OKLAHOMA MONTHLY CLIMATE SUMMARY
APRIL 2009

OKLAHOMA CLIMATOLOGICAL SURVEY

April was a tumultuous month for weather in Oklahoma, containing everything from a wheat-devastating hard freeze to significant tornadoes to a 500-year rainfall event. The rainfall in general was a drought-buster, and the month finished as the 17th wettest across the state since 1895. The temperatures were cool due to the rains and the incursion of some very cold air masses, ranking as the 50th coolest April on record. Preliminary data place the tornado count at 16 for the month, with five of those twisters considered significant (EF-2 or greater). A cold snap early in the month damaged the state's drought-stressed wheat crop, especially in southern Oklahoma where temperatures plunged into the teens. Non-thunderstorm winds of greater than 70 mph contributed to extreme wildfire conditions early in the month and many homes and structures were destroyed. An outflow boundary on the 29th produced wave after wave of thunderstorms along the Red River and the Oklahoma Mesonet site at Burneyville had a front-row seat. The 12.42 inches of rainfall broke several records, including the daily and monthly record at Burneyville and the Mesonet daily rainfall amount network-wide for any day since its inception in 1994. The deluge also eclipsed several return-period rain levels, such as the 500-year 1-day, 24-hour and 12-hour amounts.

Precipitation

The statewide average precipitation total for April was nearly 5 inches, well over an inch above normal. Most areas of the state were above normal for the month, but especially so in north central and south central Oklahoma. South central Oklahoma led the way with more than 7 inches of rainfall on average to rank as the 6th wettest April on record for that area. North central Oklahoma was more than 2.5 inches above normal and ranked as the 8th wettest April for that region. The driest region was east central Oklahoma where they were only slightly above normal for the month and ranked the 47th wettest. The statewide year-to-date total nearly caught up to normal at just over nine inches, the 50th wettest such period on record.

Temperature

The early freeze and abundant rainfall helped keep temperatures down in the state for the most part. The statewide average temperature was nearly a degree below normal according to data from the Oklahoma Mesonet. The Panhandle and eastern Oklahoma were especially cool with both having areas up to 3 degrees below normal. The state's temperatures ranged from a high of 98 degrees to a low of 16 degrees. The year-to-date temperature was still well above normal and ranked as the 25th warmest on record.

April 2009 Statewide Extremes

Description	Extreme	Station	Date
High Temperature	98ºF	Grandfield	22
Low Temperature	16ºF	Boise City, Camargo	6, 7
High Precipitation	15.36 in.	Burneyville	
Low Precipitation	1.07 in.	Kenton	

April Daily Highlights

April 1-4: Wind was a central theme during the month's early days. Strong pressure gradients produced winds gusting to 60 mph or more on the second after picking up from gusts in the 40s on the first. A strong cold front that moved through late on the first produced a bit of snow and rain early on the second. Lows on the third dropped into the 20s and 30s due to the light winds associated with high surface pressure following the front. Strong southerly winds returned in the afternoon, however, which helped temperatures climb into the 70s. The lows on the fourth were 25 degrees higher than those of the previous day, falling into the 50s. Highs on the fourth rose into the 70s and 80s. Gusty southerly winds to 60 mph in advance of a cold front created extreme fire danger for the state.

April 5-7: A strong cold front overnight brought cool weather back to the state on the fifth with lows in the 30s and 40s. High winds gusting to 50 mph dropped wind chills into the 20s. A few strong-to-severe storms formed along the cold front with golf ball size hail near Tishomingo. A dome of surface high pressure following the cold front allowed for record-breaking cold temperatures in some areas. Oklahoma City broke its record-low temperature mark on the seventh with a reading of 22 degrees. Similar record lows were reported in Tulsa and McAlester. Low temperatures dropped into the teens in southern Oklahoma. Highs rebounded on the seventh into the 60s and 70s, with a few 80s being reported in southwestern Oklahoma.

April 8-9: High winds, low humidity and warm temperatures combined to create extreme fire dangers for much of the state on the eighth and ninth. Winds gusted to more than 70 mph in the west on the ninth. Smoke and blowing dust created a hazy afternoon for the western half of the state. The winds were generated by a storm system that arrived from the west. A dryline and trailing cold front were focal points for winds, and many damaging wildfires broke out and remained out of control for much of the day. Midwest City was particularly hard hit by the fires with approximately 100 homes destroyed. Showers and storms had formed along the cold front in eastern Oklahoma as it swept through the state. The storms quickly went severe and produced two significant tornadoes, both rated EF-2 on the Enhanced Fujita scale, to go along with reports of hail to the size of baseballs. Four injuries occurred with one of the tornadoes near Big Cedar in Le Flore County. The second tornado occurred near Eagletown in McCurtain County. Preliminary reports have four other tornadoes touching down in eastern Oklahoma on the ninth – two rated EF-1 and the remaining two rated EF-0.

April 10-12: The month's first real rainy period began on the 10th and continued through the 12th. An upper-level trough approached the state on the 10th and kicked up winds from the south gusting to 25 mph. Highs rose into the 60s following seasonable lows in the 30s and 40s. A few showers on the 10th gave way to heavier storms on the 11th and 12th. Severe weather reports were mostly due to large hail on the 12th. Every part of the state received rain during this period, but the largest totals were in southern Oklahoma where more than two inches fell. A weak cold front traveled across the state late on the 12th and ended the rainfall.

April 13-15: High pressure at the surface followed the cold front. A few light showers occurred in the southeast, but the state remained dry through the 15th. Temperatures began to increase through this period until peaking in the 70s to near 80 on the 15th.

April 16-19: Another wet and stormy four days for the state as an upper-level low moved in from the Four Corners area. Rains began in the Panhandle on the 16th with 1-2 inches falling across the area. More storms, at times severe, cropped up through early on the 19th. An EF-1 tornado touched down near Langston on the 18th. Heavy rains were common in east central and northern Oklahoma. Low temperatures were mostly in the 40s and 50s with highs in the 60s and 70s.

April 20-24: Wonderful weather occurred for the most part during these five days, if not a bit hot from time to time. High temperatures rose into the 80s and 90s from the 22nd-24th. Gusty southerly winds on the 23rd and 24th brought a stream of moisture into the state from the Gulf of Mexico. Only a couple of storms struck the state during this period, which was mostly rain-free.

April 25-30: The stormiest period of the year thus far began with low-level moisture streaming back into the state in response to a powerful upper-level storm system approaching from the west. A cold front entered far northwest Oklahoma where it promptly stalled out. A dryline also extended to the south from the cold front. Storms formed later that evening and quickly became severe in the warm, soupy air. A tornado watch was issued and the severe reports began to flow in. Hail up to 3 inches in diameter was reported across western Oklahoma where the storms were located. Two significant tornadoes rated EF-2 touched down in Garfield County and resulted in damage in Enid. The storms continued severe well into the morning hours and dropped several more possible tornadoes before finally dying out, only to see more storms form along the stationary front in the far northwest. The storms became more numerous and severe as the day wore on. A severe storm in Ellis County dropped an EF-2 rated tornado later that day while softball size hail was reported near Lamont. Lots of flooding occurred with the storms in north central Oklahoma. The storms eventually moved on and the weather calmed for a couple of days. Cloudy drizzly days on the 27th and 28th were replaced with yet another round of big storms on the 29th. Three more possible tornadoes touched down, but the big story was the rainfall in southern Oklahoma. The Mesonet station at Burneyville recorded 12.42 inches of rainfall on the 29th and 30th, breaking several records. Other stations in the area had upwards of 7 inches during the same event. More flooding was reported, this time in southern Oklahoma to go along with several reports of large hail. Rainfall amounts during this six-day period were quite heavy in north central and south central Oklahoma. The only areas that were largely devoid of rainfall were the Panhandle and east central Oklahoma. The month ended with a nice day on the 30th where high temperatures ranged from the 60s in the north to the 90s in the far southwest.

April 2009 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2009)
Month (April)	58.4ºF	-0.7ºF	50th Coolest
Season-to-Date (Mar-Apr)	55.1ºF	0.5ºF	39th Warmest
Year-to-Date (Jan-Apr)	48.4ºF	1.6ºF	25th Warmest

Precipitation

	Total	Depart.	Rank (1895-2009)
Month (April)	4.91 in.	1.55 in.	17th Wettest
Season-to-Date (Mar-Apr)	7.27 in.	0.80 in.	11th Wettest
Year-to-Date (Jan-Apr)	9.14 in.	-0.54 in.	50th Wettest

Depart. = Departure from 30-year normal

April 2009 Severe Weather

Significant Tornadoes (EF2 or greater)

EF-rating	Location	County	Day
2	5.5 ESE - 11E Big Cedar	Le Flore	9
3	6 ESE Eagletown	McCurtain	9
2	NW Enid - North Enid	Garfield	25
2	SE Kremlin	Garfield	25
2	SE Ellis County/ Packsaddle WMA area	Ellis	26

Hail (2 inches in diameter or greater)

Size (in.)	Location	County	Date
2.75	3 SE Muse	Le Flore	9
2.75	10 W Alva	Woods	18
2.75	4 S Alex	Grady	24
2.75	12 NE Elk City	Custer	25
2.50	5 S Butler	Custer	25
2.75	5 N Mangum	Greer	25
3.00	7 S Hammon	Roger Mills	25
2.75	1 S Foss	Washita	25
4.25	1 N Lamont	Grant	26
2.50	3 SW Stafford	Custer	30
2.50	5 WSW Stafford	Custer	30
2.75	3 WNW Stafford	Custer	30
2.75	Marshall	Logan	30

Wind Gusts (70 mph or greater)

Speed (m.p.h)	Location	County	Day
74	6 SW Cheyenne	Roger Mills	9
70	4 NNW Fort Cogg	Caddo	9
72	3 WSW Freedom	Woodward	9
76	3 SE Frederick	Tillman	9

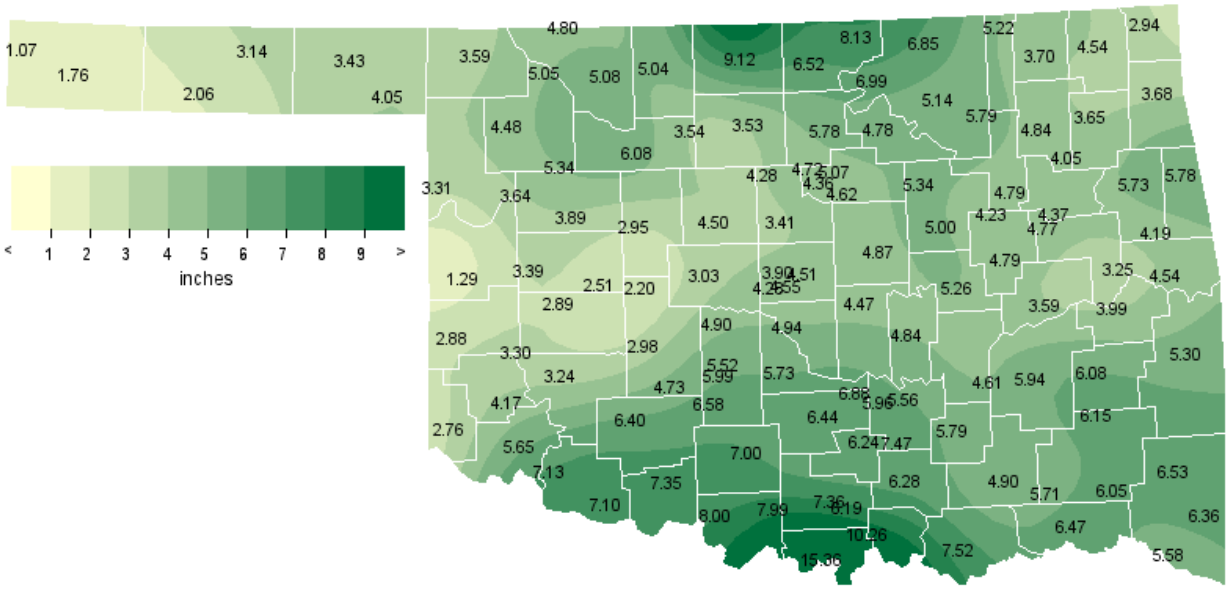
Flooding

Location	County	Date
Tahlequah	Cherokee	18
Blackwell	Kay	26
1 NNW Braman	Kay	26
Orienta	Major	26
Lahoma	Garfield	26
7 S May	Ellis	26
Woodward	Woodward	26
Snyder	Kiowa	29
Frederick	Tillman	29
Mountain Park	Kiowa	29
Waurika	Jefferson	29
Comanche	Stephens	29
Waurika Lake	Jefferson	29

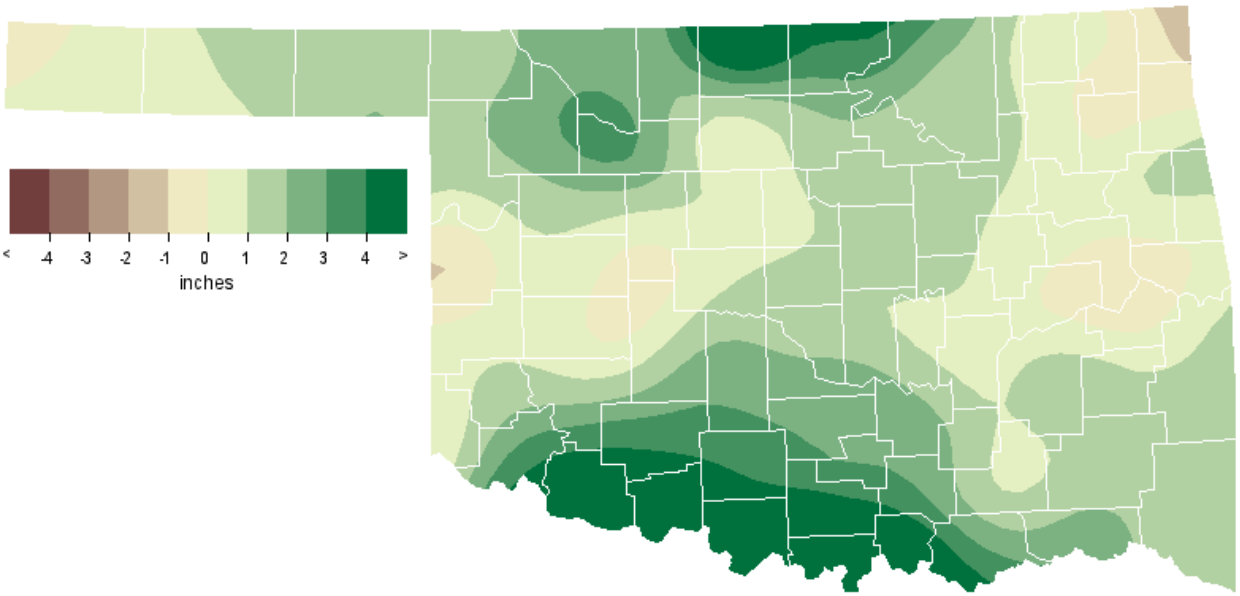
Record Event Reports

Description	Day	Location	Record	Previous Record	Year
Lowest Minimum Temperature	7	Oklahoma City	22	27	1938
Lowest Minimum Temperature	7	McAlester	24	28	1971
Lowest Minimum Temperature (tied)	7	Tulsa	28	28	1939

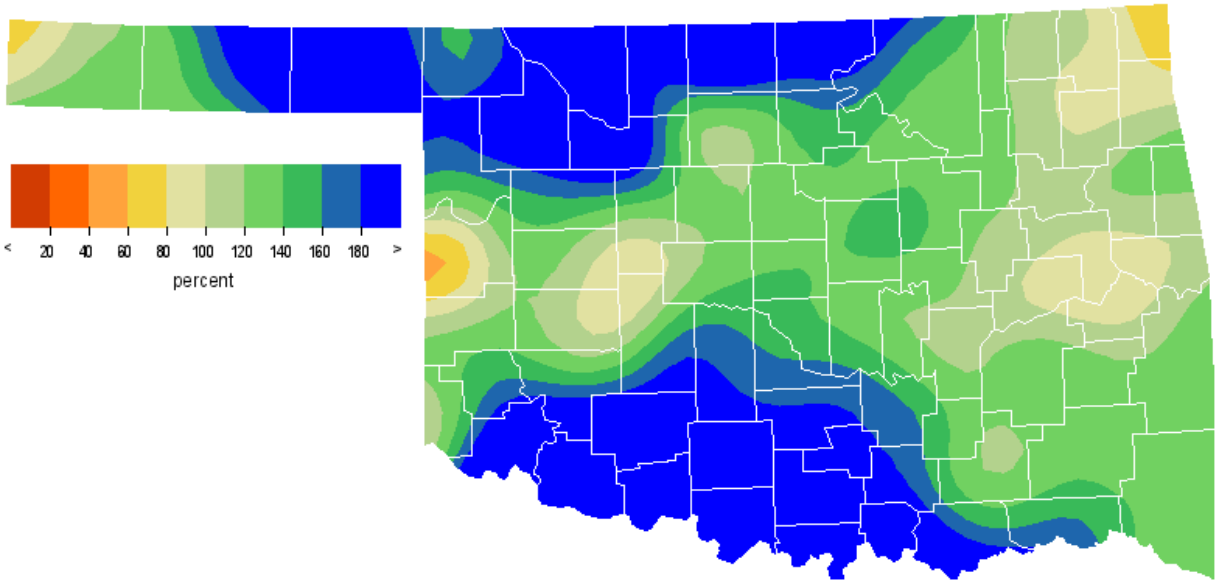
April 2009 Observed Precipitation



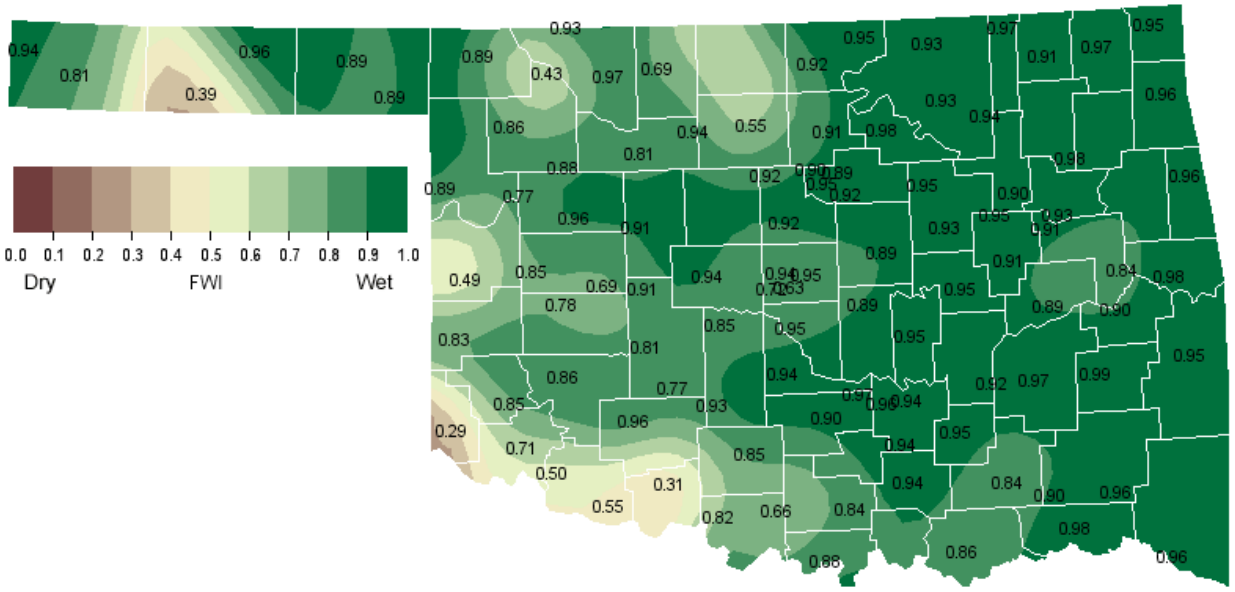
April 2009 Departure from Normal Precipitation



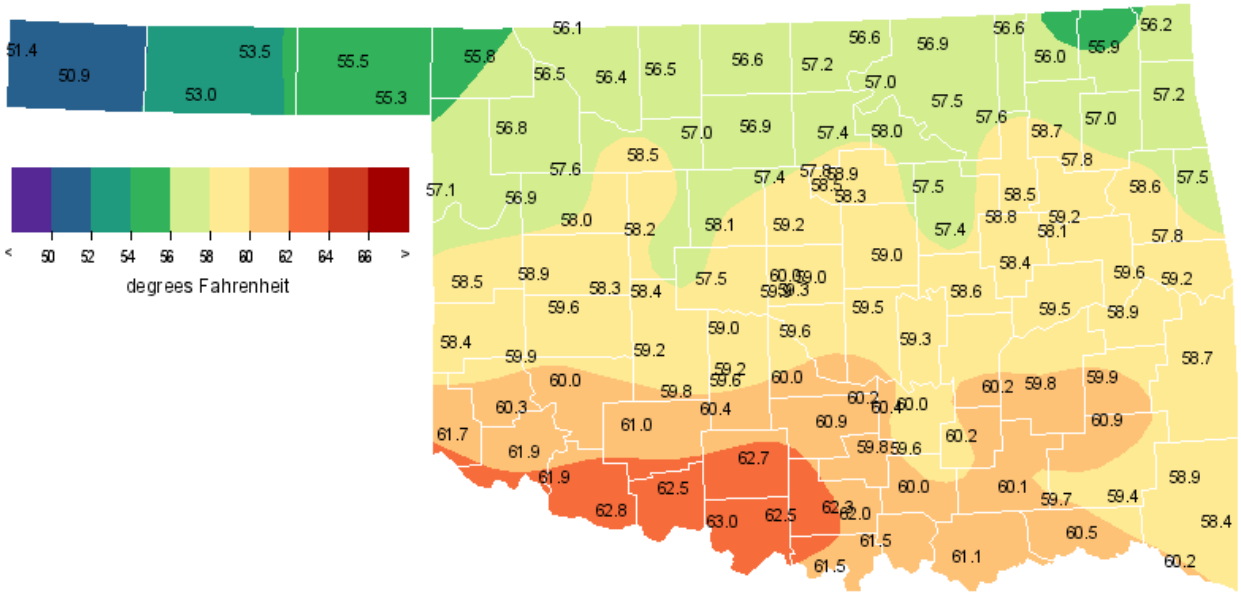
April 2009 Percent of Normal Precipitation



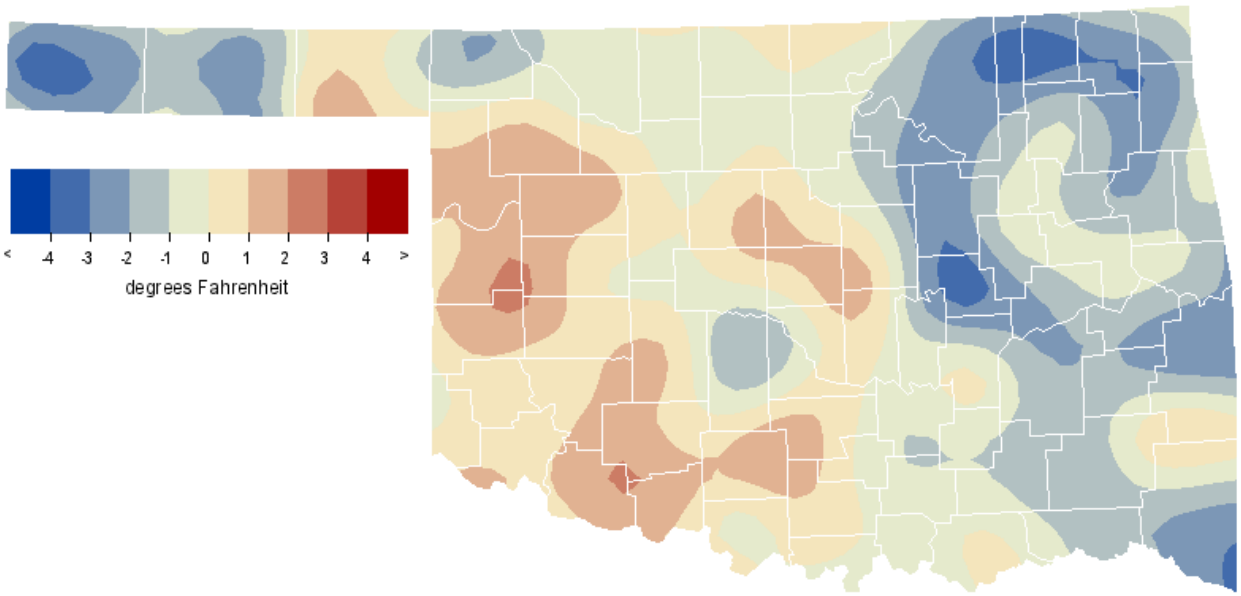
April 2009 Average Soil Moisture at 25cm



April 2009 Average Temperature



April 2009 Departure from Normal Temperature



Mesonet Monthly Summary for April 2009

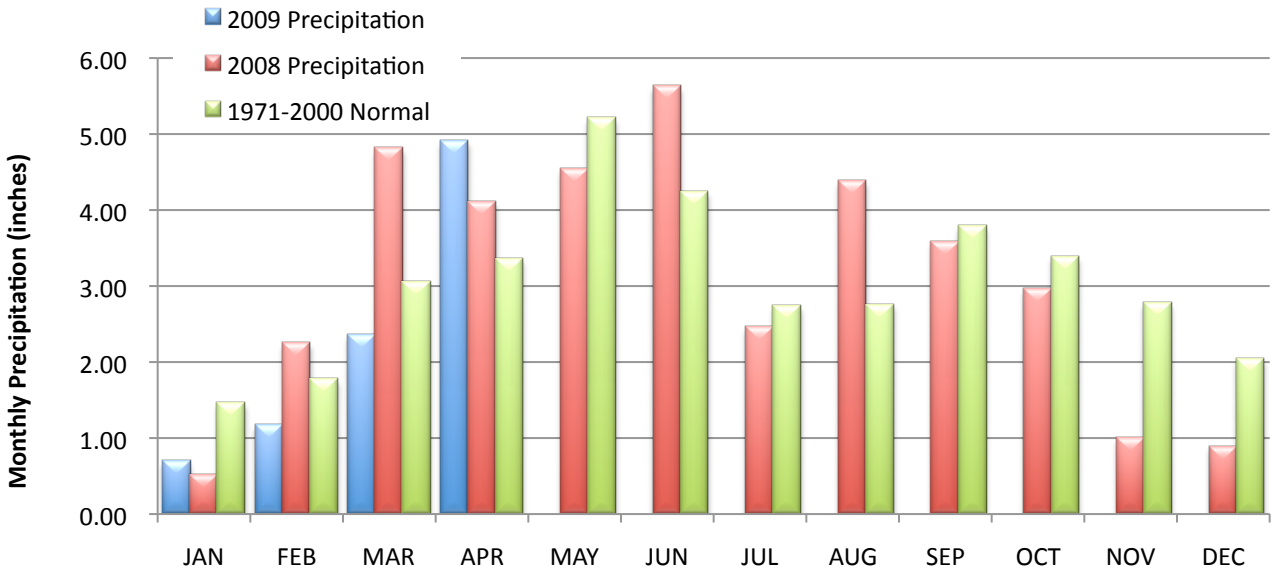
NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	57.1	92	22	18	7	277	40	3.31	1.11	26
Beaver	55.5	92	24	17	7	317	31	3.43	1.78	16
Boise City	50.9	86	24	16	6	426	4	1.76	.71	12
Buffalo	55.8	92	22	19	7	306	30	3.59	1.32	29
NORTH CENTRAL										
Alva	56.3	90	22	17	7	282	22	5.08	1.72	26
Blackwell	57.2	90	22	20	7	271	36	6.52	1.63	26
Breckinridge	56.9	90	22	18	7	284	40	3.53	1.26	12
Cherokee	56.5	88	22	20	7	284	28	5.04	1.82	26
Fairview	58.5	90	22	22	7	243	48	6.08	2.90	25
Freedom	56.5	92	22	19	7	287	31	5.05	2.16	26
Lahoma	57.0	88	22	21	7	274	34	3.54	1.23	12
NORTHEAST										
Bixby	58.5	91	22	28	7	243	48	4.79	1.61	12
Burbank	57.0	90	22	20	7	278	39	6.99	1.94	26
Claremore	58.7	89	22	26	7	233	45	4.84	1.75	12
Copan	56.6	87	23	25	7	287	35	5.22	1.50	29
Foraker	56.9	89	23	21	7	282	38	6.85	1.49	29
Inola	57.8	88	22	25	7	260	44	4.05	1.59	12
Jay	57.2	87	23	27	7	278	42	3.68	1.22	12
Miami	56.2	86	23	26	7	302	38	2.94	1.35	12
WEST CENTRAL										
Bessie	59.6	92	22	21	7	214	53	2.89	.62	25
Butler	58.9	92	22	19	7	229	46	3.39	.97	26
Camargo	56.9	91	22	16	7	278	35	3.64	2.17	25
Cheyenne	58.5	89	22	26	6	243	48	1.29	.40	12
Erick	58.3	89	22	20	7	240	40	2.88	1.15	17
CENTRAL										
Acme	60.3	92	22	18	7	194	54	6.58	3.41	29
Bowlegs	59.3	92	22	26	7	224	52	4.84	1.72	29
Bristow	57.4	90	22	24	7	268	39	5.00	1.56	12
Lake Carl Blac	57.7	92	22	21	7	267	50	4.72	1.26	12
Chandler	59.0	91	22	24	7	233	53	4.87	1.85	29
Chickasha	59.2	91	22	19	7	221	46	5.52	2.42	29
El Reno	57.4	90	22	19	7	264	37	3.03	1.41	29
Guthrie	59.2	93	22	22	7	228	54	3.41	1.15	29
Kingfisher	58.2	92	22	19	7	252	46	4.50	1.32	30
Marena	58.4	92	22	22	7	246	50	4.36	1.20	12
Minco	59.0	89	22	27	7	218	39	4.90	1.93	29
Marshall	57.5	92	22	17	7	272	46	4.28	1.24	29
EAST CENTRAL										
Cookson	57.9	87	22	28	7	256	43	4.19	1.32	12
Eufaula	59.4	89	22	30	7	217	50	3.59	1.21	12
Haskell	58.1	88	22	25	7	251	44	4.77	2.26	18
Hectorville	58.8	90	22	28	7	233	48	4.23	1.49	12
McAlester	59.8	92	22	24	7	212	56	5.94	1.40	12
Okmulgee	58.4	91	22	25	7	250	51	4.79	1.70	18
SOUTHWEST										
Altus	61.9	97	23	24	7	157	64	5.65	4.36	29
Apache	59.8	91	22	21	7	202	47	4.73	2.59	29
Fort Cobb	59.2	92	23	21	7	221	47	2.98	1.45	29
Grandfield	62.7	98	22	22	7	150	81	7.10	4.54	29
Hinton	58.5	89	22	21	7	239	43	2.20	.74	29
Hobart	60.0	93	22	20	7	201	49	3.24	2.07	29
SOUTH CENTRAL										
Ada	60.0	90	22	28	7	208	58	5.56	2.24	29
Ardmore	61.9	93	22	28	7	162	70	6.19	3.66	29
Burneyville	61.6	92	22	19	7	170	66	15.36	12.42	29
Byars	60.2	91	22	28	7	198	52	6.88	3.44	29
Centrahoma	60.1	91	22	21	7	203	58	5.79	2.51	29
Durant	61.1	90	22	25	7	173	56	7.52	3.71	29
Fittstown	59.6	89	22	24	7	212	49	7.47	4.52	29
Ketchum Ranch	62.7	95	22	24	7	150	81	7.00	4.62	29
Lane	60.1	89	22	26	7	194	48	4.90	1.74	29
SOUTHEAST										
Antlers	59.7	89	22	25	7	205	46	5.71	1.91	12
Broken Bow	58.4	87	22	25	7	227	28	6.36	2.35	12
Clayton	60.9	93	22	31	7	181	56	6.15	2.28	29
Cloudy	59.3	87	22	27	7	204	33	6.05	2.19	12
Hugo	60.6	87	22	30	7	179	47	6.47	2.12	29

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
Goodwell	53.0	86	24	18	6	368	8	2.06	.61	11
Hooker	53.5	89	24	20	6	357	11	3.14	.98	16
Kenton	51.4	85	24	22	6	415	6	1.07	.44	12
Slapout	55.3	90	24	18	7	316	26	4.05	1.22	16
May Ranch	56.2	90	22	20	7	292	26	4.80	1.36	26
Medford	56.6	87	22	18	7	286	35	9.12	4.84	25
Newkirk	56.6	88	22	21	7	285	33	8.13	2.02	30
Red Rock	57.4	90	22	20	7	275	46	5.78	1.45	26
Seiling	57.6	91	22	17	7	263	40	5.34	2.34	25
Woodward	56.8	91	22	20	7	275	30	4.48	2.89	26
Nowata	56.0	86	23	24	7	304	32	3.70	1.30	12
Pawnee	58.0	92	22	22	7	259	49	4.78	1.42	12
Porter	59.2	92	22	27	7	225	51	4.37	1.88	18
Pryor	57.0	88	22	24	7	282	41	3.65	1.44	12
Skiatook	57.6	87	23	26	7	264	41	5.79	1.48	12
Vinita	55.9	85	23	22	7	306	33	4.54	1.48	18
Wynona	57.5	90	22	25	7	270	44	5.14	1.54	12
Putnam	58.0	90	22	21	7	253	41	3.89	1.46	26
Retrop	59.9	93	23	23	7	200	48	3.30	1.16	29
Watonga	58.3	90	22	24	7	247	45	2.95	.86	12
Weatherford	58.2	88	22	23	7	244	41	2.51	.71	26
Ninnekah	59.5	91	22	22	7	211	48	5.99	2.65	29
Norman	59.6	92	22	25	7	213	50	4.94	1.95	29
Oilton	57.4	90	22	19	7	274	47	5.34	1.75	12
OKC East	59.3	91	22	28	3	218	47	4.55	2.04	29
OKC North	60.1	92	22	27	7	203	55	3.90	1.53	29
OKC West	60.0	93	22	29	7	203	53	4.28	1.95	29
Okemah	58.6	90	22	25	7	240	48	5.26	2.08	29
Perkins	58.3	91	22	23	7	250	49	4.62	1.41	29
Shawnee	59.6	92	22	27	7	219	56	4.47	1.61	12
Spencer	59.0	92	22	23	7	232	52	4.51	1.44	29
Stillwater	58.9	93	22	24	7	239	56	5.07	1.33	12
Washington	60.0	92	22	25	7	201	49	5.73	2.45	29
Sallisaw	59.3	88	23	26	7	223	51	4.54	1.50	12
Stigler	58.8	88	22	27	7	233	49	3.99	1.44	12
Stuart	60.3	92	22	27	7	197	55	4.61	1.43	12
Tahlequah	58.6	90	22	24	7	241	49	5.73	3.17	18
Webbers Falls	59.5	88	22	27	7	215	52	3.25	1.27	12
Westville	57.6	86	22	25	7	262	38	5.78	2.33	18
Hollis	61.6	96	22	24	7	166	66	2.76	1.51	29
Mangum	60.4	96	23	21	7	192	53	4.17	1.94	29
Medicine Park	61.1	93	22	29	6	176	58	6.40	3.82	29
Tipton	61.9	97	22	21	7	161	67	7.13	4.75	29
Walters	62.5	95	22	21	7	151	75	7.35	5.22	29
Madill	61.6	90	22	24	7	169	66	10.26	7.07	29
Newport	62.2	94	22	28	7	156	74	7.36	4.53	29
Pauls Valley	60.9	92	22	25	7	186	63	6.44	3.91	29
Ringling	62.5	93	22	25	7	152	77	7.99	5.24	29
Sulphur	59.8	90	22	19	7	214	58	6.24	3.11	29
Tishomingo	60.1	89	22	26	7	199	51	6.28	3.23	29
Vanoss	60.4	93	22	27	7	203	63	5.96	2.64	29
Waurika	63.0	95	22	25	7	145	84	8.00	5.00	29
Idabel	60.2	86	22	26	7	186	43	5.58	2.31	29
Mt Herman	58.9	86	22	29	7	217	34	6.53	1.92	29
Talihina	*****	***	***	***	***	****	****	*****	*****	***
Wilburton	59.9	93	22	25	7	214	60	6.08	1.66	12
Wister	58.7	91	22	25	7	241	53	5.30	1.68	12

April 2009 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Apr-08
Panhandle	2.80	0.95	19th Wettest	5.28 (1942)	0.00 (1909)	0.90
North Central	5.58	2.62	8th Wettest	7.43 (1999)	0.55 (1989)	2.77
Northeast	4.76	0.76	39th Wettest	9.67 (1942)	0.17 (1989)	9.44
West Central	2.97	0.37	40th Wettest	8.73 (1997)	0.15 (1996)	2.71
Central	4.78	1.25	23rd Wettest	9.49 (1942)	0.24 (1989)	5.59
East Central	4.62	0.29	47th Wettest	11.82 (1957)	0.75 (1989)	6.24
Southwest	4.88	2.21	9th Wettest	7.30 (1997)	0.14 (1989)	2.81
South Central	7.36	3.60	6th Wettest	11.43 (1942)	0.53 (1989)	4.50
Southeast	6.03	1.54	31st Wettest	12.79 (1957)	0.53 (1987)	7.13
Statewide	4.91	1.55	17th Wettest	8.50 (1942)	0.58 (1989)	4.74

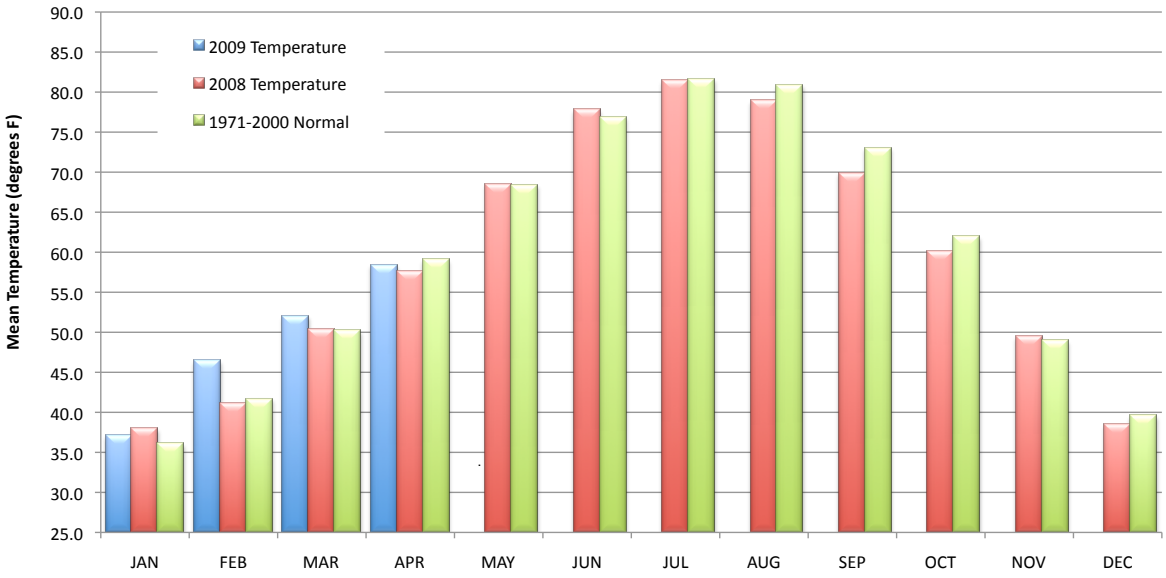
2008 and 2009 Statewide Precipitation Monthly Totals vs. Normal



April 2009 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Apr-08 (F)
Panhandle	54.1	-1.1	50th Coolest	62.2 (1981)	48.2 (1926)	53.3
North Central	56.9	-0.7	52nd Coolest	65.0 (1981)	50.8 (1983)	55.0
Northeast	57.3	-1.6	36th Coolest	66.1 (1981)	52.5 (1907)	57.0
West Central	58.5	0.6	48th Warmest	64.8 (2006)	52.1 (1926)	57.2
Central	58.9	-0.7	54th Coolest	66.4 (2006)	53.6 (1983)	58.1
East Central	58.9	-1.3	34th Coolest	67.0 (2006)	53.9 (1907)	59.1
Southwest	60.9	0.5	48th Warmest	67.1 (2006)	54.2 (1926)	59.1
South Central	61.0	-0.3	53rd Coolest	67.6 (2006)	55.9 (1983)	60.2
Southeast	59.6	-1.0	30th Coolest	66.7 (1954)	55.3 (2007)	57.9
Statewide	58.4	-0.7	50th Coolest	65.5 (2006)	53.2 (1983)	57.4

2008 and 2009 Statewide Temperature Monthly Averages vs. Normal



Mesonet Extremes for April 2009

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	92	22nd	Arnett	16	6th	Boise City	4.05	Slapout	1.78	16th	Beaver
North Central	92	22nd	Freedom	17	7th	Seiling	9.12	Medford	4.84	25th	Medford
Northeast	92	22nd	Pawnee	20	7th	Burbank	6.99	Burbank	1.94	26th	Burbank
West Central	93	23rd	Retrop	16	7th	Camargo	3.89	Putnam	2.17	25th	Camargo
Central	93	22nd	Oklahoma City West	17	7th	Marshall	6.58	Acme	3.41	29th	Acme
East Central	92	22nd	McAlester	24	7th	McAlester	5.94	McAlester	3.17	18th	Tahlequah
Southwest	98	22nd	Grandfield	20	7th	Hobart	7.35	Walters	5.22	29th	Walters
South Central	95	22nd	Waurika	19	7th	Burneyville	15.36	Burneyville	12.42	29th	Burneyville
Southeast	93	22nd	Wilburton	25	7th	Wister	6.53	Mt Herman	2.35	12th	Broken Bow
Statewide	98	22nd	Grandfield	16	7th	Camargo	15.36	Burneyville	12.42	29th	Burneyville

May Climatological Outlook

Oklahoma's weather reaches something of a crescendo in May as springtime comes to full flower. May is Oklahoma's wettest (statewide-averaged precipitation of 5.13 inches) and certainly its stormiest month (an average of 19.9 tornadoes, more than one-third of the annual average, occurring on 5.5 days, statewide). Its position in the spring transition season is confirmed by a monthly mean temperature, averaged statewide, of 68.4 degrees that ranks fifth highest among the months. Vestiges of winter are occasionally seen in the far northwestern portions of the state, but mostly May is a time for flowering of most plants, full leafing of deciduous trees, planting of row crops, and the maturing and ripening of the winter wheat that was sowed the previous fall.

Precipitation
Mean: 5.13 inches
Wettest May: 1957, 10.68 inches
Driest May: 1988, 1.30 inches
Wettest location: Smithville, 7.06 inches
Driest location: Regnier, 2.02 inches
Most recorded: 22.38 inches, Hennessey, 1957

May usually is characterized by a pleasant range of temperatures across the state, although there are times most years when it is evident that the hot Oklahoma summer is drawing near. Monthly mean temperatures since 1892 have ranged from 62.3 degrees in 1907 to 75.8 degrees in 1896. Normal daily maximum temperatures across the state vary from 84.6 degrees at Waurika to 76.5 degrees at Arnett. Normal daily minimum temperatures fall between 61.2 degrees at Ardmore and 46.8 degrees at Boise City. Historical extremes of temperature during the month are 114 degrees at Weatherford, reported on May 25, 2000 and 19 degrees at Hooker on May 1, 1909. Temperatures in southwestern Oklahoma, the state's hot spot, reach 100 degrees an average of slightly more than once each May. Freezing temperatures are also rare, occurring less than once per year in the panhandle, rarely elsewhere. Freezes have occurred in the state's most northerly regions as late as the end of the month.

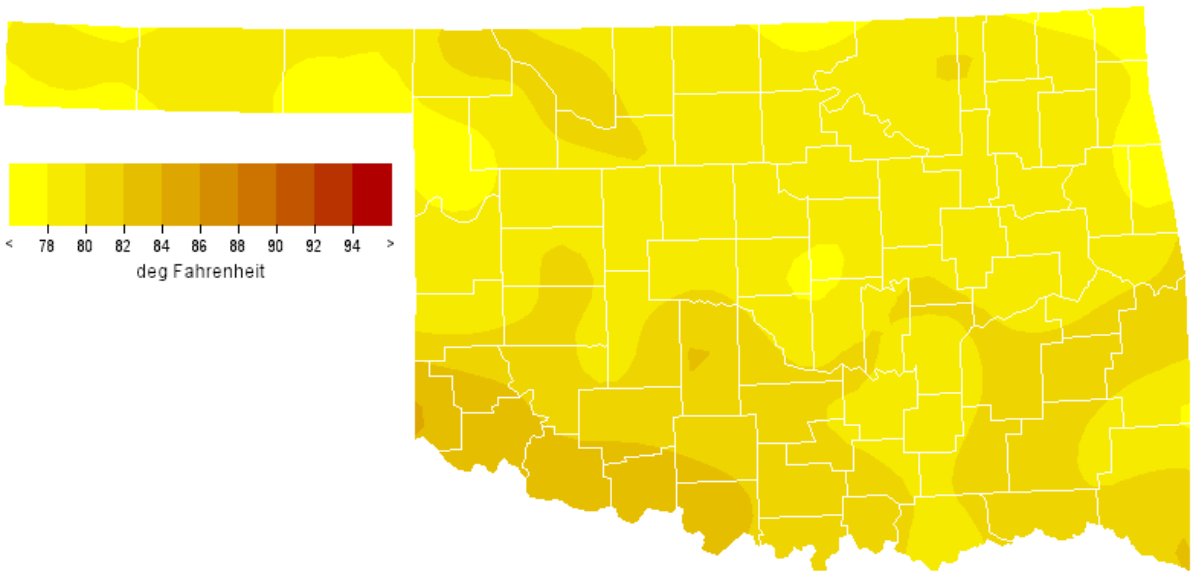
The Oklahoma panhandle's climate differs from the rest of the state in that its primary precipitation season is shifted toward summer, being tied to the patterns of the High Plains, of which it is a part. Elsewhere in the state, May is the month of maximum precipitation and May is, in fact, the panhandle's second wettest month by a small margin. May has produced statewide-averaged monthly precipitation totals ranging from 10.68 inches in 1957 to 1.30 inches in 1988. Extremes of individual station-normal precipitation for the month are 7.06 inches in the southeast at Smithville and 2.29 inches in the western panhandle at Regnier. Miami recorded the greatest May monthly total precipitation, 23.95 inches, in 1943. The record-breaking 1957 statewide-averaged precipitation was amplified by the May total of 22.38 inches of rain recorded at Hennessey, most of which fell during the drought-breaking, flood-producing deluge that hammered much of the state on the 15th and 16th. Purcell apparently holds the single reporting-day precipitation record for May, measuring 13.68 inches of rain on May 11, 1950. Interestingly, the events that produced the Purcell and Hennessey precipitation records (and the widespread flooding that occurred after each) bracket the state's driest ever 7-year period.

Temperature
Mean: 68.4 degrees
Warmest May: 1896, 75.8 degrees
Coolest May: 1907, 62.3 degrees
Hottest recorded: 114 degrees, Weatherford, May 25, 2000
Coldest recorded: 19 degrees, Hooker, May 1, 1909

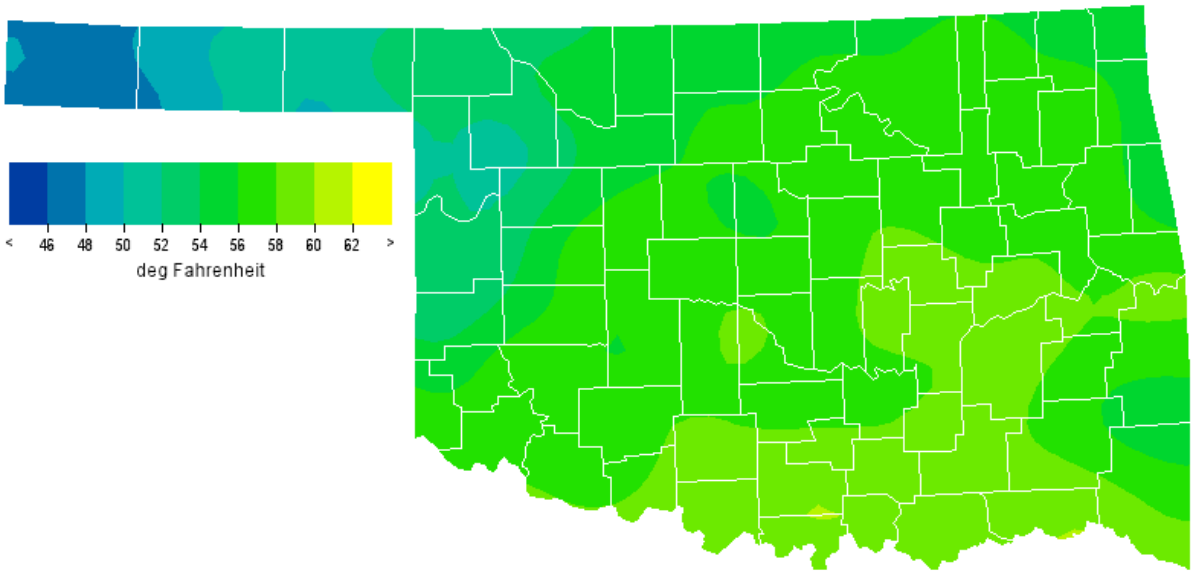
Springtime in Oklahoma is noted for severe thunderstorms and tornadoes. Over the last 52 years (the period of reasonably comprehensive statistics on the subject) Oklahoma has been struck by more tornadoes in May than in any other two months combined (April and June rank second and third, respectively, among the months). May 1999 holds the state record for most tornadoes in a single month with a nearly unbelievable confirmed total of 91. Most of those tornadoes (59) occurred in central and western Oklahoma on the afternoon and evening of May 3. That outbreak caused extensive damage and killed 40 people along a wide path extending generally from Amber to Stroud. Some of the fiercest storms struck in the southern portion of the Oklahoma City metropolitan area. A mobile Doppler radar operated by a University of Oklahoma research team measured winds as great as 318 miles per hour in one of the funnels, the greatest wind speed yet measured on the planet.

Tornadoes
Average May Tornadoes: 19.9
Most: 90 (1999)

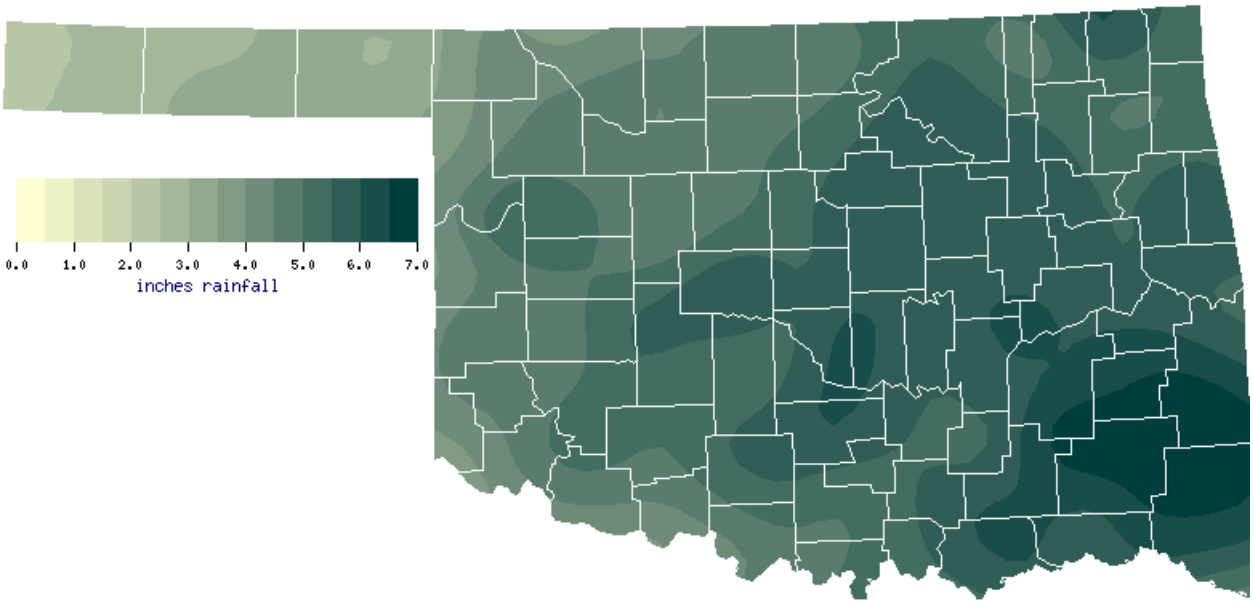
May Normal Daily Maximum Temperature (1971-2000)



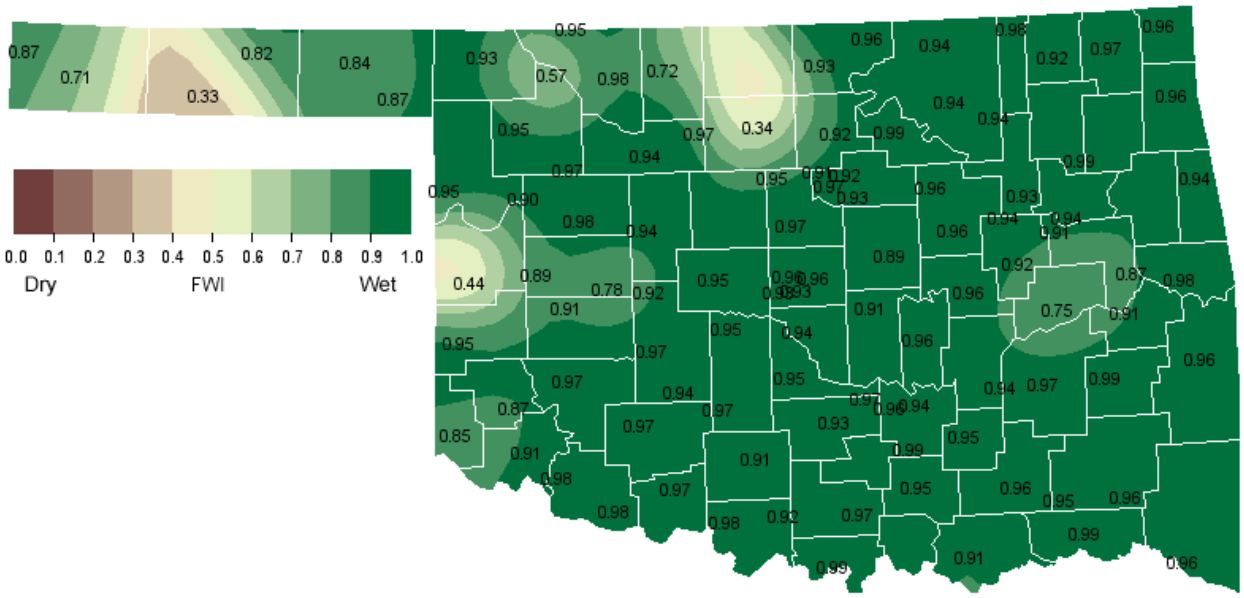
May Normal Daily Minimum Temperature (1971-2000)



May Normal Precipitation (1971-2000)



May 1, 2009 Soil Moisture Conditions at 25cm



May 2009 Drought Indices

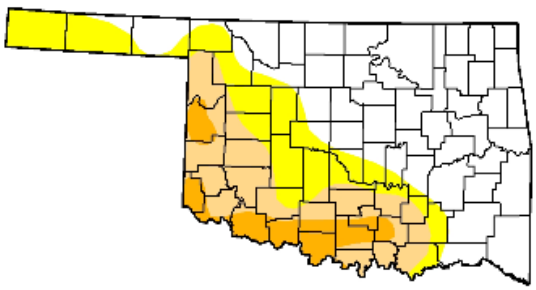
U.S. Drought Monitor

Oklahoma

April 28, 2009
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	54.0	46.0	25.2	7.6	0.0	0.0
Last Week (04/21/2009 map)	49.4	50.6	29.3	8.8	0.0	0.0
3 Months Ago (02/03/2009 map)	26.0	74.0	45.8	21.9	0.0	0.0
Start of Calendar Year (01/06/2009 map)	41.6	58.4	12.0	3.4	0.0	0.0
Start of Water Year (10/07/2008 map)	84.4	15.6	5.0	3.5	0.0	0.0
One Year Ago (04/29/2008 map)	87.8	12.2	8.6	4.9	0.0	0.0



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

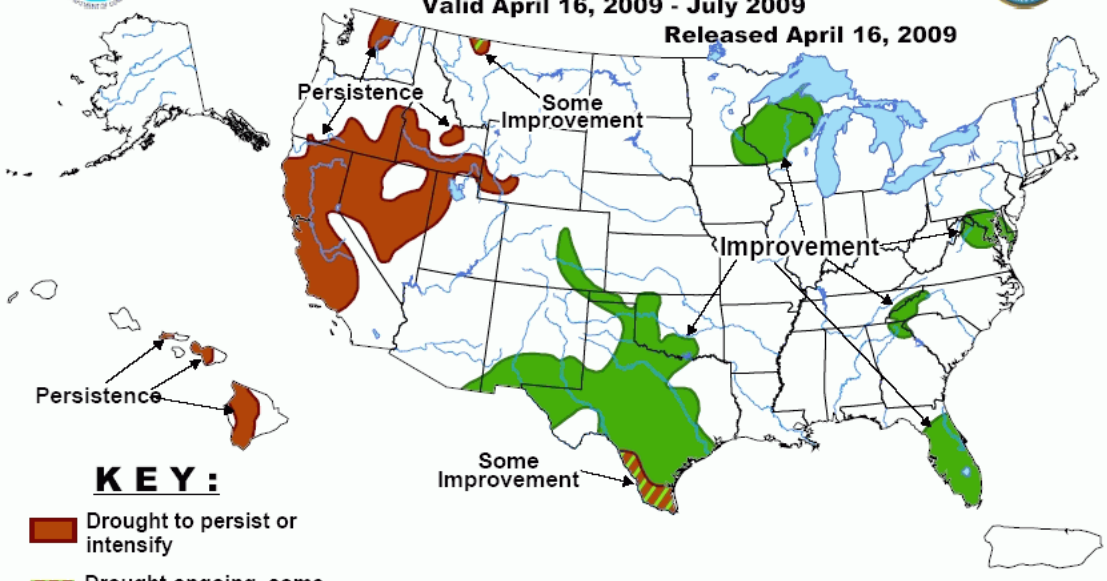
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

http://drought.unl.edu/dm

Released Thursday, April 30, 2009
Author: Brad Rippey, U.S. Department of Agriculture

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period
Valid April 16, 2009 - July 2009
Released April 16, 2009

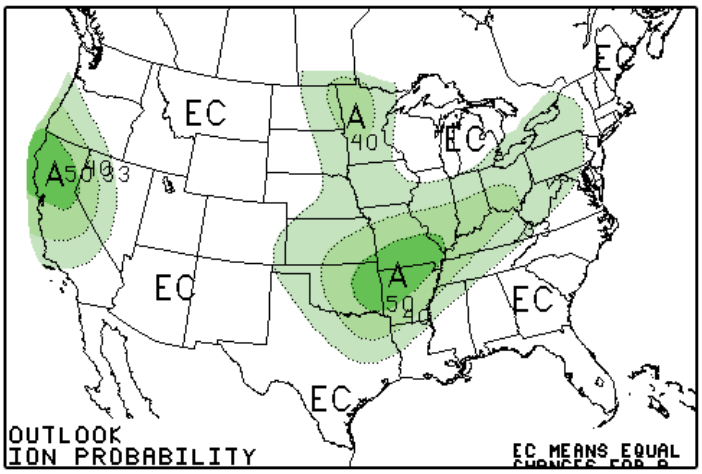


KEY:

- Drought to persist or intensify
- Drought ongoing, some improvement
- Drought likely to improve, impacts ease
- Drought development likely

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

May 2009 U.S. Precipitation Forecast



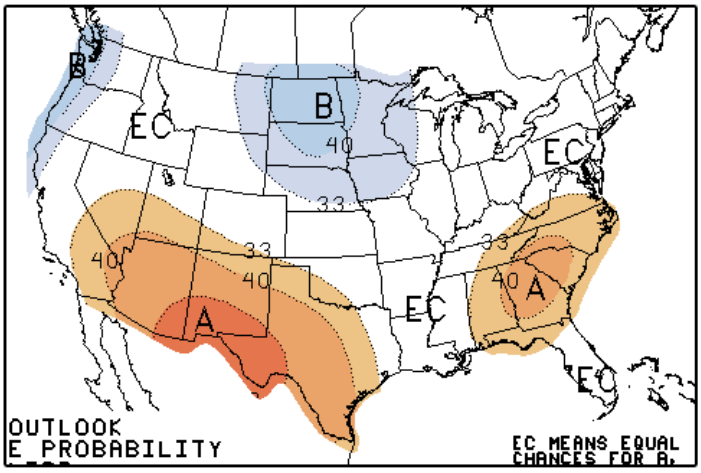
Percent Likelihood
of Above or Below
Average Precipitation*

5% - 10%
0% - 5%
A = Above

0% - 5%
5% - 10%
B = Below

*EC indicates no forecasted anomalies due to lack of model skill.

May 2009 U.S. Temperature Forecast



Percent Likelihood
of Above and Below
Average Temperatures*

10% - 20%
5% - 10%
0% - 5%
A = Above

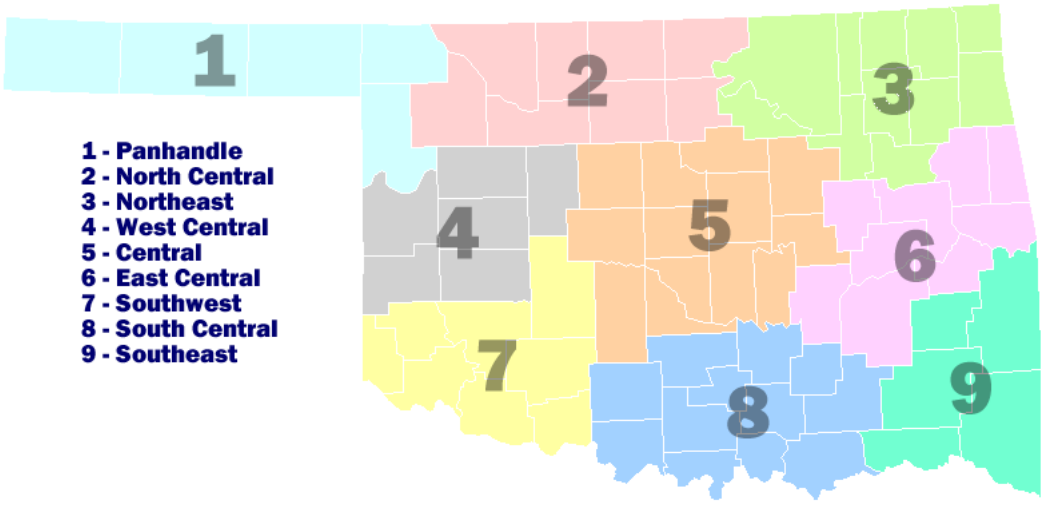
0% - 5%
5% - 10%
B = Below

*EC indicates no forecasted anomalies due to lack of model skill.

May Climate Normals

Climate Division	Max. Temperature (°F)	Min. Temperature (°F)	Avg. Temperature (°F)	Precipitation (inches)
1	78.8	50.8	64.8	3.30
2	79.1	54.9	67.0	4.68
3	78.9	56.6	67.8	5.40
4	79.5	55.0	67.3	4.64
5	79.6	57.5	68.6	5.45
6	79.2	57.8	68.5	5.77
7	81.8	56.8	69.3	4.80
8	80.8	58.8	69.8	5.52
9	80.5	57.5	69.0	6.31
Statewide	79.8	56.3	68.1	5.21

Oklahoma Climate Divisions



Interpretation Information

Mean Daily Temperature: Calculated from an average of the daily maximum and minimum temperatures. Daily averages are summed for each day, and then divided by the number of valid data points – typically the number of days in the month. Although this may differ from the "true" daily average, it is consistent with historical methods of observation and comparable to the normals and extremes for stations and regions of the state.

Degree Days: Degree Days are calculated each day of the month for which there is a temperature report and the mean temperature for the day is less than (Heating Degree Days) or greater than (Cooling Degree Days) 65 degrees. Daily values are summed to arrive at a monthly total. HDD/CDD are qualitative measures of how much heating/cooling was required to maintain a comfortable indoor temperature. Missing observations may result in an artificially high or low value.

Severe Weather Reports: Only the most significant events are listed. Tornadoes of F2 or greater strength (on the 0-5 Fujita scale), hail of two inches diameter or greater, and wind speeds of 70 miles per hour or above are listed. National Weather Service defines storms as severe when they produce a tornado, hail of three-quarters inch or greater, or wind speeds above 57 miles per hour (50 knots). For additional reports, contact the Oklahoma Climatological Survey, Storm Prediction Center, or your local National Weather Service forecast office.

Soil Moisture: The soil moisture variable displayed is the Fractional Water Index (FWI), measured at a depth of 25 cm. This unitless value ranges from very dry soil having a value of 0, to saturated soils having a value of 1.

Additional Resources

Sunrise / Sunset tables
U.S. Naval Observatory**:** http://aa.usno.navy.mil/data

Severe Storm Reports
Storm Prediction Center: http://spc.noaa.gov/climo/

National Climatic Data Center (more than about 4-5 months old):
http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwEvent~Storms

Seasonal Outlooks
Climate Prediction Center:
http://www.cpc.ncep.noaa.gov/products/OUTLOOKS_index.html

Climate Calendars and other local weather and climate information
Oklahoma Climatological Survey: http://climate.ocs.ou.edu or
http://www.ocs.ou.edu/
E-mail (ocs@ou.edu) or telephone (405/325-2541)

OKLAHOMA CLIMATOLOGICAL SURVEY

Oklahoma Climatological Survey is the State Climate Office for Oklahoma

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