

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

LATITUDE 33° 59' N
 LONGITUDE 101° 20' W
 ELEV. (GROUND) 3180 ft.

STATION FLOYDADA, TEXAS

CLIMATOLOGICAL SUMMARY

MEANS AND EXTREMES FOR PERIOD 1953 - 1969

Month	Temperature (°F)							** Mean degree days	Precipitation Totals (Inches)							Mean number of days					Month		
	Means			Extremes					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 Depth		Year	90° and above	Max.			Min.	
																			32° and below	32° and below		0° and below	0° and below
(a)	17	17	17	17		17		14	17	17					14	14	14	14	14				
Jan	53.4	23.1	38.3	80	1957	-9	1963	826	0.41	0.62	1968	1.5	7.0	1958	-		1	0	3	27	*	Jan	
Feb	57.3	26.5	41.9	88	1962	-6	1960	671	0.64	0.96	1968	3.3	13.0	1956	12	1956	2	0	2	22	*	Feb	
Mar	65.5	32.8	49.2	92	1963	5	1962	514	0.77	0.86	1969	1.8	11.0	1958	6	1968	2	*	1	16	0	Mar	
Apr	76.2	44.3	60.3	99	1959	22	1957	193	1.16	1.93	1957	0	T	1957	T	1957	2	2	0	2	0	Apr	
May	83.3	53.7	68.5	103	1958	30	1960	50	2.84	2.39	1967	T	T	1954+	0		5	9	0	1	0	May	
Jun	90.1	62.7	76.4	109	1953	46	1964	5	3.35	5.06	1957	0	0	0	0		5	16	0	0	0	Jun	
Jul	93.2	66.8	80.0	105	1960+	54	1965+	0	2.68	2.01	1960	0	0	0	0		4	24	0	0	0	Jul	
Aug	92.3	64.5	78.4	104	1962+	48	1961	2	1.62	3.40	1957	0	0	0	0		3	23	0	0	0	Aug	
Sep	85.7	57.6	71.7	101	1953	39	1964	19	1.93	1.88	1964	0	0	0	0		4	10	0	0	0	Sep	
Oct	73.7	46.5	60.1	97	1954	28	1969+	173	2.13	3.60	1969	0	0	0	0		3	2	0	1	0	Oct	
Nov	64.0	34.0	49.0	86	1956	2	1957	480	0.65	1.07	1968	0.4	4.0	1957	3	1957	2	0	*	13	0	Nov	
Dec	55.6	26.8	41.2	83	1954	5	1963	755	0.57	1.46	1959	1.1	10.5	1960	10	1960	2	0	2	25	0	Dec	
Year	74.2	44.9	59.6	109	June 1953	-9	Jan. 1963	3688	18.75	5.06	June 1957	8.1	13.0	Feb. 1956	12	Feb. 1960	35	86	8	107	*	Year	

(a) Average length of record, years.

+ Also on earlier dates, months, or years.

T Trace, an amount too small to measure.

* Less than one half.

** Base 65°F

THE CLIMATE OF FLOYDADA, TEXAS

Floydada, the county seat of Floyd County, is located on the High Plains, 51 miles northwest of Lubbock via U.S. Highway 62. The city lies at an elevation of 3,180 feet above mean sea level. A variety of agribusinesses associated with grains, cotton, oilseeds and vegetables, plus some small industries, are centered here. Plants assemble racing cars and process metals. Also, a hospital and nursing home are located in Floydada.

Most of Floyd County lies on the High Plains. The Cap Rock escarpment cuts across the northeast corner so that this small portion is broken and rough. The White River cuts from northwest to southeast across the southern portion of the county, south of Floydada. Elevations range from 2,400 to 3,300 feet above mean sea level. Floyd County is one of the State's leading counties in farm income. Principle crops are cotton, grain sorghums, soybeans, castor beans and vegetables. Cattle production has doubled in the past 10 years. About 300,000 acres are irrigated.

Floydada has a dry steppe climate with mild winters. Mean annual precipitation is 18.75 inches; and in an average year, 84 percent of this amount falls during the warm season, April through October. Monthly and annual amounts are extremely variable. This is illustrated by the fact that total precipitation during 1941, the wettest year of record, was eight times that of 1956, the driest year; 43.45 inches fell in 1941; 5.32 inches in 1956. Warm season rainfall occurs most frequently as the result of thunderstorms. In exceptionally wet years, a significant proportion of the total result from excessive downpours that run off rapidly and erode the soil. In an average year, thunderstorms occur on 44 days at Floydada. The prevailing winds are southwesterly November through April and southerly May through October. Wind speeds average about 13.4 miles per hour. At noon, Central Standard Time, the mean relative humidity is estimated at 50 percent in January, 42 percent in April, 45 percent in July, and 46 percent in October. These values are representative of the four seasons. In winter, Floydada receives approximately 67 percent of the total possible sunshine; in summer, it receives about 78 percent. Mean annual free water (lake) evaporation is 69 inches.

Winter: The cold Polar Canadian air masses that sweep southward across the Great Plains in winter bring sharp drops in temperature in the Floydada area; sometimes these air mass changes are accompanied by strong, northerly winds. However, cold spells rarely last longer than 48 hours before sunshine and southwesterly winds bring rapid warming. Nights are usually clear and cold with freezes almost every night, while most days are sunny and mild. The lowest temperature of record at Floydada (since 1953) is -9°F and occurred on January 13, 1963. Winter is a dry season. Precipitation most often falls in the form of light snow, which piles up in drifts, so that the snow melt is not uniformly distributed.

Spring offers the greatest variety in weather. Warm and cold spells follow each other in rapid succession throughout March and April. Trees and shrubs may bloom too early and be nipped by a late freeze. March and April are the windiest months of the year; and occasionally, persistently strong southwesterly to northwesterly winds may cause blowing dust in the area. Thunderstorms, which rarely occur in winter, increase in number through the spring season and reach a peak of activity in May and June. In an average year, May and June are the wettest months.

Summer is one of the most pleasant seasons at Floydada, or anywhere else on the High Plains. While afternoon temperatures are sometimes hot, most nights are pleasantly cool. Cloudiness or precipitation during the day cause a significant drop in temperature. Evaporative-type air-conditioners operate efficiently in this relatively dry climate. The highest temperature of record at Floydada (since 1953) is 109°F and occurred on June 15, 1953.

Fall, like the summer season, is a very pleasant one at Floydada. While there is greater variety in the weather than in summer, temperatures are moderate. Rainfall increases slightly in the early fall, then decreases rather sharply in November. Mild, sunny days and clear, cool nights characterize the fall season. Winds are not so strong as in the spring.

The warm season (freeze free period) at Floydada averages 213 days. The mean dates of the last occurrence of 32°F or below in the spring and the first occurrence of 32°F or below in the fall are April 7 and November 6, respectively.

FLOYDADA, TEXAS

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1953	44.2	47.9	53.9	63.5	70.4	75.4	79.5	79.4	73.5	62.0	49.5	46.4	61.5
1954	41.1	42.3	54.0	60.1	73.0	81.5	81.9	80.0	75.5	65.7	48.5	45.8	62.4
1955	42.7	51.2	51.7	57.5	64.7	74.5	82.8	79.9	71.3	60.2	44.7	43.7	60.4
1956	37.8	40.0	42.6	55.7	68.8	80.9	82.3	80.3	72.8	60.4	50.6	40.3	59.2
1957	38.5	43.4	51.3	59.9	70.7	77.4	79.1	82.3	75.1	57.2	44.3	41.2	60.1
1958	35.0	35.0	43.8	61.3	66.6	76.8	77.7	78.0	73.0	63.3	51.4	35.9	58.2
1959	35.0	41.1	50.3	59.6	68.7	72.4	72.9	73.9	68.3	59.6	43.1	39.4	57.0
1960	35.7	49.6	48.8	60.8	74.5	74.9	80.1	79.4	73.9	64.0	51.3	43.8	61.2
1961	34.5	43.8	53.3	64.1	71.0	75.5	81.7	79.4	73.9	67.3	52.1	37.4	61.2
1962	34.5	38.6	50.1	62.0	71.4	76.6	81.5	78.4	69.7	59.6	47.7	39.7	59.7
1963	41.1	36.4	38.4	61.2	68.2	75.0	81.3	77.9	70.7	59.9	54.3	43.6	59.1
1964	42.2	35.8	51.9	56.3	64.5	75.2	82.4	74.2	69.2	56.4	53.2	37.0	57.2
1965	39.9	40.8	53.8	62.5	64.1	75.0	76.2	75.8	67.4	60.4	48.3	37.0	58.4
1966	38.5	37.8	47.7	54.7	64.4	73.6	76.0	76.1	68.1	61.7	46.3	39.1	57.0
1967	40.6	41.6	38.7	59.4	65.9	73.5	82.8	79.9	69.1	55.2	47.5	42.0	58.0

FLOYDADA, TEXAS

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1953	0.50	0.28	1.74	1.04	2.02	0.40	3.60	0.88	0	3.86	0.18	0.06	14.56
1954	0.15	T	0.10	2.02	3.42	0	0.35	1.07	0	0.13	0.11	1.20	8.55
1955	0.75	0.32	0.06	0	4.67	7.04	3.43	1.10	2.44	2.88	0.10	0	22.79
1956	T	1.72	0	0.05	0.99	1.02	0.73	0.03	0	0.44	0.10	0.24	5.32
1957	0.11	0.89	0.97	4.27	5.51	8.29	0.34	3.88	0.36	4.25	1.46	0	30.33
1958	1.36	0.37	2.79	3.09	2.37	0.88	2.90	0.29	4.32	0.39	0.31	0.04	19.01
1959	0.22	0.04	1.28	1.28	2.74	4.41	3.63	0.03	0.76	1.42	T	2.10	16.73
1960	1.02	1.21	0.68	0.10	0.94	4.80	7.98	0.74	2.20	9.12	1.11	1.73	30.52
1961	0.42	1.21	1.35	0.34	1.52	4.86	3.77	1.55	1.46	0.64	1.11	0.41	18.52
1962	0.42	0	0.04	1.30	0.64	6.51	2.46	1.12	3.97	1.90	1.66	0.99	21.01
1963	0.03	0.84	0.06	0.76	5.09	5.76	3.33	2.03	3.97	0.63	1.90	0.10	21.26
1964	0.30	0.55	0.62	0	1.59	2.61	1.05	2.92	4.09	0.37	0.90	1.11	16.11
1965	0.10	0.42	0.32	1.55	1.47	0.87	0.42	1.05	4.53	1.02	0	0.37	12.12
1966	0.30	0.18	0.06	1.71	0.76	2.85	1.22	6.07	3.22	0.12	0.03	0	16.52
1967	0	0.30	0.79	0.35	4.38	2.73	4.20	0.50	1.78	0.46	0.28	0.44	16.21
1968	1.37	1.56	1.96	0.63	2.88	2.48	5.30	2.90	0.78	2.08	2.21	0.61	24.76
1969	0.01	1.09	1.45	1.15	7.24	1.47	0.80	1.38	2.13	6.50	0.76	0.34	24.52

T - Trace

STATION HISTORY

Temperature and rainfall observations began at Floydada on August 2, 1939. From January 16, 1953 through May 30, 1963, the station was located at the transmitter site of Radio Station KRJD, 1.7 miles southwest of the Floydada Post Office. The U.S. Agricultural and Conservation office became the official Cooperative Weather Observer on May 31, 1963, and the station was relocated to a site 0.4 mile east-northeast of the post office. The Producers Cooperative Elevator was appointed Cooperative Weather Observer on September 16, 1967, and the equipment was relocated to its present site near the elevator office, 0.5 mile east-northeast of the post office. Station equipment consists of a cotton region shelter, maximum and minimum thermometers, and a standard, eight-inch, non-recording rain gage. Daily temperature and precipitation data are published monthly in Climatological Data-Texas. Station index number: 41-3214-01.

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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.

Monthly Temperatures and Precipitation

