Oklahoma Monthly Climate Summary

MARCH 2022

OKLAHOMA CLIMATOLOGICAL SURVEY

March's weather ran the gamut of nearly all the hazards Oklahoma has to offer, befitting a seasonal transition month in the Southern Plains. Winter got the first crack with a blast of arctic air during the month's second week. Temperatures plummeted and a storm system blanketed the northern half of the state with 2-3 inches of snow. The frozen weather resulted in numerous traffic accidents and closed many businesses and schools. Spring took its turn with at least three tornadoes rumbling out of Texas across Love, Marshall, and Johnston counties on March 21. The twisters produced significant damage in and around the Kingston and Lake Texoma area, destroying homes and knocking out power to nearly 10,000 customers. Several injuries were reported with the storms, and one fatality occurred across the state line in Texas. One of the tornadoes was rated as an EF2 by National Weather Service personnel that surveyed the damage. Other severe storms occurred on March 17 and 29 with scattered reports of large hail and high winds. Fire danger was a common occurrence throughout the month, a result of the continued dry conditions. Several large fires burned out of control during the last week of March, including the Washita River fire that spread from the Texas Panhandle into Roger Mills County in Oklahoma. The fire, which was still not contained at month's end, burned nearly 40,000 acres and at least eight structures. The ongoing drought was a constant backdrop to the other weather hazards. Dry conditions that began late in the summer of 2021 were somewhat alleviated by the rain and snow during March. Coverage of the drought dropped through the month from 87 percent at the end of February to 76 percent at the end of March according to the U.S. Drought Monitor. The most intense areas of drought—extreme and exceptional—dropped from 52 to 34 percent over that time.

According to preliminary data from the Oklahoma Mesonet, the statewide average precipitation total finished at 2.45 inches for the month, 0.33 inches below normal and ranked as the 60th wettest March since records began in 1895. Totals ranged from 6.73 inches at Broken Bow to 0.17 inches at Kenton. While deficits were not terribly large, generally ranging from 0.5 to 1.5 inches, they were still prevalent across much of the state. Conditions were much drier in far southwestern Oklahoma and the western Panhandle, and wetter in the northern and eastern sections of the state. Fifteen of the Mesonet's 120 sites recorded less than an inch for the month, and another 27 had less than 2 inches. Eighteen stations reported 4 inches or more. The first three months of the year were 1.42 inches below normal with a statewide average of 4.62 inches—the 45th driest January through March period on record.

Several winter intrusions inched the month to the cool side of normal. The statewide average temperature was 50 degrees, 1.2 degrees below normal and ranked as the 59th warmest March since records began in 1895. Temperatures across the state ranged from 94 degrees at Hollis on the 29th to 7 degrees at Eva on the 12th. Wind chill values dropped below zero in the Panhandle on several days, the lowest of which was Eva's minus 7 degrees on the 12th. The first three months of the year were 2.1 degrees below normal with a statewide average of 41.9 degrees, the 56th coolest such period on record.

March 2022 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	94°F	Hollis	29
Low Temperature	7°F	Eva	12
High Precipitation	6.73 in.	Broken Bow	--
Low Precipitation	0.17 in.	Kenton	--

March 2022 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2022)
Month (March)	50°F	-1.2°F	59th Warmest
Year-to-Date (Jan-Mar)	41.9°F	-2.1°F	56th Coolest

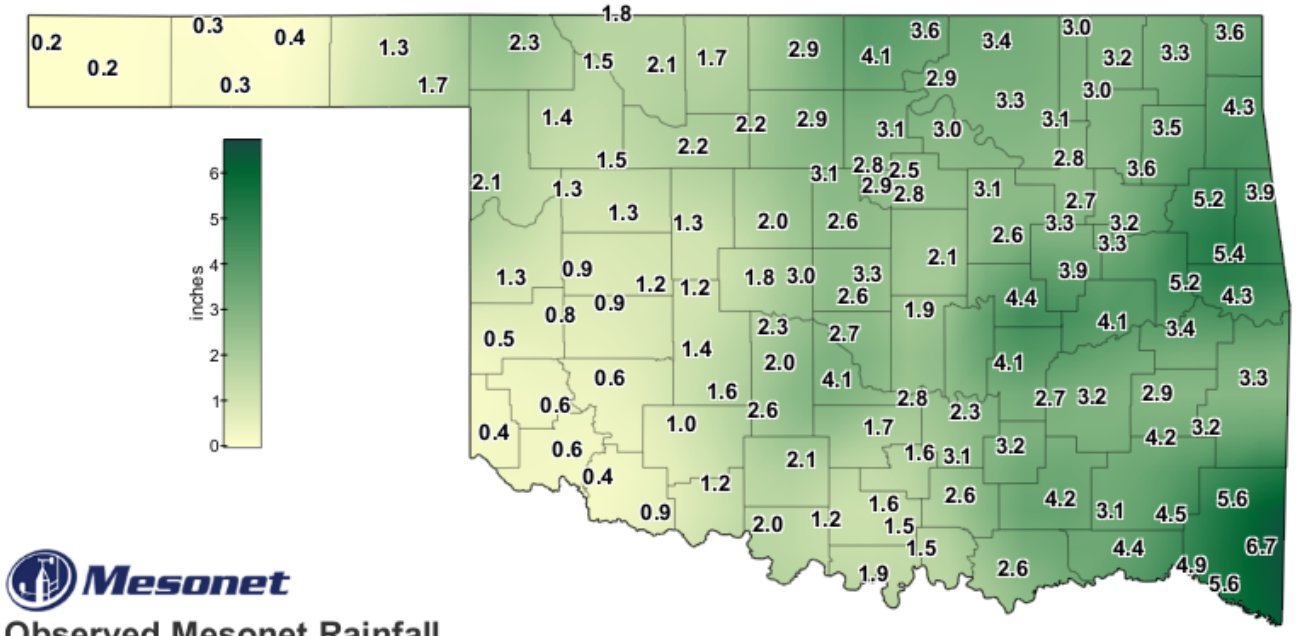
Precipitation

	Total	Depart.	Rank (1895-2022)
Month (March)	2.45 in.	-0.33 in.	60th Wettest
Year-to-Date (Jan-Mar)	4.62 in.	-1.42 in.	45th Driest

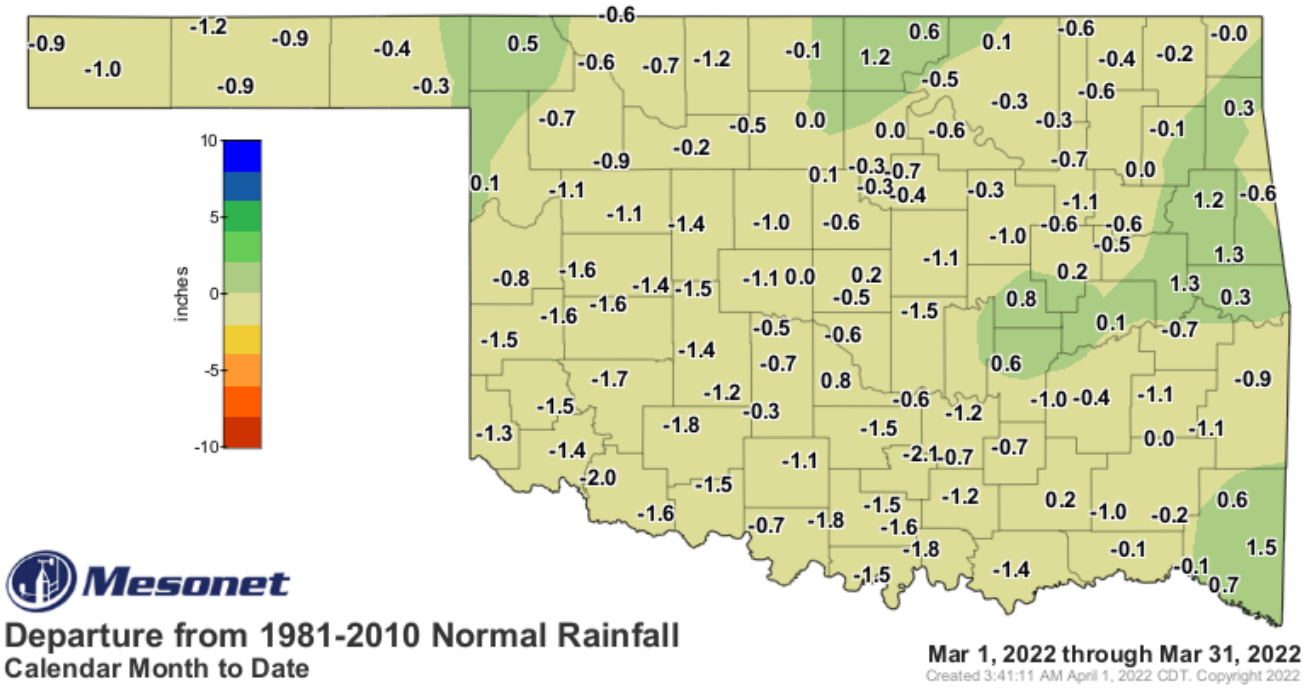
Depart. = departure from 30-year normal

The Climate Prediction Center's temperature and precipitation outlooks for April do not give much hope for drought relief through the next month. The outlooks show increased odds of above normal temperatures for the entire state, and below normal precipitation for the southwestern two-thirds of Oklahoma. Those odds are enhanced across far southwestern Oklahoma and the western Panhandle for precipitation, and again in the southwest for temperature. CPC's April drought outlook shows persistence or intensification during the month where drought already exists, but no new development is expected. The possibility of blowing dust across western Oklahoma due to the dry conditions is also mentioned.

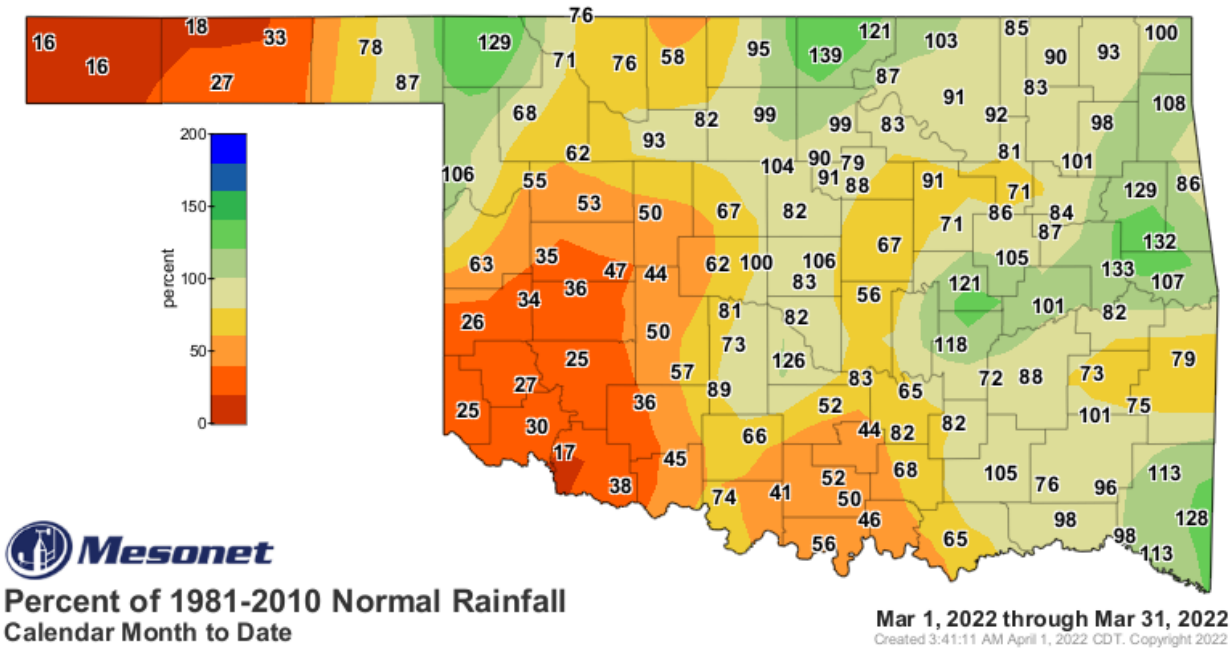
MARCH 2022 OBSERVED PRECIPITATION



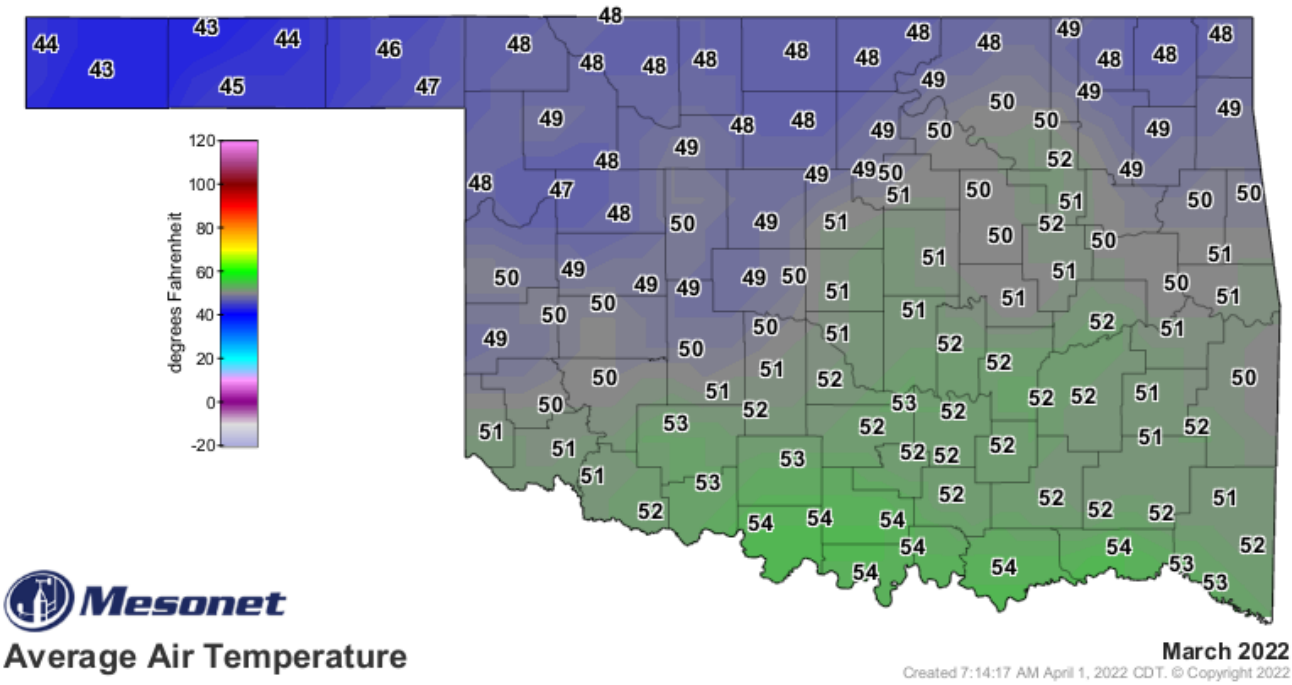
MARCH 2022 DEPARTURE FROM NORMAL PRECIPITATION



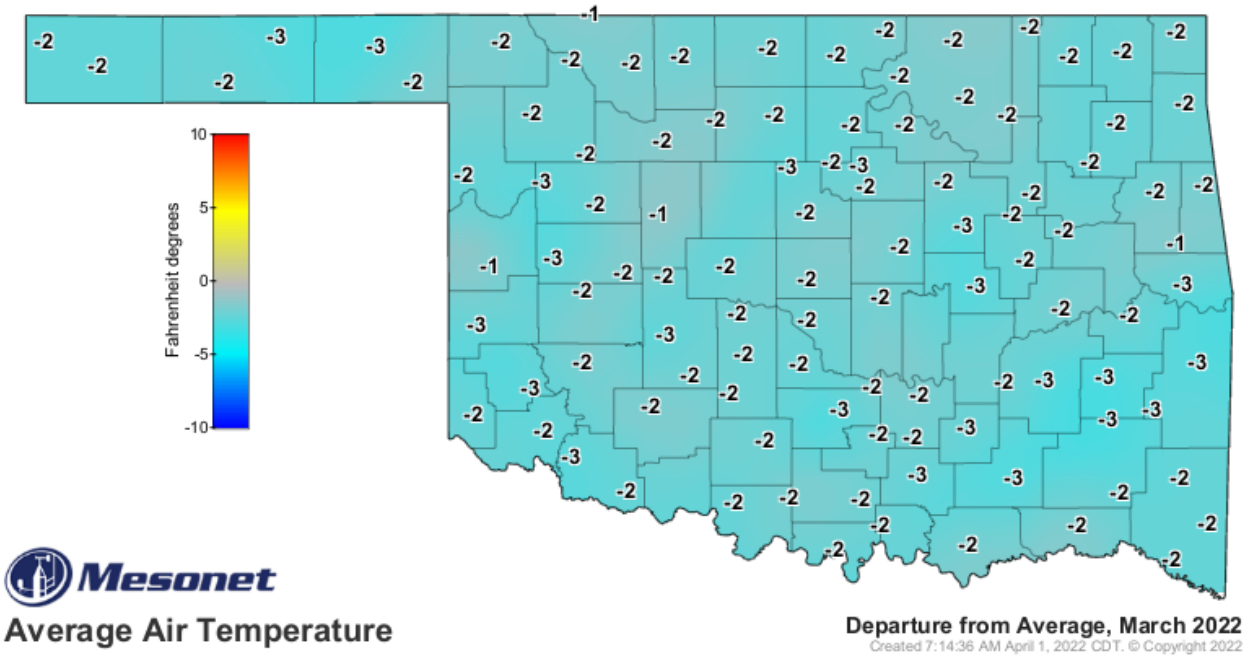
MARCH 2022 PERCENT OF NORMAL PRECIPITATION



MARCH 2022 AVERAGE TEMPERATURE



MARCH 2022 DEPARTURE FROM NORMAL TEMPERATURE

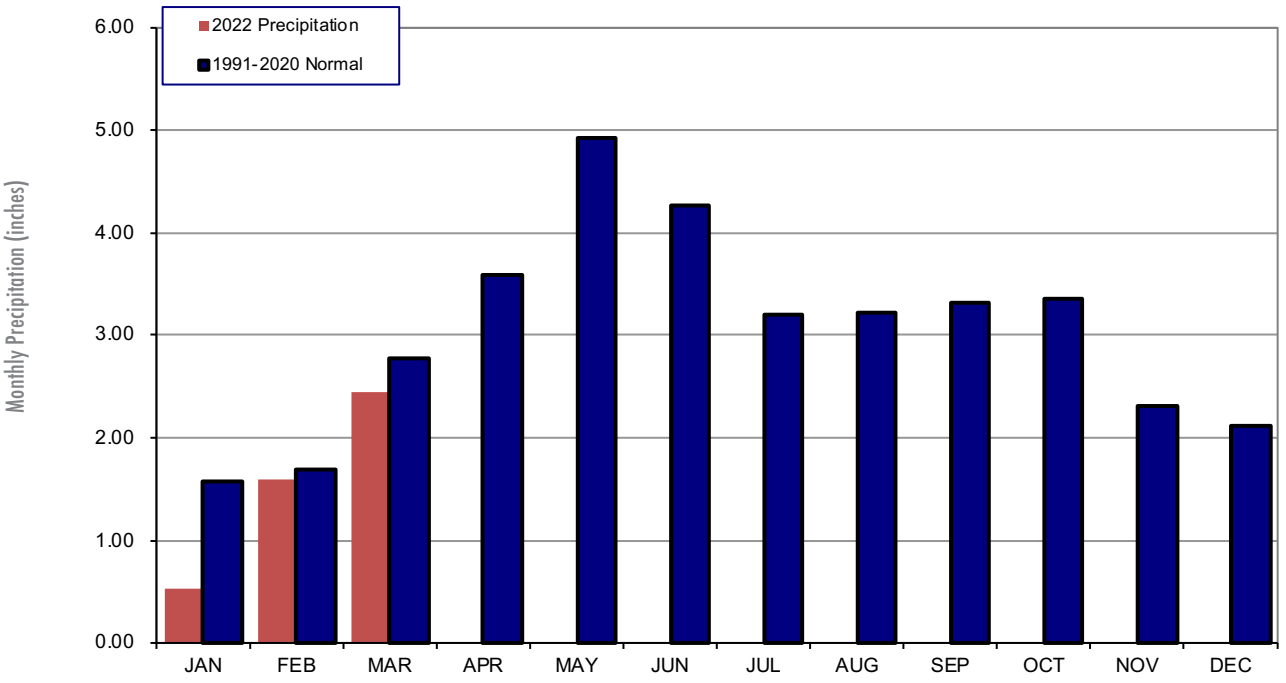


MESONET MONTHLY SUMMARY FOR MARCH 2022

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	48.0	88	29	14	12	534	7	2.08	1.11	21
Beaver	46.0	83	29	9	12	591	2	1.32	.77	21
Boise City	43.4	85	28	12	10	669	0	.19	.09	21
Buffalo	47.7	87	29	16	12	541	3	2.34	1.23	21
Eva	43.3	86	28	7	12	672	0	.26	.16	21
NORTH CENTRAL										
Alva	48.3	86	29	16	12	527	8	2.05	1.09	21
Blackwell	47.9	83	5	14	12	534	4	4.12	1.85	21
Breckinridge	48.4	81	29	12	12	522	7	2.91	1.48	21
Cherokee	48.3	84	29	16	12	525	7	1.66	.84	21
Fairview	49.4	84	29	16	12	487	4	2.16	.93	21
Freedom	48.0	87	29	13	12	534	8	1.52	.79	21
Lahoma	48.5	82	29	16	12	515	5	2.21	1.06	21
NORTHEAST										
Bixby	50.8	81	3	15	12	446	7	2.67	1.10	21
Burbank	48.8	83	29	13	12	508	5	2.94	1.47	21
Copan	48.8	82	2	15	12	506	4	3.03	1.70	21
Foraker	48.6	83	2	14	12	513	5	3.42	2.34	21
Inola	49.6	80	3	16	12	482	4	3.57	1.51	30
Jay	48.9	80	3	16	12	501	2	4.32	1.73	21
Miami	48.5	79	17	15	12	517	4	3.61	1.24	21
Nowata	47.9	81	2	16	12	534	5	3.22	1.86	21
WEST CENTRAL										
Bessie	50.3	84	29	18	7	463	9	.89	.78	21
Butler	48.9	86	29	14	12	509	10	.87	.57	21
Camargo	47.4	86	29	14	12	554	8	1.30	.86	21
Cheyenne	50.2	89	29	19	11	469	10	1.31	1.04	21
Elk City	50.2	87	29	20	11	467	8	.80	.64	21
CENTRAL										
Acme	51.8	84	28	15	12	417	7	2.55	1.56	21
Bristow	49.9	82	5	9	12	475	8	2.56	1.38	21
Lake Carl Blac	48.6	83	28	11	12	517	9	2.79	1.82	21
Chandler	51.5	83	5	14	12	424	6	2.14	1.08	21
Chickasha	16.9	84	28	***	10	436	7	2.01	1.83	21
El Reno	48.9	84	28	15	12	506	7	1.78	1.35	21
Guthrie	51.1	83	28	16	12	437	7	2.62	1.66	21
Kingfisher	49.0	83	28	11	12	504	8	1.96	1.40	21
Marena	50.4	83	28	15	12	460	9	2.86	1.97	21
Minco	50.9	83	28	22	11	444	5	2.28	1.97	21
Marshall	49.1	82	29	12	12	503	8	3.08	1.95	21
EAST CENTRAL										
Cookson	50.7	77	3	17	12	444	1	5.42	2.12	30
Eufaula	52.6	77	3	21	12	395	10	4.07	1.79	21
Haskell	50.6	80	3	13	12	453	6	3.25	1.28	21
Hectorville	52.3	81	3	19	12	401	8	3.25	1.22	21
Holdenville	52.3	80	28	19	12	403	9	4.09	1.92	21
McAlester	51.7	79	29	13	12	425	14	3.24	1.97	21
Okmulgee	50.8	80	3	11	12	454	13	3.87	1.67	21
SOUTHWEST										
Altus	51.5	90	29	16	12	431	12	.59	.52	21
Apache	51.5	84	28	21	12	425	5	1.55	1.33	21
Fort Cobb	50.4	84	28	18	12	459	7	1.37	.80	21
Grandfield	52.5	89	28	14	12	398	9	.94	.61	21
Hinton	49.7	83	28	18	12	481	6	1.17	.88	21
Hobart	50.7	87	28	13	12	****	****	.57	.49	21
SOUTH CENTRAL										
Ada	52.3	82	5	16	12	406	11	2.27	1.18	21
Ardmore	54.1	84	27	19	12	354	16	1.53	.63	30
Burneyville	53.2	86	27	15	12	384	18	1.93	.89	21
Byars	53.4	83	5	19	12	371	12	2.82	1.05	21
Centrahoma	52.1	82	28	16	12	415	14	3.23	1.96	21
Durant	54.2	83	27	22	12	348	14	2.61	1.21	21
Fittstown	52.5	81	28	18	12	400	11	3.09	1.88	21
Ketchum Ranch	53.2	85	27	17	12	379	12	2.06	1.60	21
SOUTHEAST										
Antlers	51.3	83	28	16	12	430	6	3.11	1.38	21
Broken Bow	51.9	79	20	21	12	****	****	6.73	1.82	21
Clayton	51.3	79	3	18	12	431	7	4.21	2.26	21
Cloudy	51.7	80	28	20	12	416	3	4.51	1.81	30
Hugo	53.8	82	28	22	12	355	8	4.38	2.34	21
Idabel	53.0	80	28	21	12	377	5	5.64	2.09	21

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
Goodwell	45.4	89	28	12	7	607	0	.31	.22	21
Hooker	44.6	83	3	11	12	632	0	.44	.20	21
Kenton	43.6	84	28	12	10	664	0	.17	.09	22
Slapout	47.0	85	29	17	12	560	2	1.73	.83	21
May Ranch	48.3	85	29	15	12	523	4	1.81	.87	21
Medford	47.7	81	29	15	12	539	3	2.93	1.16	21
Newkirk	48.3	81	29	15	12	520	2	3.63	1.50	21
Red Rock	49.2	82	28	13	12	499	9	3.14	1.81	21
Seiling	48.2	83	16	13	12	531	8	1.45	1.01	21
Woodward	49.1	89	29	19	7	502	9	1.44	.88	21
Pawnee	49.9	82	29	15	12	476	9	2.96	2.02	21
Porter	51.4	80	17	18	12	427	7	3.16	1.26	21
Pryor	49.0	79	17	16	12	499	4	3.46	1.48	21
Skiatook	50.6	80	2	19	12	453	5	3.08	1.39	21
Talala	49.2	81	2	16	12	495	5	2.98	1.78	21
Tulsa	51.7	81	5	20	12	419	7	2.75	1.52	21
Vinita	47.7	80	2	13	12	538	3	3.26	1.30	21
Wynona	49.9	83	29	16	12	476	7	3.31	2.14	21
Erick	49.1	92	29	12	12	504	11	.52	.42	21
Putnam	48.9	82	29	17	12	507	7	1.26	.93	21
Watonga	50.1	81	28	20	12	469	7	1.34	1.05	21
Weatherford	49.9	81	29	18	12	477	7	1.21	1.02	21
Norman	51.6	84	28	17	12	423	6	2.65	2.03	21
Oilton	49.9	82	5	13	12	474	7	3.09	1.54	21
OKC East	51.1	84	28	15	12	437	7	2.57	2.21	21
Okemah	50.5	81	5	12	12	459	8	4.36	1.86	21
Perkins	17.1	81	28	***	10	431	8	2.78	1.48	21
Seminole	51.8	83	5	17	12	419	10	3.21	.95	21
Shawnee	51.6	81	28	17	12	419	5	1.91	.99	21
Spencer	52.0	83	28	18	12	411	8	3.28	2.64	21
Stillwater	49.7	82	29	14	12	482	9	2.48	1.69	21
Washington	51.8	84	28	21	9	415	6	4.08	2.25	21
Yukon	50.6	84	28	17	12	452	7	3.01	2.01	21
Sallisaw	50.7	79	20	19	12	445	0	4.33	1.87	21
Stigler	51.3	79	28	21	12	428	4	3.36	1.86	21
Stuart	52.8	79	28	21	12	390	10	2.71	1.36	21
Tahlequah	49.8	79	3	11	12	474	4	5.23	2.14	21
Webbers Falls	49.7	78	3	20	12	474	1	5.23	2.25	21
Westville	50.0	78	3	14	12	466	0	3.85	1.41	21
Hollis	51.1	94	29	14	12	442	12	.42	.36	21
Mangum	49.9	89	29	13	12	478	11	.55	.46	21
Medicine Park	53.1	85	28	23	11	380	10	1.01	.90	21
Tipton	51.9	90	28	15	12	418	12	.39	.35	21
Walters	52.9	86	28	19	12	386	12	1.19	1.10	21
Lane	52.0	81	28	20	12	412	9	4.19	2.92	21
Madill	53.4	83	27	18	12	372	14	1.54	.98	21
Newport	54.5	85	27	21	12	343	18	1.56	.52	21
Pauls Valley	52.7	83	28	17	12	393	11	1.67	.65	21
Ringling	54.1	86	27	17	12	356	19	1.23	.60	21
Sulphur	51.9	83	5	12	12	419	14	1.59	.57	21
Tishomingo	51.9	82	28	21	9	415	10	2.64	1.84	21
Waurika	54.0	89	27	16	12	365	22	2.00	1.80	21
Mt Herman	50.9	76	3	18	12	440	3	5.56	2.21	30
Talihina	51.3	79	3	17	12	432	7	3.17	1.08	21
Valliant	52.4	80	28	19	12	395	5	4.88	1.66	30
Wilburton	51.3	79	20	16	12	435	9	2.90	1.58	21
Wister	49.9	80	3	17	12	468	1	3.27	1.08	21

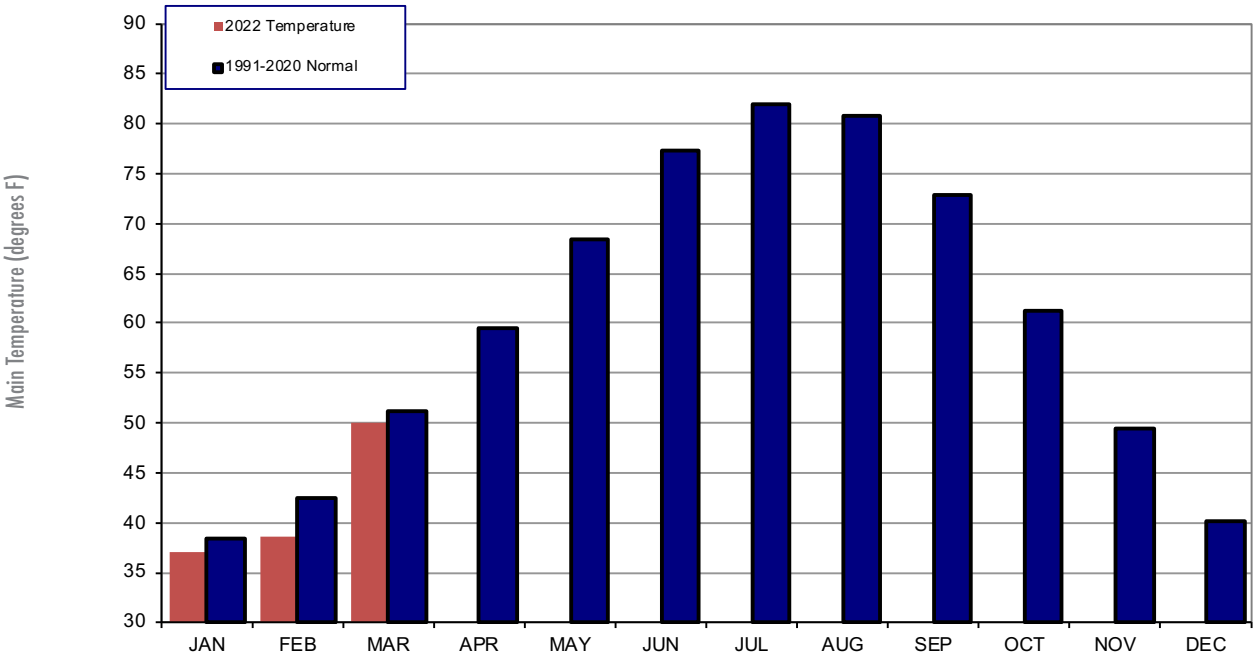
2022 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



March 2022 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Mar-21 (inches)
Panhandle	0.98	-0.32	63rd Wettest	5.66 (1973)	0.01 (1936)	2.97
North Central	2.39	0.14	35th Wettest	8.27 (1973)	0.00 (1936)	4.14
Northeast	3.23	0.03	45th Wettest	9.33 (1973)	0.33 (1971)	4.66
West Central	1.06	-0.92	47th Driest	6.76 (1973)	0.00 (1971)	3.44
Central	2.73	-0.01	49th Wettest	7.45 (1990)	0.10 (1971)	2.56
East Central	3.99	0.26	41st Wettest	10.02 (1945)	0.52 (1941)	2.97
Southwest	0.89	-1.23	34th Driest	5.61 (1973)	0.00 (1940)	1.70
South Central	2.25	-1.03	48th Driest	8.15 (1945)	0.28 (1950)	2.36
Southeast	4.40	-0.16	47th Wettest	12.50 (1945)	0.96 (2011)	4.07
Statewide	2.45	-0.33	60th Wettest	7.43 (1973)	0.39 (1971)	3.19

2022 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



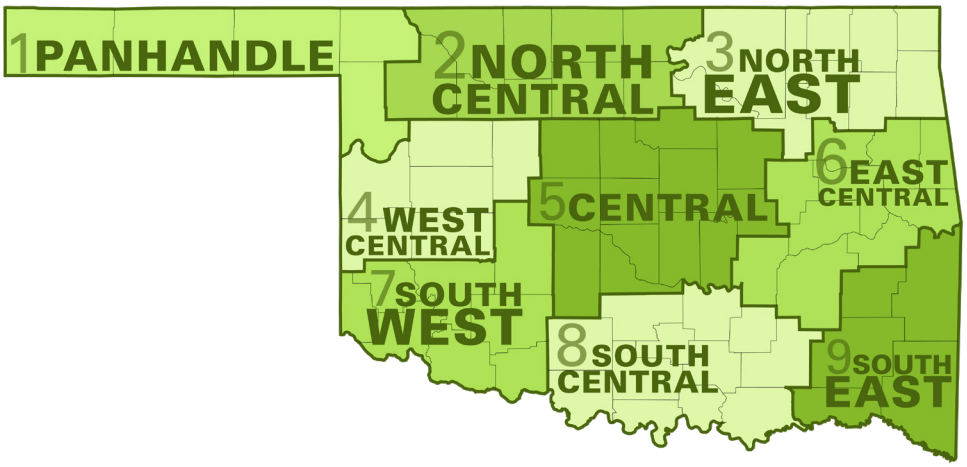
March 2022 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Mar-21 (F)
Panhandle	45.5	-1.9	63rd Warmest	55.4 (2012)	34.1 (1958)	47.8
North Central	48.4	-0.8	55th Warmest	58.5 (2012)	36.0 (1915)	52.1
Northeast	49.5	-0.6	60th Warmest	59.7 (2012)	36.9 (1960)	53.4
West Central	49.5	-0.9	55th Warmest	58.3 (1907)	37.2 (1915)	53
Central	50.5	-1.2	60th Warmest	60.7 (2012)	38.6 (1915)	54.8
East Central	51.2	-1.0	61st Warmest	61.2 (2012)	39.8 (1915)	55.6
Southwest	51.2	-1.7	63rd Warmest	61.4 (1907)	40.6 (1915)	55.1
South Central	53.1	-0.9	59th Warmest	62.1 (1907)	41.6 (1915)	57.4
Southeast	51.6	-1.4	60th Coolest	62.0 (1907)	40.3 (1915)	56.4
Statewide	50.0	-1.2	59th Warmest	59.6 (2012)	38.5 (1915)	53.9

MESONET EXTREMES FOR MARCH 2022

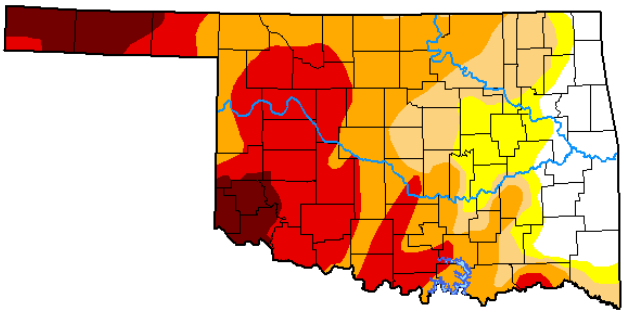
Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	89	28th	Goodwell	7	12th	Eva	2.34	Buffalo	1.23	21st	Buffalo
North Central	89	29th	Woodward	12	12th	Breckinridge	4.12	Blackwell	1.85	21st	Blackwell
Northeast	83	29th	Wynona	13	12th	Vinita	4.32	Jay	2.34	21st	Foraker
West Central	92	29th	Erick	12	12th	Erick	1.34	Watonga	1.05	21st	Watonga
Central	84	28th	Washington	9	12th	Bristow	4.36	Okemah	2.64	21st	Spencer
East Central	81	3rd	Hectorville	11	12th	Okmulgee	5.42	Cookson	2.25	21st	Webbers Falls
Southwest	94	29th	Hollis	13	12th	Hobart	1.55	Apache	1.33	21st	Apache
South Central	89	27th	Waurika	12	12th	Sulphur	4.19	Lane	2.92	21st	Lane
Southeast	83	28th	Antlers	16	12th	Wilburton	6.73	Broken Bow	2.34	21st	Hugo
Statewide	94	29th	Hollis	7	12th	Eva	6.73	Broken Bow	2.92	21st	Lane

Oklahoma Climate Divisions



U.S. Drought Monitor

Oklahoma



March 29, 2022

(Released Thursday, Mar. 31, 2022)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	13.76	86.24	76.49	63.34	33.90	8.32
Last Week 03-22-2022	12.94	87.06	77.01	64.10	33.90	7.81
3 Months Ago 12-28-2021	4.92	95.08	90.17	72.51	22.62	0.00
Start of Calendar Year 01-04-2022	5.02	94.98	88.14	72.26	40.44	0.00
Start of Water Year 09-28-2021	6.45	93.55	73.23	23.72	2.65	0.00
One Year Ago 03-30-2021	63.05	36.95	10.71	3.42	0.08	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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