

Climate Narrative for Hamilton County, Texas.

Prepared by the Natural Resources Conservation Service National Water and Climate Center, Portland, Oregon.

Climate Tables are created from climate station Hico, Texas.

Thunderstorm days, relative humidity, percent sunshine, and wind information are estimated from First Order station Waco, Texas.

Table 1 gives data on temperature and precipitation for the survey area as recorded at Hico in the period 1961 to 1990. Table 2 shows probable dates of the first freeze in fall and the last freeze in spring. Table 3 provides data on the length of the growing season.

In winter, the average temperature is 47.0 degrees F and the average daily minimum temperature is 33.7 degrees. The lowest temperature on record, which occurred at Hico on January 31, 1949, was -11 degrees. In summer, the average temperature is 82.0 degrees and the average daily maximum temperature is 94.7 degrees. The highest temperature, which occurred at Hico on August 11, 1936, was 113 degrees.

Growing degree days are shown in Table 1. They are equivalent to "heat units". During the month, growing degree days accumulate by the amount that the average temperature each day exceeds a base temperature (50 degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The average annual total precipitation is about 31.75 inches. Of this, about 21.8 inches, or 69 percent, usually falls in April through October. The growing season for most crops falls within this period. The heaviest 1-day rainfall during the period of record was 6.90 inches at Hico on May 31, 1988. Thunderstorms occur on about 45 days each year, and most occur between April and September.

The average seasonal snowfall is 4.8 inches. The greatest snow depth at any one time during the period of record was 12 inches recorded on January 16, 1964. On an average, 2 days per year have at least 1 inch of snow on the ground. The heaviest 1-day snowfall on record was 12.5 inches recorded on January 16, 1964.

The average relative humidity in mid-afternoon is about 54 percent. Humidity is higher at night, and the average at dawn is about 83 percent. The sun shines 74 percent of the time in summer and 59 percent in winter. The prevailing wind is from the south. Average wind speed is highest, between 12 and 13 miles per hour, in March and April.

TABLE 1.--TEMPERATURE AND PRECIPITATION
(Recorded in the period 1961-90 at HICO, TX4137)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average	2 years in 10 will have--		Average number of growing degree days*	2 years in 10 will have--			Average number of days with 0.10 inch or more	Average snowfall In
				Maximum temperature higher than--	Minimum temperature lower than--		Average	Less than--	More than--		
	OF	OF	OF	OF	OF	Units	In	In	In		In
January-----	58.2	31.4	44.8	82	8	68	1.87	0.52	3.06	3	2.1
February----	62.5	35.4	49.0	86	12	103	2.03	0.87	3.02	3	1.0
March-----	70.8	43.8	57.3	89	20	266	2.44	0.67	3.86	3	0.3
April-----	79.3	52.8	66.0	95	30	478	3.00	1.18	4.53	4	0.0
May-----	85.0	60.8	72.9	98	42	694	4.54	2.19	6.57	5	0.5
June-----	91.5	67.0	79.3	102	52	879	3.18	0.93	5.00	4	0.0
July-----	96.4	70.9	83.6	106	59	1042	2.07	0.56	3.27	3	0.0
August-----	96.3	69.8	83.1	105	58	1023	2.20	0.68	3.57	3	0.0
September---	89.1	63.9	76.5	102	44	791	3.52	1.61	5.16	4	0.0
October-----	80.2	53.2	66.7	95	32	513	3.25	1.07	5.04	4	0.0
November----	68.7	43.2	55.9	86	20	226	2.21	0.84	3.36	3	0.4
December----	60.2	34.2	47.2	82	10	84	1.45	0.62	2.16	3	0.4
Yearly:											
Average----	78.2	52.2	65.2	---	---	---	---	---	---	---	---
Extreme----	111	-7	---	107	5	---	---	---	---	---	---
Total-----	---	---	---	---	---	6168	31.75	25.32	36.46	42	4.8

* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (50 degrees. F)

TABLE 2.--FREEZE DATES IN SPRING AND FALL
 (Recorded in the period 1961-90 at HICO, TX4137)

Probability	Temperature		
	24 0F or lower	28 0F or lower	32 0F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	March 10	April 6	April 14
2 year in 10 later than--	March 4	March 28	April 7
5 year in 10 later than--	February 22	March 11	March 25
First freezing temperature in fall:			
1 yr in 10 earlier than--	November 9	November 1	October 25
2 yr in 10 earlier than--	November 17	November 7	October 30
5 yr in 10 earlier than--	December 1	November 20	November 8

TABLE 3.--GROWING SEASON
 (Recorded for the period 1961-90 at HICO, TX4137)

Probability	Daily Minimum Temperature During growing season		
	Higher than 24 0F	Higher than 28 0F	Higher than 32 0F
	<u>Days</u>	<u>Days</u>	<u>Days</u>
9 years in 10	259	222	205
8 years in 10	267	233	213
5 years in 10	282	255	227
2 years in 10	297	276	242
1 year in 10	305	287	250