

# The Climate of Kingfisher County

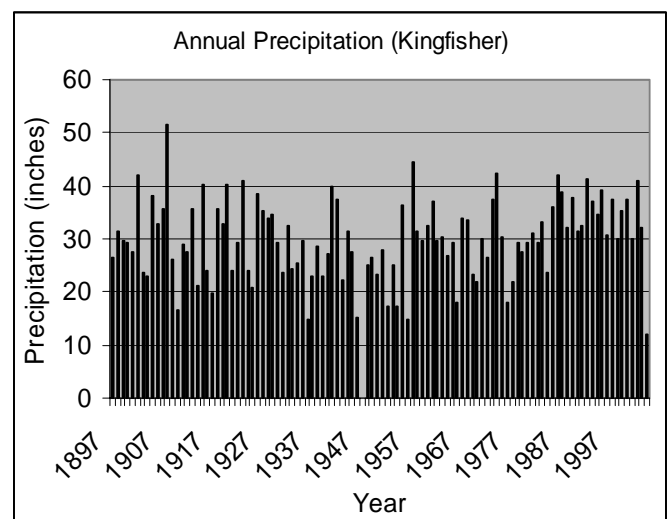
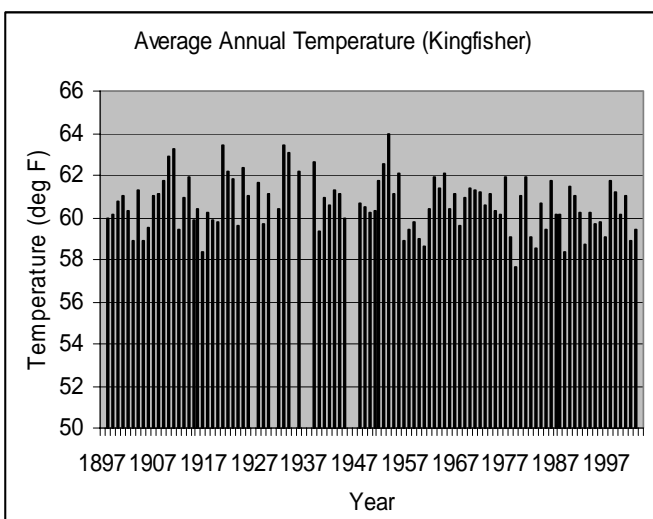


Kingfisher County is part of the Central Great Plains, encompassing some of the best agricultural land in Oklahoma. Average annual precipitation ranges from about 31 inches in western Kingfisher County to 36 inches in the east. May and June are the wettest months, on average, but much of the spring through fall receives sufficient rainfall. Nearly every winter has at least one inch of snow, with one year in three having ten or more inches.

Temperatures average near 60 degrees, with a slight increase from north to south. Temperatures range from an average daytime high of 95 degrees in July to an average low of 25 degrees in January. Kingfisher County averages a growing season of 202 days, but plants that can withstand short periods of colder temperatures may have an additional three to six weeks.

Winds from the south to southwest are quite dominant, averaging just over ten miles-per-hour. Relative humidity, on average, ranges from 36% to 91% during the day. During the year, humidity is highest in December and lowest in July 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, Kingfisher County recorded 60 tornadoes. The most recent significant tornado (F2 intensity or greater) occurred on May 3, 1999. Sixteen tornadoes passed through Kingfisher County on May 3, 1999. The worst being an F4 tornado that passed near Dover and Hennessey killing one and injuring eleven. Typically, there are about 5 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 (1897-2003)				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	47.4	24.5	36.0	85	(31st, 1911)	-16	(18th, 1930)			5	25	1
Feb	53.8	29.4	41.6	93	(23rd, 1918)	-20	(10th, 1929)		*	2	17	*
Mar	63.3	37.8	50.6	100	(19th, 1907)	-3	(3rd, 1960)		*	*	10	
Apr	72.4	46.7	59.6	103	(12th, 1972)	15	(3rd, 1936)	*	1		2	
May	80.5	56.7	68.6	105	(30th, 1985)	28	(1st, 1903)	*	4			
Jun	89.5	65.8	77.7	113	(14th, 1953)	45	(4th, 1954)	1	16			
Jul	95.2	70.5	82.9	115	(14th, 1954)	51	(5th, 1915)	8	25			
Aug	94.3	69.2	81.8	118	(11th, 1936)	44	(31st, 1915)	8	24			
Sep	85.8	61.4	73.6	110	(1st, 1939)	29	(26th, 1912)	2	12		*	
Oct	74.9	49.7	62.3	101	(3rd, 1898)	12	(30th, 1917)	*	2		1	
Nov	60.0	37.1	48.6	90	(9th, 1899)	6	(3rd, 1991)			*	10	
Dec	49.9	27.8	38.8	88	(24th, 1955)	-14	(23rd, 1989)			3	22	*
Annual	72.4	48.2	60.3	118	(Aug 11, 1936)	-20	(Feb 10, 1929)	19	83	10	86	1

Precipitation (inches)										
	AVERAGE	EXTREMES (1897-2003)			AVG # DAYS PER MONTH (1971-2000)					
	1971-2000	Monthly Max	Daily Max		any	meas	0.10"+	0.25"+	0.50"+	1.00"+
Jan	1.14"	5.11" (1949)	1.97"	(26th, 1967)	5	4	2	1	1	*
Feb	1.51"	4.48" (1990)	4.03"	(9th, 1898)	5	5	3	2	1	*
Mar	2.66"	5.94" (1990)	3.00"	(10th, 1974)	7	6	5	3	2	1
Apr	3.23"	9.69" (1994)	4.13"	(27th, 1897)	7	7	5	3	2	1
May	5.01"	13.58" (1902)	4.96"	(23rd, 1908)	9	8	7	5	3	2
Jun	4.32"	12.17" (1908)	4.49"	(23rd, 1963)	8	8	6	4	3	2
Jul	2.22"	8.74" (1950)	3.45"	(29th, 1950)	5	5	4	2	2	1
Aug	2.75"	8.00" (1989)	5.30"	(30th, 1926)	6	6	4	3	2	1
Sep	3.53"	10.61" (1961)	7.36"	(13th, 1961)	7	6	5	3	2	1
Oct	2.57"	10.37" (1955)	5.33"	(3rd, 1955)	6	5	4	3	2	1
Nov	2.38"	6.73" (1992)	5.10"	(20th, 1994)	6	5	4	2	2	1
Dec	1.63"	5.09" (1932)	2.28"	(9th, 1911)	5	4	3	2	1	*
Annual	32.95"	13.58" (May 1902)	7.36"	(Sep 13, 1961)	77	70	50	34	22	10

Snow and Sleet (inches)											
	AVERAGE	EXTREMES (1897-2003)				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"	17.5" (1930)	9.5"	(22nd, 1995)	50.0"	(30th, 1942)	2	1	1	*	2
Feb	0.7"	18.0" (1928)	9.0"	(15th, 1903)	10.0"	(26th, 1942)	1	*	*	*	1
Mar	0.1"	24.0" (1924)	11.0"	(19th, 1924)	8.0"	(10th, 1948)	*	*	*	*	*
Apr	0.0"	5.0" (1938)	5.0"	(8th, 1938)	1.0"	(12th, 1957)	*	*	*		
May		0.0" (1949)	0.0"	(2nd, 1920)							
Jun		0.0" (1907)	0.0"	(2nd, 1907)							
Jul		0.0" (1952)	0.0"	(14th, 1952)							
Aug											
Sep		0.0" (1951)	0.0"	(3rd, 1908)							
Oct	0.0"	0.5" (1913)	0.5"	(28th, 1913)			*				*
Nov	0.3"	9.0" (1918)	8.0"	(24th, 1918)	4.0"	(8th, 2000)	*	*	*	*	*
Dec	1.1"	17.5" (1932)	8.0"	(6th, 1912)	6.0"	(15th, 1987)	1	*	*	*	1
Annual	4.1"	24.0" (Mar 1924)	11.0"	(Mar 19, 1924)	50.0"	(Jan 30, 1942)	4	2	2	1	5

## TEMPERATURE AND PRECIPITATION

From Kingfisher Cooperative Observer Station (344861); April 1897 – December 2003

Latitude: 3551N      Longitude: 09754W      Elevation: 1099 ft

Exceedence values (2 in 10 years)				
Month:	Maximum Temperature Higher Than:	Minimum Temperature Lower Than:	Precipitation Less Than:	Precipitation More Than:
January	75	0	0.17	1.85
February	81	5	0.36	1.94
March	88	13	0.68	3.38
April	93	26	1.48	4.67
May	97	36	2.08	7.26
June	104	50	1.85	6.65
July	109	55	1.20	3.70
August	109	53	1.05	4.25
September	104	38	1.15	5.66
October	97	27	0.90	4.13
November	84	14	0.46	2.90
December	75	4	0.35	2.37
<b>Annual</b>	<b>110</b>	<b>-3</b>	<b>23.98</b>	<b>37.31</b>

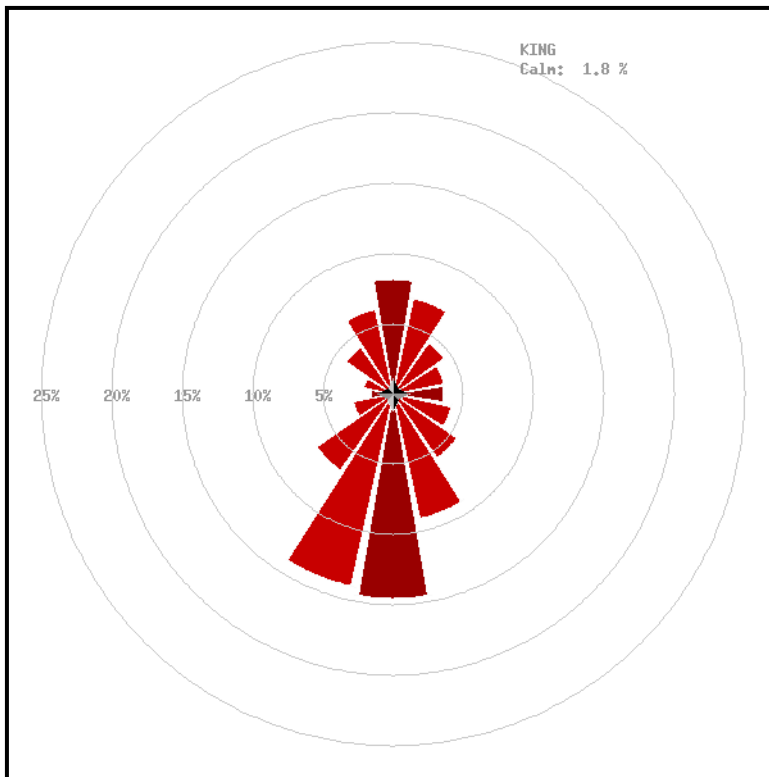
First Freezing Temperature in Fall			
Probability	24 F or Lower	28 F or Lower	32 F or Lower
1 Year in 10 Earlier Than –	October 31	October 23	October 14
2 Years in 10 Earlier Than –	November 5	October 30	October 20
5 Years in 10 Earlier Than –	November 20	November 9	October 28
Last Freezing Temperature in Spring			
Probability	24 F or Lower	28 F or Lower	32 F or Lower
1 Year in 10 Later Than –	April 1	April 12	April 23
2 Years in 10 Later Than –	March 28	April 7	April 19
5 Years in 10 Later Than –	March 18	March 29	April 9

Number of Days in Growing Season			
Probability	Higher than 24 F	Higher than 28 F	Higher than 32 F
9 Years in 10	219	199	182
8 Years in 10	229	209	191
5 Years in 10	247	224	202
2 Years in 10	271	238	216
1 Year in 10	283	251	226

## WINDS

From Kingfisher Mesonet Site (KING); Jan 1994 – Dec 2001

Latitude: 3588N Longitude: 09791W Elevation: 1046 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, Kingfisher records a south-southwesterly wind about 14 percent of the time, with northerly winds just over 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:* 80.7 mph  
*Maximum Sustained:* 53.8 mph  
*Overall Average Speed:* 10.2 mph

KING	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Totals
Calm																	1.8%
1- 5 mph	1.2	1.1	1.1	1.1	1.0	0.9	0.8	0.7	0.9	1.6	2.1	1.3	0.8	0.7	0.8	1.0	17.0%
6-10 mph	2.4	2.5	2.0	1.7	1.8	2.1	2.6	2.5	3.1	3.9	2.1	0.8	0.5	0.8	1.3	1.8	31.9%
11-15 mph	2.3	2.0	1.1	0.7	0.7	1.0	1.5	3.4	4.5	3.7	1.3	0.5	0.2	0.4	1.1	1.5	25.9%
16-20 mph	1.6	1.0	0.3	0.2	0.1	0.2	0.5	1.8	3.6	2.9	0.8	0.2	0.1	0.2	0.6	1.1	15.0%
21-25 mph	0.6	0.3	0.0	0.0	0.0	0.0	0.1	0.6	1.9	1.5	0.2	0.1	0.0	0.1	0.2	0.6	6.2%
26-30 mph	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.5	0.1	0.0	0.0	0.0	0.1	0.2	1.8%
31-35 mph	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3%
35+ mph	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	0.0	0.1%
<b>Totals</b>	<b>8.2</b>	<b>7.0</b>	<b>4.5</b>	<b>3.7</b>	<b>3.6</b>	<b>4.2</b>	<b>5.5</b>	<b>9.1</b>	<b>14.6</b>	<b>14.0</b>	<b>6.7</b>	<b>2.9</b>	<b>1.6</b>	<b>2.2</b>	<b>4.1</b>	<b>6.2</b>	<b>100.0%</b>
KING	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
Max Gust	68	81	59	49	45	52	61	71	76	52	53	59	62	51	60	67	
Max 5 Min	52	49	43	37	33	37	48	54	41	41	36	38	35	36	45	46	
<b>Avg Speed</b>	<b>11.2</b>	<b>9.8</b>	<b>7.8</b>	<b>7.1</b>	<b>7.0</b>	<b>7.8</b>	<b>9.1</b>	<b>11.7</b>	<b>13.5</b>	<b>12.2</b>	<b>8.5</b>	<b>6.9</b>	<b>6.0</b>	<b>7.8</b>	<b>10.0</b>	<b>11.5</b>	

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

## HUMIDITY

From Kingfisher Mesonet Site (KING); Jan 1994 – Dec 2003

Latitude: 3588N      Longitude: 09791W      Elevation: 1046 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	90	48	72	27	2.7
February	90	46	70	31	3.6
March	91	47	71	37	4.4
April	91	45	69	46	6.4
May	94	48	73	59	8.3
June	92	44	69	65	12.2
July	84	36	60	66	19.3
August	84	36	60	65	18.5
September	88	41	65	58	12.3
October	89	46	69	49	6.9
November	91	50	73	39	3.8
December	91	52	75	30	2.5
<b>Annual</b>	<b>90</b>	<b>45</b>	<b>69</b>	<b>48</b>	<b>8.4</b>

Vapor pressure is given in millibars.

## SOIL TEMPERATURES

From Kingfisher Mesonet Site (KING); Jan 1994 – Dec 2003

Latitude: 3588N      Longitude: 09791W      Elevation: 1046 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	41	39	43	37
February	44	44	50	40
March	49	51	57	45
April	57	61	69	54
May	67	71	79	64
June	75	80	87	73
July	81	86	94	79
August	82	85	94	79
September	75	76	83	70
October	65	64	71	58
November	54	51	57	46
December	45	42	46	38
<b>Annual</b>	<b>61</b>	<b>63</b>	<b>69</b>	<b>57</b>

Average daily maximum and minimum temperatures based on bare soil.

## **TORNADOES**

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

<b>Date</b>	<b>Path</b>	<b>Deaths</b>	<b>Injuries</b>	<b>Rating</b>	<b>Counties Affected</b>
May 2, 1892	12 miles	2	3	F3	Kingfisher
May 27, 1896	10 miles	0	1	F3	Kingfisher, Logan, Garfield
May 28, 1908	10 miles	0	3	F3	Kingfisher, Logan
June 13, 1908	5 miles	2	1	F2	Kingfisher, Logan
May 23, 1909	15 miles	0	0	F2	Kingfisher
April 20, 1912	12 miles	2	6	F4	Kingfisher
June 7, 1917	unknown	0	1	F2	Kingfisher
March 15, 1919	30 miles	4	18	F4	Canadian, Kingfisher
May 3, 1930	9 miles	0	2	F2	Kingfisher
August 5, 1940	3.5 miles	0	0	F2	Kingfisher
March 15, 1942	12 miles	0	0	F3	Canadian, Kingfisher
March 18, 1948	4 miles	0	0	F2	Kingfisher
May 20, 1949	27 miles	0	0	F2	Blaine, Kingfisher
May 23, 1949	8 miles	0	0	F2	Kingfisher
May 7, 1950	4 miles	0	3	F2	Kingfisher
February 19, 1951	45 miles	0	5	F2	Caddo, Grady, Canadian, Kingfisher
April 29, 1954	4 miles	0	2	F2	Kingfisher
April 22, 1957	7 miles	0	0	F2	Kingfisher
May 27, 1960	unknown	0	0	F2	Kingfisher
May 4, 1961	20 miles	1	0	F3	Blaine, Canadian, Kingfisher
October 20, 1963	5 miles	0	0	F2	Kingfisher, Garfield
May 6, 1965	unknown	0	2	F2	Kingfisher
June 10, 1967	2 miles	0	1	F2	Kingfisher
August 31, 1979	10 miles	0	0	F3	Kingfisher, Logan
May 13, 1983	9 miles	0	0	F3	Kingfisher
May 3, 1999	12 miles	0	4	F3	Kingfisher
May 3, 1999	8 miles	0	0	F2	Canadian, Kingfisher
May 3, 1999	15 miles	1	11	F4	Kingfisher
May 3, 1999	1 mile	0	0	F2	Kingfisher
May 3, 1999	22 miles	0	0	F3	Canadian, Kingfisher

### ***About the Data:***

The temperature and precipitation data from Kingfisher 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 1897, yielding a 107-year series of data. Extremes, frost and freeze data, and growing season lengths were determined using the entire 107-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 Kingfisher (2 miles northeast of town), which has been operational since 1994. The Kingfisher Mesonet site was chosen because it is then only Mesonet site in Kingfisher County. 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](mailto: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.