0.36	5.0	3	13	5	13	sw.	C. O. Burr
Corydon (near)	Wayne	1,050	51	29.1	+ 7.5	60	27	— 5	30	50	0.50	— 0.66	0.30	2.2	2	16	2	13	sw.	J. C. Davis
Creston	Union	1,291	34	27.4	+ 7.6	60	27	— 5	30	44	1.09	+ 0.21	0.63	9.0	5	14	4	13	sw.	Mrs. N. Spangler
Indianola	Warren	972	54	28.4	+ 8.2	61	27	— 4	30	47	1.01	— 0.10	0.46	7.6	5	10	7	14	sw.	Seth F. Shenton
Knoxville	Marion	920	45	29.6	+ 9.1	62	27	— 4	30	54	1.00	— 0.10	0.35	5.5	4	12	5	14	sw.	W. J. Casey
Lacona	Warren	824	36								1.02	— 0.53	0.40	7.5	7	4	17	10		J. B. Alter
Lamoni	Decature	1,123	31	29.9	+ 8.8	62	27	— 2	30	45	0.47	— 0.51	0.31	3.2	3	12	4	15	nw.	F. S. Parks
Melrose	Monroe	871	6								0.50	— 0.55	0.30	5.5	4	15	7	9	sw.	J. M. Carr
Mt. Ayr	Ringgold	1,220	43	29.8	+ 8.4	61	27	— 3	30	47	0.73	— 0.27	0.34	4.0	4	16	1	14	s.	E. O. Gleason
Tingley	Ringgold	1,275	11	28.6	+ 7.6	56	24	— 3	30	46	1.08	+ 0.13	0.54	5.2	4	15	2	14	sw.	James A. Verploegh
Tracy	Marion	725	2								0.72		0.32	6.0	4					D. M. Coleman
Winterset	Madison	1,118	44	28.6	+ 8.2	60	27	— 2	29†	48	1.30	+ 0.40	0.60	8.5	3	15	4	12	nw.	H. S. Ely
Means and Extremes				29.3	+ 8.3	63	27	— 5	30	54	0.83	— 0.21	0.63	5.0	4	13	5	13	sw.	
Southeast District																				
Bonaparte (near)	Van Buren	563	48	32.2	+10.1	62	24	— 4	30	49	0.30	— 1.11	0.15	0.5	4	11	7	13	s.	B. R. Vale
Burlington	Des Moines	544	45	32.8	+ 8.9	61	24	— 3	29	46	0.65	— 1.14	0.35	1.0	5	14	6	11	sw.	John W. Donnelly
Columbus Junction	Louisa	595	44	30.4	+ 8.4	58	24	— 4	29	46	0.48	— 0.83	0.15	0.6	6	9	11	11	sw.	Miss Musa Todd
Fairfield	Jefferson	780	55	30.3	+ 9.1	60	24†	— 3	29	50	0.63	— 0.78	0.38	2.3	5	12	2	17	s.	R. M. McKenzie
Keokuk	Lee	614	64	33.0	+ 8.1	67	24	— 1	30	47	0.81	— 0.75	0.46	0.4	4	8	6	17	sw.	U. S. Weather Bureau
Keokuk No. 2	Lee	651	6	34.1	+ 9.7	66	24	— 3	30	48	0.81	— 0.89	0.35	0.4	5					J. N. D. Dickinson
Keosauqua	Van Buren	639	48	32.3	+10.3	62	24†	— 4	30	50	2.05	+ 0.64	1.00	T.	4	9	8	14	nw.	Dr. J. W. Rinabarger
Mt. Pleasant	Henry	730	59	31.8	+ 9.0	61	24	— 5	29	48	0.55	— 0.86	0.21	0.2	5	11	5	15	sw.	J. H. Jericho
Oskaloosa	Mahaska	835	59	30.0	+ 9.4	60	27	— 5	29†	46	1.35	+ 0.31	0.49	6.9	8	8	10	13	nw.	R. R. Robinson
Ottumwa	Wapello	649	48	31.8	+ 9.8	63	27	— 4	30	48	0.59	— 0.71	0.41	1.7	4	13	5	13	sw.	C. L. Mikesh
Sigourney	Keokuk	787	40	29.8	+ 9.5	58	27	— 5	29	49	0.88	— 0.33	0.38	2.5	4	15	0	16	nw.	C. A. Beistle
Stockport (near)	Van Buren	747	34	30.8	+ 9.4	60	24†	— 3	29†	44	1.25	— 0.10	0.50	0	4	1	16	14	sw.	C. L. Beswick
Washington	Washington	755	60	30.4	+ 9.2	59	27	— 8	29	46	0.69	— 0.68	0.35	1.0	5	8	7	16	ne.	D. D. Sherman
Means and Extremes				31.5	+ 9.2	67	24	— 8	29	50	0.85	— 0.58	1.00	1.3	5	10	7	14	sw.	
State means and Extremes				26.9	+ 8.3	67	24	—14	29	54	0.83	— 0.24	1.00	4.4	5	10	7	14	nw.	

Temperature normals are based on the inter-station relationships during the 10-year period ending December 31, 1930, harmonized with the normals for the 46-year period, July 3, 1875 to July 2, 1921. Precipitation normals are based on the 50-year period, ended December 31, 1927 at first order stations; upon all records of 10 years or more ending December 31, 1930 for most of the co-operative observing stations; and upon interpolations from normal maps for recently established stations. However, State departures are based on the averages for the entire 62 years of record and must necessarily differ slightly from average station departures based on established normals.

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing for example b represents two days, etc.

T. Precipitation is less than 0.005 inch rain or melted snow.

‡‡ Received too late to be included in means and summaries.

† Also other dates.

Daily Precipitation for January, 1934

Stations	Drainage Basin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Totals
Northwest District																																	
Akron	Big Sioux				.31	.11																							T.	T.			0.42
Alta	Raccoon	T.	.07		.45	.03		T.					.10									.03											0.68
Alton	Floyd		T.		.20	.10	T.						T.									.13	.16		T.							T.	0.59
Cherokee	Little Sioux	T.	T.	T.	.34	.08	T.	T.		T.	T.	T.	.08		T.							T.			T.				T.			T.	0.50
Estherville	Des Moines		.30		.25	.03	.02	.01		.02	.03		.03									.10											0.79
Hawarden	Big Sioux		T.		.28	.10						T.	T.																				0.38
Inwood (near)	Big Sioux		†.20		†.30	†.04																										T.	0.54
Lake Park (near)	Little Sioux		.17	T.	.43	.08							.20										.02										0.90
Le Mars	Floyd				.39								T.										T.						T.				0.39
Marathon	Raccoon				T.	.30							.18																				0.48
Pocahontas	Des Moines		.01		.48	.07				T.		.01	.03																				0.60
Rock Rapids	Big Sioux	T.	.15		.27	.14							T.												T.				T.			T.	0.56
Sanborn	Floyd		T.		.15	.06		T.					.50																				0.71
Sheldon	Floyd	T.	T.		.40	.12		T.		T.		T.	.12	T.								T.			T.				T.				0.64
Sioux Center	Floyd				.65	.20							.05																				0.90
Spencer	Little Sioux			T.	.33	.10							.13									.15	.03										0.74
Storm Lake	Raccoon	T.	.03	.01	.50	.05		T.			T.		.06									T.	T.		T.								0.65
West Bend	Des Moines	T.			.40	.08						T.																					0.48
North Central District																																	
Algona	Des Moines	T.	T.	.04	.27	.13	T.			.02			.01									T.	.02		T.						T.		0.49
Allison (near)	Cedar	T.	T.	.05	.02	.04	.02	T.		T.			.20	.40								.01	T.										0.74
Belmond	Iowa		.06		.40	.04		T.		T.			.28										T.										0.78
Britt	Iowa			T.	.08	.15	T.	.04		T.				.02	.02																		0.31
Charles City***	Cedar	T.	T.	.05	.38	.03		T.		T.			.12	T.								.02	.01		T.				T.				0.61
Dumont (near)	Cedar			.10	.43	.07							.07	.12								.02	.01										0.82
Forest City	Cedar			.05	.20	.15		.10		T.				.30								.15	.20		T.						T.		1.15
Hampton	Cedar	T.	.16		.25								.14								T.			T.									0.55
Humboldt	Des Moines	T.	.02	.03	.78	T.				T.		T.	T.	T.								T.											0.83
Mason City	Cedar	T.	T.	.02	.24	.11	.01	T.		.01	T.	T.	.01	.14								T.	.03						T.		T.	T.	0.57
Northwood	Cedar	T.	T.	T.	.35	.05				T.		T.		.20								T.	.05										0.65
Osage	Cedar			T.	.33	.06							.13																				0.52
Northeast District																																	
Cedar Falls	Cedar		T.		.52	T.		T.		T.	T.		.12	.06								.08	.02							T.		0.80
Decorah	Mississippi				.23	.30							.01	.17								.03	.03										0.77
Delaware (near)	Maquoketa			.11	.24	.23		T.					.06	.20								.01											0.85
Dubuque***	Mississippi	T.	.04	.02	.46	T.	T.	T.	T.	T.			.22	.15								T.	.01		T.			T.	T.		T.	T.	0.90
Fayette	Mississippi			T.	.53	.01		.02		.10			T.	.26								.07	.07										1.06
Independence	Wapsipinicon			.17	.33	.07				.05			.04	.09									.05										0.80
New Hampton	Wapsipinicon			.13	.25	.17							.15	.06								.13	.04										0.93
Oelwein	Wapsipinicon			.15	.30									T.																			0.45
Postville (near)	Mississippi			.07	.06	.10							T.	.10								.14	.04										0.51
Waterloo	Cedar			.20	.50	.10		T.			T.		.20	.10								.10											1.20
Waverly	Cedar	T.	T.	.10	.30	.05		T.					.14	.03								.06	T.										0.68
West Central District																																	
Audubon (near)	Nishnabotna		.20		.58	.10				.03			.20												T.								1.11
Carroll	Raccoon		.20	.08	.35	.40	T.	T.		T.			.05																				1.08
Cushing (near)	Little Sioux		.08	.04	.40	.38		T.				.13																	T.			T.	1.03
Denison	Missouri		.12		.48	.07				T.												.03											0.70
Guthrie Center	Raccoon		T.	.03	.70	.05		T.		T.			.15	.10																			1.03
Harlan	Nishnabotna	T.	T.	.10	.38	.06		T.		T.	T.	T.	.06	.04	T.							T.		T.					T.	T.			0.64
Jefferson	Raccoon		.20	.05	.53	.61		T.					.05	.30																			1.74
Little Sioux	Little Sioux		.09	.07	.26	.13		T.					.05																	.02			0.62
Logan	Missouri	T.	.06		.35	.10		.04		.01	T.		.20											T.					T.	T.			0.76
Onawa	Missouri		T.	.14	.49	.15		T.					T.																T.	T.			0.78
Rockwell City	Raccoon	T.	.10	.09	.55	.04			T.	.02		T.	T.	T.								T.	.04										0.84
Sac City	Raccoon	T.	.10	.10	.50	.05	T.	T.		.02			.03												T.				T.	.01			0.80
Sioux City***	Missouri	T.	.07		.36	.05		.01					T.									T.			T.				T.	.01			0.50
Central District																																	
Ames	Skunk	T.	.12	.18	.64	.16		T.		T.			.21	.13								.02	T.										1.46
Baxter	Skunk			.16	.33	.23								.41								T.											1.13
Boone (near)	Des Moines		.14	.18	.58	.12		T.		T.			.12	.32																			1.46
Boone (river) ‖ ‖	Des Moines																																
Des Moines***	Des Moines	T.	.13	T.	.56	.06		T.	T.	T.			.44	.03								T.	T.			T.							1.22
Fort Dodge	Des Moines		.12	.10	.46	.08	.06	.01		.03			.15	.08								.02											1.11
Grinnell	Iowa			.12	.22	.60	T.			T.			.09	.15								.01	.01										1.20
Grundy Center	Cedar			.30	.40	.10							.20									.08											1.08
Iowa Falls	Iowa		T.	.25	.70	.40				.25			.10	.30								.15											2.15
Marshalltown	Iowa		.12	.18	.35	.19		T.		T.			.28	.17								.03		T.								T.	1.32
Monroe	Des Moines	T.	T.	.04	.57	.15		T.		T.				.48								T.	T.		T.								1.24
Newton	Skunk		T.	.16	.79	.08							.23	.26																			1.52
Perry	Raccoon	T.	.04	.16	.04	.45		T.		.02			.03	.46								T.											1.20
Toledo	Iowa		T.	.21	.55	.22				T.			.03	.20								.03											1.24
Van Meter ‖ ‖	Raccoon			T.	.18	.64				T.				.70									T.										1.52
Waukee	Raccoon		T.	T.	.95		T.						.80									T.	T.	T.									1.75
Webster City	Des Moines	T.		.18	.37	.10				T.				.27								T.	T.										0.92
East Central District																																	
Belle Plaine	Iowa		.01	.20	.48	.19							.14	.16								.02	T.	T.	T.							T.	1.20
Cedar Rapids	Cedar	T.		.06	.25	.12	T.			T.			.09	.08								T.	T.		T.				T.				0.60
Ced. R. (river) ‖ ‖	Cedar			.05	.37	.34	.03				.01			.18	.04											T.							1.02
Clarence	Wapsipinicon				†.10	†.05							.11	.16	T.							T.			T.				T.			T.	0.42
Clinton	Mississippi	T.			.32	.07		T.	T.				.06	.21												T.			T.				0.66
Clinton (river) ‖ ‖	Mississippi	.02			.02	.40	.05							.35	.05								T.										0.89
Davenport***	Mississippi	.01	T.	T.	.31	.03	T.	T.	T.	T.	T.		.27	.05									T.		.10	T.			T.			T.	0.77
Iowa City	Iowa	T.	T.	T.	.38	.14				T.			.11	.07									T.		T.				T.				0.70
Le Claire ‖ ‖	Mississippi	.05			T.	.34	.03		T.	T.				.25	T.									T.		.13				T.			0.80
Maquoketa (near)	Maquoketa			T.	.26	.03							.12	.25											.01								0.67
Muscatine ‖ ‖	Mississippi				.05	.22	.04							.26																			0.57
Olin	Wapsipinicon				.14								.05																				0.19
Tipton (near)	Cedar				.18	.09							.11	.03																			0.41
Williamsburg	Iowa				.45								.09	.07																			0.61

Daily Precipitation for January, 1934—Continued

Stations	Drainage Basin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Totals
Southwest District																																	
Atlantic	Nishnabotna		.05	.03	.52	.09			T.	T.			.19	.03								T.	T.						T.	T.			0.91
Bedford	102		T.	T.	.25	.25							.44																				0.94
Clarinda	Nodaway				.37								.23	.08																			0.68
Clarinda Erosion:																																	
Plum Cr. No. 1	Nodaway				.29	.02							.06	.01																			0.38
Tarkio Cr. No. 2	Nodaway				.27	.03							.10	.02																			0.42
Walnut Cr. No. 1	Nodaway				.30	.02							.17	.09																			0.58
Corning	Nodaway	T.	T.	T.	.40	.15		T.	T.	T.			.40	T.								T.	T.						T.	T.			0.95
Cumberland (near)	Nodaway		.25	.20	.31	.04							.27	.10															T.				1.17
Glenwood	Missouri		.02		.10	.10							.10	.22																T.			0.54
Greenfield	Nodaway	T.	.10	.05	.48	.05		T.	T.	T.			.10																T.				0.78
Lenox	Missouri	T.	T.	T.	.05	.05				T.			.30	.20															T.	T.			0.60
Oakland	Nishnabotna		.03		.28	.12							.05																				0.48
Red Oak (near)	Nishnabotna		T.		.24	.09				T.			.84	.06																			1.23
Riverton (near)	Nishnabotna		.05	.04	.20	.05			T.	T.			.25																	T.			0.59
Thurman	Missouri		T.		.20	.14		T.		T.			.65																	T.			0.99
Omaha, Nebr.***	Missouri	T.	.05		.15	.04		T.	T.	T.		T.	.28									T.				T.				.01			0.53
South Central District																																	
Afton	Grand		T.		.37	.16							.25	.07																			0.85
Albia	Des Moines				.40	T.		T.					.15	.14											T.								0.69
Centerville	Chariton			.06	.40	.02		T.	T.				.19	.02								T.	T.		T.								0.69
Chariton (near)	Chariton	T.			.14	.36							T.	.28																			0.78
Corydon (near)	Chariton				.30	T.		T.	T.	T.			.20										T.						T.				0.50
Creston	Missouri	T.	.01		.39	.06		T.	T.	T.			.53	.10																			1.09
Indianola	Des Moines	T.	T.	.01	.14	.46							.20	.20																			1.01
Knoxville	Des Moines			T.	.35	.15							.30	.20									T.										1.00
Lacona	Des Moines		.05		.35	.20							.30	.10								.01	.01										1.02
Lamoni	Grand	T.			.31	T.			T.				.14	.02																			0.47
Melrose	Des Moines				.10	.10							.10	.20																			0.50
Mt. Ayr	Grand	T.			.34	.12	T.	T.	T.				.18	.09																			0.73
Tingley	Platte	T.	T.	T.	.06	.54			.07	T.				.41								T.	T.										1.08
Tracy ‖ ‖	Des Moines		T.	T.	.32	.14	.06		T.	T.				.20									T.										0.72
Winterset	Des Moines				.60								.30	.40																			1.30
Southeast District																																	
Bonaparte (near)	Des Moines				T.	.02		T.	T.	T.			.04	.09								T.	T.			.15						T.	0.30
Burlington	Mississippi				.19	.02				T.			.22	.13											T.	.09							0.65
Columbus Junction	Iowa				.15	.08		T.		.01			.13	.08										T.	.03								0.48
Fairfield	Skunk				.38	.02		.01		.02			T.	.20											T.								0.63
Keokuk***	Mississippi			T.	.28	T.		T.	T.	T.			.33	.13								T.	T.		.07							T.	0.81
Keokuk No. 2	Mississippi				.35	.03			T.	T.			.15	.20									T.		.08							T.	0.81
Keosauqua	Des Moines				.25	T.				T.			.30	1.00			T.	T.							.50								2.05
Mt. Pleasant	Skunk				.21	.02							.10	.10												.12							0.55
Oskaloosa	Des Moines	T.	T.	T.	.49	.18	T.	.04	.01	.01			.07	.40								.15	T.		T.							T.	1.35
Ottumwa	Des Moines	T.			.32	.09		T.		T.			.06	.12											T.								0.59
Ot'mwa (river) ‖ ‖	Des Moines	T.			.06	.32	T.	T.	T.	T.	T.			.25					T.				T.										0.63
Sigourney	Skunk				.35	.15		T.					.12	.26								T.											0.88
Stockport (near)	Skunk				.43	T.							.16	.50											.16								1.25
Wapello ‖ ‖	Iowa	T.			.02	.22	T.		T.					.18			T.									T.							0.42
Washington	Skunk				.35	.12	.02	T.	T.	T.			.14	.06									T.	T.						T.			0.69

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.

‖ ‖ Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.

*** Regular Weather Bureau Station: precipitation is for 24-hour period midnight to midnight.

** Incomplete.

* Precipitation included in next following measurement.

T. Precipitation is less than 0.005 inch rain or melted snow.

† Interpolated.

PRESSURE, WIND, HUMIDITY AND SUNSHINE

Stations	Atmospheric Pressure (reduced to sea level)					Wind ‡				Relative humidity			
	Average	Highest	Date	Lowest	Date	Average hourly velocity	Maximum velocity	Direction	Date	7 a. m.	12 noon	7 p. m.	Percentage of sunshine
Charles City	30.11	30.63	29	29.51	31	8.0	26	nw.	28	86	71	81	34
Davenport	30.13	30.57	29	29.60	13	10.6	35	nw.	28	82	67	73	42
Des Moines	30.13	30.67	29	29.63	31	9.8	38	nw.	28	84	70	75	44
Dubuque	30.10	30.57	29	29.55	31	7.9	31	nw.	28	82	67	74	42
Keokuk	30.15	30.60	29	29.70	28	8.9	30	nw.	28	78	63	67	52
Sioux City	30.12	30.72	29	29.54	31	10.1	32	nw.	28†	82	72	72	48
Omaha, Nebr.	30.14	30.67	29	29.63	31	9.4	39	nw.	31	83	71	71	50
State	30.13	30.72	29	29.51	31	9.2	39	nw.	31	82	69	73	45
Normals and Records	30.13	¶31.09	25th 1905	§28.71	3d 1906	8.9	¶56	nw.	6th 1903	84	69	77	52

¶Sioux City, §Dubuque, †And other dates.

‡True velocities obtained from corrected indicated velocities of 4-cup anemometers began January 1, 1932. See Climatological Data, January, 1932, page 7.

RIVER DATA FOR THE STATE OF IOWA, JANUARY, 1934

Station	River	Flood stage, feet	Average stage, feet (all years)	Monthly mean stage, feet	Departure from average, feet	Highest stage, feet	Date	Lowest stage, feet	Date
Dubuque	Mississippi	18	3.9	2.1	— 1.8	3.9	31	0.0	1
Clinton	Mississippi	16	3.5	§		2.7‡	31	0.4‡	1
Le Claire	Mississippi	10	1.9	0.5	— 1.4	1.1	27†	0.0	1†
Davenport	Mississippi	15	4.0	1.1	— 2.9	1.9	18†	0.1	31
Muscatine	Mississippi	16	4.7	2.2	— 2.5	3.3	15	1.4	1
Keokuk	Mississippi	14	2.8	—2.2	— 5.0	—0.3	29	—4.0	3
Cedar Rapids	Cedar	14	3.4	2.9	— 0.5	3.7	28	2.5	6†
Wapello	Iowa	14		0.2		1.6	27	—0.3	24
Des Moines	Des Moines	17	2.1	0.8	— 1.3	2.3	26	0.4	16†
Ottumwa	Des Moines	9	2.0	1.4	— 0.6	2.9	29	0.8	17†
Van Meter	Raccoon	13		§		3.9‡	24†	2.1‡	2†
Hamburg (above)	Nishnabotna	18		3.6		9.3	23	2.7	3
Sioux City	Missouri	17		§		3.9‡	26	2.4‡	1
Omaha, Nebr.	Missouri	19	6.5	4.6	— 1.9	5.7	29	3.5	3

†And other dates. §Average not computed as river was frozen most of month. ‡Ice reading.

Daily Maximum and Minimum Temperature for the Month of January, 1934

Stations		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean
Northern Division																																	
Algona	Maximum	12	22	24	33	33	37	32	21	25	28	28	33	30	33	38	25	33	26	35	42	40	42	38	43	22	50	54	48	3	28	43	32.3
	Minimum	— 5	11	11	10	10	12	5	5	17	22	25	27	18	18	18	15	14	15	9	18	34	32	23	11	0	19	32	— 5	—12	— 6	26	13.8
Alta	Maximum	11	22	21	32	32	32	28	18	25	27	31	31	27	30	30	29	34	30	34	40	39	39	42	44	24	46	56	43	6	34	43	31.6
	Minimum	— 4	11	11	21	25	22	7	9	18	21	26	26	20	11	19	13	15	18	10	21	37	30	28	11	4	19	34	— 1	— 7	— 4	27	16.1
Alton	Maximum	10	20	24	32	33	32	32	22	27	30	33	32	29	33	38	25	39	29	40	42	42	42	43	45	24	53	60	48	10	38	45	33.9
	Minimum	— 5	10	8	21	26	18	9	9	19	20	27	28	20	10	16	5	18	14	4	20	37	34	33	17	3	17	32	0	— 5	— 3	26	15.7
Belmond	Maximum	14	24	26	33	36	38	34	21	26	27	28	32	30	30	36	25	31	22	31	40	39	42	37	45	21	47	53	42	3	24	42	31.6
	Minimum	— 2	13	17	26	30	25	7	7	18	22	23	27	17	11	14	10	9	8	0	11	35	33	21	12	1	19	31	— 6	—12	— 8	23	14.3
Charles City	Maximum	19	25	30	34	35	38	32	22	26	28	29	31	31	27	37	24	27	28	32	41	39	42	37	46	22	47	49	40	3	24	42	31.8
	Minimum	8	19	21	26	29	29	10	11	21	22	22	27	18	13	18	11	11	10	6	15	31	28	20	6	3	18	31	— 8	—11	— 6	16	15.3
Decorah	Maximum	29	31	31	34	35	36	33	22	28	30	28	35	33	23	33	28	22	27	32	43	41	43	36	48	24	47	47	42	— 1	21	42	32.4
	Minimum	12	18	17	27	26	29	13	12	21	20	23	23	23	17	15	11	4	11	— 1	0	31	32	19	21	3	14	30	— 4	—12	— 9	19	15.0
Dubuque	Maximum	30	30	32	35	36	36	33	24	31	31	34	44	38	27	39	29	26	41	37	48	49	48	40	53	24	47	50	44	3	25	42	35.7
	Minimum	22	23	27	30	32	32	21	17	21	26	26	27	25	21	24	16	15	21	15	20	37	34	26	21	8	21	34	— 2	— 8	— 4	23	21.0
Forest City	Maximum	12	22	25	33	33	37	33	25	25	27	27	32	30	27	38	25	25	28	36	41	38	40	37	44	23	48	50	46	3	25	44	31.6
	Minimum	— 3	12	12	12	23	25	5	5	12	22	23	26	17	13	16	11	12	13	7	15	34	28	19	10	— 1	16	29	— 6	—14	—10	22	13.1
Independence	Maximum	26	28	29	33	33	34	31	28	27	28	29	37	35	25	33	26	28	22	32	43	39	43	37	49	27	46	48	45	3	24	41	32.9
	Minimum	14	20	25	26	29	28	14	12	19	23	18	21	22	13	20	16	10	16	8	16	31	34	24	25	5	15	32	— 2	—10	— 5	21	17.4
Inwood (near)	Maximum	8	15	21	31	30	33	29	25	29	31	32	28	31	35	32	28	30	28	33	43	39	41	40	37	21	48	57	48	5	43	41	32.0
	Minimum	— 8	4	2	14	25	17	6	5	18	22	26	26	14	3	9	2	16	13	0	17	36	30	27	12	0	17	32	— 5	— 8	— 5	29	12.8
Lake Park (near)	Maximum	7	15	19	30	29	31	29	20	25	28	29	31	28	30	28	26	31	26	31	38	39	37	39	42	20	45	50	42	5	33	42	29.8
	Minimum	—10	7	5	16	24	13	3	5	17	18	25	26	16	15	10	13	16	16	3	14	33	32	32	10	— 1	16	23	— 5	—12	— 6	27	12.9
Mason City	Maximum	16	24	29	34	33	36	33	21	26	27	29	31	30	28	34	22	28	26	32	41	39	41	37	42	21	47	49	45	3	24	43	31.3
	Minimum	2	15	16	26	27	28	7	7	19	23	22	25	19	11	15	11	8	9	6	11	29	32	19	12	1	17	30	— 7	—12	— 8	22	14.3
New Hampton	Maximum	26	25	29	32	34	35	31	21	26	26	27	31	31	24	36	24	23	29	32	40	36	41	36	45	27	45	46	41	4	21	42	31.2
	Minimum	10	16	23	23	27	25	12	10	19	21	19	23	20	5	15	14	8	13	1	12	31	33	17	22	3	14	27	— 4	—12	—10	20	14.7
Northwood	Maximum	18	22	25	33	33	38	32	20	24	27	27	31	32	27	37	24	24	24	32	40	38	41	37	44	20	48	49	45	— 4	23	43	30.8
	Minimum	0	13	14	25	26	24	5	5	18	21	20	25	18	12	17	12	8	11	4	11	28	30	17	12	— 1	12	30	— 9	—14	—10	18	13.0
Pocahontas	Maximum	13	22	20	32	33	35	30	21	25	30	30	34	30	32	32	30	36	30	36	41	38	42	40	41	24	49	57	44	6	33	45	32.6
	Minimum	— 4	11	11	20	29	22	8	8	18	21	25	28	20	21	19	12	15	15	8	17	34	32	26	16	4	20	31	— 4	— 7	— 5	26	16.0
Postville (near)	Maximum	34	27	28	32	33	32	30	21	27	27	26	35	33	24	38	26	20	31	34	43	40	40	38	48	26	45	46	38	0	21	40	31.7
	Minimum	14	18	18	24	25	21	14	12	20	20	20	18	24	16	17	12	6	12	7	9	32	30	19	26	4	15	28	— 4	—12	— 8	20	15.4
Rock Rapids	Maximum	10	18	22	32	30	32	32	20	27	30	32	32	28	33	32	25	28	27	29	40	40	40	40	43	22	46	55	44	3	42	42	31.5
	Minimum	— 6	8	6	19	24	10	7	8	20	19	27	27	20	9	2	1	17	10	0	14	35	33	26	11	1	15	33	— 1	— 7	— 2	16	13.0
Central Division																																	
Ames	Maximum	20	26	28	33	35	37	32	20	28	28	30	32	31	27	34	29	35	31	34	39	38	42	39	50	25	47	55	45	7	28	45	33.2
	Minimum	3	15	20	27	31	27	10	9	19	23	16	19	18	17	14	10	13	8	4	6	29	35	28	25	7	20	35	1	— 5	— 2	25	16.4
Belle Plaine	Maximum	28	29	32	34	34	38	33	20	27	32	33	40	33	31	33	31	35	38	37	48	41	45	38	55	28	49	56	45	6	25	44	35.4
	Minimum	12	20	25	29	32	29	14	12	20	25	23	26	25	13	19	10	11	13	10	17	35	35	23	28	7	18	33	0	— 7	— 6	23	18.5
Carroll	Maximum	18	40	21	33	33	33	29	23	28	29	31	32	32	31	35	38	38	33	35	42	41	43	45	49	24	48	57	44	6	32	46	34.5
	Minimum	0	10	13	19	25	24	6	8	12	21	24	24	21	4	21	16	15	17	9	19	35	34	28	22	6	20	35	0	— 3	— 3	23	16.3
Cedar Rapids	Maximum	34	27	31	33	33	34	35	21	29	30	30	42	38	27	35	27	32	39	40	50	44	43	38	56	31	47	53	46	2	25	44	35.4
	Minimum	17	21	24	28	30	29	15	13	19	24	22	21	23	14	20	15	12	16	11	19	32	36	22	29	6	15	33	— 1	— 9	— 6	20	18.4
Davenport	Maximum	31	29	34	35	36	41	34	23	30	37	38	46	33	31	37	36	32	46	43	52	50	53	41	58	27	45	56	47	7	27	45	38.1
	Minimum	25	26	28	31	34	32	20	19	23	29	29	32	28	21	28	20	17	28	21	25	38	34	28	26	12	23	38	— 1	— 5	— 2	25	23.6
Des Moines	Maximum	18	29	31	34	35	41	33	23	29	34	33	35	30	30	37	32	46	36	36	48	44	47	48	57	27	50	59	50	9	30	47	36.7
	Minimum	7	18	24	31	30	30	12	12	23	26	26	24	25	10	20	11	19	19	17	20	34	34	30	19	11	22	38	1	— 1	0	27	20.0
Ft. Dodge	Maximum	15	24	26	33	34	38	32	21	27	28	29	31	31	30	32	30	33	30	32	41	39	42	40	45	21	47	54	45	5	29	44	32.5
	Minimum	— 1	11	14	24	29	25	8	7	17	22	21	26	18	18	20	12	13	10	6	15	34	34	25	16	4	20	33	— 3	— 8	— 5	26	15.8
Grinnell	Maximum	44	32	31	36	35	41	34	21	28	32	34	35	35	34	31	30	37	36	36	45	42	46	40	56	36	48	56	55	9	25	45	36.9
	Minimum	9	17	25	29	31	29	12	11	19	25	24	24	24	15	19	10	14	15	11	19	33	37	27	36	8	19	35	3	— 6	— 6	24	19.1
Guthrie Center	Maximum	19	25	25	33	34	35	30	22	28	29	31	33	31	32	37	32	45	37	39	45	42	45	46	55	26	47	57	52	9	32	47	35.5
	Minimum	4	12	17	23	30	28	10	10	20	22	23	25	22	3	23	16	16	18	13	18	35	37	28	26	0	22	37	3	— 2	— 4	27	18.4
Iowa City	Maximum	42	29	34	34	33	40	34	20	30	32	34	42	39	31	33	33	34	43	42	52	45	51	40	58	32	46	55	46	6	25	45	37.4
	Minimum	19	24	27	31	32	31	17	15	20	27	24	27	27	17	22	16	15	19	15	22	34	38	24	32	9	20	33	3	— 6	— 4	23	21.1
Iowa Falls	Maximum	22	26	27	34	34	35	33	22	28	27	30	32	31	31	33	27	30	32	29	43	40	41	36	46	24	46	51	47	5	25	42	32.5
	Minimum	3	13	17	21	30	25	9	8	18	20	19	20	22	11	17	9	7	9	2	10	22	35	22	22	4	12	32	— 3	—10	— 4	22	14.3
Little Sioux	Maximum	15	25	23	34	33	33	33	25	29	31	33	33	37	39	39	40	47	35	40	48	44	47	53	52	26	55	66	47	13	37	49	37.5
	Minimum	— 2	11	13	21	27	23	11	9	19	24	28	31	20	9	23	14	25	19	12	30	40	33	28	18	5	20	32	6	0	0	27	18.6
Marshalltown	Maximum	19	28	30	32	33	39	33	21	28	27	33	31	31	31	30	31	36	34	33	46	39	43	41	53	24	47	53	47	6	26	43	33.8
	Minimum	7	18	24	29	31	30	11	10	20	24	23	23	22	16	20	15	13	13	8	15	34	36	27	24	6	20	36	— 2	— 8	— 3	24	18.3
Olin	Maximum	32	28	34	34	34	38	36	22	30	32	32	44	38	28	37	33	30	42	39	49	45	49	40	55	38	47	53	48	0	24	43	36.6
	Minimum	22	24	25	29	31	31	18	17	20	26	20	21	25	16	19	18	12	16	13	17	25	38	21	33	9	17	28	0	— 7	— 8	21	19.3
Sioux City	Maximum	15	23	22	33	32	35	26	26	31	32	34	34	32	34	40	33	41	32	40	47	45	43	49	51	25	57	63	49	10	42	46	36.2
	Minimum	— 5	12	11	22	25	23	9	10	23	23	28	24	22	13	23	18	22	22	17	28	38	31	30	9	4	21	39	0	0	2	25	18.4
Southern Division																																	
Albia	Maximum	35	29	34	34	44	46	38	21	28	34	41	38	34	38	37	38	48	48	44	54	46	53	49	58	42	50	62	52	9	26	54	40.8
	Minimum	10	19	26	28	32	29	13	13	21	26	29	31	25	14	28	16	21	25	19	28	38	40	28	34	10	20	37	3	— 1	— 4	21	21.9
Atlantic	Maximum	18	26	28	33	36	33	32	23	28	28	32	34	32	34	38	38	42	41	38	45	41	48	51	54	28	47	61	50	12	33	50	36.6
	Minimum	5	15	16	22	28	19	10	10	18	21	21	21	22	2	21	0	18	17	12	19	33	33	28	24	8	18	36	4	0	— 3	26	16.8
Burlington	Maximum	43	29	34	36	36	43	37	22	32	39	40	43	40	34	38	37	40	49	42	53	51	56	44	61	58	45	60	51	7	26	47	41.1
	Minimum	20	25	28	31	33	33	21	17	22	25	29	33	26	20	28	22	22	32	23	27	36	42	30	38	14	21	37	5	— 3	— 1	24	24.5
Columbus Jct.	Maximum	44	29	35	35	34	43	35	21	30	34	34	45	39	33	37	35	38	45	44	53	49	52	40	58	41	47	57	50	5	25	43	39.0
	Minimum	19	24	27	31	32	31	19	15	20	27	26	25	25	18	23	19	18	26	18	20	30	39	27	35	10	19	36	4	— 4	— 2	22	21.9
Corning	Maximum	19	25	26	33	33	43	29	21	28	32	31	31	31	39	36	44	48	40	45	46	44	48	52	56	28	47	60	54	12	31	50	37.5
	Minimum	6	16	18	26	27	29	12	10	19	23	24	27	21	3	26	16	18	24	15	27	36	37	28	27	9	19	35	5	0	— 2	25	19.5
Corydon	Maximum	44	28	31	33	33	43	36	20	28	32	35	36	31	33	34	37	45	41	41	50	47	49	48	58	35	45	60	52	8	27	47	38.3
	Minimum	7	16	24	28	30	21	13	11	19	25	26	27	22	9	24	15	20	24	17	23	34	38	27	34	11	18	36	2	— 1	— 5	22	19.9
Creston	Maximum	20	27	28	33	33	41	31	22	28	34	32	33	30	32	35	38	47	42	41	48	44	48	49	58	27	48	60	45	11	31	50	37.0
	Minimum	6	15	18	26	27	19	10	9	19	23	23	25	22	0	22	12	16	22	15	24	33	37	26	25	9	17	33	1	— 2	— 5	23	17.7
Fairfield	Maximum	43	32	35	35	34	45	33	21	31	34	34	43	32	33	36	32	46	42	41	52	47	52	44	60	34	47	60	52	7	25	44	38.9
	Minimum	14	21	26	29	32	32	16	14	20	26	27	27	23	18	24	18	18	28	18	21	35	40	28	33	11	18	36	2	— 3	— 2	23	21.7
Keokuk	Maximum	25	30	32	37	36	46	34	23	32	41	46	46	32	37	38	45	51	51	47	56	52	58	48	67	28	48	61	49	9	28	48	41.3
	Minimum	18	25	27	29	34	33	18	17	22	29	30	32	26	22	30	23	26	29	25	32	39	36	32	28	15	22	38	2	— 1	— 1	26	24.6
Knoxville	Maximum	31	28	32	33	33	42	37	21	27	35	38	37	31	34	37	37	48	40	42	50	45	51	47	58	30	50	62	57	8	28	50	38.7
	Minimum	8	6	26	29	32	28	15	12	20	26	26	24	25	13	27	17	18	23	17	23	34	40	29	30	11	20	40	3	— 3	— 4	19	20.5
Lamoni	Maximum	21	27	30	33	33	48	36	21	27	33	32	34	32	38	36	42	50	46	46	53	46	50	51	59	28	48	62	49	11	30	51	38.8
	Minimum	10	16	25	28	29	26	14	12	21	26	25	27	23	9	28	15	22	27	18	27	37	38	28	27	12	20	36	4	1	— 2	23	21.0
Sigourney	Maximum	44	28	35	34	34	43	35	20	29	34	37	41	35	32	37	35	42	40	43	53	45	51	44	57	44	50	58	53	9	25	47	39.2
	Minimum	12	20	25	29	31	30	14	13	18	26	22	26	22	17	22	14	18	21	17	22	33	39	28	35	10	17	35	4	— 5	— 4	21	20.4
Thurman	Maximum	23	26	27	32	32	41	32	24	26	32	36	38	37	39	36	47	50	45	42	50	50	52	48	60	32	53	66	60	15	35	53	40.0
	Minimum	6	14	18	25	28	15	15	12	15	25	27	27	25	9	25	8	25	22	18	24	34	35	26	31	10	19	34	12	4	0	28	19.9
Winterset	Maximum	27	26	28	33	34	40	32	21	28	35	39	33	30	33	41	39	47	42	48	43	48	48	58	29	50	60	62	52	11	30	50	37.7
	Minimum	5	14	20	28	30	25	11	10	20	25	25	26	23	6	26	15	17	23	15	23	35	39	29	29	10	22	37	4	— 2	— 2	18	19.5
Omaha, Nebr.	Maximum	18	26	26	33	32	34	30	25	29	32	34	35	37	39	38	42	49	38	44	52	46	50	62	49	27	56	64	50	14	40	51	38.8
	Minimum	1	18	15	23	27	26	11	11	25	24	28	28	22	14	27	21	27	25	22	31	39	37	31	12	7	24	39	4	3	5	31	21.2

Temperatures are for the 24-hour period ending from about sunset to 7 p. m., except where otherwise noted.
* For 24 hours, midnight to midnight.

period was 1.00 inch at Keosauqua. The average number of days with 0.01 inch or more was 5, which is just average.

SNOWFALL

The average snowfall, 4.4 inches, was 2.3 inches below the 43-year average. The heaviest amounts occurred in the central district where the average was 8.2 inches. The light snowfall in the southeast district averaged only 1.3 inches. The greatest station total, 11.5 inches, fell at Waukee, while no snowfall was reported at Stockport.

ERRATA

Report for February, 1933. Page 10, Spencer, departure from normal precipitation published —0.49 should be —0.41.

Annual summary. Page 102, Spencer departure from normal February precipitation published —0.49 should be —0.41.

MISCELLANEOUS PHENOMENA

Coronas, lunar: 9th, 24th, 30th.

Dust storm: 28th, 31st.

Fog, light: 2d, 5th, 6th, 7th, 10th, 11th, 12th, 14th, 20th, 21st, 22d, 24th.

Fog, dense: 2d, 4th, 6th, 10th, 11th, 12th, 14th, 16th, 18th, 21st.

Glaze: 3d, 4th.

Halo, solar: 6th, 15th, 24th, 27th.

Halo, lunar: 23d, 26th, 27th, 29th.

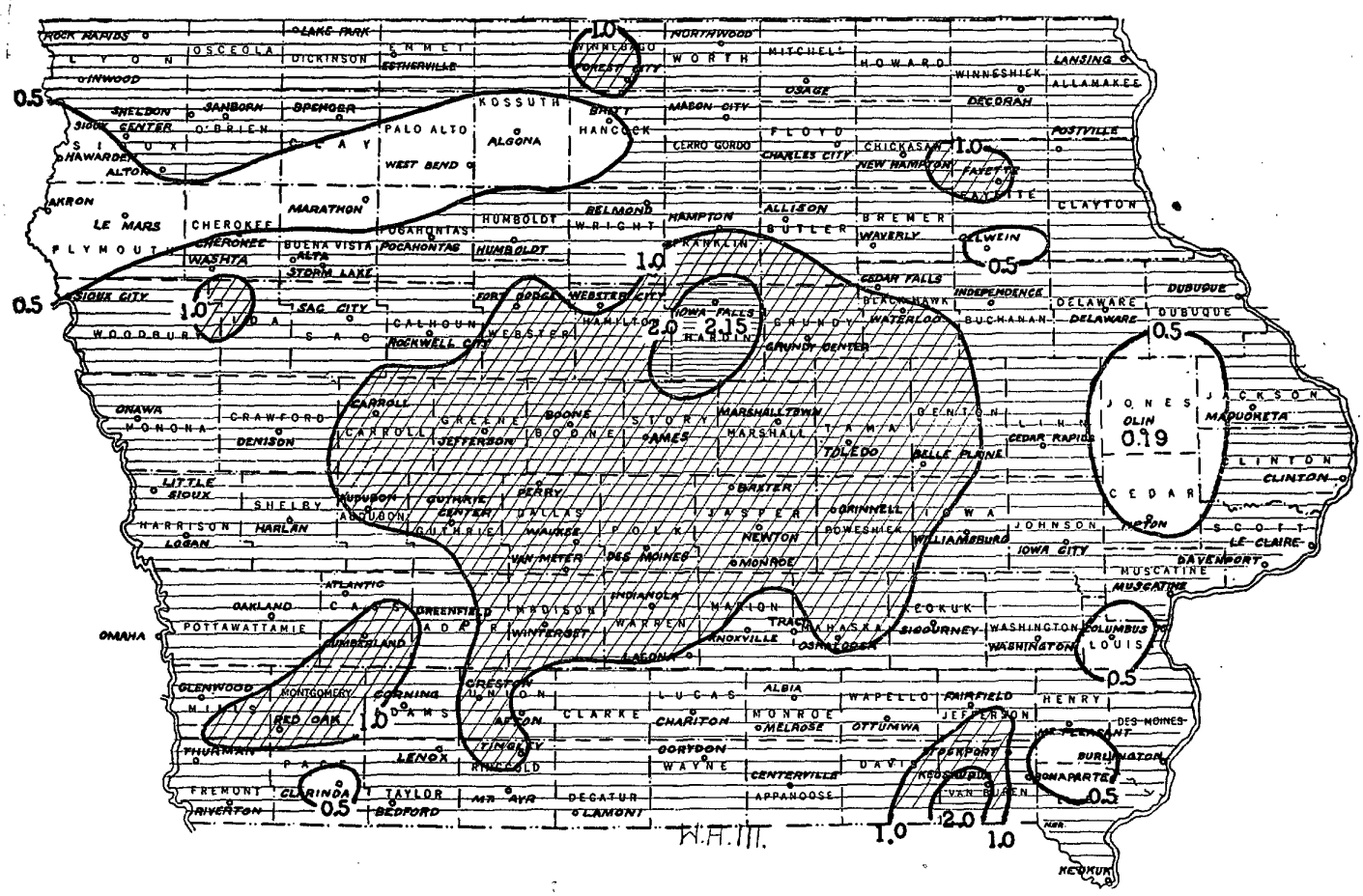
High winds: 28th, 29th, 31st.

Parhelia: 8th, 14th, 17th, 18th.

Rainbow: 30th.

Sleet: 1st, 2d, 3d, 4th, 5th, 7th, 12th, 21st, 23d, 31st.

TOTAL PRECIPITATION, JANUARY, 1934



W. B. O. Des Moines—8-1-34—1100