

November’s weather was somewhat tame by Oklahoma’s standards, with cold weather dominating the headlines. Several intrusions of arctic air blasted the country during November, and Oklahoma caught the edges of the frigid weather each time. Along with that cold came a mostly dry month across a droughty western Oklahoma. Heavy rains fell across the eastern half. There was a bit of snow across far northern Oklahoma – totals of 2-4 inches were observed in the Panhandle. A couple of thunderstorms in the east managed to exceed severe limits during the month’s final two days; wind and hail being the main threats.

An outbreak of wildfires occurred on Nov. 26 when a strong storm system moved through the state, kicking winds up to over 60mph. Interacting with low humidity and temperatures in the 70s and 80s, those winds allowed fires to spread rapidly, prompting evacuations and widescale emergency response efforts. In addition, more than 15,000 residences

the western half was left mostly dry. Totals ranged from 4-6 inches across the east. The western half received 1-2 inches in general, but north central and northwestern sections saw less than an inch. The statewide average was 2.55 inches, 0.04 inches above normal to rank as the 45th wettest November on record. Mt. Herman led all Mesonet sites with 7.79 inches. Eva received 0.36 inches for the lowest total. The fall season matched November’s pattern; it was generally dry across western Oklahoma and exceedingly wet across the east. The September-November statewide average was 10.04 inches, 0.46 inches above normal to rank the 41st wettest fall on record. The year continues on pace to be one of the top 10 wettest in state history. The January-November statewide average of 43.84 inches ranked as the seventh wettest on record with a surplus of 9.4 inches, and is already the eighth wettest calendar year on record. Northeastern Oklahoma shattered its annual record total with

November 2019 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	81°F	Buffalo, Waurika	9, 19
Low Temperature	-4°F	Eva	12
High Precipitation	7.79 in.	Mt. Herman	--
Low Precipitation	0.36 in.	Eva	--

and businesses were without power due to the high winds.

According to preliminary data from the Oklahoma Mesonet, the statewide average temperature was 46.4 degrees, the 38th coolest November since records began in 1895. The highest recorded temperature of 81 degrees occurred twice – at Buffalo on the ninth and Waurika on the 19th. The Mesonet site at Eva fell to minus 4 degrees on the 12th for the lowest temperature of the month. The wind chill dropped below zero 39 times at the Mesonet’s 120 sites, with Eva’s minus 17 degrees on the 12th setting the low mark. The climatological fall (September-November) ended as the 53rd warmest on record, 0.4 degrees above normal. The first 11 months of the year were 0.3 degrees below normal, the 57th coolest January-November on record.

As has been the case in recent months, the heaviest precipitation fell across eastern portions of the state while

November 2019 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2019)
Month (November)	46.4°F	-2.9°F	38th Coolest
Season-to-Date (Sept-Nov)	61.3°F	0.4°F	53rd Warmest
Year-to-Date (Jan-Nov)	61.6°F	-0.3°F	57th Coolest

Precipitation

	Total	Depart.	Rank (1895-2019)
Month (November)	2.55 in.	0.04 in.	45th Wettest
Season-to-Date (Sept-Nov)	10.04	0.46 in.	41st Wettest
Year-to-Date (Jan-Nov)	43.84 in.	9.40 in.	7th Wettest

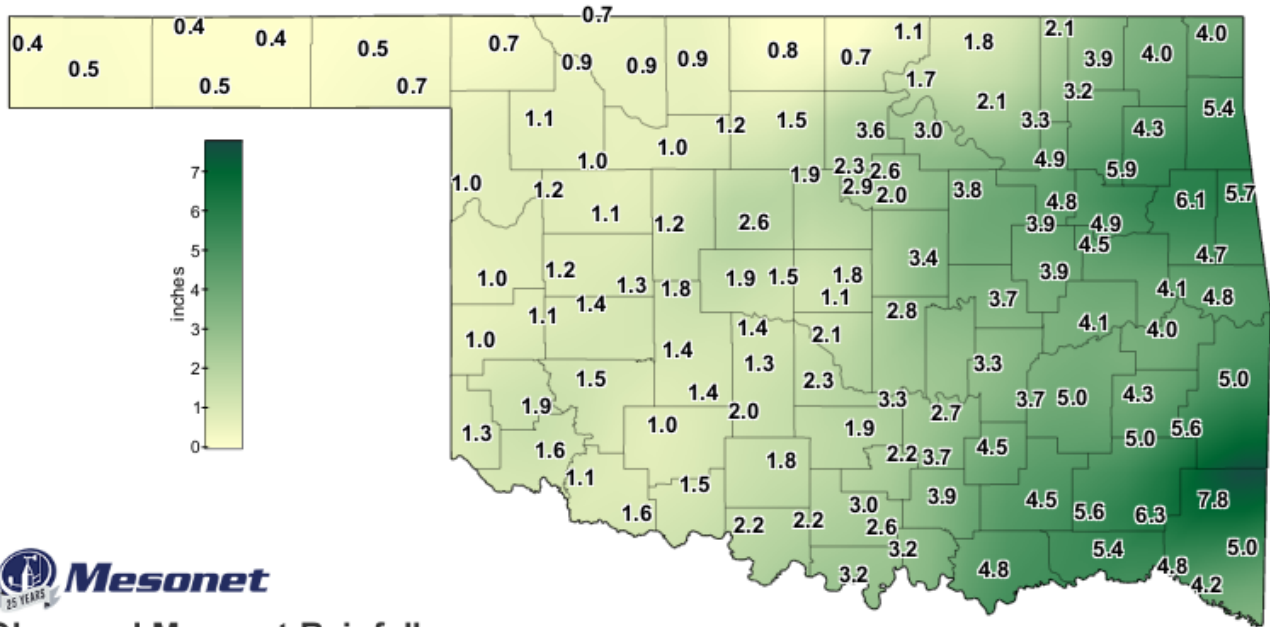
Depart. = departure from 30-year normal

a month to spare. That area’s average January-November total was 61.65 inches, 21.33 inches above normal. The previous record annual total was 57.82 inches from 1973.

Given the ongoing dry weather across western Oklahoma, drought managed to increase and intensify during November. Drought coverage increased from 8% at the end of October

to 13% at the end of November according to the U.S. Drought Monitor. The area in severe drought increased from 1% to 4%, predominantly in the western Panhandle. The main feature of the December temperature and precipitation outlooks from the Climate Prediction Center (CPC) was greatly increased odds of above normal temperatures across the Southern Plains – including Oklahoma. The precipitation outlook called for equal chances of above-, below- and near-normal moisture in the state. CPC’s December drought outlook indicated persistence of drought in those areas where it was noted in November’s final Drought Monitor map.

NOVEMBER 2019 OBSERVED PRECIPITATION

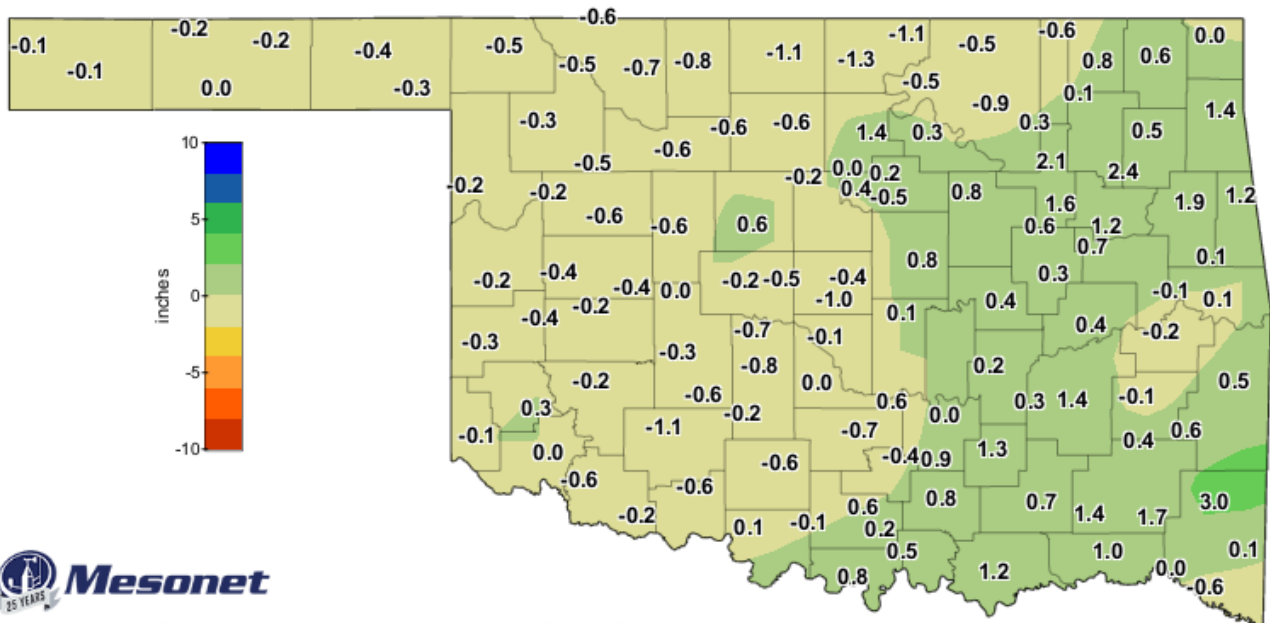


Observed Mesonet Rainfall
Calendar Month to Date

Nov 1, 2019 through Nov 30, 2019

Created 12:00:55 PM December 1, 2019 UTC. Copyright 2019

NOVEMBER 2019 DEPARTURE FROM NORMAL PRECIPITATION

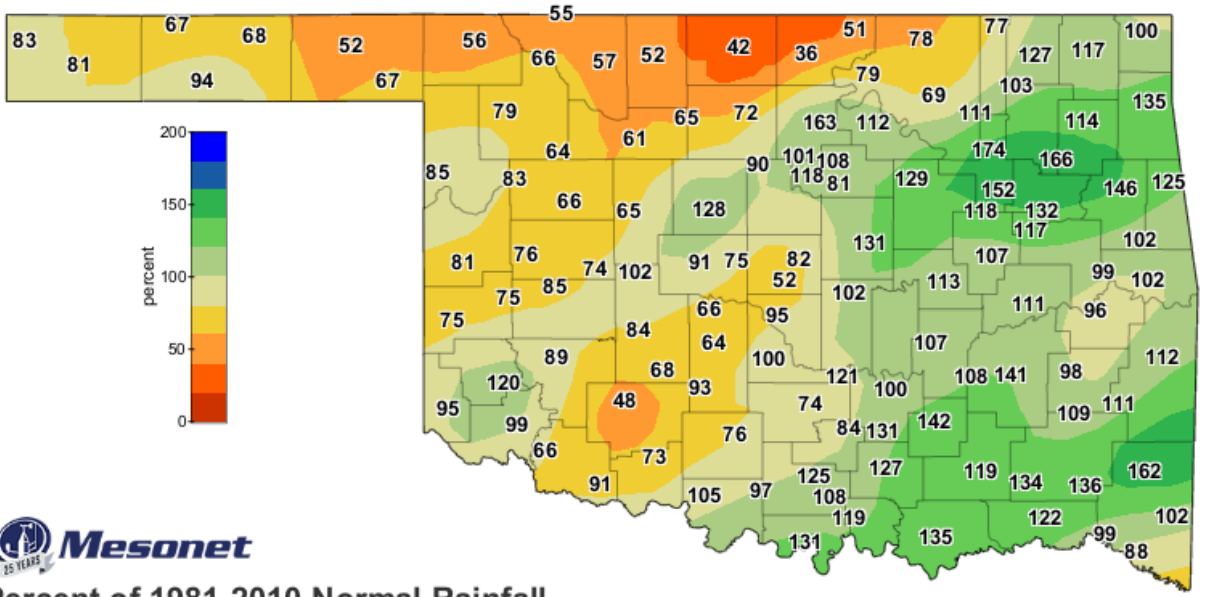


Departure from 1981-2010 Normal Rainfall
Calendar Month to Date

Nov 1, 2019 through Nov 30, 2019

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NOVEMBER 2019 PERCENT OF NORMAL PRECIPITATION



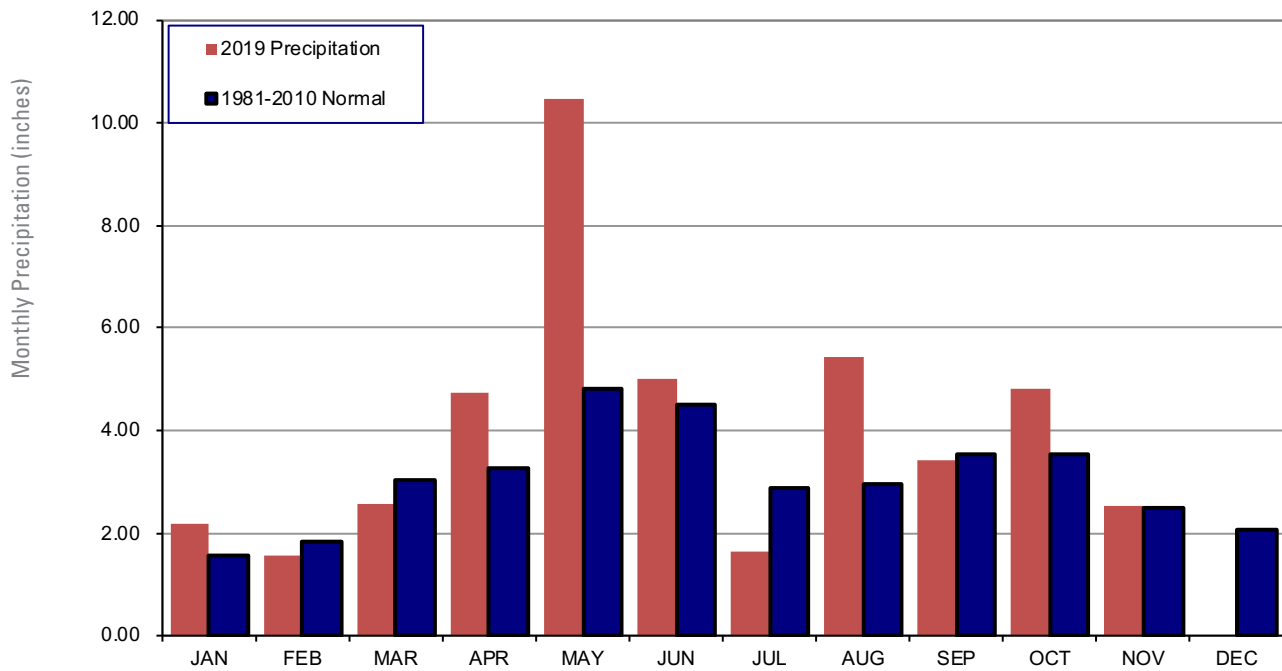
Percent of 1981-2010 Normal Rainfall
Calendar Month to Date

Nov 1, 2019 through Nov 30, 2019
Created 12:00:54 PM December 1, 2019 UTC. Copyright 2019

MESONET MONTHLY SUMMARY FOR NOVEMBER 2019

NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY	NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY
PANHANDLE																					
Arnett	44.3	80	9	5	12	621	0	.98	.34	28	Goodwell	42.7	79	9	2	12	669	0	.45	.23	28
Beaver	42.9	80	9	-1	12	664	0	.47	.26	28	Hooker	41.8	80	9	-1	12	697	0	.40	.25	28
Boise City	40.9	77	9	3	12	723	0	.48	.19	29	Kenton	40.7	77	9	5	11	728	0	.44	.18	28
Buffalo	43.9	81	9	3	12	633	0	.67	.28	28	Slapout	44.2	80	9	4	12	623	0	.68	.32	28
Eva	41.1	80	9	-4	12	718	0	.36	.22	29											
NORTH CENTRAL																					
Alva	45.1	79	9	8	12	599	0	.89	.30	20	May Ranch	45.2	77	9	6	12	595	0	.71	.30	28
Blackwell	44.7	75	18	11	12	610	0	.72	.20	6	Medford	44.3	77	18	9	12	620	0	.81	.23	20
Breckinridge	45.4	76	18	11	12	588	0	1.50	.74	6	Newkirk	45.0	73	18	10	12	601	0	1.09	.53	6
Cherokee	45.2	78	18	10	12	595	0	.88	.26	20	Red Rock	45.8	76	10	12	12	577	0	3.59	2.21	6
Fairview	46.4	77	18	11	12	557	0	.98	.32	7	Seiling	44.7	78	9	8	12	608	0	.96	.39	7
Freedom	45.1	80	9	6	12	597	0	.93	.30	28	Woodward	45.6	80	9	6	12	583	0	1.08	.33	28
Lahoma	45.1	76	18	12	12	596	0	1.20	.38	6											
NORTHEAST																					
Bixby	46.7	75	10	16	12	549	0	4.79	1.78	6	Pawnee	46.0	75	10	12	12	569	0	2.96	1.91	6
Burbank	45.1	75	10	11	12	597	0	1.69	.60	20	Porter	47.5	73	10	15	12	525	0	4.87	1.23	6
Copan	45.0	73	10	12	12	600	0	2.08	.72	6	Pryor	45.5	73	10	13	12	586	0	4.32	.95	6
Foraker	44.6	74	10	9	12	613	0	1.80	.68	6	Skiatook	46.5	74	10	12	12	555	0	3.30	1.65	6
Inola	45.7	72	10	14	12	578	0	5.90	2.57	6	Talala	45.3	73	10	12	12	590	0	3.23	1.39	6
Jay	45.7	74	10	13	12	579	0	5.36	1.83	6	Tulsa	47.5	73	10	15	12	526	0	4.93	2.56	6
Miami	44.7	72	10	13	12	609	0	4.02	1.40	6	Vinita	44.6	72	10	11	12	613	0	4.02	2.03	6
Nowata	44.4	72	10	13	12	619	0	3.90	2.03	6	Wynona	45.7	76	10	11	12	578	0	2.06	.65	6
WEST CENTRAL																					
Bessie	46.4	78	19	10	12	559	0	1.39	.38	7	Erick	45.5	80	18	8	12	586	0	1.02	.33	20
Butler	45.3	79	18	8	12	592	0	1.19	.32	7	Putnam	45.4	77	18	10	12	588	0	1.06	.50	20
Camargo	43.6	79	9	6	12	642	0	1.17	.31	20	Watonga	46.3	75	19	11	12	560	0	1.16	.38	20
Cheyenne	45.9	78	18	8	12	573	0	1.00	.35	7	Weatherford	45.9	76	19	12	12	572	0	1.25	.29	20
Elk City	45.8	77	18	10	12	577	0	1.14	.34	20											
CENTRAL																					
Acme	47.7	77	19	13	12	521	1	2.01	.72	6	Norman	47.7	77	19	14	12	518	0	2.09	.71	22
Bristow	46.2	74	10	14	12	****	****	3.32	1.27	6	Oilton	46.1	74	10	12	12	568	0	3.75	2.25	6
Lake Carl Blac	45.6	76	10	12	12	583	0	2.31	.77	6	OK East	47.5	77	19	14	12	524	0	1.06	.32	22
Chandler	47.7	76	10	13	12	519	0	3.37	1.37	6	Okemah	47.4	73	19	15	12	528	0	3.70	.74	30
Chickasha	46.4	78	19	15	12	560	1	1.33	.36	22	Perkins	46.7	73	10	13	12	550	0	2.02	.82	6
El Reno	45.5	76	19	11	12	585	0	1.85	.51	6	Seminole	48.3	77	10	15	12	502	0	2.62	.63	28
Guthrie	****	***	***	***	***	****	****	****	****	***	Shawnee	47.7	75	19	13	12	518	0	2.80	.67	22
Kingfisher	46.2	75	19	14	12	564	0	2.64	.83	6	Spencer	48.0	76	19	13	12	510	0	1.81	.52	6
Marena	46.4	76	10	13	12	559	0	2.85	1.40	6	Stillwater	46.3	76	10	13	12	562	0	2.64	1.21	6
Minco	46.2	76	19	12	12	565	0	1.37	.41	7	Washington	47.9	78	19	15	12	513	0	2.25	.73	28
Marshall	45.9	75	18	11	12	572	0	1.88	.53	20	Yukon	46.7	76	19	12	12	548	0	1.47	.44	6
EAST CENTRAL																					
Cookson	46.1	72	19	14	12	567	0	4.68	2.12	7	Sallisaw	46.9	73	10	17	13	544	0	4.83	1.96	7
Eufaula	48.7	74	10	17	12	489	0	4.13	1.20	7	Stigler	47.4	73	10	16	13	528	0	4.01	1.15	7
Haske	46.6	72	10	16	12	551	0	4.45	1.10	7	Stuart	48.7	77	19	15	12	488	0	3.67	1.40	6
Hectorville	48.0	74	10	15	12	509	0	3.92	1.01	6	Tahlequah	45.7	71	10	14	12	580	0	6.12	1.34	30
Holdenville	48.6	75	19	15	12	492	0	3.30	.76	6	Webbers Falls	47.5	74	10	18	12	525	0	4.08	1.85	7
McAlester	48.4	76	19	17	12	499	0	4.98	1.56	6	Westville	45.4	70	10	13	12	588	0	5.72	1.30	6
Okmulgee	46.8	74	10	15	12	546	0	3.92	.95	7											
SOUTHWEST																					
Altus	47.5	78	19	11	12	526	0	1.58	.58	20	Hollis	46.9	80	10	8	12	542	0	1.27	.28	21
Apache	47.0	77	19	12	12	539	0	1.36	.43	22	Mangum	46.2	78	19	6	12	565	0	1.90	.73	20
Fort Cobb	46.3	77	19	15	12	562	0	1.44	.40	28	Medicine Park	48.3	74	19	14	12	502	0	.97	.29	28
Grandfield	49.0	80	19	15	12	479	0	1.57	.46	28	Tipton	47.8	78	19	14	12	515	0	1.08	.39	28
Hinton	45.9	77	19	10	12	574	0	1.79	.73	20	Walters	48.9	78	19	16	12	485	0	1.53	.64	28
Hobart	46.5	77	19	10	12	554	0	1.45	.54	20											
SOUTH CENTRAL																					
Ada	48.2	76	19	15	12	504	0	2.71	.56	6	Lane	48.7	77	19	18	12	489	0	4.46	1.18	6
Ardmore	49.6	77	26	17	12	461	0	2.64	.80	6	Madill	49.2	77	19	17	12	474	0	3.20	.85	6
Burneyville	49.5	80	26	17	12	466	1	3.20	1.00	6	Newport	49.0	80	26	17	12	480	0	2.97	1.29	6
Byars	49.2	77	19	14	12	475	0	3.31	1.38	6	Pauls Valley	48.3	78	19	16	12	****	****	1.92	.46	28
Centrahoma	48.6	78	19	17	12	493	0	4.51	2.12	6	Ringling	49.3	79	26	17	12	471	1	2.22	.57	6
Durant	50.3	77	19	19	12	444	3	4.78	1.18	30	Sulphur	47.7	78	19	15	12	518	0	2.24	.76	7
Fittstown	48.0	76	19	14	12	510	0	3.72	1.37	6	Tishomingo	48.3	77	19	16	12	502	0	3.87	1.89	6
Ketchum Ranch	48.8	78	19	15	12	486	1	1.77	.40	28	Waurika	49.6	81	19	16	12	465	2	2.17	.79	6
SOUTHEAST																					
Antlers	48.4	78	19	18	13	498	0	5.59	1.33	6	Mt Herman	48.0	76	19	18	12	511	0	7.79	2.15	7
Broken Bow	49.3	78	19	20	13	472	0	4.95	1.35	7	Talihina	48.0	75	19	17	13	509	0	5.58	1.28	6
Clayton	48.4	76	19	18	13	499	0	5.04	1.21	21	Valliant	49.7	77	19	20	12	458	0	4.79	1.72	7
Cloudy	48.7	77	19	18	12	490	0	6.34	1.76	6	Wilburton	47.8	74	19	16	13	515	0	4.27	1.03	6
Hugo	49.9	77	19	19	12	454	0	5.43	1.41	6	Wister	47.1	73	21	15	13	536	0	5.03	1.35	7
Idabel	50.1	77	19	19	13	447	1	4.23	1.41	22											

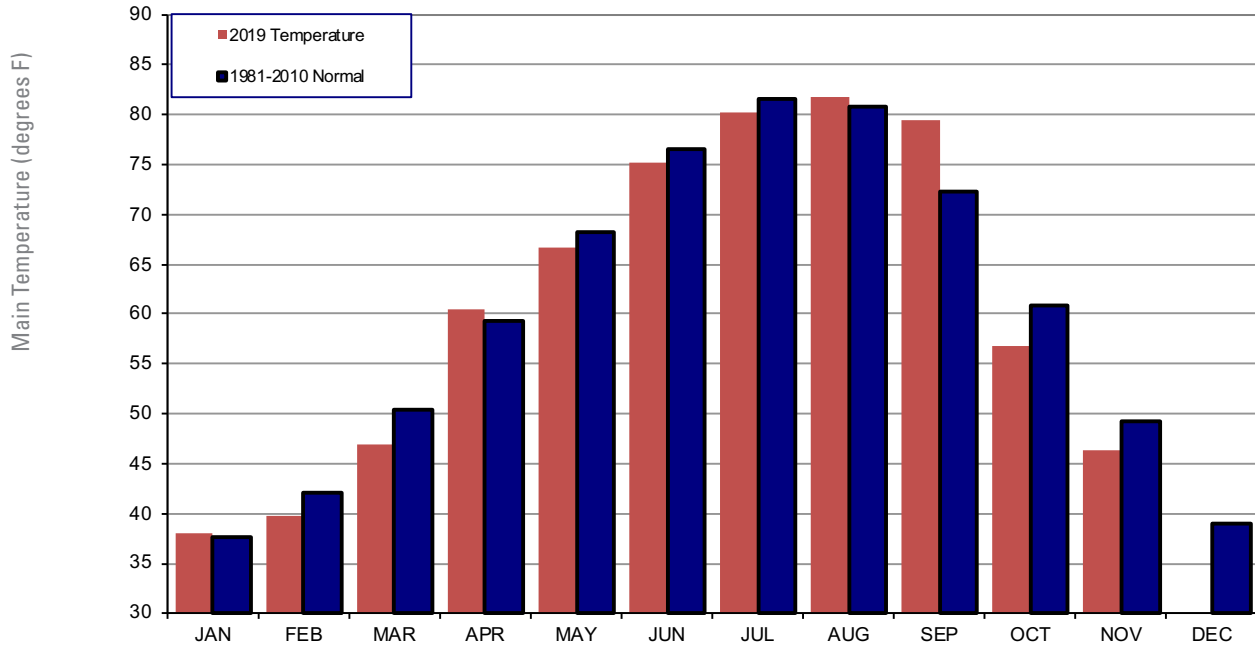
2019 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



November 2019 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Nov-18 (inches)
Panhandle	0.55	-0.28	62nd Driest	4.08 (1909)	0.00 (1921)	0.31
North Central	1.18	-0.55	63rd Driest	6.61 (1964)	0.00 (1910)	0.37
Northeast	3.70	0.55	31st Wettest	7.04 (1992)	0.05 (1910)	1.45
West Central	1.15	-0.34	58th Wettest	6.96 (1909)	0.00 (1949)	0.23
Central	2.29	-0.12	47th Wettest	6.56 (1992)	0.01 (1955)	0.55
East Central	4.45	0.57	28th Wettest	9.86 (1946)	0.32 (1910)	1.71
Southwest	1.45	-0.26	52nd Wettest	6.63 (2004)	0.00 (1949)	0.59
South Central	3.11	0.22	42nd Wettest	8.87 (1902)	0.07 (1949)	1.57
Southeast	5.37	0.72	27th Wettest	12.58 (2015)	0.37 (2017)	3.38
Statewide	2.55	0.04	45th Wettest	6.04 (2015)	0.13 (1949)	1.09

2019 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



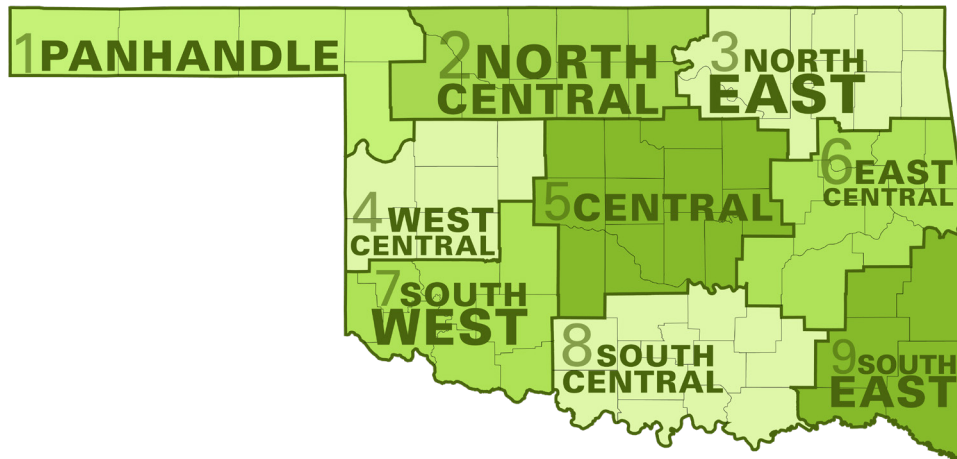
November 2019 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Nov-18 (F)
Panhandle	42.5	-2.5	35th Coolest	51.5 (1999)	35.5 (1929)	41.1
North Central	45.2	-1.9	46th Coolest	54.5 (1999)	39.0 (1929)	42.1
Northeast	45.7	-3.2	35th Coolest	56.4 (1999)	41.1 (1929)	42.8
West Central	45.6	-2.4	41st Coolest	54.8 (1999)	39.4 (1929)	43.8
Central	46.8	-3.0	36th Coolest	57.1 (1999)	42.0 (1929)	45.4
East Central	47.3	-3.5	27th Coolest	58.9 (1909)	43.3 (1929)	45.8
Southwest	47.3	-3.2	27th Coolest	56.7 (1999)	42.4 (1929)	46.9
South Central	48.8	-3.5	26th Coolest	58.6 (1999)	43.5 (1929)	47.4
Southeast	48.7	-2.9	34th Coolest	58.3 (1909)	43.7 (1929)	46.8
Statewide	46.4	-2.9	38th Coolest	56.1 (1999)	41.1 (1929)	44.6

MESONET EXTREMES FOR NOVEMBER 2019

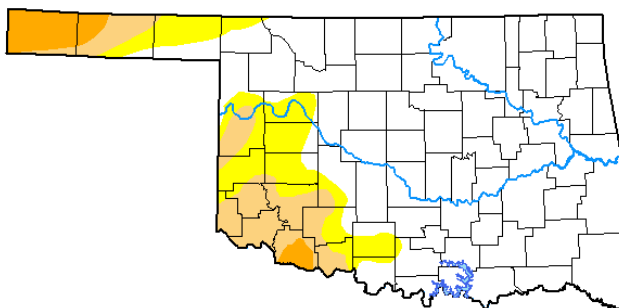
Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	81	9th	Buffalo	-4	12th	Eva	0.98	Arnett	0.34	28th	Arnett
North Central	80	9th	Woodward	6	12th	Freedom	3.59	Red Rock	2.21	6th	Red Rock
Northeast	76	10th	Wynona	9	12th	Foraker	5.90	Inola	2.57	6th	Inola
West Central	80	18th	Erick	6	12th	Camargo	1.39	Bessie	0.50	20th	Putnam
Central	78	19th	Washington	11	12th	El Reno	3.75	Oilton	2.25	6th	Oilton
East Central	77	19th	Stuart	13	12th	Westville	6.12	Tahlequah	2.12	7th	Cookson
Southwest	80	10th	Hollis	6	12th	Mangum	1.90	Mangum	0.73	20th	Mangum
South Central	81	19th	Waurika	14	12th	Byars	4.78	Durant	2.12	6th	Centrahoma
Southeast	78	19th	Antlers	15	13th	Wister	7.79	Mt Herman	2.15	7th	Mt Herman
Statewide	81	9th	Buffalo	-4	12th	Eva	7.79	Mt Herman	2.57	6th	Inola

Oklahoma Climate Divisions



U.S. Drought Monitor Oklahoma

November 26, 2019
(Released Wednesday, Nov. 27, 2019)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	76.05	23.95	12.58	3.67	0.00	0.00
Last Week 11-19-2019	76.40	23.60	10.50	2.00	0.00	0.00
3 Months Ago 08-27-2019	61.77	38.23	18.47	7.94	2.62	0.00
Start of Calendar Year 01-01-2019	94.85	5.15	0.00	0.00	0.00	0.00
Start of Water Year 10-01-2018	71.94	28.06	11.08	1.01	0.00	0.00
One Year Ago 11-27-2018	81.67	18.33	3.27	0.00	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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U.S. Department of Agriculture



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 is the State Climate Office for Oklahoma

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