Oklahoma Monthly Climate Summary

APRIL 2021

OKLAHOMA CLIMATOLOGICAL SURVEY

Cool weather helped keep severe weather at bay in Oklahoma throughout much of April. A late spring freeze—damaging in its own right—punctuated the scarcity of severe weather during the month's first three weeks. The cold eventually gave way to an emphatic exclamation point, however, when tornadoes, flooding, high winds, and a hail-borne catastrophe struck during April's final week. At least four confirmed tornadoes touched on April 28, including an EF-1 twister that struck near Pauls Valley at the stroke of midnight. The tornado damaged homes and outbuildings on at least two farms before dissipating. Two more tornadoes struck near Stilwell around 6 a.m., and another near Crowder later that morning. Heavy rains of 4-6 inches fell over a wide area from south central through east central Oklahoma, prompting flood warnings. Pauls Valley recorded over 6 inches of rain overnight on the 28th that left downtown buildings flooded and stranded motorists requiring water rescues. Despite the early fireworks, the big show came later that night. A large, solitary supercell thunderstorm began dropping quarter-size hail near Gotebo that evening. As the storm approached Grady County, the hail size increased to golf balls until growing to baseballs as it entered the Newcastle and Norman area. The storm laid a footprint of giant hail through Norman from west to east, hammering cars and damaging homes in its path. The destructive force of the hail was enhanced by winds of over 70 mph.

A hard freeze saw temperatures drop into the mid-20s over nearly the entire state April 20-21. This freeze was particularly jarring since some locations had not experienced freezing temperatures since early March. According to preliminary data from the Oklahoma Mesonet, the statewide average temperature finished at 57.2 degrees, 2.1 degrees below normal and ranked as the 22nd coolest April since records began in 1895. The state's highest temperature was 93 degrees at Beaver and Slapout on April 25. The lowest reading of 21 degrees came on April's first day at Eva in the central Panhandle. The first four months of 2021 fell on the cool side at 45.8 degrees, 1.6 degrees below normal and ranked as the 45th coolest January-April on record.

Interstate 44 was a curious dividing line between feast or famine rainfall during April. Areas to the southeast saw plenty of beneficial moisture while areas to the northwest went largely without significant rainfall. Totals to the southeast of I-44 ranged from 3-9 inches, with the Mesonet site at Sallisaw leading the state at 10.09 inches. Totals dwindled rapidly to the northwest, generally falling below an inch. The Mesonet site at Eva had the lowest tally at 0.02 inches for the month. Regionally, the Panhandle experienced its second driest April on record with an average of 0.11 inches, 1.55 inches below normal. East central Oklahoma's total of 7.47 inches was its 11th wettest, 3.24 inches above normal. The year fell on the wet side at 9.82 inches, 0.13 inches above normal and ranked as the 41st wettest January-April on record.

Drought nearly doubled during April according to the U.S. Drought Monitor, with coverage expanding from about 11 percent of Oklahoma at the end of March to 20 percent at the

April 2021 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	93°F	Beaver, Slapout	25
Low Temperature	21°F	Eva	1
High Precipitation	10.09 in.	Sallisaw	--
Low Precipitation	0.02 in.	Eva	--

April 2021 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2021)
Month (April)	57.2°F	-2.1°F	22nd Coolest
Season-to-Date (Mar-Apr)	55.5°F	0.7°F	43rd Warmest
Year-to-Date (Jan-Apr)	45.8°F	-1.6°F	45th Coolest

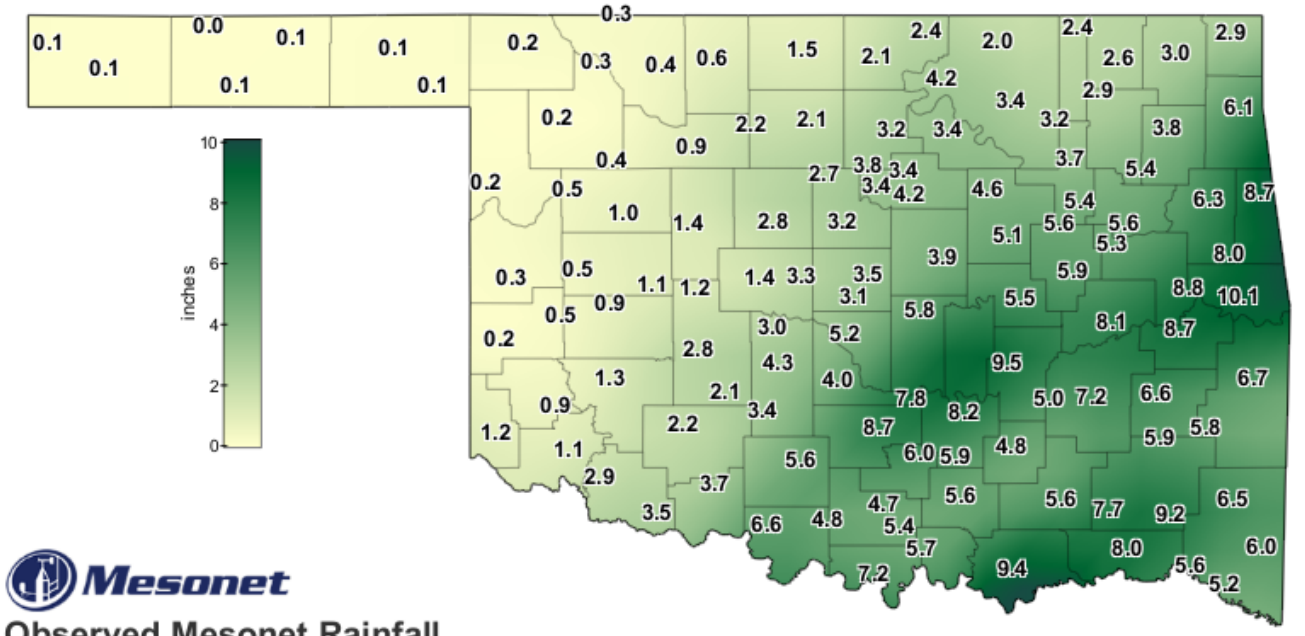
Precipitation

	Total	Depart.	Rank (1895-2021)
Month (April)	3.61 in.	0.35 in.	52nd Wettest
Season-to-Date (Mar-Apr)	6.75 in.	0.45 in.	42nd Wettest
Year-to-Date (Jan-Apr)	9.82 in.	0.13 in.	41st Wettest

Depart. = departure from 30-year normal

end of April. Much of that increase came across south central Oklahoma, where long-term deficits had been expanding since late fall 2020, and over the western third of Oklahoma with its shorter-term deficits. Longstanding drought in the western Panhandle continued unabated during April. The May temperature outlook from the Climate Prediction Center indicates increased odds for above normal temperatures for all of Oklahoma, but especially the southwestern half of the state. The precipitation outlook sees increased chances of drier than normal weather across far western Oklahoma and the Panhandle, but above normal precipitation in the far southeast. CPC's May drought outlook sees drought development as "likely" across the western one-third of the state, but drought removal or improvement across south central Oklahoma.

APRIL 2021 OBSERVED PRECIPITATION



Mesonet

Observed Mesonet Rainfall
Calendar Month to Date

Apr 1, 2021 through Apr 30, 2021
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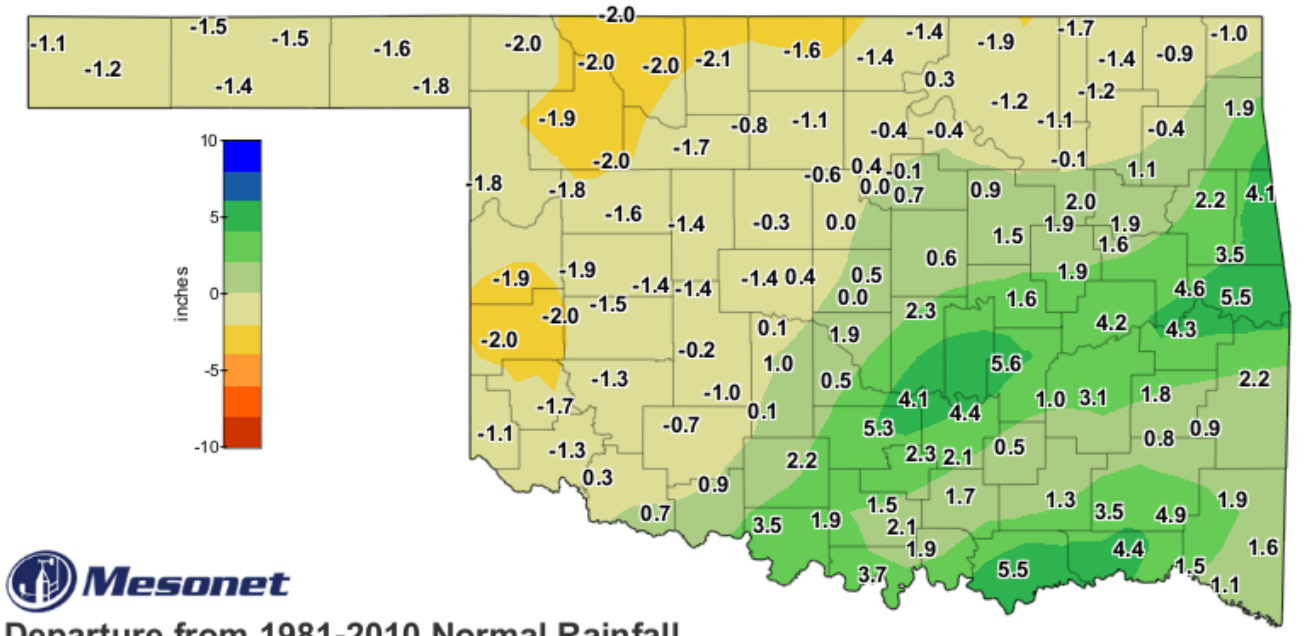
APRIL 2021 DEPARTURE FROM NORMAL PRECIPITATION



Mesonet

Departure from 1981-2010 Normal Rainfall
Calendar Month to Date

Apr 1, 2021 through Apr 30, 2021
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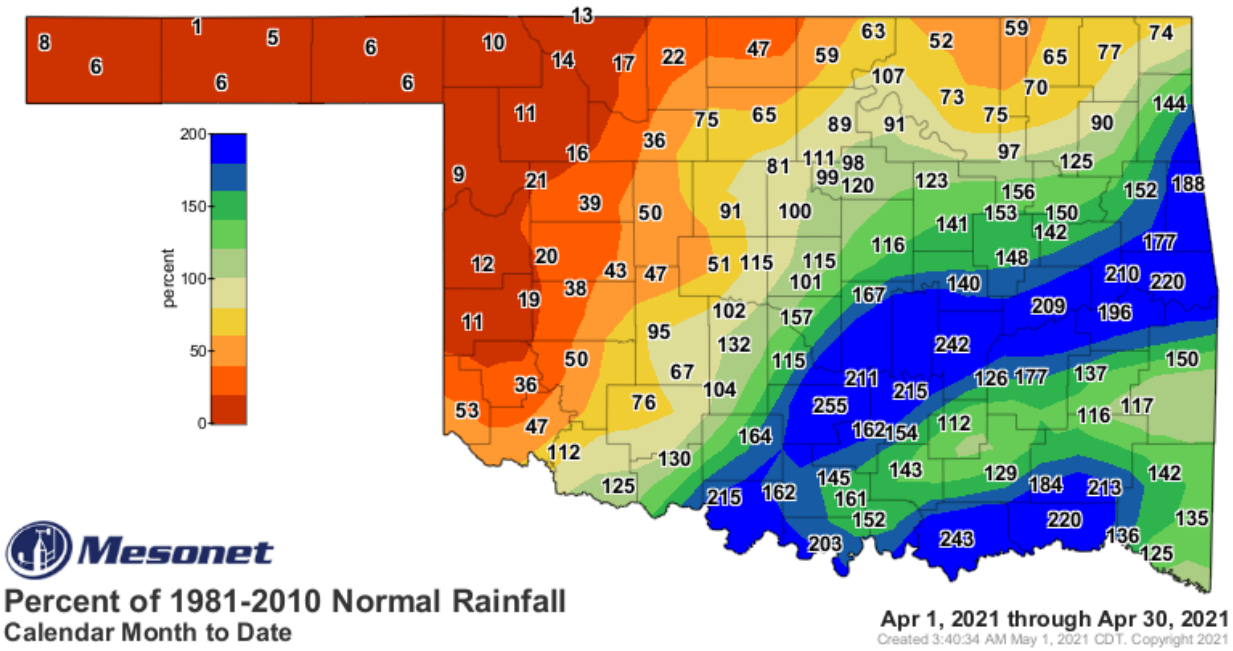
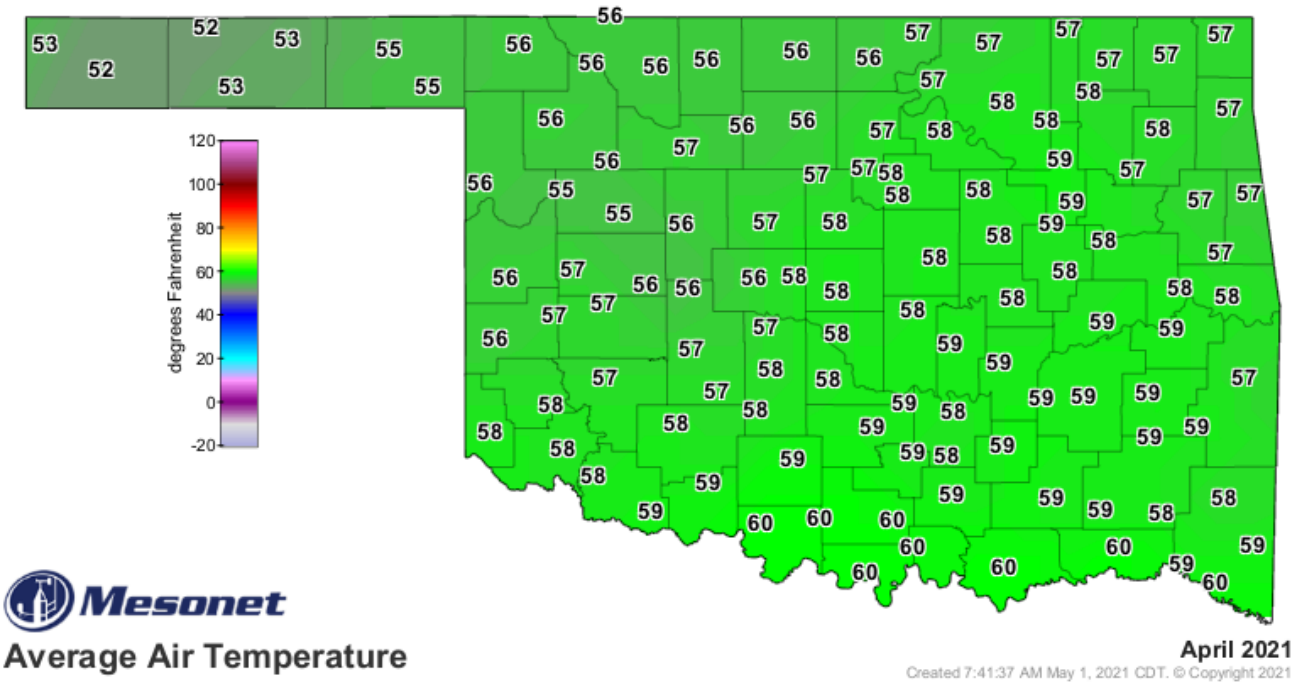
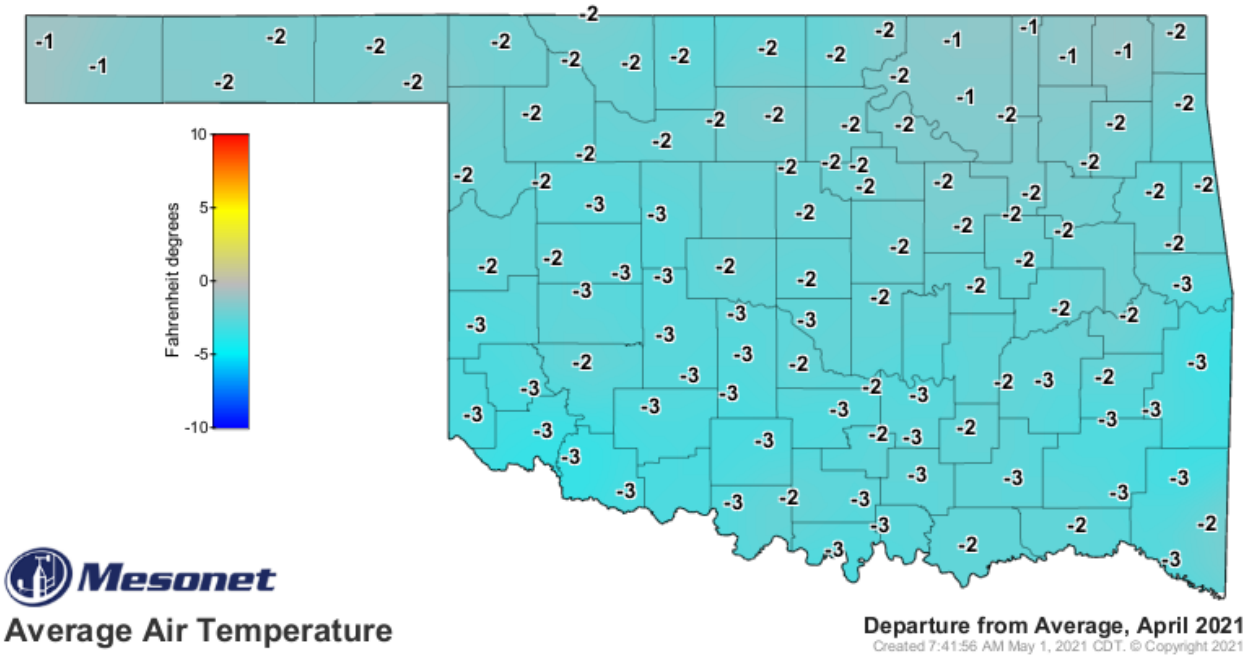
APRIL 2021 PERCENT OF NORMAL PRECIPITATION



APRIL 2021 AVERAGE TEMPERATURE



APRIL 2021 DEPARTURE FROM NORMAL TEMPERATURE

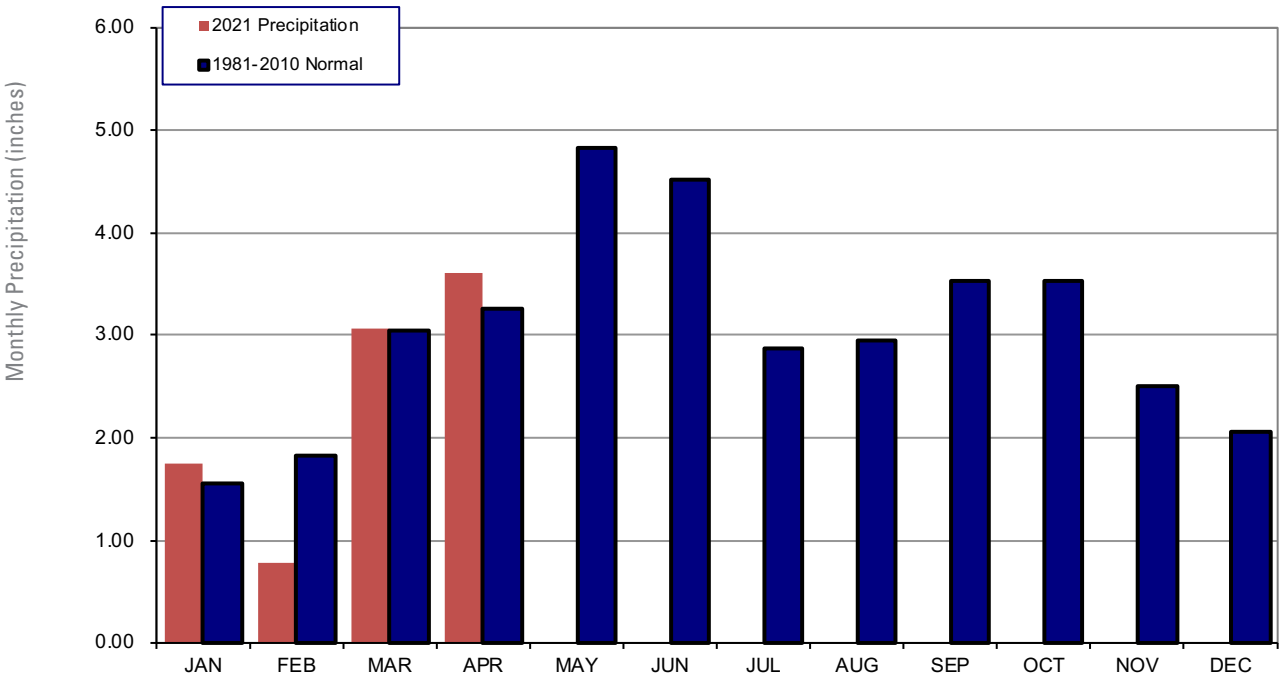


MESONET MONTHLY SUMMARY FOR APRIL 2021

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	55.9	91	25	26	21	295	23	.17	.11	16
Beaver	54.6	93	25	27	18	339	28	.11	.09	16
Boise City	51.2	89	5	24	20	418	3	.07	.05	15
Buffalo	55.7	90	25	27	1	308	30	.22	.15	16
Eva	51.7	91	25	21	1	411	11	.02	.02	16
NORTH CENTRAL										
Alva	55.6	85	26	28	21	307	25	.40	.21	16
Blackwell	56.2	83	26	27	21	284	20	2.08	.93	23
Breckinridge	56.8	83	11	28	21	269	22	2.07	1.32	23
Cherokee	55.7	83	26	28	21	301	22	.60	.30	16
Fairview	56.9	82	11	31	1	266	23	.93	.56	23
Freedom	55.5	85	27	27	21	310	24	.33	.24	16
Lahoma	55.9	81	11	27	21	290	17	2.19	1.64	23
NORTHEAST										
Bixby	58.6	85	26	29	21	216	26	5.44	1.56	28
Burbank	57.6	84	26	28	21	247	25	4.15	1.17	23
Copan	57.6	86	26	29	21	242	20	2.38	.75	9
Foraker	57.4	85	26	29	21	252	25	2.01	.74	23
Inola	57.3	85	26	27	21	249	17	5.37	2.17	28
Jay	56.4	84	26	28	21	276	19	6.09	2.85	28
Miami	56.9	84	26	29	21	263	19	2.89	1.13	9
Nowata	56.8	83	26	25	21	265	19	2.63	1.02	9
WEST CENTRAL										
Bessie	57.5	85	6	32	21	251	25	.94	.24	14
Butler	57.2	87	25	24	21	265	31	.48	.14	16
Camargo	54.7	85	11	23	21	325	16	.48	.29	23
Cheyenne	56.3	86	25	29	21	280	19	.25	.10	16
Elk City	57.2	86	25	33	21	257	23	.46	.17	14
CENTRAL										
Acme	58.0	82	11	27	21	232	21	3.40	.87	28
Bristow	57.7	83	11	25	21	244	25	5.11	1.46	23
Lake Carl Blac	57.5	84	11	28	21	252	28	3.82	1.36	9
Chandler	58.5	85	11	28	21	219	24	3.93	1.14	28
Chickasha	57.6	84	11	28	21	247	24	4.29	1.78	28
El Reno	56.6	84	11	24	21	278	28	1.44	.36	23
Guthrie	58.3	84	11	30	21	229	28	3.15	.75	23
Kingfisher	57.1	84	11	29	21	262	24	2.81	.82	23
Marena	58.0	84	11	32	21	236	26	3.39	1.02	23
Minco	57.1	81	11	29	21	254	17	3.04	.84	23
Marshall	56.9	83	11	27	21	268	25	2.68	1.68	23
EAST CENTRAL										
Cookson	57.1	82	26	26	21	250	15	8.00	3.86	28
Eufaula	58.9	81	11	29	21	206	23	8.07	4.43	28
Haskell	57.6	82	26	28	21	238	16	5.26	2.03	28
Hectorville	58.8	83	26	30	21	210	25	5.57	1.68	28
Holdenville	58.4	81	11	29	21	217	18	9.50	5.22	28
McAlester	58.4	82	11	27	21	225	26	7.15	3.30	28
Okmulgee	57.5	83	26	26	21	248	24	5.93	2.02	23
SOUTHWEST										
Altus	58.6	89	25	33	1	227	34	1.14	.31	13
Apache	57.6	82	11	30	21	243	21	2.11	.51	28
Fort Cobb	57.3	83	6	29	21	252	22	2.77	.97	28
Grandfield	59.6	86	6	33	1	200	37	3.46	1.94	27
Hinton	56.3	81	6	27	21	281	20	1.24	.28	28
Hobart	57.5	87	6	29	20	252	28	1.28	.36	15
SOUTH CENTRAL										
Ada	57.8	83	11	28	21	231	17	8.23	4.45	28
Ardmore	59.6	84	11	30	21	191	28	5.44	3.02	28
Burneyville	59.1	83	11	27	21	208	30	7.24	4.41	28
Byars	58.9	84	11	29	21	204	20	7.82	2.91	28
Centrahoma	58.8	83	11	27	21	212	24	4.77	1.58	28
Durant	59.8	82	11	30	21	182	25	9.36	3.66	23
Fittstown	57.7	81	11	26	21	236	17	5.93	2.53	28
Ketchum Ranch	58.7	84	11	30	21	215	27	5.59	2.30	27
SOUTHEAST										
Antlers	58.2	83	12	28	21	222	17	7.68	3.19	23
Broken Bow	59.0	85	12	29	21	202	21	6.00	2.51	29
Clayton	58.0	82	12	28	21	232	23	5.94	1.34	28
Cloudy	58.1	83	12	29	21	221	13	9.21	2.77	23
Hugo	59.7	83	12	31	21	176	18	8.04	2.49	29
Idabel	59.5	83	28	29	21	194	28	5.19	1.89	29

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
Goodwell	52.9	91	25	25	18	378	15	.08	.03	16
Hooker	52.8	91	26	25	18	382	15	.08	.05	16
Kenton	51.9	89	25	22	21	407	13	.09	.04	15
Slapout	55.4	93	25	30	18	310	22	.12	.11	16
May Ranch	55.8	86	26	30	21	300	25	.30	.26	16
Medford	55.6	82	11	25	21	301	19	1.46	.50	9
Newkirk	56.8	83	26	28	21	270	25	2.38	.84	28
Red Rock	57.5	83	11	28	21	248	24	3.16	1.42	28
Seiling	55.7	85	11	24	21	298	20	.39	.19	16
Woodward	56.2	87	25	29	21	289	26	.24	.19	16
Pawnee	58.3	84	11	27	21	227	27	3.36	1.22	23
Porter	58.6	83	26	28	21	213	20	5.63	2.10	28
Pryor	57.3	84	26	27	21	251	21	3.82	1.18	28
Skiatook	58.4	84	26	33	21	219	22	3.18	.86	23
Talala	57.6	85	26	27	21	238	17	2.87	1.12	9
Tulsa	59.0	85	26	33	1	208	29	3.71	.82	28
Vinita	56.7	84	26	26	21	264	15	3.01	1.26	9
Wynona	58.4	87	26	29	21	224	25	3.36	1.20	23
Erick	55.9	88	25	26	21	296	22	.24	.14	14
Putnam	55.5	82	6	29	21	300	15	1.04	.76	23
Watonga	56.2	80	11	31	21	276	14	1.37	.60	23
Weatherford	56.3	81	6	30	21	279	17	1.05	.25	23
Norman	58.3	82	11	29	21	219	19	5.19	2.09	28
Oilton	57.6	85	11	26	21	245	23	4.56	1.34	23
OKC East	58.3	84	11	29	21	223	22	3.05	.85	23
Okemah	57.7	82	11	25	21	238	20	5.50	2.07	28
Perkins	58.0	85	11	29	21	230	20	4.15	2.16	23
Seminole	58.6	84	11	29	21	215	22	7.52	2.14	28
Shawnee	58.3	83	11	28	21	222	21	5.79	2.10	28
Spencer	58.5	85	11	31	20	220	25	3.48	.85	28
Stillwater	58.3	85	11	29	21	229	28	3.44	1.17	23
Washington	58.4	84	11	30	21	220	23	4.01	1.27	23
Yukon	58.2	84	11	30	21	232	29	3.34	1.25	23
Sallisaw	57.7	83	26	27	21	231	11	10.09	5.33	28
Stigler	58.0	81	26	28	21	226	17	8.74	3.92	28
Stuart	58.8	80	11	30	21	209	23	4.96	1.80	28
Tahlequah	56.8	82	26	25	21	264	16	6.32	2.23	28
Webbers Falls	58.5	83	26	29	21	212	15	8.75	4.32	28
Westville	56.3	82	26	26	21	274	13	8.72	5.24	28
Hollis	58.7	91	6	33	18	228	38	1.22	.32	23
Mangum	57.4	89	6	23	21	260	32	.93	.22	15
Medicine Park	58.7	83	9	35	20	209	22	2.24	.56	14
Tipton	58.5	88	6	31	1	225	29	2.93	.92	27
Walters	58.9	84	11	34	21	211	28	3.74	1.69	27
Lane	58.7	82	12	26	21	211	21	5.64	2.13	28
Madill	59.3	82	11	29	21	198	25	5.67	2.63	28
Newport	59.4	83	11	30	21	193	27	4.68	2.49	28
Pauls Valley	58.7	84	11	29	21	212	24	8.68	3.94	27
Ringling	59.5	86	11	30	21	194	30	4.84	2.32	28
Sulphur	58.3	83	11	25	21	226	24	5.96	2.43	28
Tishomingo	58.2	81	11	28	21	223	20	5.55	2.28	28
Waurika	59.8	86	11	30	21	195	40	6.59	4.00	28
Mt Herman	57.4	80	12	27	21	240	13	6.51	2.09	29
Talihina	58.2	84	12	26	21	231	28	5.79	1.19	23
Valliant	59.2	83	12	29	21	201	26	5.62	1.84	29
Wilburton	58.3	81	11	28	21	224	24	6.60	2.62	28
Wister	56.7	82	12	26	21	260	12	6.73	1.52	28

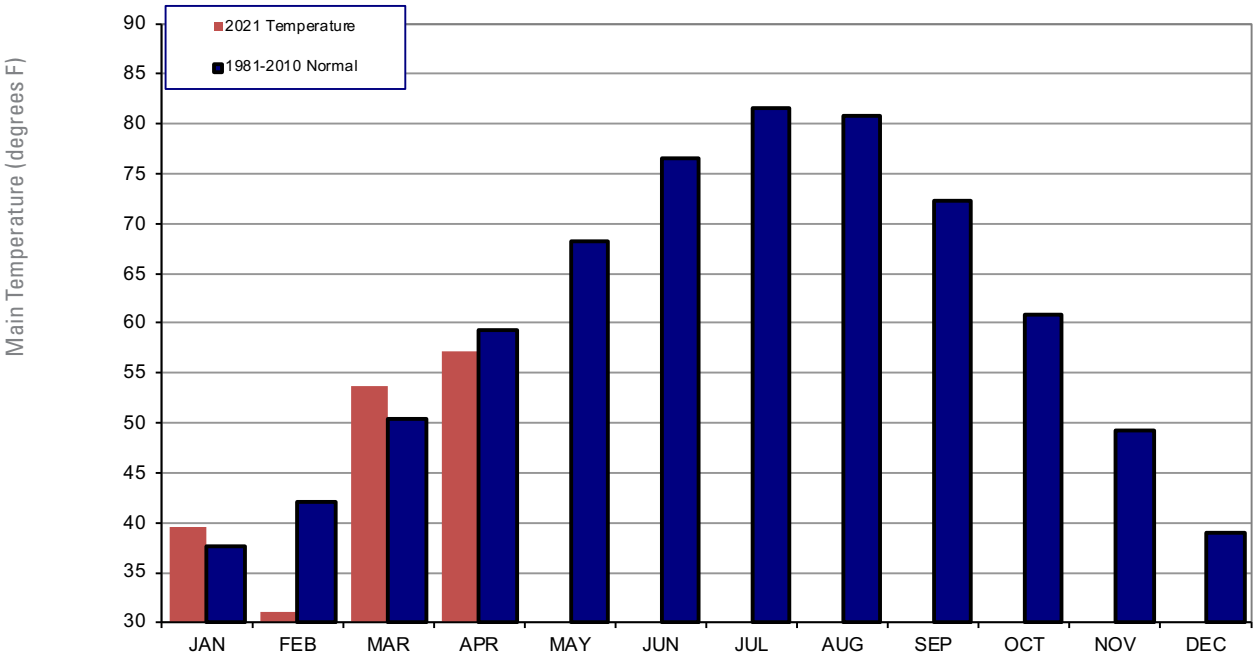
2021 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



April 2021 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Apr-20 (inches)
Panhandle	0.11	-1.55	2nd Driest	5.31 (1900)	0.02 (1935)	0.82
North Central	1.27	-1.55	20th Driest	7.14 (1999)	0.47 (2014)	1.86
Northeast	3.74	-0.33	63rd Wettest	10.82 (2017)	0.22 (1989)	4.53
West Central	0.70	-1.71	11th Driest	8.43 (1997)	0.16 (1996)	0.83
Central	3.96	0.61	45th Wettest	9.37 (1942)	0.28 (1989)	2.39
East Central	7.47	3.24	11th Wettest	11.32 (1957)	0.74 (1989)	5.04
Southwest	2.10	-0.53	54th Driest	7.53 (1997)	0.14 (1989)	1.49
South Central	6.37	2.75	16th Wettest	11.33 (1942)	0.40 (1903)	3.32
Southeast	6.66	2.18	28th Wettest	12.81 (1957)	0.80 (1987)	6.23
Statewide	3.61	0.35	52nd Wettest	8.32 (1942)	0.55 (1989)	2.92

2021 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



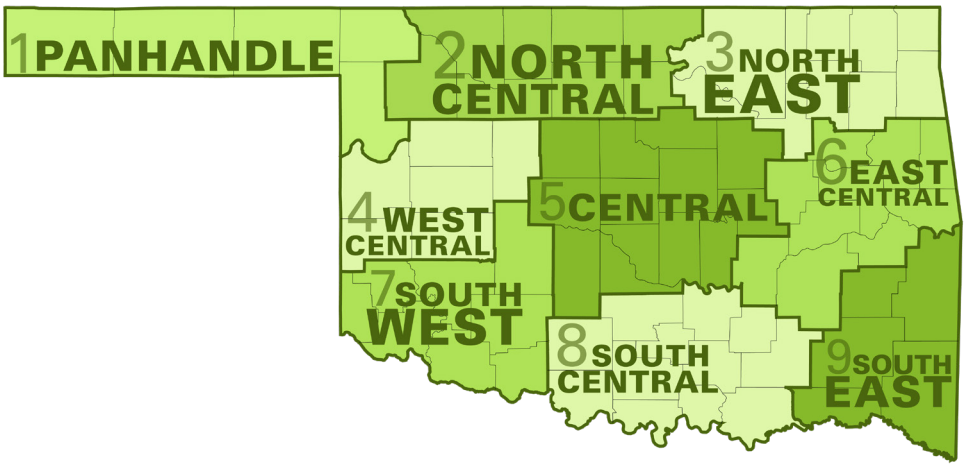
April 2021 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Apr-20 (F)
Panhandle	53.6	-1.7	31st Coolest	62.1 (1946)	48.8 (1983)	54.6
North Central	56.2	-1.5	39th Coolest	64.4 (1981)	50.4 (1983)	56.6
Northeast	57.7	-1.3	42nd Coolest	65.7 (1954)	52.5 (1983)	57.3
West Central	56.3	-2.1	29th Coolest	65.1 (2006)	52.2 (1983)	57.5
Central	57.9	-2.0	25th Coolest	66.9 (2006)	53.6 (1983)	58.4
East Central	57.9	-2.5	18th Coolest	67.8 (1896)	54.5 (1907)	58.7
Southwest	58.1	-2.5	18th Coolest	67.6 (2006)	54.9 (1997)	59.3
South Central	58.9	-2.8	13th Coolest	68.8 (1925)	56.2 (2018)	59.4
Southeast	58.4	-2.2	16th Coolest	66.7 (2006)	55.3 (1983)	59.4
Statewide	57.2	-2.1	22nd Coolest	65.8 (2006)	53.2 (1983)	57.9

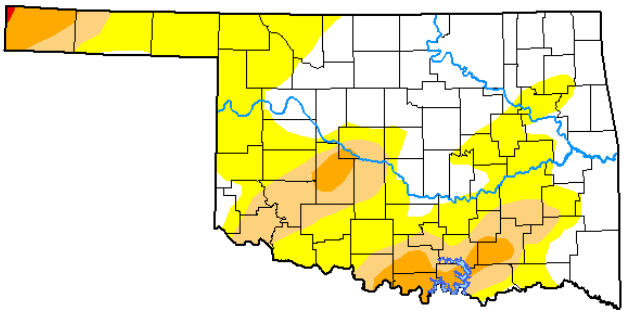
MESONET EXTREMES FOR APRIL 2021

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	93	25th	Slapout	21	1st	Eva	0.22	Buffalo	0.15	16th	Buffalo
North Central	87	25th	Woodward	24	21st	Seiling	3.16	Red Rock	1.64	23rd	Lahoma
Northeast	87	26th	Wynona	25	21st	Nowata	6.09	Jay	2.85	28th	Jay
West Central	88	25th	Erick	23	21st	Camargo	1.37	Watonga	0.76	23rd	Putnam
Central	85	11th	Stillwater	24	21st	El Reno	7.52	Seminole	2.16	23rd	Perkins
East Central	83	26th	Hectorville	25	21st	Tahlequah	10.09	Sallisaw	5.33	28th	Sallisaw
Southwest	91	6th	Hollis	23	21st	Mangum	3.74	Walters	1.94	27th	Grandfield
South Central	86	11th	Ringling	25	21st	Sulphur	9.36	Durant	4.45	28th	Ada
Southeast	85	12th	Broken Bow	26	21st	Wister	9.21	Cloudy	3.19	23rd	Antlers
Statewide	93	25th	Slapout	21	1st	Eva	10.09	Sallisaw	5.33	28th	Sallisaw

Oklahoma Climate Divisions



U.S. Drought Monitor
Oklahoma



April 27, 2021
(Released Thursday, Apr. 29, 2021)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	43.60	56.40	20.02	6.30	0.08	0.00
Last Week *04-20-2021*	49.11	50.89	21.76	6.96	0.08	0.00
3 Months Ago *01-26-2021*	75.15	24.85	10.93	4.05	0.23	0.00
Start of Calendar Year *12-29-2020*	56.83	43.17	25.21	7.75	1.45	0.00
Start of Water Year *09-29-2020*	66.79	33.21	17.71	11.97	1.55	0.00
One Year Ago *04-28-2020*	85.96	14.04	3.94	2.27	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

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droughtmonitor.unl.edu

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 November 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 November result in an artificially high or low value.

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 Centers for Environmental Information:
https://www.ncdc.noaa.gov/stormevents/

SEASONAL OUTLOOKS
Climate Prediction Center:
http://www.cpc.ncep.noaa.gov/products/OUTLOOKS_index.shtml

CLIMATE CALENDARS AND OTHER LOCAL WEATHER AND CLIMATE INFORMATION
Oklahoma Climatological Survey:
http://climate.mesonet.org or http://climate.ok.gov/

OKLAHOMA CLIMATOLOGICAL SURVEY

Oklahoma Climatological Survey is the State Climate Office for Oklahoma

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