

The Climate of Pontotoc County

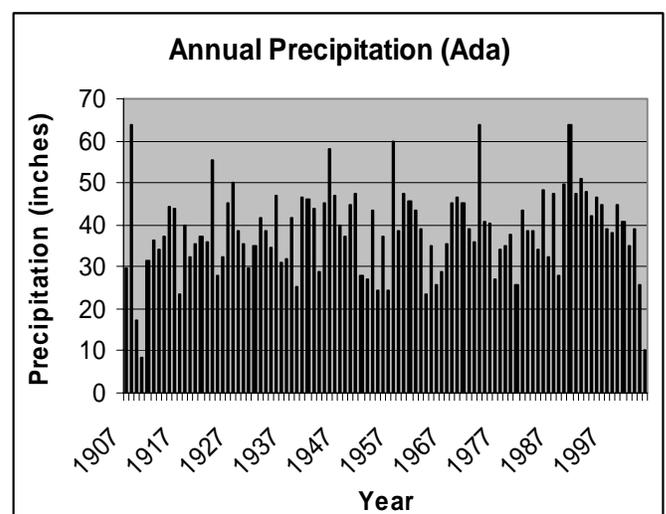
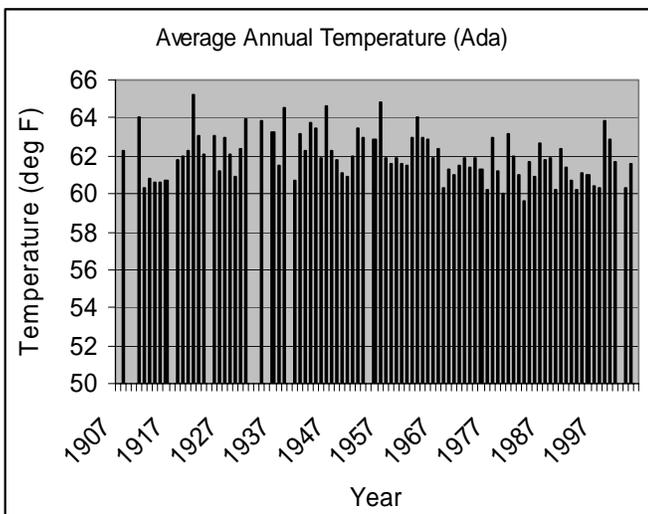


Pontotoc County is part of the Crosstimbers. This region is a transition region from the Central Great Plains to the more irregular terrain of southeast Oklahoma. Average annual precipitation ranges from about 42 inches in northern Pontotoc County to 45 inches in the south. May and June are the wettest months, on average, but much of the spring through fall receives sufficient rainfall. Nearly every winter has at least one inch of snow, with one year in six having ten or more inches.

Temperatures average near 62 degrees, with a slight increase from north to south. Temperatures range from an average daytime high of 93 degrees in July and August to an average low of 28 degrees in January. Pontotoc County averages a growing season of 219 days, but plants that can withstand short periods of colder temperatures may have an additional three to six weeks.

Winds from the south to southeast are quite dominant, averaging just over eight miles-per-hour. Relative humidity, on average, ranges from 42% to 94% during the day. During the year, humidity is highest in May and June and lowest in March and August. Winter months tend to be cloudier than summer months. The percentage of possible sunshine ranges from an average of about 55% in winter to nearly 80% in summer.

Thunderstorms occur on about 50 days each year, predominantly in the spring and summer. During the period 1950 - 2003, Pontotoc County recorded 46 tornadoes. The most recent significant tornado (F2 intensity or greater) occurred on April 11, 2001. This F2 tornado passed 15 miles through Pontotoc and Coal counties doing little damage. There were no injuries. Typically, there are about 4 events each year of hail exceeding one inch in diameter. As information collection improves, both the number of reported tornadoes and the number of severe hail events have increased.



Temperature (deg Fahrenheit)												
	AVERAGES (1971-2000)			EXTREMES (1907-2003)				AVG # DAYS PER MONTH (1971-2000)				
	Daily Max	Daily Min	Daily Avg	Record High		Record Low		Max>100	Max>90	Max<32	Min<32	Min<0
Jan	50.5	27.5	39.0	84	(31st, 1911)	-10	(18th, 1930)			3	21	*
Feb	56.8	32.3	44.5	91	(22nd, 1996)	-1	(4th, 1996)		*	1	14	*
Mar	65.3	40.3	52.8	96	(21st, 1916)	3	(3rd, 1943)		*	*	6	
Apr	73.7	48.4	61.0	99	(12th, 1936)	22	(3rd, 1975)		*		1	
May	80.5	57.8	69.2	100	(28th, 1927)	32	(5th, 1911)		2			
Jun	87.7	65.9	76.8	106	(29th, 1925)	42	(12th, 1910)	*	11			
Jul	93.4	70.7	82.0	109	(19th, 1925)	52	(31st, 1971)	4	25			
Aug	93.2	69.4	81.3	116	(11th, 1936)	49	(5th, 1911)	3	24			
Sep	85.7	61.7	73.7	109	(1st, 1939)	34	(27th, 1942)	1	10			
Oct	75.8	50.7	63.3	98	(1st, 1938)	18	(31st, 1993)		1		1	
Nov	62.5	39.4	51.0	88	(6th, 1945)	10	(29th, 1976)			*	7	
Dec	53.0	30.5	41.8	85	(24th, 1955)	-8	(23rd, 1989)			2	17	*
Annual	73.3	49.6	61.5	116	(Aug 11, 1936)	-10	(Jan 18, 1930)	8	73	6	67	1

Precipitation (inches)											
	AVERAGE	EXTREMES (1907-2003)			AVG # DAYS PER MONTH (1971-2000)						
	1971-2000	Monthly Max	Daily Max		any	meas	0.10"+	0.25"+	0.50"+	1.00"+	
Jan	1.84"	11.64" (1916)	6.50"	(21st, 1916)	6	5	4	2	1	*	
Feb	2.22"	8.91" (1938)	3.30"	(14th, 1938)	7	5	4	3	1	1	
Mar	3.67"	8.05" (1973)	3.94"	(30th, 1918)	8	8	5	4	3	1	
Apr	3.83"	11.37" (1990)	4.43"	(22nd, 1996)	8	8	6	4	2	1	
May	5.71"	14.61" (1957)	5.73"	(3rd, 1990)	11	9	7	5	4	2	
Jun	4.52"	17.45" (1908)	6.84"	(24th, 1948)	9	8	6	5	3	2	
Jul	2.72"	12.31" (1950)	4.85"	(14th, 1927)	6	5	4	3	2	1	
Aug	3.10"	11.13" (1989)	6.42"	(17th, 1989)	6	6	4	3	2	1	
Sep	4.57"	12.49" (1993)	8.16"	(14th, 1993)	8	7	5	4	3	2	
Oct	3.89"	13.10" (1941)	6.25"	(18th, 1985)	8	7	5	4	2	1	
Nov	3.10"	6.98" (1940)	2.80"	(19th, 1964)	8	7	5	3	2	1	
Dec	2.39"	7.32" (1946)	4.03"	(23rd, 1932)	7	6	4	2	2	1	
Annual	41.54"	17.45" (Jun 1908)	8.16"	(Sep 14, 1993)	93	82	59	42	27	13	

Snow and Sleet (inches)											
	AVERAGE	EXTREMES (1907-2003)				AVG # DAYS PER MONTH (1971-2000)					
	1971-2000	Monthly Max	Daily Max		Greatest Depth		any	meas	0.50"+	1.00"+	Pot. Glazing
Jan	1.8"	21.3" (1949)	12.0"	(8th, 1944)	12.0"	(8th, 1944)	1	1	1	1	1
Feb	1.5"	18.0" (1921)	9.0"	(18th, 1921)	9.0"	(16th, 1936)	1	1	1	1	1
Mar	0.7"	15.0" (1989)	10.0"	(6th, 1989)	6.0"	(12th, 1968)	*	*	*	*	*
Apr		0.0" (1907)	0.0"	(16th, 1907)							
May		0.0" (1950)	0.0"	(5th, 1950)							
Jun		5.0" (1915)	5.0"	(29th, 1915)							
Jul											
Aug											
Sep											
Oct		0.0" (1913)	0.0"	(20th, 1913)							*
Nov	0.2"	3.0" (1980)	3.0"	(17th, 1980)	3.0"	(17th, 1980)	*	*	*	*	*
Dec	0.5"	9.0" (1935)	9.0"	(28th, 1935)	8.0"	(7th, 1942)	*	*	*	*	1
Annual	4.9"	21.3" (Jan 1949)	12.0"	(Jan 8, 1944)	12.0"	(Jan 8, 1944)	3	2	2	2	4

TEMPERATURE AND PRECIPITATION

From Ada Cooperative Observer Station (340017); January 1907 – December 2003

Latitude: 3447N Longitude: 09641W Elevation: 1014 ft

Exceedence values (2 in 10 years)				
Month:	Maximum Temperature Higher Than:	Minimum Temperature Lower Than:	Precipitation Less Than:	Precipitation More Than:
January	76	2	0.47	2.64
February	80	8	0.77	3.34
March	89	15	1.12	4.49
April	90	29	2.23	5.95
May	95	40	2.98	8.19
June	100	51	1.96	6.50
July	106	59	0.72	4.51
August	107	57	1.28	5.04
September	101	41	1.51	6.91
October	93	31	1.17	6.32
November	83	18	0.86	4.32
December	75	8	0.87	3.67
Annual	107	0	31.55	46.41

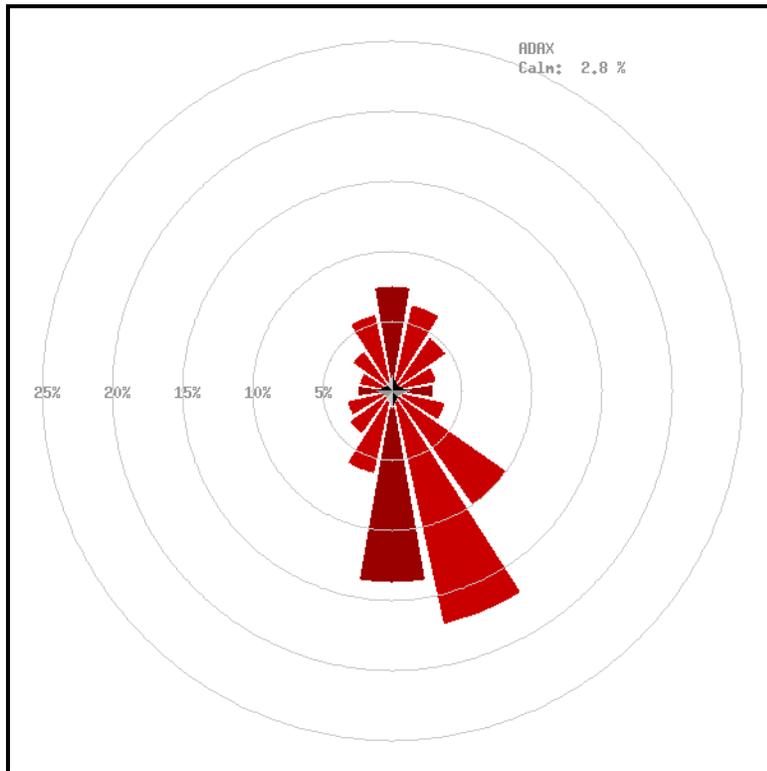
First Freezing Temperature in Fall			
Probability	24 F or Lower	28 F or Lower	32 F or Lower
1 Year in 10 Earlier Than –	November 3	October 28	October 20
2 Years in 10 Earlier Than –	November 11	November 2	October 27
5 Years in 10 Earlier Than –	November 24	November 13	November 4
Last Freezing Temperature in Spring			
Probability	24 F or Lower	28 F or Lower	32 F or Lower
1 Year in 10 Later Than –	March 28	April 10	April 15
2 Years in 10 Later Than –	March 23	April 1	April 10
5 Years in 10 Later Than –	March 11	March 22	April 1

Number of Days in Growing Season			
Probability	Higher than 24 F	Higher than 28 F	Higher than 32 F
9 Years in 10	231	216	200
8 Years in 10	239	223	205
5 Years in 10	261	238	219
2 Years in 10	284	260	237
1 Year in 10	292	265	244

WINDS

From Ada Mesonet Site (ADAX); Jan 1994 – Dec 2001

Latitude: 3479N Longitude: 09667W Elevation: 971 ft



Wind Roses show the prevailing direction from which the wind is blowing. North is up in the image. The circles show the percentage of time from which the wind is blowing in that direction. For example, Ada records a south-southeasterly wind about 17 percent of the time, with northerly winds near 8 percent of the time.

The table below shows the percentage of time the wind is blowing from each of the 16-point compass headings, and the percent of time the prevailing wind is recorded in each speed bin.

Maximum Gust: 61.3 mph

Maximum Sustained: 38.6 mph

Overall Average Speed: 8.1 mph

ADAX	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Totals
Calm																	2.8%
1- 5 mph	1.0	1.3	1.6	1.8	2.0	1.9	1.8	1.7	1.7	1.2	1.1	1.1	0.9	0.8	0.8	0.9	21.6%
6-10 mph	2.5	2.6	2.2	1.3	0.9	1.8	5.1	7.9	5.7	2.1	1.3	1.4	1.1	1.1	1.5	1.9	40.5%
11-15 mph	2.4	1.8	0.7	0.2	0.1	0.3	2.6	5.7	4.3	1.9	1.0	0.6	0.3	0.4	0.8	1.7	24.7%
16-20 mph	1.2	0.6	0.1	0.0	0.0	0.0	0.5	1.5	1.8	0.8	0.3	0.2	0.1	0.1	0.4	0.9	8.7%
21-25 mph	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.2	1.5%
26-30 mph	0.1	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2%
31-35 mph	0.0						0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%
35+ mph	0.0	0.0											0.0			0.0	0.0%
Totals	7.6	6.4	4.7	3.3	3.0	4.0	10.0	17.1	13.7	6.1	3.8	3.4	2.5	2.5	3.6	5.7	100.0%
ADAX	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
Max Gust	52	59	38	39	35	39	44	44	48	47	48	58	60	52	54	61	
Max 5 Min	38	39	29	27	22	26	32	30	29	33	34	33	36	34	34	35	
Avg Speed	10.3	8.4	6.5	4.7	4.0	5.2	8.0	9.2	9.6	9.1	8.0	7.1	6.6	7.0	8.5	10.1	

Due to rounding, column and row totals may not sum to exactly 100.0%.

HUMIDITY

From Ada Mesonet Site (ADAX); Jan 1994 – Dec 2003

Latitude: 3479N Longitude: 09667W Elevation: 971 ft

Mean Monthly Humidity and Moisture					
	Daily Maximum Relative Humidity	Daily Minimum Relative Humidity	Daily Average Relative Humidity	Daily Average Dewpoint (°F)	Daily Average Vapor Deficit
January	91	47	71	30	3.1
February	89	43	67	33	4.5
March	89	43	66	39	5.6
April	91	44	67	49	7.3
May	94	54	75	61	7.4
June	94	53	75	68	9.4
July	88	44	67	70	15.4
August	89	42	66	68	15.3
September	93	48	73	62	9.6
October	93	47	72	52	6.7
November	92	48	72	41	4.5
December	91	49	72	33	3.2
Annual	91	47	70	50	7.7

Vapor pressure is given in millibars.

SOIL TEMPERATURES

From Ada Mesonet Site (ADAX); Jan 1994 – Dec 2003

Latitude: 3479N Longitude: 09667W Elevation: 971 ft

Soil Temperatures at 10 cm (4-inch) depth				
	Average Temperature beneath sod	Average Temperature beneath bare soil	Average Daily Max Temperature	Average Daily Min Temperature
January	45	42	47	39
February	47	47	52	42
March	52	52	59	47
April	59	62	70	56
May	68	73	80	66
June	75	81	89	74
July	82	88	96	80
August	82	87	96	80
September	76	77	85	71
October	67	66	73	61
November	57	54	60	50
December	48	45	50	42
Annual	63	65	72	59

Average daily maximum and minimum temperatures based on bare soil.

TORNADOES

Significant Tornadoes (F2 intensity or greater) affecting Pontotoc County, 1880 – 2003. Source: *Significant Tornadoes, 1880-1989: Volume I* and National Weather Service, Norman office.

Date	Path	Deaths	Injuries	Rating	Counties Affected
March 24, 1916	18 miles	2	28	F3	Garvin, Pontotoc
April 9, 1919	20 miles	1	4	F3	Coal, Pontotoc
May 9, 1930	4 miles	0	0	F2	Pontotoc
May 22, 1938	2 miles	0	5	F2	Pontotoc
June 5, 1953	15 miles	0	0	F2	Pontotoc
May 1, 1954	50 miles	0	6	F3	Pontotoc, Seminole, Hughes, Okfuskee
May 25, 1957	12 miles	0	0	F2	Pontotoc, Hughes
November 17, 1958	7 miles	0	0	F2	Garvin, Pontotoc
May 9, 1959	8 miles	7	12	F4	Pontotoc
May 4, 1960	15 miles	0	6	F3	Pontotoc
February 17, 1961	80 miles	0	11	F3	Garvin, Pontotoc, Pottawatomie, Seminole, Hughes, Okfuskee, Okmulgee
April 19, 1968	3 miles	0	2	F2	Pontotoc
May 13, 1968	10 miles	0	0	F3	Pontotoc, Pottawatomie, Seminole
April 18, 1970	4 miles	0	0	F2	Pontotoc
June 11, 1970	3 miles	0	0	F2	Pontotoc
April 22, 1971	1 mile	0	0	F2	Pontotoc
April 20, 1973	9 miles	0	21	F3	Pontotoc
March 15, 1982	6 miles	1	36	F2	Pontotoc
May 2, 1984	4.5 miles	0	0	F2	Pontotoc
March 21, 1991	11 miles	0	2	F3	Pontotoc
May 11, 1992	3 miles	0	0	F2	Murray, Pontotoc
May 11, 1992	5 miles	0	0	F2	Pontotoc
April 11, 2001	15 miles	0	0	F2	Pontotoc, Coal

About the Data:

The temperature and precipitation data from Ada are from the National Weather Service Cooperative Observer station, which records daily maximum and minimum temperatures, precipitation, and snowfall. The station has been in operation since 1907, yielding a 94-year series of data. Extremes, frost and freeze data, and growing season lengths were determined using the entire 94-year series. The means for temperature, precipitation, and snowfall were determined using a subset of the series, from 1971-2000, corresponding with official national standards set by the National Climatic Data Center.

Wind and humidity data are compiled from the Oklahoma Mesonet station at Ada (2 miles north-northeast of town), which has been operational since 1994. The Ada Mesonet site was chosen because of its more central location in the county and because it has been in operation since 1994. An additional Mesonet site is located in Pontotoc County at Vanoss, but has only been in operation since 1998. The Oklahoma Mesonet is a cooperative project between Oklahoma State University and The University of Oklahoma. Data are collected and archived at the Oklahoma Climatological Survey. The Mesonet records a variety of weather information at 5-minute intervals throughout the day, with at least one reporting station in every county in Oklahoma. For more information on the Mesonet, see <http://www.mesonet.org/>.

Solar radiation (sunshine) data were obtained from the *Climatic Atlas of the United States*, U.S. Department of Commerce, 1968. Severe storm information is available from the National Climatic Data Center, <http://www.ncdc.noaa.gov/>, under Weather/Climate Events: Climatology & Extreme Events, U.S. Storm Events Database. The best site for online county tornado information for Oklahoma is through the National Weather Service, Norman Office, <http://www.srh.noaa.gov/oun/tornadodata/>.

The tables and summary were prepared by the Oklahoma Climatological Survey. For more information, please contact OCS at 405-325-2541. Many climate summary products are available on the worldwide web at <http://www.ocs.ou.edu/>.

Need Additional Information?

If you cannot find what you need here, or want some help interpreting what this means for your particular needs, please contact:

The Oklahoma Climatological Survey
100 E. Boyd Street, Suite 1210
Norman, OK 73019-1012
Phone: 405-325-2541
E-mail: ocs@ou.edu

In addition to maintaining records of all weather and climate information for Oklahoma, OCS has a staff of climatologists who specialize in tailoring information for particular needs. Whether you want to know how dry it has been or are planning a construction project, OCS can help.