U.S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION, NATIONAL WEATHER SERVICE IN COOPERATION WITH AGRICULTURAL EXPERIMENT STATION UNIVERSITY OF MISSOURI-COLUMBIA.

CLIMATOGRAPHY OF THE UNITED STATES NO. 20 - 23

LATITUDE 38° 35'
LONGITUDE 92° 12'
ELEV. (GROUND) 655

CLIMATOLOGICAL SUMMARY

STATION JEFFERSON CITY, MISSOURI

MEANS AND EXTREMES FOR PERIOD 1941-1970

Month	Temperature (°F) Means: Daily maximum	Daily minimum	Monthly	Extremes: Record highest	Year	Record lowest	Year	** Mean degree days	Precipitation Totals (Inches): Mean	Greatest daily	Year	Snow, Ice Pellets: Mean	Maximum monthly	Year	Greatest daily	Year	Mean number of days: Precip. .10 inch or more	Temperatures: Max. 90° and above	Max. 32° and below	Min. 32° and below	Min. 0° and below	Month
(a)	30	30	30	30		30		30	30	30		30	30		30		30	30	30	30	30	
Jan.	42.2	19.7	31.0	79	1950	-20	1963	1055	1.52	2.18	1969	3.4	11.4	1948	6.2	1958	3	0	8	27	2	Jan.
Feb.	46.8	23.3	35.1	83	1962	-11	1951	845	1.73	1.92	1958	3.8	10.5	1960	6.0	1965	4	0	4	23	1	Feb.
Mar.	55.4	30.4	42.9	88	1945	-16	1960	689	2.41	2.16	1963	3.1	17.3	1960	6.0	1953	6	0	1	19	*	Mar.
Apr.	69.3	42.8	56.1	92	1965	18	1957	295	3.86	3.67	1970	0.2	1.5	1957	1.5	1957	7	*	0	5	0	Apr.
May	77.6	52.0	64.8	94	1956	24	1961	102	5.07	4.24	1943	0.0	0.0		0.0		8	2	0	*	0	May
June	85.2	61.1	73.1	104	1953	39	1966	12	5.27	3.84	1965	0.0	0.0		0.0		8	9	0	0	0	June
July	90.0	64.9	77.4	112	1954	42	1967	1	3.65	3.30	1941	0.0	0.0		0.0		6	17	0	0	0	July
Aug.	89.0	63.4	76.2	105	1962	41	1950	3	3.44	4.77	1946	0.0	0.0		0.0		5	15	0	0	0	Aug.
Sept.	82.1	55.1	68.6	104	1947	29	1949	53	4.37	3.00	1961	0.0	0.0		0.0		5	6	0	*	0	Sept.
Oct.	72.0	44.1	58.0	95	1953	15	1952	248	3.72	5.65	1941	0.0	0.0		0.0		5	1	0	4	0	Oct.
Nov.	56.6	32.7	44.7	83	1949	1	1950	613	2.06	4.55	1948	0.7	12.1	1951	8.0	1951	4	0	1	16	0	Nov.
Dec.	45.2	23.6	34.4	79	1949	-17	1962	949	1.80	3.80	1942	3.5	12.1	1945	8.5	1944	4	0	5	26	1	Dec.
Year	67.7	42.8	55.3	112	1954	-20	1963	4864	38.90	5.65	1941	14.7	31.4	1956	29.7	1956	65	50	19	120	4	Year

(a) Average length of record, years.

T Trace, an amount too small to measure.

** Base 65°F

+ Also on earlier dates, months, or years.

* Less than one half.

NARRATIVE CLIMATOLOGICAL SUMMARY

Jefferson City, the capital of Missouri, is located near the center of the state in Cole County overlooking the Missouri River. The broad alluvial flood plains lie along the northern side of the river in the adjoining county, while most of Cole County is the rolling or hilly terrain characteristic of the northern edge of the Missouri Ozarks.

Jefferson City has a typical continental type of climate characterized by frequent and occasionally extreme changes in the weather both day to day and year to year. Seasonal characteristics are well defined and the change from one season to another is often quite abrupt.

Winters are generally cold and dry. Outbreaks of raw bitter cold occurs two or three times each winter; but these periods seldom last more than a few days. During this season it is not uncommon for the daytime temperatures to exceed 50 degrees Fahrenheit three or four days in a row.

Spring has the most variable weather with the warm moist air from the Gulf of Mexico competing with the lingering winter air masses for control of the area. This clash of contrasting air makes this the season of frequent and occasionally severe thunderstorm activity.

Summers are generally long and warm with temperature readings above 90 degrees Fahrenheit as early as May and as late as September. Thunderstorm activity diminishes by mid summer, and extended periods of hot dry weather are possible in late July and August.

Autumn is characterized by mild pleasant days and cool nights. Invading surges of cool air often set off moderate rain showers. These soaking rains recharge the soil moisture for establishing and maintaining winter grains and pastures.

Temperature records for Jefferson City indicate that the temperatures will exceed 100°F in about half the summers, and it seldom lasts for more than two days. July of 1954 was an exception when the temperature exceeded 100°F twelve times and the average maximum temperature for the month was 98°F. At the other extreme, the temperature falls below zero at least once every winter. Prolonged cold is unusual, but during January 1963 there were nine subzero days, and the minimum temperature averaged only 9°F above zero.

Jefferson City averages about 39 inches of precipitation which falls primarily during the late spring and summer. Twenty-nine percent falls in the spring; thirty-two percent falls in the summer; 26 percent occurs in the fall and only thirteen percent in the winter. May, June and September are the wettest months, with most of the precipitation as the result of thunderstorm activity. One year in ten will receive less than 27 inches or more than 50 inches. Maximum monthly rainfall has ranged from 14.12 inches in October 1941 to 0.03 inch in January 1970 and February 1947.

Snowfall averages almost 15 inches a year and falls primarily between late November and early April. Snowstorms of more than 4 inches are rare. March 1960 was the snowiest month with 17 inches; while the heaviest snowstorm was in November 1951, when 12 inches of snow fell in 24 hours.

Violent weather can occur any month of the year but the greatest threat is during the spring when the warm humid air from the Gulf of Mexico interacts with the cool dry continental air. However, since 1916 Cole County has witnessed only four tornadoes. Lightning displays associated with strong thunderstorms can be beautiful as well as potentially destructive. Hail and strong damaging winds occur almost every year in some portion of the county. Fortunately, the greatest likelihood of hail is during the spring when it is the least damaging to growing crops.

For additional or earlier information write to:

Warren M. Wisner
Climatologist for Missouri
National Weather Service
P. O. Box 941
Columbia, Missouri 65201

Average Temperature (°F) JEFFERSON CITY, MISSOURI

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1941	32.7	30.5	38.0	57.7	67.9	73.4	77.5	79.0	70.0	59.6	43.9	38.3	55.9
1942	29.8	30.8	43.6	57.3	61.8	71.7	77.2	73.4	65.9	57.3	46.8	31.3	54.0
1943	29.5	37.9	38.1	54.3	62.7	75.5	79.3	79.7	65.6	55.5	41.8	29.9	54.2
1944	33.9	35.0	39.4	51.2	68.2	76.4	78.6	75.0	68.3	59.7	47.3	28.4	55.2
1945	29.2	34.7	52.0	55.1	59.8	69.4	74.1	76.7	70.0	56.2	46.0	27.0	54.3
1946	34.0	40.9	55.7	58.8	61.3	72.7	78.7	73.7	67.8	61.0	46.9	40.5	57.8
1947	34.7	29.0	36.9	55.1	62.2	72.4	74.0	82.9	72.0	64.3	40.7	38.2	55.4
1948	25.2	33.3	43.0	60.7	62.3	72.0	76.5	74.6	69.6	54.0	46.4	37.0	54.6
1949	31.4	35.7	43.4	54.0	67.5	74.6	78.9	73.9	61.5	57.8	47.2	38.4	55.5
1950	35.2	37.5	40.8	50.4	64.9	71.9	72.2	69.9	66.2	62.7	39.0	30.9	53.6
1951	33.6	37.0	41.4	52.2	64.5	70.6	76.7	75.9	65.9	59.5	39.1	33.4	54.3
1952	36.7	39.6	42.6	54.4	64.2	81.1	79.8	74.6	66.5	52.1	44.3	35.0	55.9
1953	35.2	40.8	48.0	51.8	65.9	80.1	79.2	77.5	71.9	59.3	46.9	37.7	57.9
1954	35.5	44.8	42.6	62.9	60.0	76.8	84.2	80.6	73.5	58.5	46.7	37.3	58.4
1955	34.5	36.3	46.1	63.7	67.8	70.2	81.8	79.2	73.4	58.4	42.8	33.9	57.5
1956	30.9	37.5	47.4	55.8	70.0	75.1	78.2	79.5	72.8	65.2	45.6	38.2	58.1
1957	27.5	41.5	43.3	56.0	65.7	73.9	78.6	76.6	66.6	54.5	43.5	40.5	55.7
1958	31.2	26.4	37.6	55.4	65.1	71.0	75.7	76.2	68.7	57.0	49.1	31.7	53.9
1959	27.5	36.8	46.1	56.0	68.5	73.5	75.1	79.7	70.2	55.6	38.5	38.1	55.6
1960	32.0	30.0	31.2	57.5	62.7	72.6	74.8	77.6	72.6	58.4	45.6	31.2	53.9
1961	28.6	36.7	46.1	51.0	60.1	69.5	76.0	73.8	67.7	58.3	43.3	31.0	53.6
1962	25.1	37.9	39.7	54.2	71.6	72.2	77.0	77.3	65.8	59.6	43.5	31.6	54.7
1963	22.2	30.3	48.6	58.7	64.9	74.5	78.1	76.2	70.2	66.4	46.2	23.1	55.1
1964	34.5	33.1	42.3	59.6	68.6	72.2	78.3	75.8	69.4	53.9	48.6	33.1	55.9
1965	33.5	33.9	34.7	58.8	68.9	72.9	75.2	74.8	68.5	55.7	48.2	42.6	55.8
1966	26.8	32.4	46.7	52.5	62.8	70.5	81.7	73.7	65.9	54.7	48.3	33.7	54.3
1967	34.9	32.1	47.2	59.6	60.5	71.6	72.8	71.2	65.7	57.4	42.5	35.8	54.4
1968	30.5	30.9	46.7	55.7	61.5	74.4	76.3	76.2	66.5	57.2	43.3	32.5	54.4
1969	28.8	35.1	37.6	56.9	64.0	70.1	80.0	75.0	68.2	55.3	44.1	32.7	54.1
1970	26.1	34.5	40.1	55.3	67.3	71.0	76.5	76.5	71.9	56.5	43.7	39.2	55.0

PROBABILITY OF FREEZES OCCURRING AS LATE IN THE SPRING OR AS EARLY IN THE FALL AS DATES SHOWN IN THE FOLLOWING TABLE

Temperature As Cold As	Spring Months			Fall Months		
	50%	20%	10%	50%	20%	10%
32°	Apr. 24	May 5	May 11	Oct. 17	Oct. 5	Sept. 29
28°	Apr. 10	Apr. 21	Apr. 26	Oct. 27	Oct. 17	Oct. 12
24°	Mar. 30	Apr. 8	Apr. 13	Nov. 3	Oct. 24	Oct. 18
20°	Mar. 21	Mar. 31	Apr. 6	Nov. 18	Nov. 8	Nov. 3
16°	Mar. 9	Mar. 20	Mar. 26	Nov. 27	Nov. 14	Nov. 7

Total Precipitation (Inches) JEFFERSON CITY, MISSOURI

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1941	3.96	0.42	0.68	6.26	2.12	4.16	4.51	3.91	6.87	14.12	2.78	1.66	51.45
1942	1.18	2.40	1.14	2.80	8.71	9.23	6.00	3.76	4.73	2.30	2.84	6.45	51.54
1943	0.36	1.07	2.46	2.99	10.76	5.35	3.20	2.72	5.39	3.39	1.63	2.21	41.53
1944	0.24	2.77	2.96	7.08	5.79	1.06	3.43	5.86	3.98	3.35	1.60	1.55	39.67
1945	0.97	2.45	5.20	6.51	7.12	7.24	3.28	1.56	9.42	1.65	0.90	1.24	47.54
1946	2.32	2.81	1.83	3.91	4.63	2.98	3.63	12.37	1.60	3.32	7.78	1.78	48.96
1947	1.37	0.03	1.67	8.44	3.45	7.62	1.85	0.82	3.89	4.14	2.05	0.40	35.73
1948	1.35	1.23	4.16	1.11	3.54	9.92	5.32	2.42	2.04	2.83	5.80	1.69	41.41
1949	5.26	2.24	2.42	1.83	4.39	7.40	3.42	5.67	7.38	5.61	0.34	2.77	48.73
1950	3.79	1.89	2.81	5.62	4.57	2.87	3.45	6.07	0.65	1.66	2.70	0.19	36.27
1951	1.60	4.42	3.52	1.92	3.01	9.37	4.77	6.24	7.50	3.81	1.91	1.91	49.98
1952	0.94	1.65	1.68	3.07	4.16	1.23	2.83	8.25	1.06	0.22	3.53	1.34	29.96
1953	1.26	1.25	3.08	2.94	3.83	1.50	1.11	1.90	2.89	3.12	0.61	0.59	24.08
1954	0.67	1.07	0.75	4.45	5.12	4.02	1.81	3.74	3.30	5.44	0.89	1.74	33.00
1955	0.45	2.38	1.66	2.72	4.42	5.36	3.23	2.24	3.70	5.52	0.35	0.12	32.15
1956	0.42	1.17	0.46	1.38	5.46	6.01	6.81	4.78	0.93	1.45	1.08	3.57	33.52
1957	1.08	2.25	3.29	4.08	4.39	6.99	5.44	2.56	2.30	2.71	0.93	1.63	37.65
1958	1.92	2.28	3.28	3.41	3.80	8.86	9.35	2.10	3.89	4.44	2.75	0.65	46.73
1959	1.49	2.68	1.49	1.16	5.59	1.42	2.95	3.05	4.95	5.87	1.21	2.11	33.97
1960	1.37	1.81	1.78	4.61	3.60	1.88	3.73	0.17	0.65	3.97	1.71	2.29	27.57
1961	0.13	1.42	4.30	4.94	7.21	4.72	5.29	3.47	5.90	2.57	1.96	1.46	43.37
1962	1.33	1.74	3.66	0.99	2.28	3.84	1.14	0.99	6.35	1.66	0.64	2.09	26.71
1963	0.90	0.10	4.72	1.76	5.68	2.90	2.04	3.25	1.40	0.71	1.68	0.39	25.53
1964	0.67	1.98	3.68	5.39	3.63	6.86	2.32	1.02	4.08	0.21	3.27	1.39	34.50
1965	3.11	1.24	1.85	2.85	4.01	8.64	4.62	5.10	6.42	2.95	0.54	2.03	43.36
1966	0.29	2.79	0.80	5.93	4.76	1.45	2.07	1.46	1.48	2.32	0.83	2.28	36.46
1967	1.86	1.40	1.95	2.99	5.63	6.15	3.60	2.39	3.43	6.14	1.94	3.62	41.10
1968	0.63	0.73	1.17	3.54	5.70	2.61	3.42	1.56	5.37	2.92	5.67	2.42	35.74
1969	4.63	1.86	2.29	4.14	4.87	10.18	3.74	0.92	7.95	8.99	0.77	0.31	50.65
1970	0.03	0.47	1.71	7.09	9.90	6.37	1.19	2.71	11.49	4.11	1.20	2.02	48.29

STATION HISTORY

DATE	LOCATION	ELEVATION	OBSERVER
1-1-1891/2-28-1891			J. C. Hilligan
3-1-1891/4-30-1891			A. C. Woodward
5-1-1891/8-31-1893			C. B. Lane
9-2-1893/3-15-1894			James D. Robertson
11-1-1894/9-30-1901	0.5 Mi. W	628	J. J. Henderson
10-18-1901/2-28-1906		557	Albert D. Swift
3-1-1906/9-30-1928			Emma Swift
10-1-1928/9-4-1945	1.9 Mi. WNW	655	Mrs. Frank Kliegel
9-5-1945/7-31-1946		655	Radio Station KWOS
8-1-1946/11-30-1956			Radio Station KWOS
12-4-1956/Present	1.2 Mi. S	640	Jefferson City, Lincoln University