

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU IN COOPERATION WITH  
 AGRICULTURAL EXPERIMENT STATION, UNIVERSITY OF MISSOURI  
 CLIMATOGRAPHY OF THE UNITED STATES NO. 20-23

LATITUDE 36° 11'  
 LONGITUDE 89° 39'  
 ELEV. (GROUND) 270

CLIMATOLOGICAL SUMMARY

STATION CARUTHERSVILLE, MISSOURI

MEANS AND EXTREMES FOR PERIOD 1931-1960

Month	Temperature (°F)									** Mean degree days	Precipitation Totals (Inches)							Mean number of days					Month				
	Means			Extremes			Record highest	Year	Record lowest		Year	Mean	Greatest daily	Year	Snow, Sleet				Precip. .10 inch or more	Temperatures							
	Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest									Year	Mean	Maximum monthly	Year		Greatest daily	Year	Max.		Min.			
																						90° and above		32° and below	32° and below	0° and below	0° and below
(a)	30	30	30	30		30					30	30						30	30	30	30	30					
Jan.	48.7	30.3	39.4	76	1950+	- 8	1942	793	4.66	4.00	1937	1.6	7.0	1942	5.5	1943	7	0	2	18	*	*	Jan.				
Feb.	52.0	32.5	42.3	78	1951	- 8	1951	643	4.08	3.50	1956	1.5	8.0	1940	5.0	1939	7	0	1	14	*	*	Feb.				
Mar.	60.2	39.0	49.6	85	1939	5	1943	482	5.05	3.70	1933	0.4	13.3	1960	7.0	1940	8	0	1	9	*	*	Mar.				
Apr.	71.5	49.4	60.5	91	1937+	26	1936	184	4.02	3.33	1957	T	1.0	1957	1.0	1957	7	*	*	*	*	0	0	Apr.			
May	80.4	58.7	69.5	98	1937	34	1954	39	4.25	3.75	1957	T	T	1949			6	3	0	0	0	0	0	May			
June	88.4	67.4	78.0	108	1936	50	1956	2	3.36	2.75	1934	0	0				6	13	0	0	0	0	0	June			
July	91.1	70.7	80.9	106	1934	54	1937	0	3.59	3.76	1957	0	0				5	19	0	0	0	0	0	July			
Aug.	90.3	69.8	80.0	108	1934	53	1945	0	3.04	4.45	1952	0	0				5	18	0	0	0	0	0	Aug.			
Sept.	84.0	62.2	73.2	103	1954	37	1942	15	3.03	2.25	1932	0	0				5	8	0	0	0	0	0	Sept.			
Oct.	74.0	50.8	62.4	99	1931	28	1949	144	3.13	3.25	1937	T	T				5	1	0	*	*	0	0	Oct.			
Nov.	60.2	39.1	49.7	87	1948	5	1950+	468	3.87	3.15	1934	0.3	4.0	1954	3.0	1936	6	0	*	*	8	0	0	Nov.			
Dec.	50.6	32.7	41.5	76	1951	5	1945	729	4.03	4.00	1931	0.5	8.0	1930	4.5	1945	7	0	1	16	0	0	0	Dec.			
Year	71.0	50.2	60.6	108	1936+	- 8	1951+	3499	46.11	4.00	1937+	4.3	13.3	1960	7.0	1940	74	62	5	66	0	0	0	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

Caruthersville is located on the west bank of the Mississippi River in Pemiscot County, in the extreme southeast tip of Missouri. The surrounding terrain is almost flat, lying at an elevation above sea level of close to 270 feet. Caruthersville is far enough south that its climate is similar to that experienced through the Mississippi Delta region. In general, this means that Caruthersville has comparatively mild winter temperatures, warm summers and that it receives more rain on the average during the fall and winter months than during spring and summer. In the 30 years of record used to prepare this summary, annual rainfall varied from near 29 inches to a little over 76 inches. One interesting result of the climatic pattern in the Caruthersville area is that there is a need for extensive drainage ditches to carry away the excess precipitation and also a need to irrigate some crops during many of the drier summer seasons.

Caruthersville is subject to large changes in temperature from season to season. The fall and winter months have the largest day-to-day changes, while the summer months have comparatively small changes in temperature from day to day.

About five winters in six at Caruthersville have temperatures that never fall to zero or below. Summers are typically warm. More than half of the July and August days can be expected to have afternoon maximum temperatures of 90°F or more. Temperatures of 100°F or more may be expected to occur at least once during six summers out of ten. The all-time high temperature record for Caruthersville, 111°F, occurred prior to 1931. The all-time cold temperature - 8°F, being recorded both in January and February.

Since both drainage and irrigation are items of interest in the Caruthersville area, a few remarks concerning the water budget of the area seem appropriate. The water that falls as precipitation in this area is "used" in several ways. Some of it evaporates back into the atmosphere and some of it is transpired by growing plants. These two processes are sometimes lumped together under the term "evapotranspiration". This is difficult to measure precisely,

but there are some simple methods which may be used to make reasonably good estimates. Some of the water that falls as precipitation runs off into ditches and streams. This can be measured with reasonable accuracy by stream gages. Some of the water that falls on this area goes into storage in the top layers of the soil. Some of this storage water percolates downward in the soil profile, finding its way eventually into drainage canals and streams, and some of it is pumped back through the root systems of growing crops. There is not room to present all of the details concerning these processes, but it is interesting to compare the annual average figures. Average annual rainfall at Caruthersville is near 46 inches. Average annual runoff is close to 18 inches. Thus, in an average year, the amount of water "used" in the evapotranspiration process is close to 28 inches, or considerably more than half of the amount that falls as rain and snow.

James D. McQuigg  
 State Climatologist  
 U. S. Weather Bureau  
 P. O. Box 117  
 Columbia, Missouri 65202

