U. S. DEPARTMENT OF COMMERCE
Environmental Science Services Administration

In cooperation with
Cotton Economic Research and
Bureau of Business Research of
The University of Texas at Austin

CLIMATOGRAPHY OF THE UNITED STATES NO. 20-41

CLIMATOLOGICAL SUMMARY

LATITUDE 32° 20' N
LONGITUDE 97° 24' W
ELEV. (GROUND) 783 ft.

STATION CLEBURNE, TEXAS

MEANS AND EXTREMES FOR PERIOD 1938 - 1967

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, Sleet: Mean	Maximum monthly	Year	Greatest Depth	Year	Mean number of days: Precip. .10 inch or more	Temperatures Max.: 90° and above	32° and below	Min.: 32° and below	0° and below	Month
(a)	30	30	30	30		30		12	30	30		30	30		12		12	12	12	12	12	
Jan	58.6	34.0	46.3	90	1943	-2	1949	613	1.95	2.16	1945	1.5	11.0	1964	11	1964	4	0	1	17	0	Jan
Feb	61.0	38.0	49.5	89	1963+	0	1951	438	2.59	2.79	1965	0.4	4.0	1951	2	1966	4	0	*	10	0	Feb
Mar	71.0	44.5	57.8	97	1955	11	1948+	280	2.09	3.02	1945	0.1	3.0	1947	0		3	1	0	5	0	Mar
Apr	79.0	54.0	66.5	102	1963	28	1940	70	4.09	3.45	1966+	0			0		6	2	0	*	0	Apr
May	85.0	61.4	73.2	101	1958	38	1954	12	4.15	4.80	1949	0			0		5	8	0	0	0	May
Jun	92.7	68.8	80.8	106	1953	49	1964+	*	3.44	4.64	1947	0			0		4	22	0	0	0	Jun
Jul	97.4	71.7	84.6	112	1954	58	1947+	0	1.82	3.07	1945	0			0		3	29	0	0	0	Jul
Aug	98.2	71.2	84.7	112	1943	55	1944	0	2.44	4.00	1953	0			0		3	29	0	0	0	Aug
Sep	90.6	64.9	77.8	114	1939	37	1942	2	2.67	5.22	1943	0			0		4	16	0	0	0	Sep
Oct	84.2	54.8	69.5	104	1951	28	1957+	61	2.70	4.60	1959	0			0		4	4	0	*	0	Oct
Nov	69.1	43.8	56.5	90	1948+	12	1950	271	2.38	2.96	1952	T	T	1957	0		5	0	0	4	0	Nov
Dec	61.0	36.7	48.9	93	1951	9	1963+	545	2.16	2.90	1946	0.1	1.0	1963+	1	1963	4	0	*	12	0	Dec
Year	79.0	53.7	66.4	114	Sept. 1939	-2	Jan. 1949	2292	32.48	5.22	Sept. 1943	2.1	11.0	Jan. 1964	11	Jan. 1964	49	111	1	48	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.

THE CLIMATE OF CLEBURNE, TEXAS

Cleburne is the county seat of Johnson County, located about 29 miles south of Fort Worth. First known as Camp Henderson, the city was established about 1854. Cleburne enjoys an economy based on well diversified industry which includes a steel foundry, dairy processing plants, garment factories, lime plant, furniture manufacturers, silica sand, and Texas' largest railroad construction and repair shops. Johnson County is an agricultural area featuring dairying and livestock production. The surface is rolling to hilly and drained by the Trinity and Brazos Rivers. Lime, stone, sand, gravel, and some oil are produced in the county. Noland River Reservoir, located six miles southwest of Cleburne, and Cleburne State Park, a scenic 498-acre park, are favorite recreational areas for outdoor sports and camping.

The climate of Cleburne is humid subtropical with hot summers. It is a continental type climate characterized by extreme variations in temperature. Tropical maritime air masses predominate throughout the late spring, summer and early fall months, while polar air masses frequent the area in winter. Temperature extremes have ranged from -3°F, which occurred January 18, 1930 to 114°F, which occurred September 2, 1939. Mean annual total precipitation is 32.48 inches. The wettest year of record, since 1884, was 1919, when 51.45 inches fell, while the driest year of record was 1963 with only 16.79 inches. July is the driest month. Prevailing winds are southerly throughout all months of the year. The mean annual relative humidity is 80 percent at 6:00 a.m., 54 percent at noon, and 50 percent at 6:00 p.m., Central Standard Time. The area receives about 65 percent of the total possible sunshine annually.

Winter: Cleburne experiences frequent surges of cold continental air in winter. Cold fronts moving down from the High Plains are often accompanied by strong, gusty, northerly winds, and sudden drops in temperature. Cold spells are of short duration, rarely lasting longer than 48 hours before a rapid warming occurs. Winters are mild, with only about one or two days during the season when the maximum fails to exceed 32°F. Freezing temperatures occur only about 43 percent of the nights during this season. Winter precipitation is closely associated with frontal systems. Precipitation may fall as rain, freezing rain, sleet or snow. Occasionally heavy snows bias the snowfall data with the result that the arithmetic mean is a poor estimate of expected snowfall. Most years, snowfall is of little or no consequence at Cleburne.

Summer: Daytime temperatures are hot, particularly in July and August. The highest temperatures of summer are associated generally with fair skies, light winds and low humidities. There is little variety in the day-to-day weather pattern in July and August. Refrigerated air-conditioning is recommended for maximum comfort indoors.

Spring and fall are very pleasant seasons at Cleburne. Cloudiness and showers are more frequent in the spring than in the fall. Average wind speeds are also stronger in the spring.

The growing season (freeze free period) averages 233 days. The mean dates of the last freeze in the spring and the first in the fall are March 25 and November 14, respectively. Mean annual lake evaporation is 58 inches.

Thunderstorms occur throughout the year, but are most frequent in the spring. Hail falls on an average of two to three days a year, and ordinarily with only light and scattered damage. Windstorms occurring during thunderstorm activity are not usually distructive.

CLEBURNE, TEXAS

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1938	49.1	55.0	64.8	63.2	72.4	81.0	82.9	84.7	78.7	71.0	54.8	49.8	67.3
1939	50.4	45.5	60.8	66.8	76.4	82.6	87.2	86.2	83.4	71.3	53.4	51.6	68.0
1940	36.0	49.2	61.0	65.8	73.0	78.5	82.8	83.2	77.4	70.5	53.4	48.6	65.0
1941	49.4	47.3	53.2	65.0	75.2	78.6	84.3	83.1	79.6	71.6	54.7	50.8	66.1
1942	43.6	50.0	57.2	66.0	72.0	81.4	83.4	84.0	74.4	65.1	61.2	50.2	65.7
1943	47.5	54.4	54.3	69.4	73.8	83.2	85.7	87.0	76.4	65.4	56.5	46.6	66.7
1944	46.8	53.3	57.3	66.0	71.1	81.6	84.5	84.3	74.9	67.0	58.4	44.8	65.8
1945	46.9	52.6	62.8	64.2	72.2	79.5	81.4	83.4	78.6	64.8	61.8	46.1	66.2
1946	46.6	52.7	61.5	68.4	71.4	78.4	85.0	85.4	74.9	70.1	57.8	55.0	67.3
1947	46.0	46.7	53.2	65.4	71.5	81.0	82.7	85.1	78.3	72.7	52.0	49.1	65.4
1948	39.4	47.9	54.6	70.8	72.9	82.4	83.9	84.8	76.0	64.9	56.3	51.6	65.5
1949	42.3	47.9	56.9	63.3	74.8	80.3	84.1	82.6	77.4	66.3	60.0	50.4	65.5
1950	51.5	53.4	57.0	65.6	74.1	78.5	80.7	82.4	75.5	71.6	57.1	48.1	66.1
1951	47.7	51.2	59.2	66.3	73.2	79.9	86.5	89.5	79.8	70.4	53.5	51.4	67.4
1952	55.9	55.2	57.1	62.1	71.8	82.8	84.5	89.2	78.5	64.7	55.6	47.0	67.0
1953	52.9	51.7	62.6	63.9	72.3	85.5	84.6	83.0	77.4	69.3	54.3	46.3	67.0
1954	47.7	58.1	57.5	72.0	70.1	83.1	88.5	87.4	82.0	71.0	56.3	51.3	68.8
1955	47.8	49.8	59.6	70.5	75.7	77.9	84.9	83.1	80.2	68.0	57.2	50.2	67.1
1956	46.6	51.7	60.3	65.6	76.9	83.7	87.5	86.6	79.8	71.0	53.8	52.3	68.0
1957	47.0	56.8	55.8	64.1	72.0	80.5	87.6	86.3	76.2	63.2	53.4	52.9	66.3
1958	47.0	45.6	51.1	63.5	73.6	82.4	84.9	84.6	77.7	66.3	58.2	45.8	65.1
1959	45.5	50.5	58.4	64.2	74.7	79.4	82.1	83.4	79.0	66.3	50.3	51.5	65.4
1960	46.8	45.4	51.5	68.8	72.0	81.9	83.9	83.9	78.8	70.3	59.2	44.5	65.6
1961	42.4	53.3	61.0	65.3	73.8	77.8	81.5	81.5	77.2	68.0	54.1	48.2	65.4
1962	42.3	55.9	54.0	64.6	75.9	78.3	85.2	85.5	78.1	70.1	55.2	48.2	66.1
1963	40.2	48.3	61.4	71.1	74.3	82.5	87.3	87.2	79.4	73.1	58.9	40.5	67.0
1964	44.3	44.9	57.3	67.7	73.7	80.0	86.7	86.1	77.5	64.3	58.5	48.7	65.8
1965	49.4	46.5	48.6	68.7	72.7	80.2	85.2	83.9	78.6	65.3	61.7	51.6	66.0
1966	41.1	46.7	58.1	65.3	71.2	78.7	85.5	80.9	74.3	64.2	60.4	46.4	64.4
1967	48.7	48.8	63.8	72.1	72.5	81.7	82.6	83.2	73.8	66.0	55.3	46.5	66.3

STATION HISTORY

Temperature observations began at Cleburne in July 1880, and rainfall observations began in April 1881; however, records were not kept systematically until September 1883. Many observations are missing in the early years, but records have been fairly complete since August 1913. Mr. W. S. Ownsby was appointed Cooperative Weather Observer at that time, and the climatological station was located three-quarters of a mile southwest of the present post office building. Mr. Ownsby passed away on January 20, 1962, and Dr. Olin T. Smyth, Jr., the present observer, was appointed to this position on January 24, 1962. The station was moved to Dr. Smyth's residence at 11 Hill Terrace Place, 1.3 miles southwest of the post office. Station equipment consists of a cotton region shelter, maximum and minimum thermometers and a standard eight-inch rain gage. Data are published monthly in CLIMATOLOGICAL DATA-TEXAS. Station index number, 41-1800-03.

Weather Bureau State Climatologist
Environmental Science Services Administration
3600 Manor Road, Austin, Texas 78723
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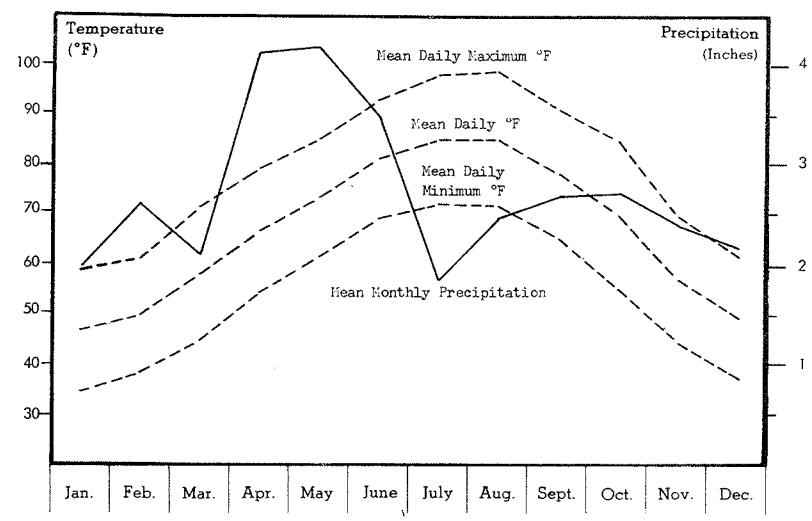
Single copies of this summary are available without charge from the Bureau of Business Research, The University of Texas, Austin, Texas 78712. Quantity rates upon request.

CLEBURNE, TEXAS

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1938	5.67	4.27	3.91	3.87	2.24	1.55	3.08	0.98	0.73	0.21	1.03	1.28	28.82
1939	4.13	3.62	1.50	2.87	4.24	4.68	1.30	1.13	T	1.14	3.70	0.90	29.21
1940	0.97	2.05	0.30	5.06	4.14	2.75	2.61	2.26	0.28	0.93	9.96	5.38	36.59
1941	1.15	5.71	2.96	3.96	3.41	4.01	2.79	6.52	0.45	4.24	1.17	1.33	37.70
1942	0.83	0.45	1.59	10.01	5.31	6.16	1.26	4.39	3.65	7.38	0.54	1.32	42.89
1943	0.18	T	2.07	2.01	3.19	0.54	0.18	0	6.37	0.31	0.30	3.88	19.03
1944	4.09	4.55	2.63	3.96	8.85	1.10	1.88	4.53	1.81	3.69	3.73	3.50	44.32
1945	2.28	6.18	6.59	5.50	2.80	6.20	6.35	1.30	1.50	3.38	1.43	0.51	44.02
1946	3.39	3.93	3.44	5.04	6.23	0.77	0.20	6.32	5.83	1.08	3.59	4.05	43.87
1947	0.55	0.67	2.31	4.10	2.09	5.28	2.05	5.28	2.20	1.33	3.05	5.45	34.36
1948	0.88	-	1.66	1.12	4.87	6.60	4.68	0	4.57	1.24	0.85	1.99	-
1949	4.51	5.20	2.60	3.27	10.09	3.62	0	0.64	0.59	6.60	0.72	1.90	39.74
1950	3.17	5.89	0.60	4.51	1.46	6.35	3.03	1.35	2.56	0.44	0.18	0	29.54
1951	0.69	2.05	0.91	1.38	2.84	7.55	0.72	0.47	0.99	2.20	0.94	0	20.74
1952	0.52	1.37	2.77	5.32	5.35	0.03	1.70	0.04	1.49	0.05	8.73	3.39	30.76
1953	0.39	1.29	2.39	3.37	4.12	0.41	1.92	7.85	1.48	3.59	1.36	1.32	29.49
1954	1.30	0.78	0.91	2.45	2.50	1.18	2.73	0.08	1.60	2.41	1.68	0.81	18.43
1955	1.45	1.90	1.53	2.82	7.08	3.68	0.49	3.65	3.57	1.30	0.12	0.96	28.55
1956	1.68	2.45	0.15	1.97	4.75	0.34	0.29	3.84	0.15	2.55	2.90	1.90	22.97
1957	1.32	2.02	4.50	12.19	8.60	1.46	0.54	0.02	5.15	7.21	5.80	2.14	50.95
1958	2.15	1.29	3.46	5.87	3.18	2.35	3.13	5.20	6.71	2.81	2.19	1.58	39.92
1959	0.11	3.34	0.45	3.41	3.40	7.07	2.36	1.83	3.03	9.60	1.06	4.23	39.89
1960	2.65	1.51	0.54	2.30	3.70	2.16	3.22	2.24	1.24	1.79	0.68	5.85	27.88
1961	5.09	3.36	2.46	0.64	1.58	10.03	0.60	1.10	3.51	4.32	2.29	1.38	36.36
1962	0.55	1.45	0.77	3.82	1.72	6.40	0.72	2.36	5.97	3.84	2.59	1.41	31.60
1963	0.64	0.06	0.89	3.65	2.55	2.08	0.65	0.46	1.49	0.45	2.54	1.33	16.79
1964	3.74	1.27	4.01	5.44	1.95	1.22	0.18	2.10	4.14	0.99	4.43	0.85	30.32
1965	3.26	4.76	1.72	1.49	8.60	1.73	0.17	2.04	2.35	1.79	2.05	2.84	32.80
1966	1.01	2.82	1.47	8.21	2.06	3.35	1.68	4.85	3.47	0.96	0.26	0.83	30.97
1967	0.25	0.84	1.52	2.98	2.18	2.56	4.07	0.34	3.24	3.28	1.66	2.37	25.29

T - Trace

Monthly Temperatures and Precipitation