2023 Kansas Weather: The Year in Review

11.91”	Most Monthly Precipitation
Herndon 1.7 NNW May	

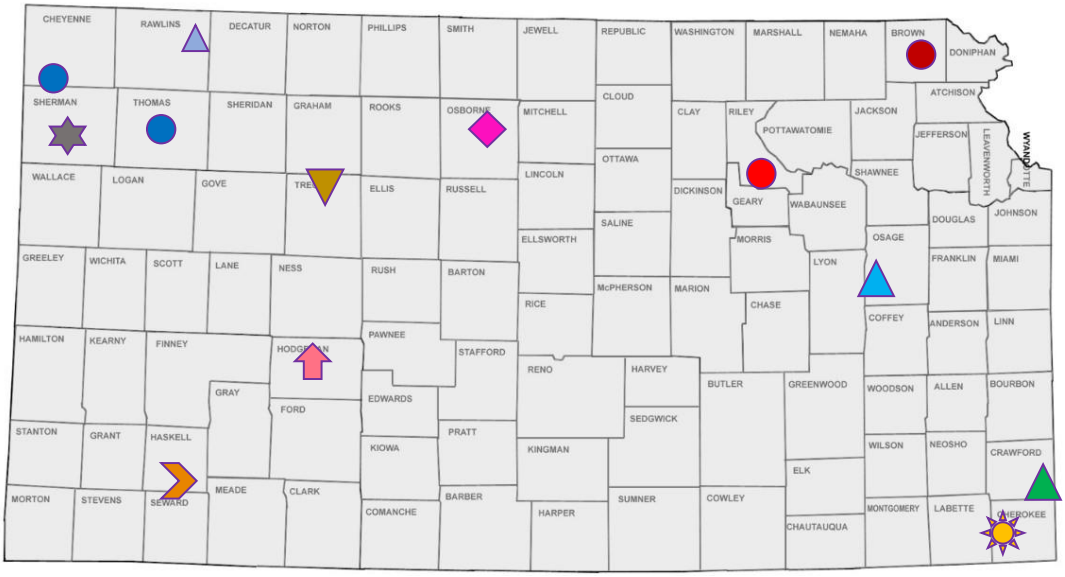
60.5°	Highest Diurnal Range
Osborne Apr 17	

83.2°	Highest Dew Point
Hiawatha Jul 26	

-11°	Minimum Temperature
Cheyenne Jan 30 Colby 1SW Jan 31	

14.00”	Least Annual Precipitation
WaKeeney	

115°	Maximum Temperature
Manhattan Aug 19	



44.0”	Most Annual Snowfall
Goodland - Renner Field	

411	Most Hours Temp. ≥ 90°
Hodgeman	

42.79”	Most Annual Precipitation
Pittsburg	

83 mph	Highest 2m Wind Gust
Sublette 1E Feb 26	

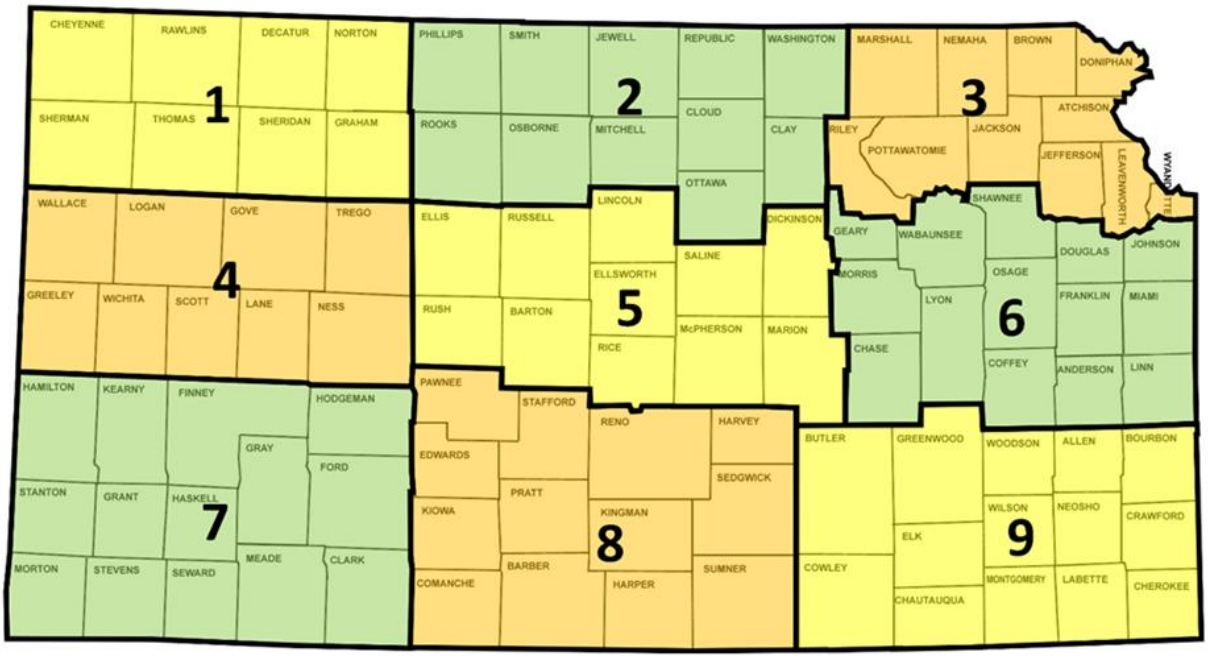
9.35”	Most Daily Precipitation
Osage City 5.2 SW Oct 25	

123°	Highest Heat Index
Cherokee Aug 21	

Matthew C. Sittel
Assistant State Climatologist, Kansas State University

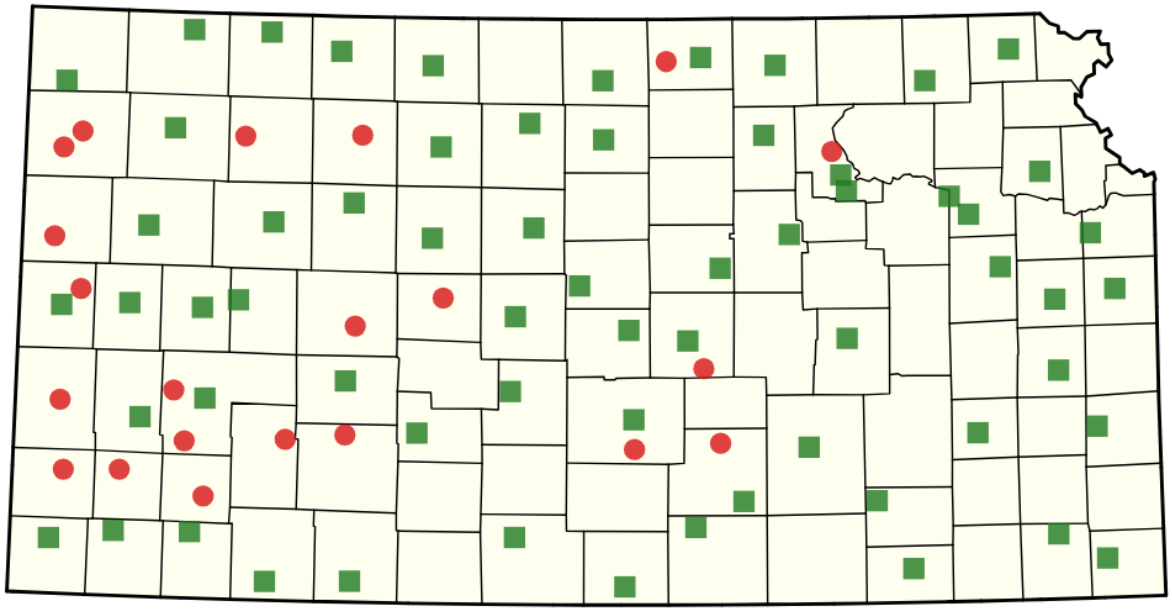
Table of Contents

Matthew C. Sittel
Assistant State Climatologist
Kansas State University
Contact e-mail: msittel@ksu.edu



1 – Northeast
2 – North Central
3 – Northeast
4 – West Central
5 – Central
6 – East Central
7 – Southwest
8 – South Central
9 - Southeast

Map of Kansas Climate Divisions



Kansas Mesonet Station Map

Kansas Mesonet station map is current as of December 31, 2023. Green squares indicate 30-foot towers while red circles indicate 10-foot tripods.

2023 Kansas Weather: The Year in Review

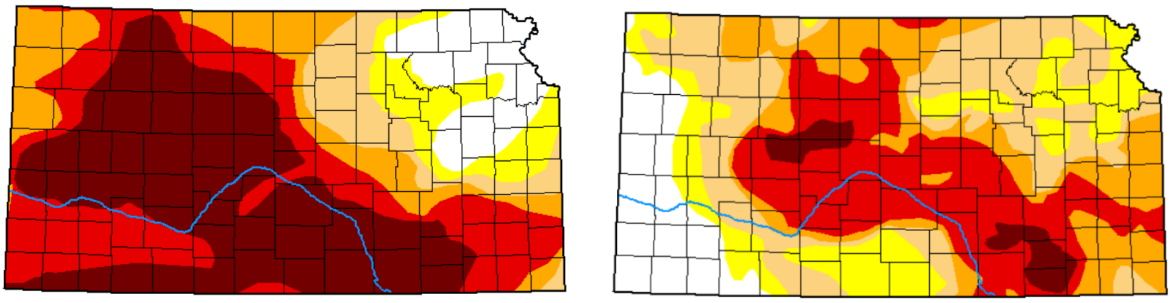
Top Weather Stories

- Record Dry Spring in Parts of Kansas

March through May were very dry in parts of Kansas. Four of Kansas' nine climate divisions had a top 10 driest March-May: central (5th), south central (8th), southeast (8th) and north central (10th). A total of 29 counties in Kansas had a top 10 driest March-May, and 15 of those finished in the top 5. Four counties had their driest March-May on record: Butler, Coffey, Greenwood and Harvey, where average precipitation was between 6.3 and 7.3 inches below normal. Chautauqua County's average precipitation was nearly 8 inches below normal, the largest deficit in the state for the March-May period. Drought conditions worsened in these areas.

- Mid-Year Moisture Leads to Drought Improvement in the Southwest

The three-month period from May through July was the 4th wettest on record in southwest Kansas. Precipitation across this division averaged 14.54", or 5.71" above normal. It was the wettest May-July on record in Morton County, where an average of 14.46" fell, more than 7 inches above normal. Stanton, Stevens, Clark, Comanche, Hamilton, Meade, Seward and Kearny Counties all had a top 5 wettest May-July. As a result, drought conditions rapidly improved. Some areas in D3 and D4, the two worst drought categories, at the start of May were in drought-free status by the end of July (Figs. 1a-b).



Figures 1a-b: US Drought Monitor map for Kansas on May 2, 2023 (left) and July 25, 2023 (right).

- A Quiet Year for Tornadoes

Based on the 30-year period 1993-2022, Kansas averages 83 tornadoes per year. While the final numbers have not been issued by the Storm Prediction Center, the preliminary count of Kansas tornadoes in 2023 is 42 (Fig. 2). The tornadoes that did occur were primarily in northwestern Kansas and were generally weak. There were no tornadoes stronger than EF2 this year. Two EF2 tornadoes formed in Chase County on April 19th. Another EF2 tornado touched down in Brown County on May 12th. There were no tornadoes in south central or southeast Kansas.

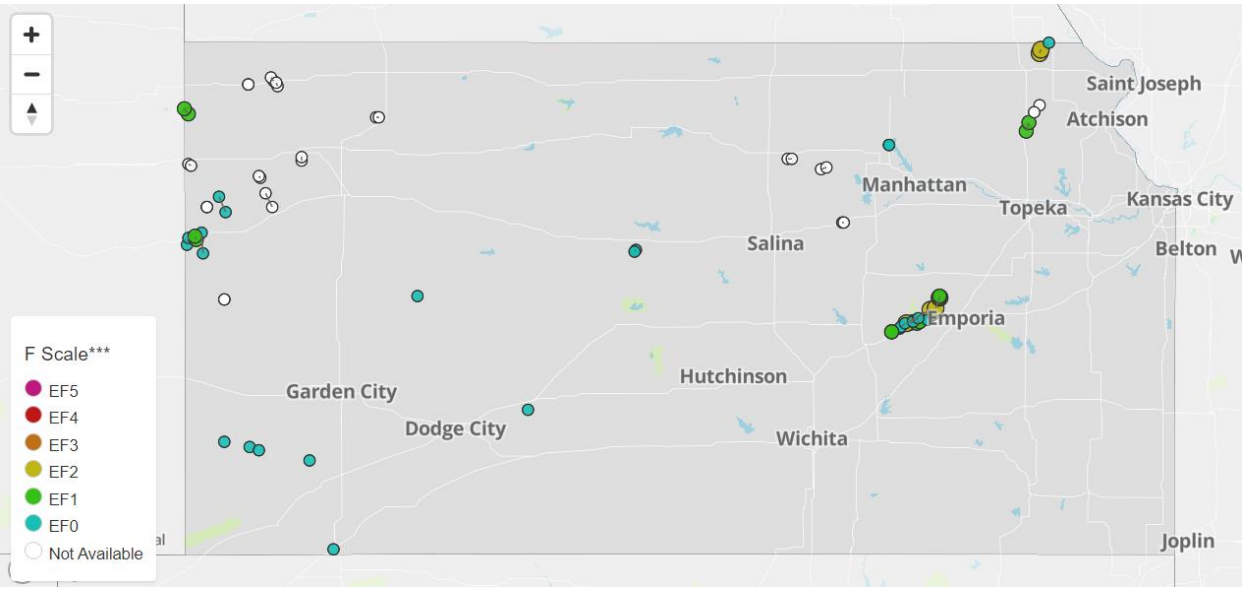


Figure 2. Location of tornado reports in Kansas in 2023. Map Source: Topeka Capital-Journal, based on data from NOAA.

- August Heat Wave Brings the Hottest Temperatures in Over a Decade

A week-long heat wave broiled Kansas with temperatures well over 100 degrees. Manhattan Airport's high of 115° on August 19th was the hottest in the United States that day, and the highest reading anywhere in Kansas since 2012. It was also the hottest temperature on record at that site, where records began in 1960. Melvern Lake and Milford Lake also set all-time station records with highs of 112°, and seven additional sites tied all-time record highs, including Salina (113°) and Yates Center (111°). The average high temperature across the Kansas Mesonet ranged from 100 to 105 degrees from August 19th through the 25th, and only one site failed to reach the century mark (Fig. 3).

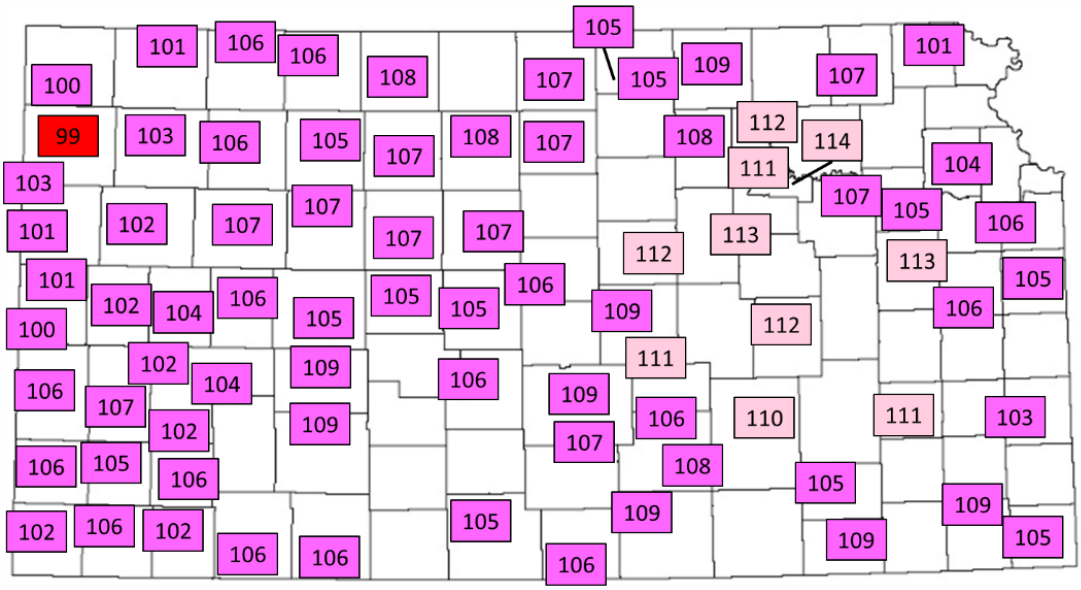


Figure 3. The hottest temperatures recorded between August 19th and 25th across the Kansas Mesonet.

- Thanksgiving Weekend Snowstorm

A Thanksgiving weekend snowstorm brought accumulating snow to most of the state. The highest totals were in central Kansas, where over a foot of snow was measured in a few locations. In some places, this was the most snow from a single event in nearly a decade. In addition, the snow from this single event totaled more than what fell all of last season in some spots. South central and central Kansas had the highest snowfall totals from this event (Fig. 4), where over a foot of snow fell in parts of Reno, Harvey, Marion and Morris Counties. There were two reports of 14" of snow in Marion County, the highest amounts in the state. There were reports of 6 to 8 inches of snow in the Wichita, Manhattan, Topeka and Lawrence areas, and 4 to 6 inches in the Dodge City and Salina areas. The Kansas City metropolitan area picked up from 2 to 4 inches. In at least a dozen locations, the snowfall from this event was more than what fell during the entire winter of 2022-23.

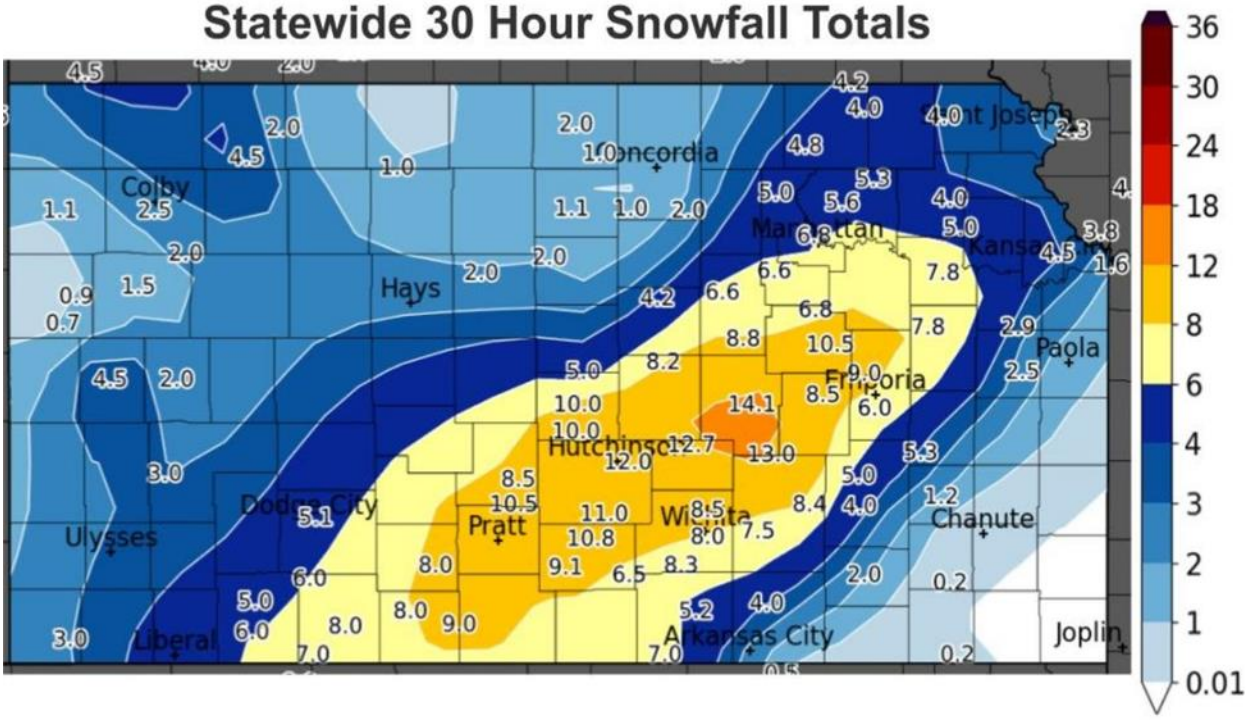


Figure 4. Snowfall totals from the Thanksgiving weekend storm. Source: National Weather Service-Wichita, KS Facebook page.

- The Return of El Niño: a Wet and Warm Start to Winter

Last winter was the third consecutive winter with La Niña conditions, termed a "triple dip La Niña". Sea surface temperatures have since increased to above normal in the equatorial Pacific, resulting in an El Niño event. The El Niño event continued to strengthen through the fall months.

On average, El Niño events bring above normal temperature and precipitation to Kansas during the winter months. December's conditions were indeed typical of an El Niño winter month, as temperatures and precipitation were both well above normal. Statewide, it was the 2nd warmest and 9th wettest December on record. With respect to departure from normal temperature, December was the most above normal month of 2023 in Kansas. December was also the month with the highest percent of

normal precipitation in 2023. By the end of December, the US Drought Monitor's Drought Severity Coverage Index (DSCI) was at its lowest point of the year, and the percentage of the state in D2 or worse drought had dropped from 69% at the start of the year down to 19%, the lowest amount since February, 2022.

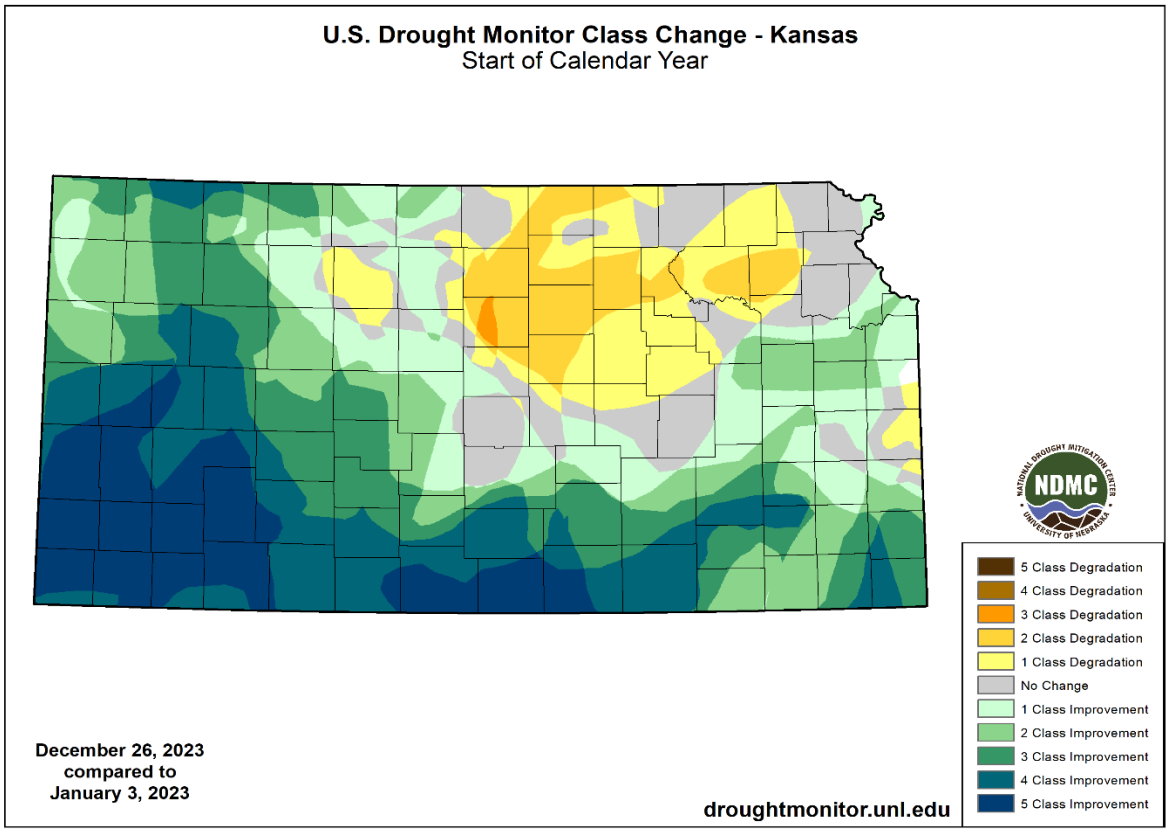


Figure 5. Changes in US Drought Monitor category across Kansas during 2023.

2023 Superlatives		State	Division	County
Wettest	Year	25.58" (-3.42")	East Central (30.73")	Cherokee (37.32")
	Month	4.41" (July)	Southwest (6.24", Jul)	Meade (8.29", Jul)
	% Norm	199% (December)	Southwest (297%, Dec)	Edwards (338%, Dec)
Driest	Year	25.58" (49th Driest)	West Central (20.11")	Trego (16.86")
	Month	0.57" (March)	Southwest (0.10", Mar)	Finney (0.03", Mar)
	% Norm	32% (March)	South Central (6%, Mar)	Pratt (2.6%)
Warmest	Year	56.3° (12th Warmest)	Southeast (59.0°)	Cherokee (60.0°)
	Month	78.8° (August)	Southeast (81.1°, Aug)	Butler (82.2°, Aug)
	Dep.	+6.0° (December)	NE, E. Central (+6.7°, Dec)	Doniphan, Woodson (+7.6°)
Coldest	Year	56.3° (+1.3°)	Northwest (52.7°)	Sherman (52.1°)
	Month	33.0° (January)	Northwest (27.6°, Jan)	Sherman (26.4°, Jan)
	Dep.	-2.7° (March)	Northwest (-5.2°, Mar)	Cheyenne, Sheridan (-5.31°)

	Northwest	North Central	Northeast	West Central	Central	East Central	Southwest	South Central	Southeast	**STATE**
JAN	0.98" 240% 6th W	1.16" 181% 12th W	1.52" 193% 16th W	0.94" 220% 13th W	1.08" 152% 22nd W	1.51" 155% 28th W	0.45" 91% 50th W	0.98" 124% 33rd W	1.32" 109% 43rd W	**1.07" 148% 25th W**
FEB	0.70" 128% 38th W	0.74" 87% 63rd W	2.07" 176% 12th W	0.66" 116% 42nd W	0.75" 74% 63rd D	2.21" 156% 17th W	0.41" 82% 63rd D	0.87" 80% 58th W	1.90" 119% 34th W	**1.10" 113% 40th W**
MAR	0.48" 46% 35th D	0.42" 28% 21st D	1.16" 55% 37th D	0.22" 20% 19th D	0.30" 17% 12th D	1.60" 67% 38th D	0.10" 8% 6th D	0.12" 6% 4th D	1.04" 38% 14th D	**0.57" 32% 15th D**
APR	0.45" 23% 8th D	0.97" 39% 16th D	2.56" 74% 56th D	0.65" 37% 17th D	1.11" 45% 20th D	1.78" 48% 17th D	1.90" 114% 46th W	1.25" 48% 24th D	1.25" 30% 7th D	**1.32" 49% 17th D**
MAY	5.28" 171% 15th W	2.89" 67% 50th D	4.02" 80% 58th D	3.69" 128% 35th W	2.79" 61% 37th D	4.16" 77% 52nd D	3.44" 134% 39th W	2.84" 65% 42nd D	3.98" 67% 45th D	**3.62" 86% 64th W**
JUN	3.94" 133% 32nd W	3.35" 88% 53rd D	2.44" 50% 18th D	4.33" 148% 24th W	5.21" 131% 31st W	2.20" 44% 11th D	4.86" 154% 12th W	5.92" 138% 21st W	2.82" 52% 25th D	**4.01" 99% 60th W**
JUL	3.44" 99% 41st W	3.65" 87% 57th W	5.08" 110% 32nd W	3.62" 107% 37th W	3.25" 80% 60th W	3.97" 91% 54th W	6.24" 200% 5th W	5.44" 149% 10th W	4.23" 100% 47th W	**4.41" 114% 33rd W**
AUG	3.09" 103% 39th W	4.19" 118% 32nd W	3.07" 77% 39th D	2.50" 86% 57th W	3.47" 94% 52nd W	2.11" 51% 27th D	1.86" 63% 45th D	2.79" 78% 61st W	3.20" 82% 62nd W	**2.89" 82% 59th D**
SEP	0.61" 37% 16th D	1.59" 65% 33rd D	1.48" 44% 13th D	1.42" 91% 61st D	1.09" 44% 10th D	2.17" 58% 24th D	1.89" 132% 49th W	1.90" 82% 47th D	2.11" 54% 32nd D	**1.63" 65% 26th D**
OCT	0.59" 37% 43rd D	1.09" 55% 42nd D	1.84" 67% 48th D	0.62" 40% 46th D	1.72" 80% 61st D	4.59" 152% 26th W	0.89" 52% 58th D	1.95" 76% 63rd W	3.39" 97% 53rd W	**1.87" 81% 60th W**
NOV	0.25" 35% 43rd D	0.96" 82% 60th W	1.28" 73% 63rd W	0.21" 32% 46th D	1.22" 102% 50th W	1.60" 79% 64th W	0.29" 46% 56th D	1.47" 112% 50th W	1.41" 60% 50th D	**0.97" 74% 63rd D**
DEC	0.86" 157% 21st W	1.63" 175% 14th W	2.26" 174% 15th W	1.25" 216% 9th W	2.06" 194% 12th W	2.83" 187% 13th W	2.18" 297% 3rd W	2.79" 243% 6th W	2.83" 160% 19th W	**2.13" 199% 9th W**
YEAR	**20.67" 99% 55th W**	**22.64" 81% 34th D**	**28.78" 82% 28th D**	**20.11" 99% 52nd W**	**24.05" 82% 42nd D**	**30.73" 82% 32nd D**	**24.51" 122% 14th W**	**28.32" 95% 57th W**	**29.49" 72% 20th D**	**25.58" 88% 49th D**

Table 1. Divisional precipitation totals, percents of normal, and ranks amongst all months of the specified month between 1895 and 2023. W refers to a wettest rank, while D refers to a driest rank.

	Northwest	North Central	Northeast	West Central	Central	East Central	Southwest	South Central	Southeast	**STATE**
JAN	27.6° -2.2° 61st C	30.4° +2.0° 31st W	31.9° +4.2° 18th W	29.7° -1.3° 64th W	33.0° +2.3° 24th W	34.7° +4.5° 13th W	33.3° +0.4° 42nd W	36.0° +3.0° 16th W	37.9° +4.8° 11th W	**33.0°** **+1.9°** **26th W**
FEB	30.4° -2.2° 55th C	32.9° +0.4° 50th W	34.4° +2.0° 35th W	32.0° -2.0° 54th C	35.2° +0.5° 45th W	37.3° +2.5° 30th W	35.6° -0.8° 61st W	37.3° +0.3° 47th W	39.4° +1.8° 35th W	**35.2°** **+0.2°** **49th W**
MAR	37.1° -5.2° 39th C	40.0° -3.0° 52nd C	40.9° -2.5° 55th C	39.2° -4.3° 44th C	42.2° -2.7° 57th C	43.5° -1.7° 61st C	42.6° -2.9° 54th C	44.6° -2.0° 60th C	45.9° -1.4° 61st C	**42.1°** **-2.7°** **57th C**
APR	50.7° +0.1° 60th W	53.8° +1.1° 47th W	54.3° +0.8° 49th W	52.3° +0.4° 55th W	55.3° +1.2° 43rd W	56.4° +1.5° 42nd W	54.2° +0.4° 54th W	56.1° +0.5° 54th W	57.0° +0.3° 54th W	**54.6°** **+0.7°** **50th W**
MAY	62.8° +2.2° 34th W	65.8° +3.0° 23rd W	65.6° +1.8° 32nd W	64.5° +2.4° 24th W	66.3° +2.1° 27th W	66.6° +2.0° 30th W	66.0° +1.8° 27th W	66.7° +1.2° 37th W	66.9° +1.2° 44th W	**65.8°** **+1.9°** **29th W**
JUN	70.3° -1.5° 58th C	74.0° +0.2° 50th W	73.8° +0.3° 51st W	70.9° -2.1° 43nd C	74.5° -0.5° 60th W	74.8° +0.6° 44th W	71.4° -3.1° 23rd C	74.5° -1.3° 55th C	75.6° +0.5° 50th W	**73.4°** **-0.8°** **61st C**
JUL	75.6° -1.5° 39th C	77.6° -1.1° 44th C	76.8° -1.1° 44th C	77.0° -1.2° 49th C	79.5° -0.3° 60th W	78.8° +0.1° 57th W	78.2° -1.1° 47th C	79.7° -0.8° 58th C	80.1° +0.4° 58th W	**78.3°** **-0.7°** **56th C**
AUG	75.9° +1.0° 42nd W	78.5° +2.1° 32nd W	77.6° +1.6° 35th W	77.1° +1.3° 40th W	80.1° +2.3° 26th W	79.8° +2.5° 19th W	78.0° +0.8° 54th W	80.2° +1.5° 45th W	81.1° +2.6° 24th W	**78.8°** **+1.7°** **33rd W**
SEP	69.4° +3.0° 18th W	71.8° +3.8° 14th W	71.1° +3.5° 16th W	71.1° +3.4° 15th W	73.2° +3.8° 13th W	72.8° +4.0° 16th W	72.4° +3.2° 16th W	74.0° +3.4° 15th W	73.7° +3.4° 21st W	**72.3°** **+3.5°** **14th W**
OCT	53.9° +0.7° 56th W	57.3° +2.2° 35th W	57.2° +1.7° 45th W	55.9° +1.4° 42nd W	58.7° +2.0° 34th W	58.9° +2.0° 35th W	57.6° +1.3° 41st W	59.9° +1.9° 35th W	60.4° +1.9° 35th W	**58.0°** **+1.8°** **37th W**
NOV	42.8° +2.4° 21st W	44.4° +2.8° 18th W	43.3° +1.1° 44th W	43.9° +2.4° 20th W	45.2° +1.9° 27th W	45.6° +1.4° 36th W	45.6° +2.3° 23rd W	46.4° +1.5° 26th W	47.6° +1.3° 37th W	**45.2°** **+1.9°** **24th W**
DEC	36.4° +5.4° 3rd W	37.4° +6.3° 2nd W	38.2° +6.7° 3rd W	36.9° +4.8° 6th W	39.3° +6.4° 2nd W	40.5° +6.7° 2nd W	39.2° +5.4° 3rd W	40.9° +6.1° 2nd W	42.4° +6.3° 2nd W	**39.2°** **+6.0°** **2nd W**
YEAR	**52.7°** **+0.2°** **32nd W**	**55.3°** **+1.6°** **11th W**	**55.4°** **+1.7°** **12th W**	**54.2°** **+0.4°** **27th W**	**56.9°** **+1.6°** **10th W**	**57.5°** **+2.2°** **4th W**	**56.2°** **+0.6°** **24th W**	**58.0°** **+1.3°** **13th W**	**59.0°** **+1.9°** **11th W**	56.3° +1.3° 12th W

Table 2. Divisional temperature averages, departures from normal, and ranks amongst all months of the specified month between 1895 and 2023. W refers to a warmest rank, while C refers to a coldest rank.

January 2023	Temperature		Precipitation
	33.0°	Average	1.07”
	+1.9°	Departure	+0.35”
	26th Warmest	Rank	25th Wettest

It was a mild start to the year, with a storm system more reminiscent of early spring than winter affecting the state on the 2nd. Snow fell in the far northwest, with rain and thunderstorms in the east. An extended period of mild weather followed this system for most areas, but the snow that fell early in the month was slow to melt, keeping the northwest cooler than the remainder of the state, but still above seasonal normals through mid-month. The average daily temperature across the Kansas Mesonet was above normal for the first 20 days of the year, the longest stretch in 2023. In the second half of January, three separate storm systems affected Kansas in the span of just over a week, bringing ample precipitation to the entire state, resulting in above normal monthly totals for many areas. With the first event on the 17th and 18th, snow fell in the northern part of the state, while it was a soaking rain in the east, with sleet mixed in at a few locations. The second event was mainly on the 21st, which brought snow to more areas, particularly in the northern two-thirds of Kansas. The third precipitation event was on the 24th and 25th, which fell in the form of both rain and snow, was focused on the southeastern half of the state. Late in the month, a strong cold front swept across the state, bringing much colder air. Lows in the single digits above and below zero were common in all but southeast Kansas on the 29th and 30th, with daytime highs remaining well below freezing. The average daily temperatures across the Kansas Mesonet on January 29th (10.7°), 30th (9.9°) and 31st (13.4°) were the three coldest days of the year. The Cheyenne County Mesonet site recorded the coldest temperature of the year on the morning of the 30th at -11°. The co-operative observer in Colby also recorded -11° the following day.

All divisions except northwest and west central Kansas had above normal average temperatures for the month. Departures ranged from -2.2° in the northwest to +4.5° in the southeast. It was the 11th warmest January on record for southeast Kansas, and the warmest January since 2012. Eleven counties had a top 10 warmest January, dating back to 1895. Meanwhile, Goodland had a monthly average temperature of 25.2°, or 4.8° below normal. While not top 10, this ranked as the 23rd coldest January on record, dating back to 1888. It was even colder in the northwesternmost county in Kansas. The Kansas Mesonet site in Cheyenne County had an average temperature of 23.4°, aided in part by a low of -11° on the 30th, which tied for the coldest temperature recorded in the state for the month. Compared to the normal temperatures at nearby St. Francis, this average was 6.0° below normal.

Only one division had below average precipitation: southwest Kansas, which received 0.45”, or 91% of normal. The highest total precipitation was northeast Kansas, with 1.52”, which ranked as the 16th wettest January in that division. Northwest Kansas had the highest ranking; their 0.98” (240% of normal) ranked as their 6th wettest January. Thirteen counties had a top 10 wettest January, and three managed a top 5 wettest: Cheyenne, Marshall and Norton, which all had their 4th wettest January. In addition, Goodland’s 16.4” of snow was their 4th snowiest January in 113 years, and the snowiest January since 1988.

January 2023 County Data

Total Precipitation (in)					Average Temperature (°F)			
Wettest		Driest			Warmest		Coldest	
Value	County	Value	County	Rank	Value	County	Value	County
2.41	Miami	0.19	Morton	1	40.2	Cherokee	26.4	Sherman
2.32	Linn	0.22	Stevens	2	39.1	Labette	26.8	Cheyenne
2.16	Johnson	0.24	Seward	3	39.0	Crawford	27.2	Decatur
2.07	Anderson	0.26	Stanton	4	38.6	Montgomery	27.6	Norton
2.03	Wyandotte	0.32	Grant	5	38.4	Neosho	27.6	Rawlins
1.99	Allen	0.41	Meade	6	38.4	Chautauqua	27.8	Thomas
1.93	Franklin	0.45	Clark	7	38.2	Sumner	28.1	Wallace
1.84	Marshall	0.45	Haskell	8	38.1	Wilson	28.5	Sheridan
1.76	Nemaha	0.49	Ford	9	38.1	Harper	28.9	Phillips
1.75	Bourbon	0.49	Hodgeman	10	38.1	Bourbon	29.0	Greeley, Logan

Wettest Month Ranking	Rank	County	Value		Rank	County	Value	Warmest Month Ranking
	4	Cheyenne	1.10	1	8	Allen	37.7	
	4	Marshall	1.84	2	8	Bourbon	38.1	
Highest Ranked Counties	4	Norton	1.19	3	8	Cherokee	40.2	Highest Ranked Counties
	6	Logan	1.07	4	8	Crawford	39.0	
	6	Sherman	1.04	5	8	Linn	37.2	
Driest Month Ranking	Rank	County	Value		Rank	County	Value	Coldest Month Ranking
	46	Morton	0.19	1	46	Sherman	26.4	
	54	Seward	0.24	2	50	Cheyenne	26.8	
Highest Ranked Counties	59	Stevens	0.22	3	50	Wallace	28.1	Highest Ranked Counties
	68	Stanton	0.26	4	57	Greeley	29.0	
	72	Clark	0.45	5	58	Thomas	27.8	

Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	+1.17	Miami	2.41	1	+5.8	Linn	37.2	
	+1.10	Marshall	1.84	2	+5.6	Bourbon	38.1	
	+1.04	Nemaha	1.76	3	+5.6	Allen	37.7	
Most Above Normal	+0.99	Johnson	2.16	4	+5.5	Woodson	37.6	Most Above Normal
	+0.98	Linn	2.32	5	+5.4	Crawford	39.0	
Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	-0.26	Seward	0.24	1	-3.8	Sherman	26.4	
	-0.23	Clark	0.45	2	-3.3	Cheyenne	26.8	
	-0.22	Stevens	0.22	3	-2.9	Wallace	28.1	
Most Below Normal	-0.21	Crawford	1.40	4	-2.2	Thomas	27.8	Most Below Normal
	-0.20	Morton	0.19	5	-2.2	Greeley	29.0	

February 2023	Temperature		Precipitation
	35.2°	Average	1.10”
	+0.2°	Departure	+0.13”
	49th Warmest	Rank	40th Wettest

February’s temperatures, while averaging close to normal, varied greatly during the month. Periods of warm and cold typically lasted 2 to 3 days before switching from one extreme to the other. Over a dozen Kansas Mesonet sites recorded both a below zero low and a high in the 70s during the month. Despite the variety of temperatures, what precipitation fell was typically rain, except in the northwest part of the state, where it was mainly snow. A mid-month storm dropped up to a foot of snow in Wallace County. Goodland picked up 9.8” of snow during the month. Combined with January’s 16.4”, the two-month total of 26.2” is the third highest snowfall to start the year on record, and the most in nearly 40 years. The last week of the month was especially volatile, as a very strong cold front led to an over 60-degree range in temperatures across the state on the afternoon of the 22nd, when it was nearly 70 degrees in southeast Kansas but in the single digits in the northwest. An early season severe weather event affected mainly southwest Kansas on the 26th, spawning the first tornado in the state this year. It was an EF0 in Seward County that caused only minor damage on the east side of the town of Liberal. There were 5 hail reports that day, the largest of which was 1.5” in diameter near Plymell in Finney County. There were also 18 severe wind gust reports on the 26th, the highest of which was a 97-mph gust measured by the Kansas Mesonet site in Hodgeman County. The first 80° reading of the year was also recorded on the 26th in Kearny County by the co-operative observer in Lakin, and also in Stanton County at the Kansas Mesonet site 10 miles northwest of Moscow.

Divisional average temperature departures ranged from -2.2° in northwest Kansas to +2.5° in east central Kansas. The three western Kansas divisions were all below normal, while all divisions in the eastern two-thirds of the state were above normal. While Cherokee County was warmest (42.5°), Johnson County was the most above normal for the month (+3.6°). Norton County was coldest (29.1°), while Greeley County was the most below normal (-3.3°). The three eastern Kansas divisions all had above normal precipitation, as did northwest and west central Kansas. East central Kansas had the highest total (2.21”), followed by northeast Kansas (2.07”). The highest monthly totals at individual locations were mostly in the northeast. A CoCoRaHS observer 8 miles south-southwest of Hiawatha in Brown County recorded the month’s highest total precipitation, with 3.89”. Doniphan (3.25”), Atchison (3.00”) and Brown (2.99”) were the three wettest counties in February, and all three placed in the top five wettest Februarys on record in their respective counties. Doniphan and Atchison’s totals ranked them each as 4th wettest, while Brown’s total was the 5th wettest February on record. Stanton County was the driest in the state, averaging 0.24” for the month, followed by Morton County at 0.30”.

February 2023 County Data

Total Precipitation (in)					Average Temperature (°F)			
Wettest		Driest			Warmest		Coldest	
Value	County	Value	County	Rank	Value	County	Value	County
3.25	Doniphan	0.24	Stanton	1	42.5	Cherokee	29.1	Norton
3.00	Atchison	0.30	Morton	2	41.2	Labette	29.4	Decatur
2.99	Brown	0.35	Meade	3	40.7	Montgomery	30.2	Phillips
2.66	Cherokee	0.37	Gray	4	40.7	Crawford	30.2	Sheridan
2.62	Jefferson	0.37	Seward	5	40.2	Neosho	30.5	Rawlins
2.59	Wilson	0.38	Grant	6	40.1	Chautauqua	30.5	Smith
2.49	Miami	0.38	Hamilton	7	39.7	Wilson	30.7	Cheyenne
2.42	Leavenworth	0.40	Haskell	8	39.4	Bourbon	30.7	Greeley
2.42	Douglas	0.42	Stevens	9	39.3	Cowley	30.7	Thomas
2.40	Johnson	0.43	Ford, Lincoln	10	39.2	Allen	30.9	Wallace

Wettest Month Ranking	Rank	County	Value		Rank	County	Value	Warmest Month Ranking
	4	Atchison	3.00	1	21	Wyandotte	38.0	
	4	Doniphan	3.25	2	23	Johnson	38.2	
Highest Ranked Counties	5	Brown	2.99	3	24	Leavenworth	37.3	Highest Ranked Counties
	8	Jefferson	2.62	4	24	Miami	38.5	
	8	Wabaunsee	2.33	5	25	Osage	37.8	
Driest Month Ranking	Rank	County	Value		Rank	County	Value	Coldest Month Ranking
	41	Lincoln	0.43	1	42	Greeley	30.7	
	50	Ellsworth	0.50	2	48	Hamilton	33.0	
Highest Ranked Counties	50	Osborne	0.51	3	49	Wallace	30.9	Highest Ranked Counties
	53	Russell	0.51	4	50	Stanton	34.7	
	53	Stanton	0.24	5	52	Decatur	29.4	

Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	+2.05	Doniphan	3.25	1	+3.6	Johnson	38.2	
	+1.87	Brown	2.99	2	+3.5	Wyandotte	38.0	
	+1.78	Atchison	3.00	3	+3.3	Miami	38.5	
Most Above Normal	+1.32	Jefferson	2.62	4	+3.3	Coffey	38.8	Most Above Normal
	+1.08	Wabaunsee	2.33	5	+3.2	Leavenworth	37.3	
Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	-0.52	Ellsworth	0.50	1	-3.3	Greeley	30.7	
	-0.48	Lincoln	0.43	2	-3.2	Norton	29.1	
	-0.34	Kingman	0.88	3	-2.8	Decatur	29.4	
Most Below Normal	-0.34	Saline	0.74	4	-2.7	Sheridan	30.2	Most Below Normal
	-0.33	Stafford	0.64	5	-2.6	Wallace	30.9	

March 2023	Temperature		Precipitation
	42.1°	Average	0.57”
	-2.7°	Departure	-1.22”
	57th Coldest	Rank	15th Driest

March started out fairly mild. The 5th was unseasonably warm, with daytime highs in the 70s in most areas, but a few locations topped 80 degrees, including both Ashland and Medicine Lodge where the highs reached 82°. Most of the month was cooler than normal; between the 7th and 29th there were only 4 out of 23 days in which average temperatures across the Kansas Mesonet were above normal. The 18th and 19th were particularly cold. Highs on the 18th were mostly in the 30s. On the morning of the 19th, over half the Kansas Mesonet sites recorded low temperatures in the single digits, with the remainder of the sites in the teens. The Gray County site recorded the month’s lowest temperature that morning of 1°. A quick warmup followed, and three days later, the Barber County site recorded 85°, which tied for the warmest reading of the month. The co-op site in Wallace also reached 85° on the last day of March. Monthly temperature departures ranged from -5.1° in the northwest to -1.5° in southeast Kansas. Every county’s average temperature in March was at least 1° below normal, with Rawlins County the most below normal (-5.5°) as well as the coldest county, with an average temperature for the month of 36.5°.

The average statewide precipitation for March was only 32% of normal, and was the driest March since 2015. All divisions were below normal for the month. East central Kansas averaged the most precipitation and highest percent of normal (1.60”, 67%). Within east central Kansas, there were four counties that had above normal precipitation for the month, and were the only ones in the state to finish March with a precipitation surplus: Johnson (+0.33”), Wyandotte (+0.18”), Douglas (+0.16”) and Leavenworth (+0.03”). Clinton Lake had 3.91” for March, the highest total in the state. The co-op site in Lawrence had 3.10” of precipitation; normal for March is 2.32”. But one county west, Topeka had only 1.61” for the month, below their average of 2.24”. Southwest Kansas had the lowest monthly total (0.10”, 8%) while south central had the lowest percent of normal (0.12”, 6%). This was the 4th driest March in 129 years in south central Kansas, and southwest Kansas tied for 6th driest, dating back to 1895. Southwest Kansas’ long-term lack of precipitation continued; this was the 18th consecutive month with below normal precipitation. Garden City had only 0.01” during March, the 4th driest March on record in 130 years. South central Kansas was also very dry. The co-op observer in Argonia in Sumner County had no precipitation in March, as did the CoCoRaHS observer 4 miles east of Pratt. Twenty-seven counties had a top 10 driest March, and seven ranked in the top five, led by Finney County which had their 3rd driest March on record, averaging only 0.03” for the month, one of fourteen counties that averaged less than a tenth of an inch for March.

With cooler air in place for much of the month, some of the precipitation fell as snow. While light amounts of snow were observed in many areas during the month, the largest totals were confined to northwestern Kansas. The co-op observer in Atwood measured 7.8” of snow during the month, the highest total in the state. Goodland’s 5.3” of snow in March brings their total since September 1st to 40.8”, the highest value in Kansas and more than a foot above the normal total of 26.5”.

March 2023 County Data

Total Precipitation (in)					Average Temperature (°F)			
Wettest		Driest			Warmest		Coldest	
Value	County	Value	County	Rank	Value	County	Value	County
2.73	Johnson	0.03	Finney	1	47.2	Cherokee	36.7	Rawlins
2.57	Wyandotte	0.04	Kearny	2	46.8	Labette	36.8	Cheyenne
2.48	Douglas	0.05	Pratt	3	46.7	Montgomery	36.8	Sherman
2.41	Miami	0.06	Grant	4	46.5	Chautauqua	36.9	Decatur
2.39	Cherokee	0.07	Barber	5	46.4	Sumner	37.0	Thomas
2.37	Leavenworth	0.07	Comanche	6	46.4	Cowley	37.4	Sheridan
2.23	Franklin	0.07	Morton	7	46.2	Harper	37.5	Norton
2.07	Anderson	0.08	Harper	8	46.0	Wilson	37.8	Wallace
1.80	Linn	0.08	Kingman	9	46.0	Neosho	38.2	Graham
1.71	Osage	0.09	5 counties tied	10	45.9	Barber	38.4	Phillips

Wettest Month Ranking	Rank	County	Value		Rank	County	Value	Warmest Month Ranking
	46	Johnson	2.73	1	60	Lyon	44.2	
	51	Wyandotte	2.57	2	61	Coffey	44.8	
Highest Ranked Counties	55	Douglas	2.48	3	63	Woodson	45.6	Highest Ranked Counties
	56	Leavenworth	2.37	4	64	Dickinson	43.2	
	61	Rawlins	0.88	5	64	Harvey	44.6	
Driest Month Ranking	Rank	County	Value		Rank	County	Value	Coldest Month Ranking
	3	Finney	0.03	1	36	Graham	38.2	
	4	Kingman	0.08	2	37	Decatur	36.9	
Highest Ranked Counties	5	Harper	0.08	3	37	Trego	38.9	Highest Ranked Counties
	5	Harvey	0.20	4	38	Rooks	39.2	
	5	Kearny	0.04	5	38	Sheridan	37.4	

Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	+0.33	Johnson	2.73	1	-0.9	Woodson	45.6	
	+0.18	Wyandotte	2.57	2	-1.0	Coffey	44.8	
	+0.16	Douglas	2.48	3	-1.0	Lyon	44.2	
Most Above Normal	+0.03	Leavenworth	2.37	4	-1.0	Greenwood	45.2	Most Above Normal
	-0.10	Miami	2.41	5	-1.2	Allen	45.4	
Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	-2.33	Sumner	0.17	1	-5.3	Sheridan	37.4	
	-2.29	Harper	0.08	2	-5.3	Cheyenne	36.8	
	-2.29	Cowley	0.40	3	-5.3	Rawlins	36.7	
Most Below Normal	-2.24	Kingman	0.08	4	-5.2	Graham	38.2	Most Below Normal
	-2.19	Sedgwick	0.16	5	-5.2	Decatur	36.9	

April 2023	Temperature		Precipitation
	54.6°	Average	1.32”
	+0.7°	Departure	-1.36”
	50th Warmest	Rank	17th Driest

The month of April featured periods of both very warm and very cool conditions. It was unusual in that the last half of April was cooler than the first half by about 3 degrees. The first third of the month was variable, with mild days and chilly nights. The 5th and 6th were the coldest of the month, when most of the state had lows below freezing. The COOP observer 1 mile west of Tribune in Greeley County recorded the month's coldest reading, with a low of 12° on the 5th. Almost half of the Kansas Mesonet sites had lows in the teens on the morning of the 6th. Temperatures quickly moderated, and the period between the 11th and 19th had the warmest readings of the month. At least one Kansas Mesonet site had a high in the 90s on five of those nine days. The 13th had the highest readings, including 97° in Atwood, in Rawlins County, which tied the record high for the month of April at that location. Wallace's high of 96° that day also tied their monthly record, set back in 1910. A strong storm system swept through the state on the 19th, spawning 8 tornadoes, with Chase County the hardest hit as an EF2 tornado struck with winds estimated at 125 mph. This same storm system dropped 4” diameter hail 4 miles north-northeast of Cedar Point and an 85-mph wind gust at the Mesonet site in Chase County near Elmdale. Temperatures cooled off significantly behind this system, and it remained cool for the rest of the month. The average temperature across the Kansas Mesonet was below normal for each of the last 11 days of the month. The 23rd was the coldest morning, with lows in the teens and 20s across much of the state. Goodland's coldest low of the month occurred on this day with a low of 17°, well below the normal low for the date of 38°. Despite the late-month cool spell, all divisions still finished above normal for the month. Departures ranged from +0.1° in northwest and southeast Kansas to +1.5° in east central Kansas. Only sixteen counties averaged below normal in April, with Montgomery County the most below normal (-0.6°). Coffey and Osage Counties tied for the most above normal (+2.1°).

The average statewide precipitation for April was 49% of normal. Northwest Kansas was the driest division (0.45”, 23%), where it was the 8th driest April on record. Southeast Kansas had their 7th driest April on record (1.26”, 30%). Twenty-six counties had a top 10 driest April, and eight counties placed in the top 5. Of these, Rooks (0.37”), Bourbon (0.65”) and Neosho (0.73”) all had their second-driest April, and Crawford County (0.86”) had its third-driest. Graham, Mitchell and Montgomery Counties all finished as fourth-driest, with Osborne County experiencing their fifth-driest April.

The only division with above normal precipitation was southwest Kansas (1.90”, 114%), which ended a string of 18 consecutive months with below normal precipitation. All ten counties that had above normal precipitation in April were in the southwest, led by Stanton (+0.85”) and Morton (+0.80”) Counties. Marshall (2.98”) was the wettest county, where three observers measured over 4” of rain for the month. Not to be outdone, two CoCoRaHS observers southwest of the town of Ottawa recorded over 5” of rain, but these were very isolated as Franklin County as a whole only averaged 2.18” for the month.

April 2023 County Data

Total Precipitation (in)					Average Temperature (°F)			
Wettest		Driest			Warmest		Coldest	
Value	County	Value	County	Rank	Value	County	Value	County
2.98	Marshall	0.27	Decatur	1	58.0	Cherokee	49.4	Cheyenne
2.82	Brown	0.30	Norton	2	57.5	Coffey	49.7	Sherman
2.73	Nemaha	0.32	Graham	3	57.3	Crawford	50.2	Rawlins
2.72	Atchison	0.36	Phillips	4	57.3	Cowley	50.3	Wallace
2.55	Jackson	0.37	Rooks	5	57.3	Chautauqua	50.5	Thomas
2.54	Pottawatomie	0.41	Sheridan	6	57.2	Woodson	50.7	Greeley
2.49	Jefferson	0.42	Gove	7	57.2	Montgomery	50.8	Decatur
2.41	Washington	0.42	Trego	8	57.1	Sumner	51.4	Sheridan
2.41	Osage	0.46	Smith	9	57.1	Labette	51.6	Norton
2.39	Douglas	0.48	Rawlins	10	57.0	Sedgwick,Osage	51.7	Logan, Wichita

Wettest Month Ranking	Rank	County	Value		Rank	County	Value	Warmest Month Ranking
	24	Stanton	2.23	1	30	Osage	57.0	
	27	Grant	2.12	2	33	Coffey	57.5	
Highest Ranked Counties	27	Hamilton	2.13	3	33	Lyon	56.9	Highest Ranked Counties
	29	Morton	2.07	4	39	Cloud	55.0	
	33	Stevens	1.91	5	39	Dickinson	56.4	
Driest Month Ranking	Rank	County	Value		Rank	County	Value	Coldest Month Ranking
	2	Bourbon	0.65	1	58	Montgomery	57.2	
	2	Neosho	0.75	2	58	Morton	53.4	
Highest Ranked Counties	2	Rooks	0.37	3	60	Stanton	53.1	Highest Ranked Counties
	3	Crawford	0.86	4	63	Cheyenne	49.4	
	4	Graham	0.32	5	64	Grant	53.5	

Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	+0.85	Stanton	2.23	1	+2.1	Coffey	57.5	
	+0.80	Morton	2.07	2	+2.1	Osage	57.0	
	+0.68	Hamilton	2.13	3	+1.9	Lyon	56.9	
Most Above Normal	+0.60	Grant	2.12	4	+1.8	Cloud	55.0	Most Above Normal
	+0.56	Kearny	2.10	5	+1.7	Dickinson	56.4	
Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	-3.92	Crawford	0.86	1	-0.6	Montgomery	57.2	
	-3.86	Bourbon	0.65	2	-0.5	Labette	57.1	
	-3.78	Neosho	0.75	3	-0.5	Morton	53.4	
Most Below Normal	-3.35	Cherokee	1.52	4	-0.4	Cheyenne	49.4	Most Below Normal
	-3.25	Montgomery	1.21	5	-0.4	Stevens	53.9	

May 2023	Temperature		Precipitation
	65.8°	Average	3.61”
	+1.9°	Departure	-0.60”
	29th Warmest	Rank	64th Wettest

May began on a cool note. The coldest reading of the month, 27°, was recorded on the 1st in both Decatur (Oberlin 7NE, Mesonet) and Lincoln (Lincoln 1SE, COOP) Counties, and in Saline County on the 3rd (Gypsum, Mesonet). Combined with the coolness in late April, the 14-day stretch of below normal average daily temperatures across the Kansas Mesonet was the longest run in 2023. This was followed by an 11-day stretch of above normal temperatures. A rapid warmup commenced on the 4th, and by the 6th, highs in the 80s and 90s were widespread across the state. Topeka’s high of 98° on the 6th was not only a new record high for the date, but also a new record high for the entire month of May, surpassing the old record of 97°. An active period of weather brought severe weather to the state, with multiple reports of tornadoes in northwestern Kansas on the 11th. A brief cooldown between the 19th and 21st brought lows in the 40s, but there were a few upper 30s, including a 37° reading at Phillipsburg on the morning of the 20th. Temperatures warmed towards month’s end, when highs were mostly in the 80s.

All divisions were above normal; departures ranged from +1.2° in south central and southeast Kansas to +3.0° in north central Kansas. Divisional rankings ranged from 23rd warmest in north central Kansas to 44th warmest in southeast Kansas. All 105 counties in the state finished the month above normal, and eight counties in Kansas had a top-20 warmest May. The highest ranking was 14th warmest in Lane County (+3.0°). Cloud County had the warmest departure (+3.7°) in the state, while the coldest departure was still above normal: +0.4° in Labette and Montgomery Counties.

Early May was mostly dry across the state. There were isolated pockets of heavier precipitation in the southeast on the 5th, and across north central, northeast and east central Kansas on the 10th. Northwest Kansas had heavy rain on both the 11th and 12th. Two-day totals in this area exceeded 5” per CoCoRaHS observers in Rawlins and Thomas Counties, with totals over 4” reported in Cheyenne, Sherman and Sheridan Counties. Southwest Kansas also had isolated heavy rain events on the 22nd, 24th and 25th. On the last day of May, a complex of thunderstorms impacted parts of northeast and east central Kansas. The area of storms moved very slowly and resulted in 4 to 6” rainfall totals from Shawnee, Osage, Douglas and Franklin Counties.

The average statewide precipitation for May was 3.61”, or 86% of the normal amount of 4.21”. The three western and three eastern climate divisions all finished May above normal, led by northwest Kansas with 5.28”, the wettest division in the state, finishing the month as their 15th wettest May on record. Two counties in Kansas managed a top 10 wettest May. Rawlins County had its 4th wettest May on record, averaging 6.87”, aided by an 11.91” total from a CoCoRaHS observer near Herndon. This was the highest precipitation total of any county in the state. Neighboring Cheyenne County was the next wettest in May; their 6.23” average was their 6th wettest May on record. Marion County had the highest ranking for dryness; their total of 2.34” ranked as their 11th driest May. There were 18 tornado reports in the state during the month. All of these occurred in the first 12 days of the month. There were 166 reports of hail of 1” in diameter or larger. The largest hail was 4” in Pawnee County on the 9th. There were 92 reports of severe wind gusts, the highest of which was an 87-mph gust on the 30th in Garden City.

May 2023 County Data

Total Precipitation (in)					Average Temperature (°F)			
Wettest		Driest			Warmest		Coldest	
Value	County	Value	County	Rank	Value	County	Value	County
6.87	Rawlins	2.10	McPherson	1	67.7	Sumner	61.9	Cheyenne
6.49	Wilson	2.12	Edwards	2	67.7	Saline	61.9	Sherman
6.35	Franklin	2.21	Mitchell	3	67.6	Cherokee	62.1	Rawlins
6.23	Cheyenne	2.28	Harvey	4	67.5	Sedgwick	62.6	Thomas
6.19	Labette	2.29	Republic	5	67.5	Clark	62.7	Decatur
6.14	Douglas	2.31	Kingman	6	67.3	Harvey	62.7	Wallace
5.73	Decatur	2.31	Reno	7	67.3	Harper	62.9	Greeley
5.59	Cherokee	2.34	Marion	8	67.3	Barber	63.4	Sheridan
5.41	Thomas	2.42	Saline	9	67.2	Wyandotte	63.7	Norton
5.28	Neosho	2.49	Ford	10	67.2	Dickinson,Cloud	64.0	Logan

Wettest Month Ranking	Rank	County	Value		Rank	County	Value	Warmest Month Ranking
	4	Rawlins	6.87	1	14	Lane	65.6	
	6	Cheyenne	6.23	2	16	Scott	65.1	
Highest Ranked Counties	12	Thomas	5.41	3	17	Cloud	67.2	Highest Ranked Counties
	14	Decatur	5.73	4	17	Russell	66.7	
	18	Sherman	4.64	5	19	Finney	65.8	
Driest Month Ranking	Rank	County	Value		Rank	County	Value	Coldest Month Ranking
	11	Marion	2.34	1	67	Labette	66.9	
	13	Coffey	2.51	2	67	Montgomery	67.1	
Highest Ranked Counties	16	McPherson	2.10	3	74	Chautauqua	67.1	Highest Ranked Counties
	17	Harvey	2.28	4	77	Bourbon	66.4	
	19	Butler	2.63	5	79	Cherokee	67.6	

Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	+3.95	Rawlins	6.87	1	+3.7	Cloud	67.2	
	+3.55	Cheyenne	6.23	2	+3.6	Republic	66.2	
	+2.51	Decatur	5.73	3	+3.0	Jewell	65.2	
Most Above Normal	+2.47	Thomas	5.41	4	+3.0	Lane	65.6	Most Above Normal
	+2.14	Morton	4.05	5	+3.0	Russell	66.7	
Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	-3.30	Chautauqua	2.53	1	+0.4	Labette	66.9	
	-3.01	Coffey	2.51	2	+0.4	Montgomery	67.1	
	-2.94	Butler	2.63	3	+0.6	Harper	67.3	
Most Below Normal	-2.90	McPherson	2.10	4	+0.7	Chautauqua	67.1	Most Below Normal
	-2.90	Elk	2.88	5	+0.8	Stafford	65.2	

June 2023	Temperature		Precipitation
	73.4°	Average	4.01”
	-0.8°	Departure	-0.04”
	61st Coldest	Rank	60th Wettest

Temperatures early in the month were near seasonal normals. A warmup began on the 5th, and by the 7th highs in the 90s were observed in a few locations. Average high temperatures from the 7th through the 9th were in the upper 80s statewide. The coolest period of the month followed on the 11th through the 14th. Highs on the 12th averaged only in the low 70s, and on the morning of the 13th, nearly 20 Kansas Mesonet sites had lows in the 40s, the coldest of which was 46° at Belleville. The coldest in the state for June was observed that same morning by two COOP observers: 45° at Frankfort in Marshall County and Tribune in Greeley County. It was also tied on the 18th at Elkhart in Morton County. The 18th was the last of an 8-day period during which statewide lows averaged in the 50s. Warmer temperatures returned on the 19th and continued for the remainder of the month. There were 5 days with average highs at or above 90°: the 19th, 24th and the last three days of the month. Of these days, the 28th was the hottest, when the statewide average high temperature was 97°, and 21 Mesonet sites reached the century mark. The Gypsum site in Saline County reached 105° on the 28th, the warmest Mesonet reading of the month. Twelve sites reached the 100s the following day, with the Woodson site in Yates County at 104°. The hottest temperature of the month was observed on the 29th at Hays, where it reached 106°. Divisional rankings ranged from 23nd coldest in southwest Kansas to 44th warmest in east central Kansas. Seven counties had a top-20 coldest June.

June started out wet in some areas. Precipitation totals for the first three days of June were from 2 to 4 inches across a large part of south central and southwest Kansas. There were isolated totals over 4 inches in Harper, Pratt, Clark and Meade Counties. The 10th and 11th were rainy across much of the state, but the highest totals were focused in central Kansas, with totals of 2 to 3” in the Great Bend, Lyons and Salina areas. Rainfall from the 13th through the 18th favored western Kansas. All twenty CoCoRaHS observers in Hamilton County recorded over 2” of rain during that 6-day period, with a report northeast of Syracuse of 3.52” the highest total. There were isolated reports of over 4” from Sheridan, Sherman and Wallace Counties, but the highest 6-day total was 5.43” in Grant County. This amount included a single-day report of 3.82” on June 16th. Further east, two observers in Harvey County picked up around 5” of rain, with the 18th being the wettest day. Not all locations had heavy rain; monthly totals under 2” were common in the Topeka and Lawrence areas. Divisional percents of normal ranged from 44% in east central Kansas to 154% in southwest Kansas. Harper was the wettest county, averaging 7.80”, their 6th wettest June on record, tying Hamilton County for the highest ranking. Six additional counties had a top 10 wettest June. On the dry side, ten counties experienced a top 10 driest June, with four counties all having their 6th driest, including Johnson and Douglas Counties.

There were only 4 tornado reports in the state during the month, all on the evening of the 23rd in Stanton and Grant Counties. There were 94 reports of severe hail 1” or greater in diameter. Twelve of these reports were of hail 2” or greater, with 4” the largest report of the month. There were 140 reports of severe wind gusts of 58 mph or greater during the month. The highest wind gust report was 100 mph on the 27th, in Meade and Comanche Counties. The Kansas Mesonet site in Seward County south of Satanta measured an 88-mph gust on the afternoon of the 15th.

June 2023 County Data

Total Precipitation (in)					Average Temperature (°F)			
Wettest		Driest			Warmest		Coldest	
Value	County	Value	County	Rank	Value	County	Value	County
7.80	Harper	1.36	Johnson	1	76.5	Montgomery	68.2	Greeley
7.17	Barton	1.44	Douglas	2	76.2	Wilson	68.6	Sherman
7.03	Rice	1.47	Franklin	3	76.2	Cherokee	68.9	Wallace
6.93	Ellsworth	1.47	Miami	4	76.1	Sumner	69.2	Cheyenne
6.50	Stafford	1.63	Greenwood	5	76.0	Labette	69.6	Rawlins
6.46	Kingman	1.68	Anderson	6	76.0	Chautauqua	69.7	Thomas
6.25	Comanche	1.72	Jefferson	7	75.9	Sedgwick	69.7	Wichita
6.24	Kiowa	1.75	Osage	8	75.8	Neosho	69.9	Hamilton
6.19	Clark	1.76	Shawnee	9	75.7	Crawford	70.5	Logan
6.12	Reno	1.76	Wyandotte	10	75.6	Saline, Ottawa	70.5	Stanton

Wettest Month Ranking	Rank	County	Value		Rank	County	Value	Warmest Month Ranking
	6	Hamilton	5.60	1	34	Osage	75.2	
	6	Harper	7.80	2	36	Cloud	75.3	
Highest Ranked Counties	7	Kearny	5.70	3	36	Coffey	75.3	Highest Ranked Counties
	9	Barton	7.17	4	37	Johnson	75.2	
	9	Clark	6.19	5	37	Wyandotte	75.3	
Driest Month Ranking	Rank	County	Value		Rank	County	Value	Coldest Month Ranking
	6	Douglas	1.44	1	18	Grant	71.0	
	6	Franklin	1.47	2	18	Seward	71.5	
Highest Ranked Counties	6	Johnson	1.36	3	19	Hamilton	69.9	Highest Ranked Counties
	6	Miami	1.47	4	19	Morton	70.7	
	8	Anderson	1.68	5	19	Stanton	70.5	

Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	+3.51	Barton	7.17	1	+1.1	Johnson	75.2	
	+3.28	Harper	7.80	2	+1.0	Coffey	75.3	
	+2.98	Ellsworth	6.93	3	+1.0	Coffey	75.3	
Most Above Normal	+2.93	Rice	7.03	4	+1.0	Cloud	75.3	Most Above Normal
	+2.93	Hamilton	5.60	5	+1.0	Wilson	76.2	
Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	-3.97	Douglas	1.44	1	-3.8	Stanton	70.5	
	-3.84	Johnson	1.36	2	-3.7	Greeley	68.2	
	-3.84	Miami	1.47	3	-3.7	Morton	70.7	
Most Below Normal	-3.83	Franklin	1.47	4	-3.5	Seward	71.5	Most Below Normal
	-3.66	Greenwood	1.63	5	-3.5	Hamilton	69.9	

July 2023	Temperature		Precipitation
	78.3°	Average	4.41”
	-0.7°	Departure	+0.56”
	56th Coldest	Rank	33rd Wettest

Temperatures in July started near seasonal normals but warmed quickly. The fourth of July was quite warm, with ten Mesonet sites reaching 100 degrees. The 5th through the 9th were below normal, with lows in the 50s common on the 8th and 9th, with five Mesonet sites recording lows in the 40s on the 9th. Temperatures were close to normal from the 10th through the 20th. A late-month warmup brought Kansas the warmest temperatures of the year. On the 25th, 26th and 28th, the average high across the Kansas Mesonet exceeded 100 degrees, with the 25th the warmest (100.4°) as well as the day with the most stations reaching the triple digits (48). At the peak of the heat wave, some stations recorded their warmest temperature in over a decade, including Concordia, where the high of 109° on the 28th was the warmest in 17 years; the last high of 109° was observed on July 17, 2006. Nearby, Minneapolis recorded the year’s hottest reading so far, with a scorching 111° on the afternoon of the 28th, their hottest day since June 28, 2012. Courtland, in Republic County, tied their all-time record high with 110°. Nighttime lows were warm during this stretch. A few stations had lows in the 80s, including Lawrence, where the morning low on the 27th was 84°, their warmest daily minimum since 1947. Concordia’s low of 83° on the 26th was their warmest low since 1954. Divisional departures ranged from -1.5° in northwest and west central Kansas to +0.4° in southeast Kansas.

July started out wet, especially in southwest and south central Kansas, as a few locations picked up over 4” of rain in the first 7 days of the month. Barber County had the highest totals, where three CoCoRaHS observers in the county all measured between 6.1 and 6.6 inches of rain by 7 AM on the 7th. By the 10th of the month, over 8” of rain had fallen in eastern Kingman County. By month’s end, most areas had above normal rainfall totals. There were a few exceptions, such as Hutchinson, where only 1.08” was measured in July. Other locations with less than 2 inches of rain in July include Hill City (1.42”) and Great Bend (1.62”). The highest totals were in the southwest. A CoCoRaHS observer in southern Ford County had the month’s highest total with 10.77”. Two additional observers in Comanche and Meade Counties measured 10” or more during July. This was the 3rd wettest July on record in Liberal (8.35”), and the wettest since 1961. In Ashland (8.08”), this was the 2nd wettest July on record; only 1950 (8.19”) had more rainfall. Southwest Kansas was the wettest division; their 6.24” average ranked as the 5th wettest July on record. South central Kansas (5.44”) had their 10th wettest July. It was the wettest July on record in Kingman County (7.41”). Meade County was wettest with 8.29”, and was one of five counties to record their second-wettest July, along with Clark (8.18”), Comanche (8.03”), Seward (7.91”) and Barber (7.17”). In all, seventeen counties in Kansas had a top 10 wettest July in 2023.

There were three tornado reports in the state during July. The first two reports were in Russell County on the 16th, with the third the next day in Edwards County. Despite the low tornado count, there were numerous reports of severe hail and wind gusts. A total of 168 reports of severe hail 1” or greater in diameter were received during July. Of these reports, 27 were of significant hail 2” or greater, with 4” the largest report of the month near Great Bend on the 16th. There were 258 reports of severe wind gusts of 58 mph or greater, and four were winds of 100 mph or greater. All of these occurred on the 20th in Wallace and Logan Counties, including the highest gust of 115 mph south of the town of Wallace.

July 2023 County Data

Total Precipitation (in)					Average Temperature (°F)			
Wettest		Driest			Warmest		Coldest	
Value	County	Value	County	Rank	Value	County	Value	County
8.29	Meade	2.31	McPherson	1	80.8	Sumner	74.7	Greeley
8.18	Clark	2.36	Graham	2	80.8	Sedgwick	75.0	Rawlins
8.03	Comanche	2.68	Chase	3	80.8	Cherokee	75.1	Sherman
7.91	Seward	2.73	Harvey	4	80.6	Harvey	75.2	Decatur
7.45	Stevens	2.78	Ness	5	80.5	Harper	75.2	Thomas
7.41	Kingman	2.93	Clay	6	80.4	Saline	75.4	Wallace
7.17	Barber	2.96	Trego	7	80.4	Montgomery	75.5	Norton
7.04	Harper	2.98	Decatur	8	80.4	McPherson	75.6	Marshall
6.69	Morton	2.98	Norton	9	80.4	Butler	75.6	Nemaha
6.44	Haskell	3.00	Rush	10	80.3	Wilson	75.7	Brown,Doniphan

Wettest Month Ranking	Rank	County	Value		Rank	County	Value	Warmest Month Ranking
	1	Kingman	7.41	1	42	Cherokee	80.8	
	2	Barber	7.17	2	45	Greenwood	80.1	
Highest Ranked Counties	2	Clark	8.18	3	45	Lyon	79.3	Highest Ranked Counties
	2	Comanche	8.03	4	46	Osage	79.2	
	2	Meade	8.29	5	47	Harvey	80.6	
Driest Month Ranking	Rank	County	Value		Rank	County	Value	Coldest Month Ranking
	44	McPherson	2.31	1	22	Greeley	74.7	
	45	Graham	2.36	2	28	Marshall	75.6	
Highest Ranked Counties	48	Chase	2.68	3	29	Stanton	77.2	Highest Ranked Counties
	51	Harvey	2.73	4	30	Doniphan	75.7	
	55	Clay	2.93	5	30	Hamilton	76.6	

Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	+5.25	Meade	8.29	1	+1.0	Greenwood	80.1	
	+5.05	Clark	8.18	2	+0.8	Butler	80.4	
	+4.97	Seward	7.91	3	+0.8	Coffey	79.6	
Most Above Normal	+4.93	Comanche	8.03	4	+0.7	Cherokee	80.8	Most Above Normal
	+4.60	Stevens	7.45	5	+0.7	Woodson	79.9	
Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	-1.83	Chase	2.68	1	-2.5	Greeley	74.7	
	-1.81	McPherson	2.31	2	-2.2	Norton	75.5	
	-1.46	Harvey	2.73	3	-2.2	Phillips	76.0	
Most Below Normal	-1.40	Clay	2.93	4	-2.0	Marshall	75.6	Most Below Normal
	-1.29	Graham	2.36	5	-1.9	Decatur	75.2	

August 2023	Temperature		Precipitation
	78.8°	Average	2.89”
	+1.7°	Departure	-0.62”
	33rd Warmest	Rank	59th Driest

August began with hot temperatures, as around half the Kansas Mesonet sites had highs between 100 and 107 degrees on the 1st. Temperatures slowly cooled thereafter, and from the 4th through the 9th, the majority of daytime highs in the state were in the 80s. A quick warm-up followed for the 10th and 11th, when highs on the 11th averaged 95° across the state with a few locations reaching over 100 degrees. A week of more seasonable temperatures followed from the 12th through the 18th, before a weeklong, brutal heat wave commenced on the 19th. The heat wave broke on the 26th, and more comfortable temperatures were the rule for the remainder of August.

The hottest day of the heat wave was the first day, the 19th. Daytime highs across the Kansas Mesonet averaged 105.3°, the highest single-day average in almost 11 years and the sixth highest in the history of the Kansas Mesonet, dating back to 1985. The all-time record average high of 106.5° was set on June 27, 2012. The average statewide high each day from the 19th through the 25th was over 100°. This 7-day run was the longest since a 9-day stretch took place from July 17-25, 2012. The highest temperature recorded in the state during this event was 115° at the Manhattan ASOS site in Riley County on the 19th. This was the hottest ever recorded at that location, where records began in 1960. The previous record was 111° set on September 2nd, 2000. The Lawrence ASOS site in Douglas County reached 112° on the 24th, and set a new all-time highest station record by one degree. Records at that site began in 1996. Concordia’s average temperature from August 19th through the 25th was 92.2°, the warmest in the state. This was also Concordia’s warmest 7 days since the Dust Bowl era; only 1934 and 1936 had higher 7-day averages. Emporia, Winfield and Salina also averaged over 90° for the same 7-day period. All nine divisions were above normal for the month, departures ranged from +0.8° in southwest Kansas to +2.6° in southeast Kansas. Twelve counties in Kansas had a top-20 warmest August, led by Butler County, which ranked as 15th warmest. Every county in the state averaged above normal, departures ranged from +0.3° in Comanche County to +3.9° in Butler County.

The first half of August was much wetter than the second half of the month. Most areas picked up from 2 to 3” of rain during the first two weeks of August, with higher totals in parts of central and west central Kansas, in the Kansas City Metropolitan area as well as in southeast Kansas. The CoCoRaHS observer in Galesburg in Neosho County picked up 8.62” of precipitation between August 5th and the 14th. Totals over 6” were measured in neighboring Wilson, Labette and Crawford Counties for the same 10-day period. Totals over 5” were noted in Trego, Ellis and Barton Counties as well as further east in Wyandotte County. In the second half of August, there was heavy rain associated with the cold front that put an end to the heat wave. Parts of Republic, Jewell, Smith and Phillips Counties picked up over 3” of rain in the 24 hours ending at 7 AM on the 26th. Southwestern Kansas had some low monthly totals, as precipitation missed this area. The CoCoRaHS observer in Hugoton in Stevens County only measured 0.52” of rain for the month. The Dodge City area was also dry; at least 7 CoCoRaHS observers in Ford County had less than 2” of precipitation. Only two divisions averaged above normal for the month: north central (+0.65”) and northwest (+0.08”). Southwest Kansas was the driest division (1.86”), but east central was the most below normal (-2.01”).

August 2023 County Data

Total Precipitation (in)					Average Temperature (°F)			
Wettest		Driest			Warmest		Coldest	
Value	County	Value	County	Rank	Value	County	Value	County
6.15	Cherokee	0.95	Stevens	1	82.2	Butler	75.0	Sherman
6.09	Neosho	1.01	Seward	2	82.1	Sumner	75.4	Cheyenne
5.89	Smith	1.11	Morton	3	82.0	Cowley	75.4	Greeley
5.40	Crawford	1.49	Stanton	4	81.8	Sedgwick	75.5	Rawlins
4.65	Phillips	1.70	Grant	5	81.7	Greenwood	75.5	Thomas
4.60	Labette	1.72	Linn	6	81.6	Chautauqua	75.5	Wallace
4.59	Russell	1.74	Greeley	7	81.5	Elk	75.9	Decatur
4.45	Jewell	1.78	Hamilton	8	81.4	Montgomery	76.1	Wichita
4.42	Rush	1.81	Ford	9	81.3	Harper	76.2	Nemaha
4.39	Osborne	1.83	Kearny	10	81.2	Saline, Harvey	76.3	Norton

Wettest Month Ranking	Rank	County	Value		Rank	County	Value	Warmest Month Ranking
	6	Smith	5.89	1	15	Butler	82.2	
	17	Cherokee	6.15	2	16	Greenwood	81.7	
Highest Ranked Counties	20	Neosho	6.09	3	17	Chase	81.0	Highest Ranked Counties
	20	Osborne	4.39	4	17	Lyon	80.6	
	20	Rush	4.42	5	18	Coffey	80.7	
Driest Month Ranking	Rank	County	Value		Rank	County	Value	Coldest Month Ranking
	17	Seward	1.01	1	60	Comanche	79.2	
	17	Stevens	0.95	2	65	Clark	79.4	
Highest Ranked Counties	21	Morton	1.11	3	66	Grant	77.3	Highest Ranked Counties
	23	Coffey	1.96	4	67	Haskell	77.3	
	23	Osage	1.86	5	67	Meade	78.8	

Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	+2.56	Smith	5.89	1	+3.9	Butler	82.2	
	+2.38	Cherokee	6.15	2	+3.8	Greenwood	81.7	
	+2.07	Neosho	6.09	3	+3.5	Chase	81.0	
Most Above Normal	+1.64	Crawford	5.40	4	+3.4	Cloud	80.1	Most Above Normal
	+1.38	Phillips	4.65	5	+3.3	Lyon	80.6	
Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	-2.29	Osage	1.86	1	+0.3	Comanche	79.2	
	-2.23	Linn	1.72	2	+0.4	Haskell	77.3	
	-2.22	Franklin	1.92	3	+0.4	Seward	78.2	
Most Below Normal	-2.21	Shawnee	2.07	4	+0.4	Grant	77.3	Most Below Normal
	-2.13	Anderson	1.88	5	+0.5	Meade	78.8	

September 2023	Temperature		Precipitation
	72.3°	Average	1.63”
	+3.5°	Departure	-0.89”
	14th Warmest	Rank	26th Driest

Early September was quite hot. The average high across the Kansas Mesonet for the first four days of the month ranged between 98 and 100 degrees, or 11 to 14 degrees above normal. Thanks to dry air, morning lows for this period were close to normal. Temperatures cooled a few degrees starting on the 5th, and remained within a few degrees of normal until the 10th, when an 8-day run of below normal average temperatures commenced. Warmer weather returned on the 18th, and the last thirteen days of the month all averaged above normal. The last three days of September were the most above normal days of the month, when average temperatures across the state were from 12 to 16 degrees above normal. Average highs across the Kansas Mesonet for the last three days of September ranged from 92 to 94 degrees. The early and late-month warmth was sufficient for record highs to be set across the state. In far western Kansas, Wallace set new record highs on the 2nd (105°) and 3rd (106°), each of which established a new record high for the month of September at this site, where records began in 1903. Both Dodge City (105°) and Garden City (101°) set new daily record highs on the 4th. Over two dozen record highs were set or tied on the 29th. New records on that date were established at El Dorado (97°), Hutchinson (95°), Emporia (95°) and Colby (95°). Record highs were tied on the 29th at both Concordia (96°) and Topeka (94°). The month ranked as the 14th warmest September in 129 years, dating back to 1895. All nine divisions were above normal for the month; departures ranged from +3.0° in northwest Kansas to +4.0° in east central Kansas. Divisional rankings ranged from 13th to 21h warmest. Five counties experienced a top 10 warmest September; Cowley County was highest ranked at 8th warmest.

Most areas were dry for the first nine days of September. The cooler period from the 10th through the 17th was accompanied by precipitation. The first event brought moisture to nearly all locations in the state, but the heaviest amounts were in western Kansas, where at least one CoCoRaHS observer in 12 counties in southwest and west central Kansas picked up at least 2 inches of rain between the 10th and the 12th. The highest totals were in the Garden City and Scott City areas, where isolated locations measured over 3” of precipitation. Amounts from the 14th through the 17th were heaviest in southwest and south central Kansas. Five counties had at least one observer measure at least 2.5” of rain: Meade, Kiowa, Comanche, Barber and Reno. Localized storms in Crawford County on the 20th brought from 2 to 3.5” of rain to the area. This was soon followed by more heavy rain across a larger area of the state. Three-day totals from the 22nd through the 24th were highest in northern and eastern Kansas. Totals over 2” were received from at least 22 counties. Both Johnson and Crawford Counties in extreme eastern Kansas had reports of over 4” of rain, with over 3” amounts also observed in Dickinson, Morris and Lyon Counties. Despite this precipitation, only 21 counties had above normal precipitation in September, and as a result, it was the 26th driest September out of 129 years. It was the 10th driest September in central Kansas and 13th driest in northeast Kansas. Eight counties had a top 10 driest September, led by Sherman County, which averaged just 0.12”, the lowest in the state and their 5th driest September on record.

September 2023 County Data

Total Precipitation (in)					Average Temperature (°F)			
Wettest		Driest			Warmest		Coldest	
Value	County	Value	County	Rank	Value	County	Value	County
4.41	Crawford	0.12	Sherman	1	75.9	Sumner	68.6	Sherman
3.88	Cherokee	0.13	Cheyenne	2	75.8	Cowley	68.8	Cheyenne
3.45	Comanche	0.24	Thomas	3	75.1	Harper	68.8	Rawlins
3.07	Johnson	0.57	Graham	4	75.0	Sedgwick	69.2	Decatur
2.92	Miami	0.57	Rawlins	5	74.8	Butler	69.2	Thomas
2.88	Seward	0.61	Rooks	6	74.5	Barber	69.3	Greeley
2.88	Bourbon	0.62	Wallace	7	74.4	Chautauqua	69.4	Wallace
2.84	Kiowa	0.66	Ellis	8	74.2	Saline	69.7	Norton
2.67	Labette	0.67	Russell	9	74.0	Kingman	69.9	Marshall
2.61	Barber	0.77	Lincoln	10	74.0	Harvey, Clark	69.9	Nemaha

Wettest Month Ranking	Rank	County	Value		Rank	County	Value	Warmest Month Ranking
	19	Seward	2.88	1	8	Cowley	75.8	
	24	Scott	2.58	2	10	Butler	74.8	
Highest Ranked Counties	28	Comanche	3.45	3	10	Cloud	73.0	Highest Ranked Counties
	35	Gray	2.38	4	10	Geary	73.4	
	35	Kiowa	2.84	5	10	Republic	71.8	
Driest Month Ranking	**Rank**	**County**	**Value**		**Rank**	**County**	**Value**	**Coldest Month Ranking**
	5	Sherman	0.12	1	93	Bourbon	72.0	
	6	Jefferson	1.20	2	95	Labette	73.2	
Highest Ranked Counties	7	Atchison	1.29	3	97	Montgomery	73.8	Highest Ranked Counties
	7	Brown	1.03	4	98	Cherokee	73.1	
	7	Cheyenne	0.13	5	98	Linn	72.0	

Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	+1.66	Comanche	3.45	1	+4.9	Cowley	75.8	
	+1.49	Seward	2.88	2	+4.7	Butler	74.8	
	+1.10	Scott	2.58	3	+4.7	Geary	73.4	
Most Above Normal	+0.96	Kiowa	2.84	4	+4.6	Cloud	73.0	Most Above Normal
	+0.96	Gray	2.38	5	+4.5	Wabaunsee	72.8	
Total Monthly Precipitation	**Dep.**	**County**	**Precip.**		**Dep.**	**County**	**Temp.**	**Average Monthly Temperature**
	-2.65	Allen	1.78	1	+2.2	Bourbon	72.0	
	-2.43	Jefferson	1.20	2	+2.4	Cherokee	73.1	
	-2.42	Brown	1.03	3	+2.5	Labette	73.2	
Most Below Normal	-2.27	Neosho	2.14	4	+2.6	Greeley	69.3	Most Below Normal
	-2.25	Coffey	1.96	5	+2.7	Comanche	73.5	

October 2023	Temperature		Precipitation
	58.0°	Average	1.87”
	+1.8°	Departure	-0.45”
	37th Warmest	Rank	60th Wettest

The first of October was the warmest day of the month, when around half of the Kansas Mesonet sites had highs in the 90s. Observers in Graham, Rawlins and Rooks Counties recorded highs of 98° on the 1st, the warmest readings in the state for the month. Twenty daily record highs were broken or tied on the 1st, including Wallace (96°, new), El Dorado (95°, new) and Perry Lake (93°, tied). Temperatures started to cool on the 4th and were below to near normal from the 4th through the 10th. After a quick warm up on the 11th and 12th, temperatures from the 13th through the 16th averaged 5 to 10 degrees below normal. An extended period of warmth began on the 17th and lasted through the 26th, with average temperatures as high as 16 degrees above normal on the 23rd when highs in the 80s were recorded at all but one Kansas Mesonet site. The last five days of October were chilly. Average temperatures from the 28th through the 31st averaged 18 to 21 degrees below normal. Lows on the last five days of the month averaged below freezing, and averaged in the teens on the 30th (17.2°) and 31st (19.2°), resulting in a hard freeze at nearly every Mesonet site, putting an end to the growing season. Ten Mesonet sites had lows in the single digits on the morning of the 30th. The co-operative observer 1 mile west of Tribune in Greeley County had a low of 5° on the 30th; this was a new record low for the date and the state’s coldest temperature in October. Additional record lows that day were set at Atwood (10°), Marysville (19°), Emporia (24°) and Olathe-Johnson County Industrial Airport (25°). All nine divisions were above normal for the month; departures ranged from +0.7° in northwest Kansas to +2.2° in north central Kansas.

While much of the month was dry, there were a couple of noteworthy precipitation events. The first was early in the month, in association with the arrival of cooler weather. Precipitation was measured at nearly every location in the state between the 3rd and 5th. Three-day precipitation totals ending at 7 AM on the 5th were highest in Stanton County, where three CoCoRaHS observers measured from 2.1 to 2.6” of rain. Parts of north central and northeast Kansas had over an inch of rain, as did the southwestern part of the Wichita metropolitan area. The most significant event of the month occurred on the 24th and 25th, when areas along and near a line from Wichita to Emporia to Lawrence to Kansas City were inundated with 4 to 10 inches of rain. The highest totals were in Osage and Lyon Counties. The CoCoRaHS observer 5 miles southwest of Osage City measured 10.13” for the two-day period ending at 7 AM on the 26th. New one-day precipitation records for October were set at eight locations on the 25th, including at Osage City (7.00”), Ottawa (5.75”), Melvern Lake (5.50”) and Pomona Lake (5.00”). An additional precipitation event on the 28th into the 29th brought around an inch more of rain to many of the same locations, but in northwest Kansas with colder air in place, the first snowflakes of the year were observed. Measurable snowfall occurred in some areas. Sherman County had the highest totals, with five CoCoRaHS observers in the northern half of the county measuring from 2 to 3.6” of snow. Another CoCoRaHS observer in Atwood in Rawlins County measured 2.5” of snow. Trace amounts were recorded as far south as Hays and in north central Kansas in Osborne, Russell, Lincoln, Ottawa and Washington Counties. Only one division averaged above normal for the month: east central Kansas (+1.58”), where it was the 26th wettest October on record. Northwest Kansas was the driest division (0.59”). The two wettest counties in the state had their 5th wettest October: Franklin (6.88”) and Osage (6.58”).

October 2023 County Data

Total Precipitation (in)					Average Temperature (°F)			
Wettest		Driest			Warmest		Coldest	
Value	County	Value	County	Rank	Value	County	Value	County
6.88	Franklin	0.37	Hodgeman	1	61.4	Sumner	52.6	Sherman
6.58	Osage	0.41	Wallace	2	61.3	Harper	53.2	Cheyenne
6.01	Miami	0.42	Cheyenne	3	61.2	Cowley	53.2	Rawlins
5.74	Coffey	0.42	Sherman	4	60.9	Chautauqua	53.5	Decatur
5.61	Lyon	0.43	Ness	5	60.9	Barber	53.8	Thomas
5.38	Johnson	0.47	Gray	6	60.7	Sedgwick	53.8	Wallace
4.76	Chase	0.47	Greeley	7	60.7	Montgomery	54.3	Norton
4.54	Linn	0.49	Rooks	8	60.6	Labette	54.4	Greeley
4.46	Greenwood	0.49	Trego	9	60.6	Cherokee	54.8	Sheridan
4.35	Butler	0.50	Pawnee	10	60.5	Butler	55.1	Marshall

Wettest Month Ranking	Rank	County	Value		Rank	County	Value	Warmest Month Ranking
	5	Franklin	6.88	1	23	Mitchell	58.4	
	5	Osage	6.58	2	24	Lincoln	59.1	
Highest Ranked Counties	13	Lyon	5.61	3	24	Pratt	60.0	Highest Ranked Counties
	16	Miami	6.01	4	25	Jewell	57.1	
	17	Chase	4.76	5	26	Ottawa	59.0	
Driest Month Ranking	Rank	County	Value		Rank	County	Value	Coldest Month Ranking
	23	Pawnee	0.50	1	62	Decatur	53.5	
	24	Hodgeman	0.37	2	62	Sherman	52.6	
Highest Ranked Counties	28	Ford	0.57	3	63	Marshall	55.1	Highest Ranked Counties
	28	Ness	0.43	4	67	Rawlins	53.2	
	29	Stafford	0.80	5	69	Wallace	53.8	

Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	+3.74	Franklin	6.88	1	+2.9	Mitchell	58.4	
	+3.64	Osage	6.58	2	+2.8	Lincoln	59.1	
	+2.70	Lyon	5.61	3	+2.8	Ellsworth	59.4	
Most Above Normal	+2.64	Miami	6.01	4	+2.7	Jewell	57.1	Most Above Normal
	+2.40	Coffey	5.74	5	+2.6	Pratt	60.0	
Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	-1.57	Hodgeman	0.37	1	+0.2	Marshall	55.1	
	-1.52	Pawnee	0.50	2	+0.3	Sherman	52.6	
	-1.48	Ford	0.57	3	+0.3	Decatur	53.5	
Most Below Normal	-1.43	Atchison	1.62	4	+0.4	Rawlins	53.2	Most Below Normal
	-1.40	Stafford	0.80	5	+0.6	Norton	54.3	

November 2023	Temperature		Precipitation
	45.2°	Average	0.97”
	+1.9°	Departure	-0.33”
	24th Warmest	Rank	63rd Driest

The month started on a cold note, as temperatures on the 1st averaged over 8° below normal across the Kansas Mesonet. Twenty sites set record lows on the 1st, including Fort Scott (18°), Holton (14°), Ottawa (19°) and Washington (14°). Unusually, Fort Scott and Washington's lows on the 1st were also the coldest at those locations for the entire month. A warmup commenced on the 2nd, and was the first of seven consecutive above normal days. Average highs were in the 70s from the 5th through the 7th, and of the three days, the 7th had the warmest average high at 79°, a full 20° above normal. Over thirty Mesonet sites had highs in the 80s on the 7th, including at the Clark County site where the high was 89. The highest readings for the month were recorded on this date at Wallace (89°), Goodland (87°), Tribune (86°) and Dodge City (84°). Wallace's high was a new record for the month of November by two degrees, and Tribune and Goodland's highs both tied their monthly records. A brief cooldown brought slightly below normal average temperatures on the 9th and 10th before another extended run with above normal temperatures commenced on the 11th and lasted until the 20th. Within this stretch, average highs were at or slightly above 70° from the 12th through the 15th. The string of warmth came to an end as a storm system brought much cooler temperatures as well as significant rain for some areas. The longest stretch with below normal average temperatures during November began on the 23rd and lasted through the 28th, as a Thanksgiving weekend winter storm brought accumulating snow to much of the state. The snow cover kept low temperatures below normal, and average lows were in the teens from the 25th through the 28th. The morning of the 27th featured the coldest readings in the state so far this fall. The Mesonet site at the Flickner Tech Farm in McPherson County recorded a low of 0° that morning, which tied the co-operative site at Herington in Dickinson County for the coldest reading of the month. All nine climate divisions were above normal for the month; departures ranged from +1.1° in northeast Kansas to +2.8° in north central Kansas. All 105 counties in Kansas averaged at least 0.3° above normal for November.

Precipitation was scarce until the second half of November. From November 1st through the 18th, an average of only 0.02” fell across Kansas. Precipitation on the 19th and 20th averaged just over half an inch across the state, but the western third missed out on significant moisture. Two-day totals of over an inch were most common in the central third of the state, but there were areas further east that picked up more than an inch as well. Just a few days later, another precipitation event impacted the state, but with colder air in place, most of the precipitation fell as snow. Central Kansas had the most, with as much as 14” of snow measured in Marion County, with up to a foot of snow in parts of Reno, Harvey and Morris Counties. It was the largest snow event in nearly a decade in Wichita (7.8”), Topeka (7.2”) and Manhattan (6.0”). The only areas that observed rain were in southeast Kansas, where warmer temperatures kept the precipitation as mostly liquid. Two divisions had above normal precipitation for the month: central (1.22”) and south central (1.47”). The remaining divisions were all below normal. Only 24 of Kansas' 105 counties had above normal precipitation in November. Sedgwick County had the highest average precipitation (2.26”), while Greeley County had the least precipitation (0.09”).

November 2023 County Data

Total Precipitation (in)					Average Temperature (°F)			
Wettest		Driest			Warmest		Coldest	
Value	County	Value	County	Rank	Value	County	Value	County
2.26	Sedgwick	0.09	Greeley	1	49.4	Cherokee	42.1	Marshall
2.11	Sumner	0.10	Hamilton	2	48.6	Labette	42.1	Nemaha
1.93	Cowley	0.14	Stanton	3	48.6	Crawford	42.3	Decatur
1.90	Harper	0.14	Wichita	4	48.3	Montgomery	42.4	Rawlins
1.89	Butler	0.15	Grant	5	48.2	Chautauqua	42.6	Jackson
1.80	Wabaunsee	0.15	Kearny	6	48.1	Neosho	42.7	Greeley
1.79	Greenwood	0.15	Wallace	7	48.0	Cowley	42.7	Norton
1.79	Geary	0.17	Morton	8	47.7	Barber	42.7	Thomas
1.76	Morris	0.18	Logan	9	47.6	Wilson	42.7	Washington
1.76	Douglas	0.19	Cheyenne	10	47.5	Harper,Bourbon	42.9	Sheridan,Sherman

Wettest Month Ranking	Rank	County	Value		Rank	County	Value	Warmest Month Ranking
	31	Barber	1.68	1	12	Russell	46.1	
	36	Sedgwick	2.26	2	13	Cheyenne	43.0	
Highest Ranked Counties	38	Harper	1.90	3	13	Lincoln	46.0	Highest Ranked Counties
	40	Pratt	1.55	4	14	Mitchell	45.3	
	41	Cloud	1.39	5	15	Cloud	45.7	
Driest Month Ranking	Rank	County	Value		Rank	County	Value	Coldest Month Ranking
	24	Cherokee	0.99	1	73	Jackson	42.6	
	28	Bourbon	0.94	2	76	Marion	44.4	
Highest Ranked Counties	28	Labette	0.94	3	78	Chase	44.6	Highest Ranked Counties
	29	Greeley	0.09	4	78	Harvey	45.1	
	30	Crawford	1.11	5	79	Jefferson	44.1	

Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	+0.62	Sedgwick	2.26	1	+3.6	Cloud	45.7	
	+0.40	Sumner	2.11	2	+3.5	Russell	46.1	
	+0.37	Harper	1.90	3	+3.4	Mitchell	45.3	
Most Above Normal	+0.36	Pratt	1.55	4	+3.3	Osborne	45.1	Most Above Normal
	+0.33	Barber	1.68	5	+3.2	Lincoln	46.0	
Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	-2.07	Cherokee	0.99	1	+0.3	Marion	44.4	
	-1.84	Crawford	1.11	2	+0.3	Harvey	45.1	
	-1.84	Bourbon	0.94	3	+0.4	Jackson	42.6	
Most Below Normal	-1.83	Labette	0.94	4	+0.4	Chase	44.6	Most Below Normal
	-1.57	Neosho	1.00	5	+0.7	Sedgwick	46.4	

December 2023	Temperature		Precipitation
	39.2°	Average	2.13”
	+6.0°	Departure	+1.06”
	2nd Warmest	Rank	9th Wettest

December started out cool. The average statewide temperature across the Kansas Mesonet was below normal for the first two days of the month, but it would be another three weeks before there were two more below normal days. Between the 3rd and the 24th, the 10th was the only below normal day. During that stretch there were ten days in which the average temperature was at least 10 degrees above normal. The 7th was the warmest day, with an average high of 69°. Over 40 new record highs were set on that date. The Clark County Mesonet site recorded the month’s highest reading that afternoon of 80°. With no Arctic outbreaks during the month, no below zero lows were observed anywhere in the state. The coldest reading was 5° at the Hamilton County Mesonet site on the 10th. An extended period of cloudiness later in the month was accompanied by mild conditions. On the 20th through the 23rd, the average daily minimums were all above freezing, and over 130 locations set new daily record high minimums, with lows in the 50s in a few spots. More seasonable temperatures arrived in time for Christmas and lingered through the end of the year, but it was still the 2nd warmest December on record.

December was also a wet month. A significant precipitation event began on the 13th, and lasted until early on the 15th. When all was said and done, storm totals exceeded 3” in some areas. The highest total was 3.59”, reported by a CoCoRaHS observer in southern Meade County. Reports of over 3 inches also came from Seward, Clark, Ford and Edwards Counties. In most areas, the bulk of the precipitation fell on the 14th. The highest 24-hour total was in Clark County, where the co-operative observer in Ashland picked up 2.30” as of 7 AM on the 15th. Not far behind was a 2.24” report near Bucklin, in Ford County. The Bucklin total was historic, as it was the largest 24-hour amount ever recorded in the month of December at that location, where records date back 130 years. A second storm system arrived in southwest Kansas on the 21st and lingered through the 22nd, primarily impacting southern and eastern Kansas. A more significant system affected the state starting on the evening of the 23rd. Southwest Kansas felt its impacts first as a line of thunderstorms formed in the Texas Panhandle and moved northeast. Moisture steadily streamed north into the state, leading to heavy rains overnight in south central Kansas that moved east and northeast into the morning of the 24th. Rainfall of 1 to 2 inches was reported across most of the eastern half of the state, with isolated totals of 2 to 3 inches in the Kansas City, Topeka and Emporia areas as well as in southeast Kansas. The highest 7-day total was in Lyon County east of Emporia where 2.99” was reported by a CoCoRaHS observer. The area of low pressure that produced the heavy rain was slow to depart the Central Plains. As it lingered, colder air was drawn in from the north bringing snow to many areas beginning on Christmas Day and lasting into the 26th. The snow, combined with gusty north and northwest winds, created blizzard conditions in Sherman and Cheyenne Counties. Goodland recorded a peak wind gust of 50 mph on the 26th, and an observer in eastern Cheyenne County reported 8.5” of snow for the event. Further east, snow amounts in north central Kansas were generally from 3 to 5 inches. Parts of northeast Kansas picked up 1 to 2 inches, with a few reports of 4 to 5 inches closer to the Nebraska border. Very little if any snow was observed south of a line from Wichita to Kansas City. These two events combined to make it the 9th wettest December on record. Southwest Kansas recorded their 3rd wettest December, and south central had its 6th wettest.

December 2023 County Data

Total Precipitation (in)					Average Temperature (°F)			
Wettest		Driest			Warmest		Coldest	
Value	County	Value	County	Rank	Value	County	Value	County
3.55	Cowley	0.65	Decatur	1	43.9	Cherokee	35.5	Greeley
3.45	Coffey	0.77	Rawlins	2	43.5	Labette	36.0	Thomas
3.42	Osage	0.82	Norton	3	43.3	Montgomery	36.0	Wallace
3.35	Sumner	0.85	Thomas	4	42.9	Woodson	36.1	Sherman
3.22	Edwards	0.87	Cheyenne	5	42.9	Wilson	36.2	Decatur
3.20	Johnson	0.90	Sherman	6	42.9	Neosho	36.2	Jewell
3.20	Chautauqua	0.91	Wallace	7	42.9	Crawford	36.2	Rawlins
3.16	Lyon	0.92	Sheridan	8	42.8	Harper	36.3	Norton
3.15	Wyandotte	0.96	Logan	9	42.8	Chautauqua	36.3	Sheridan
3.11	Clark	1.02	Greeley	10	42.6	Allen	36.3	Smith

Wettest Month Ranking	Rank	County	Value		Rank	County	Value	Warmest Month Ranking
	3	Ford	2.94	1	1	Barton	39.7	
	3	Gray	2.48	2	1	Rush	39.2	
Highest Ranked Counties	3	Haskell	2.22	3	1	Russell	39.3	Highest Ranked Counties
	3	Seward	2.36	4	2	Allen	42.6	
	4	Clark	3.11	5	2	Anderson	42.2	
Driest Month Ranking	Rank	County	Value		Rank	County	Value	Coldest Month Ranking
	93	Decatur	0.65	1	121	Greeley	35.5	
	98	Wilson	2.06	2	122	Wallace	36.0	
Highest Ranked Counties	99	Cherokee	2.67	3	123	Logan	36.5	Highest Ranked Counties
	99	Neosho	2.28	4	124	Morton	39.8	
	99	Norton	0.82	5	124	Wichita	36.4	

Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	+2.27	Edwards	3.22	1	+7.6	Doniphan	39.0	
	+2.14	Clark	3.11	2	+7.6	Woodson	42.9	
	+2.09	Kiowa	3.10	3	+7.5	Coffey	42.1	
Most Above Normal	+2.04	Cowley	3.55	4	+7.5	Anderson	42.2	Most Above Normal
	+2.02	Ford	2.94	5	+7.5	Miami	41.7	
Total Monthly Precipitation	Dep.	County	Precip.		Dep.	County	Temp.	Average Monthly Temperature
	+0.05	Decatur	0.65	1	+3.8	Greeley	35.5	
	+0.17	Norton	0.82	2	+4.3	Wallace	36.0	
	+0.23	Rawlins	0.77	3	+4.3	Wichita	36.4	
Most Below Normal	+0.23	Labette	2.37	4	+4.7	Scott	36.9	Most Below Normal
	+0.30	Wilson	2.06	5	+4.7	Logan	36.5	

Chanute		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	38.8 +5.1	74 2	12 31	0.95 -0.23	0.37 18	JUL	81.6 +1.0	103 12	57 10	5.75 +1.33	2.06 13
	FEB	41.9 +3.6	75 28	14 1	1.33 -0.23	0.51 14	AUG	81.5 +1.9	106 2	59 3 days	7.12 +3.33	2.46 13
	MAR	47.0 -1.3	81 31	15 19	0.88 -1.62	0.27 16	SEP	74.0 +2.9	102 5	49 13	1.91 -2.19	1.24 22
	APR	57.5 -0.2	86 18	25 23	0.68 -3.57	0.22 5	OCT	60.5 +1.1	90 1, 21	21 31	2.71 -0.62	0.87 24
	MAY	68.8 +1.9	93 6	33 3	3.61 -2.26	0.75 12	NOV	49.3 +1.8	82 7	19 1	1.52 -0.84	0.81 30
	JUN	77.4 +1.2	105 29	58 4 days	3.50 -2.12	1.82 10	DEC	43.5 +6.4	68 7	23 18, 19	1.39 -0.32	0.90 24

Concordia		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	31.7 +2.9	61 9	5 31	1.18 +0.51	0.52 21	JUL	80.1 +1.2	109 28	59 9	2.37 -1.78	0.67 22
	FEB	36.6 +3.8	65 26	4 23	0.75 -0.11	0.41 26	AUG	81.5 +5.1	109 21	58 15	4.25 +0.76	1.68 25
	MAR	41.9 -1.6	76 30	14 19	0.49 -1.04	0.24 25	SEP	74.2 +5.7	103 2	48 13	2.46 -0.34	1.22 22
	APR	55.9 +2.8	88 13	23 6	1.08 -1.45	0.66 20	OCT	58.2 +2.6	93 1	20 30	1.50 -0.48	0.84 3
	MAY	68.3 +4.8	94 7	37 1	4.08 -0.26	2.20 9	NOV	47.3 +5.2	75 7	18 26	1.33 +0.17	0.84 19
	JUN	75.9 +1.5	98 28	51 13	3.57 -0.26	1.01 21	DEC	39.2 +7.7	65 7	18 2	1.56 +0.52	0.59 15

Dodge City		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	33.2 +0.2	70 15	4 30, 31	0.57 -0.03	0.43 21	JUL	78.9 -1.2	103 17, 18	56 9	5.87 +2.79	2.98 20
	FEB	37.3 +1.1	74 21, 26	3 23	0.30 -0.32	0.15 26	AUG	79.3 +1.2	107 19	54 27	1.18 -1.81	0.31 11
	MAR	42.7 -2.7	78 22	8 19	0.23 -1.12	0.12 23	SEP	73.5 +3.5	105 4	49 24	2.74 +1.43	1.60 10
	APR	55.0 +0.7	90 18	20 6	1.78 -0.21	1.33 26	OCT	57.9 +1.1	91 20	17 30	0.15 -1.87	0.11 3
	MAY	66.7 +1.9	94 9	37 1	2.23 -0.76	1.45 19	NOV	47.0 +3.3	84 7	15 26	0.48 -0.32	0.36 25
	JUN	72.4 -2.7	97 27	52 14	6.29 +3.00	1.21 3	DEC	39.4 +5.5	73 7	17 10	2.28 +1.32	1.76 14

Emporia		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	35.3 +4.3	61 1	8 31	0.99 +0.21	0.51 18	JUL	80.0 +1.0	105 28	60 10, 22	2.89 -1.01	1.08 14
	FEB	39.1 +3.7	69 6	10 1, 3	2.12 +0.81	0.69 26	AUG	81.7 +4.2	112 19	55 18	2.27 -1.59	0.81 13
	MAR	45.0 -0.6	83 22	15 19	1.12 -1.00	0.33 3	SEP	74.3 +5.3	100 2, 3	51 14	0.85 -2.40	0.56 11
	APR	57.2 +1.7	88 4	27 6	2.81 -1.03	0.95 15	OCT	59.3 +2.1	92 1	24 30	6.98 +3.88	4.13 24
	MAY	67.5 +2.4	95 6	37 1	2.54 -2.47	1.11 24	NOV	47.0 +2.4	77 7	15 28	2.15 +0.30	0.68 19
	JUN	75.2 +1.0	101 30	53 12	3.53 -1.00	1.50 5	DEC	40.6 +6.3	68 7	23 10	3.41 +2.11	2.07 24

Garden City		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	29.7 -1.5	66 15	-1 31	0.37 +0.07	0.35 21	JUL	76.7 -1.7	101 17	53 9	4.83 +1.40	2.64 20
	FEB	34.6 -0.1	75 26	-1 1	0.18 -0.22	0.15 15	AUG	75.8 -0.4	100 19	53 27	3.14 +0.65	1.36 4
	MAR	40.8 -3.2	80 22	10 18, 19	0.01 -1.06	0.01 27	SEP	71.0 +2.4	101 4	46 24	1.99 +0.62	1.58 10
	APR	52.8 +0.1	90 13, 18	23 6	2.33 +0.87	1.81 26	OCT	55.0 -0.1	89 20	11 30	0.49 -0.93	0.29 2
	MAY	65.0 +1.6	94 9	40 1	3.63 +1.11	0.99 18	NOV	44.3 +2.4	85 7	11 26	0.06 -0.36	0.05 25
	JUN	70.1 -3.7	96 28	50 14	4.66 +1.15	0.91 17	DEC	36.8 +4.5	76 7	11 10	2.18 +1.62	1.90 14

Goodland		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	25.2 -5.0	54 13	-6 31	0.87 +0.55	0.38 21	JUL	74.7 -1.4	102 25	49 9	4.17 +1.09	1.06 8
	FEB	31.3 -1.0	69 26	-4 23	0.58 +0.11	0.35 14	AUG	74.9 +1.3	100 16, 19	50 14, 15	3.58 +0.52	1.66 7
	MAR	36.2 -5.2	80 30	11 18	0.97 +0.09	0.41 25	SEP	68.5 +3.2	100 1, 2	40 24	Trace -1.40	Trace 10
	APR	49.7 +0.4	93 12	17 23	0.56 -1.13	0.24 14	OCT	51.7 -0.1	88 20	11 30	0.38 -1.03	0.12 3
	MAY	61.7 +2.1	87 30	31 1	4.09 +1.28	1.50 10	NOV	42.8 +3.2	87 7	15 24, 25	0.28 -0.26	0.14 24
	JUN	68.4 -2.3	91 28	50 13	5.56 +2.60	1.28 16	DEC	35.8 +5.0	74 6	11 1	1.04 +0.57	0.34 14

Hays		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	33.4 +1.2	64 10	5 23, 24	1.13 +0.57	0.30 3, 22	JUL	79.8 -0.4	108 29	59 9	3.99 -0.15	1.10 1
	FEB	35.9 +0.6	73 27	9 3 days	0.53 -0.26	0.33 27	AUG	80.5 +2.3	108 20	60 3 days	4.13 +0.55	1.56 4
	MAR	41.7 -3.0	77 31	16 19	0.08 -1.22	0.06 28	SEP	73.2 +3.3	104 3	52 12, 13	0.57 -1.55	0.22 12
	APR	54.6 +1.2	90 13	28 5, 6	0.70 -1.52	0.40 10	OCT	60.6 +4.3	95 1	22 30, 31	0.70 -1.05	0.55 25
	MAY	67.4 +3.6	92 8, 31	38 2, 3	2.94 -0.71	1.55 19	NOV	46.8 +3.4	79 8	20 5 days	0.52 -0.36	0.32 19
	JUN	75.9 +0.2	106 29	59 3 days	2.90 -0.19	0.95 17	DEC	41.4 +7.0	75 7, 8	23 3 days	1.94 +1.18	1.71 15

Hill City		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	29.1 -0.9	60 8, 9	-5 31	0.79 +0.46	0.43 21	JUL	78.7 -1.0	107 30	55 9	1.42 -2.19	0.41 19
	FEB	33.5 +0.4	73 26	1 23	0.45 +0.00	0.34 26	AUG	79.3 +2.5	107 4 days	53 15	3.19 +0.24	0.89 5
	MAR	39.2 -3.8	80 30	8 19	0.34 -0.74	0.13 24	SEP	72.7 +4.4	106 2	44 12	0.11 -1.95	0.09 15
	APR	53.6 +1.5	92 12, 13	19 23	0.32 -1.65	0.21 27	OCT	55.6 +1.1	93 20	13 30	0.53 -1.07	0.27 25
	MAY	66.5 +3.6	92 30	29 1	3.45 +0.11	1.62 25	NOV	45.8 +4.7	78 7	17 26	0.38 -0.28	0.33 19
	JUN	73.8 -0.4	97 24	53 13	5.27 +2.48	2.41 30	DEC	37.6 +6.2	78 6	16 10	0.84 +0.18	0.78 14

Manhattan		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	32.4 +3.1	57 16	6 31	1.79 +1.15	0.82 3	JUL	78.4 -1.6	105 29	60 9	4.53 -0.09	1.96 5
	FEB	34.0 +0.4	65 7, 22	6 1	0.84 -0.30	0.51 27	AUG	79.1 +1.4	111 20	57 15	2.04 -2.36	0.79 4
	MAR	41.4 -2.5	72 6, 31	12 19, 20	0.69 -1.48	0.23 17	SEP	72.4 +3.2	100 3	49 12, 13	0.56 -2.85	0.46 22
	APR	55.0 +0.7	88 5	26 6, 7	2.25 -1.13	1.36 20	OCT	57.6 +1.0	93 1	23 31	1.88 -0.62	1.12 4
	MAY	65.8 +0.8	92 8	37 3	3.76 -1.47	1.94 10	NOV	44.0 +0.8	72 4 days	18 5 days	1.81 +0.19	1.09 20
	JUN	74.4 -0.7	99 29	50 13	3.30 -2.17	1.25 1	DEC	38.6 +5.9	64 8	20 2, 3	2.49 +1.30	0.84 25

Medicine Lodge		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	36.8 +2.7	66 15	7 31	0.93 +0.13	0.31 21	JUL	80.5 -1.5	103 3 days	59 12	7.82 -4.69	3.13 6
	FEB	38.3 +0.3	72 28	8 1	0.58 -0.45	0.52 26	AUG	80.5 +0.5	106 19	57 15	2.96 -0.55	1.23 13
	MAR	46.1 -1.4	82 5, 22	9 19	0.05 -1.98	0.03 30	SEP	74.9 +3.2	103 4	51 17, 26	2.06 -0.55	1.05 15
	APR	56.2 -0.7	91 19	28 3 days	1.38 -1.05	0.65 26	OCT	61.8 +3.3	93 20	23 30	1.19 -1.25	0.61 28
	MAY	67.9 +0.9	95 6, 7	34 1	4.71 +1.06	1.77 29	NOV	48.3 +2.7	76 3, 7	15 26, 27	2.36 +1.26	0.79 25
	JUN	75.3 -2.3	103 28	57 7, 15	4.63 +0.70	1.22 1	DEC	43.7 +8.2	74 7	20 10	2.11 +1.02	0.77 23

Olathe		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	35.4 +5.4	61 1	9 31	1.73 +0.67	0.89 2	JUL	79.2 +1.0	100 26, 28	60 10	4.16 -0.06	1.04 14
	FEB	38.8 +4.3	69 6	9 1	2.39 +0.98	0.63 8	AUG	79.8 +2.8	105 25	59 16	2.28 -2.10	1.05 13
	MAR	43.1 -2.0	79 31	15 19	2.71 +0.44	0.71 24	SEP	73.6 +5.2	99 5	52 14, 18	4.80 +1.26	1.31 23
	APR	56.6 +1.8	83 4	32 23	0.84 -3.03	0.46 20	OCT	58.9 +2.2	89 1	25 31	5.36 +2.35	2.31 25
	MAY	68.1 +3.5	93 6	40 3	2.63 -2.75	0.79 31	NOV	46.2 +2.2	76 7	19 27, 28	1.43 -0.60	0.64 20
	JUN	76.4 +2.0	100 29, 30	52 13	0.96 -4.19	0.47 5	DEC	40.9 +7.1	65 7	23 18, 19	3.28 +1.86	1.57 24

Salina		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	32.9 +2.1	61 16	7 31	1.21 +0.50	0.54 18	JUL	80.6 -0.3	108 28	60 22	3.69 -0.23	1.14 4
	FEB	37.1 +2.2	67 26, 27	6 1	0.70 -0.17	0.45 26	AUG	81.5 +2.9	113 19	57 15	2.02 -1.69	0.53 4
	MAR	42.8 -2.5	76 5	9 19	0.42 -1.40	0.14 16, 24	SEP	74.4 +4.3	102 2	51 13, 24	1.02 -1.63	0.51 15
	APR	56.1 +1.5	89 4	23 6	1.58 -1.14	0.76 14	OCT	58.9 +1.9	94 1	20 31	1.77 -0.39	0.69 3
	MAY	68.2 +3.1	95 7	32 3	2.19 -2.85	0.93 15	NOV	46.0 +2.4	75 5, 7	13 27	1.42 +0.20	0.43 19
	JUN	76.1 -0.1	102 28	56 7, 12	5.80 +2.05	1.52 30	DEC	39.0 +6.1	67 7	20 10, 11	1.53 +0.41	0.76 24

Topeka		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	34.3 +4.1	62 1	8 31	1.15 +0.26	0.57 18	JUL	80.2 +0.4	104 28	59 10	4.47 +0.48	2.56 14
	FEB	38.5 +3.6	71 6	8 1, 3	2.86 +1.55	0.90 27	AUG	80.6 +2.7	111 19	56 18	2.04 -2.51	1.37 13
	MAR	44.4 -1.2	81 31	14 19	1.61 -0.64	0.31 3	SEP	73.8 +4.6	101 4	49 13	1.20 -2.32	0.89 22
	APR	57.4 +1.9	89 4	28 6	1.82 -1.99	0.61 20	OCT	59.5 +2.5	94 1	20 31	1.22 -1.63	0.42 28
	MAY	68.4 +2.7	98 6	35 3	4.65 -0.52	2.48 31	NOV	45.4 +1.2	79 7	14 26	1.56 -0.22	0.53 25
	JUN	77.2 +1.7	101 28, 29	52 13	1.83 -3.09	0.51 30	DEC	40.9 +7.0	66 7	21 19	2.92 +1.43	1.39 24

Tribune		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	26.7 -3.5	63 10	-10 31	1.41 +0.98	0.62 21	JUL	72.8 -3.7	101 26	46 9	4.04 +0.90	2.47 21
	FEB	27.7 -5.3	74 27	-8 1	0.90 +0.36	0.47 16	AUG	73.5 -0.5	103 19	48 15, 30	1.10 -1.77	0.83 4
	MAR	35.1 -6.6	80 31	4 19	0.17 -0.82	0.08 24	SEP	67.1 +1.0	101 3, 5	39 12	1.22 +0.09	0.78 11
	APR	48.5 -1.3	90 13, 14	12 5	0.97 -0.69	0.50 26	OCT	51.8 -0.7	94 1	5 30, 31	0.45 -1.14	0.22 3
	MAY	60.7 +0.4	90 10	32 1	3.69 +1.46	1.46 25	NOV	40.8 +0.6	86 8	10 27, 28	0.07 -0.46	0.06 21
	JUN	65.8 -5.6	91 29	45 13	5.59 +2.82	1.06 13	DEC	32.8 +1.8	73 8	9 1, 10	1.09 +0.53	0.84 14

Wichita		Temperature (°F)			Precipitation (in)			Temperature (°F)			Precipitation (in)	
		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date		Avg. Dep.	Max Date	Min Date	Total Dep.	Max Date
	JAN	36.6 +3.4	63 16	7 31	1.25 +0.40	0.60 18	JUL	80.8 -0.7	103 31	62 10	4.60 +0.62	2.00 5
	FEB	38.7 +1.1	68 27, 28	11 23	1.28 +0.08	0.92 26	AUG	82.4 +2.5	111 19	60 15	2.38 -1.92	1.16 9
	MAR	46.5 -0.9	79 22	12 19	0.12 -2.18	0.05 3	SEP	76.0 +4.3	99 3, 4	54 25, 26	1.18 -1.87	1.03 11
	APR	57.2 +0.7	89 4	29 5	0.60 -2.50	0.17 4	OCT	60.6 +1.6	93 1	23 31	5.98 +3.13	4.24 25
	MAY	68.2 +1.5	95 6	35 3	3.14 -2.03	1.53 14	NOV	46.6 +0.8	76 7	13 27	2.90 +1.54	1.12 20
	JUN	76.2 -0.7	102 28, 29	59 3 days	4.70 -0.23	1.28 5	DEC	40.9 +5.3	66 7	22 10	2.64 +1.42	0.98 24

Kansas Weather Extremes – 2023

Variable	Period	Extreme	Value	Location	County	Network	Date
Precipitation	Year	Most	42.79”	Pittsburg	Crawford	COOP	
		Least	14.00”	WaKeeney	Trego	COOP	
	Month	Most	11.91”	Herndon 1.7 NNW	Rawlins	CoCoRaHS	May
		Least	0.00”	13 locations		CoCoRaHS	March
	Day	Most	9.35”	Osage City 5.2 SW	Osage	CoCoRaHS	Oct 25
Days w/Precip. ≥ 0.01”	Year	Most	112 days	Lawrence 2.2 W	Douglas	CoCoRaHS	
Days w/Precip. ≥ 0.25”	Year	Most	47 days	Columbus	Cherokee	COOP	
Days w/Precip. ≥ 0.50”	Year	Most	35 days	Oswego 1 N	Labette	COOP	
Days w/Precip. ≥ 1.00”	Year	Most	16 days	Anthony 0.4 NNW	Harper	CoCoRaHS	
Snowfall	Year	Most	44.0”	Goodland Renner Field	Sherman	WBAN	
	Month	Most	18.7”	Goodland 16.6 NW	Sherman	CoCoRaHS	January
	Day	Most	14.0”	Marion 5.0 NNE	Marion	CoCoRaHS	Nov 26
Temperature	Year	Highest	115°	Manhattan ASOS	Riley	COOP	Aug 19
		Lowest	-11°	Cheyenne Colby 1 SW	Cheyenne Thomas	Mesonet COOP	Jan 30 Jan 31
Average Temperature	Year	Highest	60.3°	Winfield-Strother Arpt.	Cowley	WBAN	
		Lowest	50.5°	Tribune 1 W	Greeley	COOP	
Highs ≥ 90°	Year	Most	92 days	Sedan Wilson Lake	Chautauqua Russell	COOP COOP	
		Least	31 days	Centralia Lake	Nemaha	SCAN	
	Month	Most	27 days	Sedan Abilene	Pratt Coffey	COOP COOP	August
Highs ≥ 100°	Year	Most	28 days	Jetmore 8 NNW	Hodgeman	COOP	
		Least	3 days	KU-NESA Garden City Airport	Jefferson Finney	SCAN WBAN	
	Month	Most	12 days	Jetmore 8 NNW	Hodgeman	COOP	August
Highs ≤ 32°	Year	Most	35 days	Goodland WFO	Sherman	COOP	
		Least	3 days	Parsons Tri-City Arpt. Chanute-Johnson Arpt.	Labette Neosho	WBAN WBAN	
Lows ≥ 70°	Year	Most	43 days	4 locations			
		Least	0 days	Tribune 1 W	Greeley	COOP	
	Month	Most	19 days	Pratt 3 NW	Pratt	COOP	July
Lows ≤ 32°	Year	Most	177 days	Tribune 1 W	Greeley	COOP	
		Least	80 days	Girard Pittsburg	Crawford Crawford	COOP COOP	
Lows ≤ 0°	Year	Most	10 days	Norton Dam Tribune 1 W	Norton Greeley	COOP COOP	
	Month	Most	6 days	Norton Dam	Norton	COOP	February

Number of Days in 2023 that Exceeded Given Temperature & Precipitation Thresholds											
Location		High Temperature (°F)			Low Temperature (°F)			Precipitation (in.)			
		≥ 90	≥ 100	≤ 32	≥ 70	≤ 32	≤ 0	≥ .01	≥ .10	≥ .25	≥ .50
Ashland	2023	79	22	6	8	138	0	**72**	**50**	**29**	16
	Avg	84	23	14	20	139	2	64	42	26	16
Concordia	2023	**71**	**18**	12	**33**	112	0	78	44	31	**20**
	Avg	50	7	28	27	122	4	90	51	33	18
Dodge City	2023	66	**16**	9	**21**	128	0	**75**	40	24	**15**
	Avg	71	14	19	17	128	2	74	41	26	14
Emporia	2023	**72**	**17**	7	**32**	104	0	92	49	**38**	22
	Avg	44	5	24	30	116	2	101	55	37	23
Garden City	2023	50	3	11	6	**154**	2	60	**38**	**26**	**16**
	Avg	74	16	20	6	149	4	71	35	22	12
Goodland	2023	41	6	**30**	1	**170**	5	**82**	**47**	**23**	**13**
	Avg	52	6	25	1	158	5	81	39	22	12
Hays	2023	65	**20**	16	14	**156**	2	69	**46**	27	11
	Avg	66	15	25	18	139	5	75	44	29	16
Hill City	2023	**75**	**18**	13	**20**	151	2	73	34	21	10
	Avg	63	13	25	10	156	6	78	38	24	13
Hutchinson	2023	**89**	**21**	8	25	122	0	73	49	33	16
	Avg	63	12	22	27	127	2	82	51	34	22
Lawrence	2023	**71**	**14**	7	29	**121**	0	99	**63**	37	18
	Avg	42	5	24	42	104	3	105	57	39	24
Manhattan	2023	50	**12**	14	27	122	0	82	45	29	17
	Avg	59	9	22	29	125	4	102	57	37	22
Parsons	2023	**82**	**19**	3	32	105	0	79	49	35	17
	Avg	47	5	17	35	105	2	91	54	37	23
Russell	2023	**71**	**18**	14	19	**133**	0	78	**48**	24	13
	Avg	63	13	24	26	130	3	83	44	29	16
Salina	2023	**76**	**20**	10	31	**121**	0	84	49	31	17
	Avg	68	16	20	42	116	2	89	52	34	19
Smith Center	2023	56	**14**	18	11	**151**	4	72	44	**31**	16
	Avg	61	12	28	17	136	5	84	48	30	17
Topeka	2023	**73**	**15**	7	37	107	0	**99**	58	35	16
	Avg	50	6	22	38	114	3	98	60	39	23
Tribune	2023	42	8	**22**	0	**179**	**10**	**80**	37	**25**	**14**
	Avg	65	12	21	1	161	6	65	38	21	11
Wichita	2023	**70**	**20**	7	39	97	0	76	48	33	21
	Avg	65	12	16	48	103	1	87	52	36	23
Winfield	2023	**84**	**23**	4	**43**	98	0	83	47	32	20
	Avg	55	9	15	35	109	1	91	51	36	23

BOLD numbers indicate above average counts. Average counts based on the 30-year period 1991-2020.

	Maximum Monthly Precipitation		Minimum Monthly Precipitation		Maximum Monthly Snowfall	
Month	Value	Location County	Value	Location County	Value	Location County
January	3.18”	Olathe 1.6 NNE Johnson	0.06”	Quinter 13.6 SSE Gove	18.7”	Goodland 16.6 NW Sherman
February	3.89”	Hiawatha 8.0 SSW Brown	0.06”	Bucklin 0.2 N Ford	12.0”	Sharon Springs 10 S Wallace
March	3.73”	Lawrence 1.6 ESE Douglas	0.00”	13 locations	7.8”	Atwood 0.7 S Rawlins
April	5.23”	Ottawa 5.6 SW Franklin	0.12”	Dresden 1.2 W Decatur	1.0”	Atwood 0.7 S Rawlins
May	11.91”	Herndon 1.7 NNW Rawlins	0.99”	South Hutchinson 10.5 S Reno	0.0”	--- ---
June	11.11”	Anthony 0.4 NNW Harper	0.59”	Osage City 5.2 SW Osage	0.0”	--- ---
July	10.77”	Dodge City 12.7 S Ford	1.06”	Hutchinson 2.2 SW Reno	0.0”	--- ---
August	8.62”	Galesburg 1.0 SSW Neosho	0.52”	Hugoton 0.6 NNW Stevens	0.0”	--- ---
September	7.89”	Farlington 0.8 NNE Crawford	Trace	3 locations Sherman, Thomas	0.0”	--- ---
October	11.39”	Osage City 5.2 SW Osage	0.05”	Ellinwood 2.7 ESE Barton	3.6”	Goodland 16.6 NW Sherman
November	2.56”	Derby 2.3 N Sedgwick	Trace	Holcomb 0.5 SSE Finney	14.0”	Marion 5.0 NNE Marion
December	4.78”	Dexter 7.0 SSE Cowley	0.49”	Norcatur 4.4 S Decatur	9.1”	Colby 1.3 NE Thomas
YEAR	11.91” May	Herndon 1.7 NNW Rawlins	0.00” Mar	13 locations	18.7” Jan	Goodland 16.6 NW Sherman

Table 3. Highest and lowest monthly precipitation, and most monthly snowfall, as reported by CoCoRaHS observers across the state of Kansas.

	Most Precipitation		Least Precipitation		Most Snowfall	
Rank	Value	Location County	Value	Location County	Value	Location County
1	42.47”	Baldwin City 0.6 W Douglas	15.35”	Stockton 10.4 WNW Rooks	42.0”	Goodland 0.5 ENE Sherman
2	42.04”	Anthony 0.4 NNW Harper	16.87”	Quinter 13.6 SSE Gove	41.6”	Goodland 16.6 NW Sherman
3	40.40”	Farlington 0.8 NNE Crawford	17.01”	Arnold 4.8 NNW Ness	40.0”	Goodland 10.3 WNW Sherman
4	40.16”	Kansas City 4.9 WNW Wyandotte	18.51”	Utica 6.1 NNE Trego	36.9”	Atwood 0.7 S Rawlins
5	40.09”	Baldwin City 4.6 NNE Douglas	18.54”	Hays 7.1 SW Ellis	35.2”	Ludell 5.4 NNE Rawlins
6	39.77”	Overland Park 1.7 NE Johnson	18.61”	Hutchinson 2.1 NW Reno	34.4”	Oberlin 5.0 W Decatur
7	39.45”	Osage City 5.2 SW Osage	18.97”	Cuba 5.0 NNW Republic	32.8”	Traer 2.5 NNW Decatur
8	39.41”	Lake Quivira 0.6 W Johnson	19.02”	Hutchinson 2.5 W Reno	32.2”	Goodland 12.1 NW Sherman
9	38.34”	Girard 4.6 W Crawford	19.29”	Hays 8.9 NNE Ellis	30.7”	McDonald 0.2 N Rawlins
10	38.30”	Ottawa 5.6 SW Franklin	19.36”	Oberlin 7.9 N Decatur	30.0”	Oberlin 7.9 N Decatur
11	38.25”	Overland Park 3.3 S Johnson	19.60”	Norcatur 3.1 WSW Decatur	29.7”	Goodland 0.5 ENE Sherman
12	37.92”	Shawnee 4.6 WSW Johnson	19.65”	S. Hutchinson 0.7 NNE Reno	29.2”	Sharon Springs 9.4 SSE Wallace
13	37.52”	Overland Park 4.0 S Johnson	19.84”	Jetmore 14.9 WSW Hodgeman	28.9”	Colby 0.6 NNW Thomas
14	37.46”	Emporia 0.9 W Lyon	19.99”	Ada 7.0 NNW Ottawa	27.9”	Herndon 1.7 NNW Rawlins
15	37.44”	Spring Hill 2.5 ENE Johnson	20.00”	Cedar Bluff 4.9 NW Trego	27.7”	Oakley 0.3 NE Logan
16	36.89”	Baldwin City 7.5 WSW Douglas	20.07”	Winona 3.7 SSW Logan	25.3”	Hoxie 11.2 SW Sheridan
17	36.84”	Altoona 7.2 NNE Wilson	20.23”	Hays 1.3 SSE Ellis	24.1”	Phillipsburg 5.7 E Phillips
18	36.54”	Quenemo 7.1 N Osage	20.48”	Offerle 0.1 SE Edwards	23.5”	Norcatur 4.4 S Decatur
19	36.36”	Emporia 5.6 ESE Lyon	20.62”	Scott City 4.9 NNW Scott	23.1”	Ellis 4.0 SW Trego
20	36.30”	Ottawa 6.3 SSW Franklin	20.68”	Abilene 7.9 NNW Dickinson	23.0”	Norcatur 3.1 WSW Decatur

Table 4. Top 20 highest and lowest annual precipitation totals, and the top 20 highest annual snowfall totals as reported by CoCoRaHS observers across the state of Kansas.

2023 Kansas County Climate Data

Total Yearly Precipitation (in.)								
Rank	Value	County	Rank	Value	County	Rank	Value	County
1	37.32	Cherokee	36	28.15	Chase	71	23.38	Russell
2	36.04	Franklin	37	28.08	Meade	72	23.19	Cloud
3	35.18	Crawford	38	27.93	Jackson	73	23.15	Pawnee
4	34.47	Harper	39	27.92	Wabaunsee	74	22.88	Ottawa
5	34.32	Miami	40	27.64	Woodson	75	22.66	Phillips
6	33.94	Johnson	41	27.53	Butler	76	22.63	Grant
7	33.73	Douglas	42	27.03	Pratt	77	22.59	Lincoln
8	33.19	Wyandotte	43	26.82	Chautauqua	78	22.58	Morton
9	32.91	Labette	44	26.62	Dickinson	79	22.36	Republic
10	32.82	Osage	45	26.42	Greenwood	80	22.35	Jewell
11	32.60	Comanche	46	26.41	Pottawatomie	81	22.21	Wichita
12	32.51	Leavenworth	47	26.37	Seward	82	22.17	Stanton
13	32.41	Linn	48	26.21	Rice	83	22.15	Hamilton
14	32.31	Neosho	49	26.06	Geary	84	21.99	Osborne
15	31.76	Barber	50	26.02	Morris	85	21.96	Norton
16	31.71	Doniphan	51	25.88	Barton	86	21.86	Scott
17	31.43	Anderson	52	25.69	Saline	87	21.83	Logan
18	31.10	Wilson	53	25.63	Riley	88	21.50	Rawlins
19	30.89	Lyon	54	25.38	Elk	89	21.49	Hodgeman
20	30.84	Sumner	55	25.26	Gray	90	21.37	Thomas
21	30.34	Atchison	56	25.21	Ellsworth	91	21.25	Decatur
22	30.16	Kingman	57	25.02	Haskell	92	21.22	Rush
23	29.70	Jefferson	58	24.96	Reno	93	20.77	Greeley
24	29.58	Cowley	59	24.80	Stevens	94	20.58	Sherman
25	29.54	Clark	60	24.73	Smith	95	20.44	Rooks
26	29.44	Coffey	61	24.57	Ford	96	20.32	Cheyenne
27	29.33	Bourbon	62	24.43	Washington	97	20.23	Mitchell
28	29.17	Allen	63	24.24	Stafford	98	20.21	Wallace
29	29.14	Nemaha	64	24.06	Clay	99	20.02	Lane
30	28.89	Brown	65	24.04	Harvey	100	19.96	Ellis
31	28.63	Sedgwick	66	23.97	Marion	101	19.87	Sheridan
32	28.60	Montgomery	67	23.93	Kearny	102	19.38	Gove
33	28.58	Kiowa	68	23.64	McPherson	103	18.60	Ness
34	28.28	Shawnee	69	23.45	Edwards	104	18.46	Graham
35	28.22	Marshall	70	23.40	Finney	105	16.86	Trego

2023 Kansas County Climate Data

Average Yearly Temperature (°F)								
Rank	Value	County	Rank	Value	County	Rank	Value	County
1	60.0	Cherokee	36	57.4	Meade	71	55.7	Ness
2	59.6	Montgomery	37	57.4	Wyandotte	72	55.6	Ellis
3	59.5	Sumner	38	57.4	Marion	73	55.6	Atchison
4	59.5	Labette	39	57.3	Ellsworth	74	55.5	Osborne
5	59.5	Chautauqua	40	57.3	Kiowa	75	55.5	Stanton
6	59.4	Cowley	41	57.2	Douglas	76	55.3	Finney
7	59.2	Harper	42	57.2	Ottawa	77	55.3	Republic
8	59.2	Crawford	43	57.2	Chase	78	55.3	Jackson
9	59.1	Wilson	44	57.1	Geary	79	55.1	Doniphan
10	59.0	Neosho	45	57.0	Lincoln	80	55.1	Kearny
11	58.9	Sedgwick	46	57.0	Rice	81	55.0	Lane
12	58.9	Woodson	47	57.0	Shawnee	82	54.9	Rooks
13	58.8	Elk	48	57.0	Leavenworth	83	54.9	Trego
14	58.8	Barber	49	56.9	Edwards	84	54.9	Brown
15	58.6	Butler	50	56.8	Wabaunsee	85	54.8	Jewell
16	58.5	Allen	51	56.8	Seward	86	54.7	Hamilton
17	58.5	Coffey	52	56.8	Ford	87	54.6	Scott
18	58.4	Greenwood	53	56.8	Morris	88	54.5	Washington
19	58.4	Bourbon	54	56.8	Russell	89	54.4	Gove
20	58.1	Harvey	55	56.6	Cloud	90	54.3	Nemaha
21	58.1	Kingman	56	56.6	Stafford	91	54.2	Graham
22	58.0	Clark	57	56.6	Hodgeman	92	54.2	Marshall
23	58.0	Comanche	58	56.6	Clay	93	54.1	Smith
24	58.0	Anderson	59	56.5	Stevens	94	53.9	Phillips
25	57.9	Linn	60	56.4	Jefferson	95	53.8	Wichita
26	57.8	Lyon	61	56.4	Riley	96	53.8	Logan
27	57.8	Saline	62	56.3	Pawnee	97	53.2	Sheridan
28	57.7	Osage	63	56.2	Barton	98	53.0	Norton
29	57.7	Miami	64	56.2	Morton	99	52.7	Greeley
30	57.6	Pratt	65	56.0	Gray	100	52.7	Wallace
31	57.6	Franklin	66	55.9	Mitchell	101	52.6	Thomas
32	57.6	Reno	67	55.8	Rush	102	52.5	Decatur
33	57.6	McPherson	68	55.7	Haskell	103	52.3	Rawlins
34	57.5	Johnson	69	55.7	Grant	104	52.3	Cheyenne
35	57.5	Dickinson	70	55.7	Pottawatomie	105	52.1	Sherman

2023 Kansas County Climate Data – Top 10 Lists

	Rank	County	Value		Rank	County	Value	
Wettest Year Ranking Highest Ranked Counties	7	Comanche	32.60	1	2	Johnson	57.5	Warmest Year Ranking Highest Ranked Counties
	9	Meade	28.08	2	3	Cloud	56.6	
	10	Seward	26.37	3	3	Coffey	58.5	
	11	Stanton	22.17	4	3	Leavenworth	57.0	
	12	Clark	29.54	5	3	Lyon	57.8	
	12	Morton	22.58	6	3	Miami	57.7	
	13	Kearny	23.93	7	3	Osage	57.7	
	14	Stevens	24.80	8	3	Wyandotte	57.4	
	15	Haskell	25.02	9	4	Butler	58.6	
	16	Hamilton	22.15	10	4	Franklin	57.6	
	Rank	County	Value		Rank	County	Value	
Driest Year Ranking Highest Ranked Counties	10	Elk	25.38	1	88	Greeley	52.7	Coldest Year Ranking Highest Ranked Counties
	11	Chautauqua	26.82	2	92	Rawlins	52.3	
	12	Bourbon	29.33	3	92	Wallace	52.7	
	13	Allen	29.17	4	94	Decatur	52.5	
	13	Marion	23.97	5	94	Norton	53.0	
	13	Montgomery	28.60	6	96	Hamilton	54.7	
	17	Woodson	27.64	7	96	Stanton	55.4	
	18	Greenwood	26.42	8	97	Thomas	52.6	
	18	Labette	32.91	9	98	Sheridan	53.2	
	20	Harvey	24.04	10	100	Logan	53.7	
	Dep.	County	Precip.		Dep.	County	Temp.	
Total Yearly Precipitation Most Above Normal	+7.50	Comanche	32.60	1	+2.7	Coffey	58.5	Average Yearly Temperature Most Above Normal
	+6.54	Meade	28.08	2	+2.6	Cloud	56.6	
	+6.50	Clark	29.54	3	+2.5	Lyon	57.8	
	+6.45	Seward	26.37	4	+2.4	Woodson	58.8	
	+6.09	Stevens	24.80	5	+2.3	Osage	57.7	
	+5.51	Haskell	25.02	6	+2.3	Johnson	57.5	
	+5.22	Morton	22.58	7	+2.3	Greenwood	58.4	
	+5.21	Kearny	23.93	8	+2.3	Republic	55.3	
	+4.81	Stanton	22.17	9	+2.3	Geary	57.1	
	+4.62	Hamilton	22.15	10	+2.2	Miami	57.7	
	Dep.	County	Precip.		Dep.	County	Temp.	
Total Yearly Precipitation Most Below Normal	-14.38	Elk	25.38	1	-0.4	Greeley	52.7	Average Yearly Temperature Most Below Normal
	-13.86	Bourbon	29.33	2	-0.2	Wallace	52.7	
	-13.84	Montgomery	28.60	3	+0.1	Sherman	52.1	
	-13.26	Chautauqua	26.82	4	+0.1	Decatur	52.5	
	-13.11	Allen	29.17	5	+0.1	Rawlins	52.3	
	-12.34	Woodson	27.64	6	+0.1	Stanton	55.4	
	-12.22	Greenwood	26.42	7	+0.2	Cheyenne	52.3	
	-11.27	Labette	32.91	8	+0.2	Sheridan	53.2	
	-10.91	Neosho	32.31	9	+0.2	Norton	53.0	
	-10.40	Marion	23.97	10	+0.2	Thomas	52.6	

2023 Annual Temperature and Precipitation Data – Public Reports							
Location	County	Temperature (°F)				Precipitation (in.)	
		Avg.	Dep.	Max	Min	Total	Dep.
Anthony	Harper	58.9	+1.4	107	9	38.99	+5.85
Ashland	Clark	57.5	+0.5	107	4	29.17	+6.17
Atwood	Rawlins	52.5	+0.5	104	-4	21.17	-0.91
Beloit	Mitchell	55.5	+1.1	106	2	22.52	-6.56
Centralia Lake	Nemaha	55.4	+1.6	107	3	28.29	-7.62
Chanute-Johnson Airport	Neosho	60.2	+2.1	106	12	31.35	-9.34
Chapman	Dickinson	56.5	+2.0	109	5	27.64	-5.83
Cimarron	Gray	56.5	+1.3	106	2	27.60	+5.99
Clay Center	Clay	55.8	+1.4	110	5	21.37	-10.48
Coffeyville Wtr Wrks	Montgomery	60.0	+2.0	108	11	32.60	-13.51
Colby 1 SW	Thomas	52.3	+0.4	104	-11	21.12	+0.73
Concordia	Cloud	57.7	+3.5	109	4	24.62	-3.76
Cottonwood Falls	Chase	56.6	+1.9	112	5	29.06	-8.93
Council Grove Lake	Morris	56.2	+0.6	108	7	27.72	-7.27
Dodge City Airport	Ford	57.0	+1.0	107	3	24.10	+2.10
El Dorado	Butler	58.9	+2.3	111	7	25.96	-12.71
Elkhart	Morton	56.5	+0.4	102	-4	21.98	+3.58
Emporia	Lyon	58.7	+3.0	112	8	31.66	-3.15
Eskridge	Wabaunsee	56.1	+2.3	109	5	32.00	-5.34
Fort Scott	Bourbon	58.0	+0.9	104	10	27.92	-16.57
Fredonia	Wilson	58.5	+1.7	107	10	35.94	-5.83
Garden City Airport	Finney	54.5	+0.1	101	-1	23.87	+4.92
Girard	Crawford	59.1	+2.4	106	11	38.79	-6.82
Goodland Renner Field	Sherman	51.8	+0.0	102	-6	22.08	+2.99
Greensburg	Kiowa	56.6	+1.8	105	3	30.82	+4.85
Hays 1 S	Ellis	55.1	+0.7	108	0	21.15	-3.29
Haysville 3 SE	Sedgwick	58.5	+1.7	108	7	30.48	-7.78
Healy	Lane	55.1	+1.1	108	-5	21.02	-1.36
Herington	Dickinson	55.8	+1.8	110	0	25.65	-8.62
Hill City Airport	Graham	55.6	+1.6	107	-5	17.12	-4.38
Holton	Jackson	53.9	+1.3	105	2	29.72	-7.66
Horton	Brown	54.8	+1.5	104	3	30.54	-7.40
Hugoton	Stevens	56.0	+0.4	105	1	25.72	+5.99
Humboldt	Allen	58.2	+2.0	105	9	29.46	-12.84
Hutchinson	Reno	58.2	+1.6	110	7	21.67	-11.26
Independence	Montgomery	59.3	+1.7	110	13	28.70	-16.70
Iola 1 W	Allen	57.0	+1.1	106	7	28.69	-13.35
John Redmond Lake	Coffey	59.9	+4.0	110	9	25.59	-11.19
Johnson	Stanton	55.6	-0.3	104	0	23.18	+5.71
Kanopolis Lake	Ellsworth	56.4	+1.5	111	5	22.25	-7.36

2023 Annual Temperature and Precipitation Data – Public Reports							
Location	County	Temperature (°F)				Precipitation (in.)	
		Avg.	Dep.	Max	Min	Total	Dep.
Kingman	Kingman	57.2	+1.2	107	4	31.21	-2.01
Lawrence	Douglas	57.1	+1.8	112	5	29.84	-5.74
Lincoln 1 SE	Lincoln	55.6	+1.9	109	1	20.46	-8.60
Manhattan	Riley	56.2	+1.1	111	6	25.93	-9.84
Marion Reservoir	Marion	57.4	+0.7	108	8	23.53	-10.41
Marysville	Marshall	54.4	+0.9	110	0	29.84	-3.76
McPherson	McPherson	57.0	+1.3	109	7	25.50	-8.08
Medicine Lodge 1E	Barber	59.4	+1.5	106	7	30.78	+3.03
Milford Lake	Geary	57.6	+2.9	112	5	27.08	-5.82
Minneapolis	Ottawa	57.2	+2.1	111	5	22.60	-9.12
Montezuma	Gray	56.0	+1.0	103	3	26.75	+5.02
Mound City 1 SSW	Linn	56.9	+1.8	106	8	34.00	-7.26
Olathe-Executive Arpt.	Johnson	58.2	+3.0	105	9	32.57	-5.17
Osage City	Osage	57.0	+2.6	111	6	34.08	-4.77
Parsons Tri City Arpt.	Labette	59.5	+1.5	111	11	25.25	-12.62
Pittsburg	Crawford	59.5	+2.0	103	14	42.79	-5.10
Plainville 4 WNW	Rooks	54.9	+1.5	110	-1	21.09	-5.02
Pomona Lake	Osage	58.1	+1.8	112	13	35.87	-2.74
Russell Airport	Russell	56.7	+1.8	107	1	21.76	-3.08
Salina Airport	Saline	57.9	+2.0	113	6	23.35	-6.34
Sedan	Chautauqua	59.9	+2.5	112	12	29.19	-11.35
Smith Center	Smith	54.4	+1.2	106	-4	25.23	-0.87
Sterling	Rice	56.9	+1.4	107	6	28.51	-0.49
Syracuse 1 NE	Hamilton	53.6	+0.2	103	-6	22.68	+5.67
Tallgrass Prairie Preserve	Chase	58.3	+2.2	111	5	29.47	-4.08
Topeka	Shawnee	58.5	+2.7	111	8	27.33	-9.20
Tribune 1 W	Greeley	50.4	-1.9	103	-10	20.70	+2.26
Ulysses 3 NE	Grant	54.4	+0.3	103	-2	21.68	+3.92
Valley Falls	Jefferson	57.3	+2.4	109	6	28.42	-9.19
WaKeeney	Trego	55.1	+1.1	108	-1	14.00	-9.92
Wallace	Wallace	53.2	+0.8	107	-7	18.90	-1.83
Wamego 4 W	Pottawatomie	55.9	+1.4	113	4	27.89	-6.84
Washington	Washington	53.9	+1.0	109	1	26.41	-6.00
Webster Dam	Rooks	54.9	+0.9	110	0	19.13	-6.25
Wellington	Sumner	58.7	+1.7	108	9	32.19	-3.95
Wichita-Eisenhower	Sedgwick	59.3	+1.6	111	7	30.77	-3.54
Wichita-Jabara	Sedgwick	59.2	+2.1	110	6	24.48	-8.13
Wilson Lake	Russell	59.1	+4.2	110	4	27.17	+0.95
Winfield Strother Arpt.	Cowley	60.3	+2.0	110	9	26.31	-8.57
Yates Center	Woodson	58.3	+2.4	111	10	31.85	-9.96

Location	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Atchison	3.2 -1.8	1.7 -3.1	0.4 -1.4	Trace -0.4	Trace +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 0.0	0.0 -0.3	3.0 +2.1	1.6 -2.2	9.9 -7.1
Coffeyville	1.0 -0.8	0.0 -1.4	0.0 -1.3	Trace +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	0.2 -0.4	0.0 -3.2	1.2 -7.1
Cottonwood Falls	3.6 -0.4	0.0 -1.3	1.4 +0.1	0.0 -0.2	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 -0.3	8.5 +8.1	1.0 -2.1	14.5 +3.9
Dodge City	7.9 +4.0	1.5 -3.2	0.1 -3.6	0.0 -0.8	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 -0.6	5.3 +3.9	0.7 -3.3	15.3 -3.8
Garden City	5.0 +1.6	3.0 -0.3	0.0 -3.2	0.0 -1.1	0.0 -0.1	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 -0.8	3.0 +2.0	0.0 -2.7	11.0 -4.6
Goodland	16.4 +11.7	9.8 +3.5	5.3 +0.5	Trace -3.2	Trace -0.3	Trace +0.0	Trace +0.0	Trace +0.0	0.0 -0.2	1.4 -0.6	1.5 -1.8	9.6 +4.4	44.0 +14.0
Hays	7.0 +3.8	0.3 -3.1	0.0 -1.7	0.0 -0.3	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 -0.2	1.0 +0.1	Trace -3.2	8.3 -4.6
Hutchinson	3.0 -0.5	Trace -1.9	0.5 -1.8	Trace -0.3	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 -0.0	7.5 +6.8	1.0 -2.1	12.0 +0.2
Liberal	0.5 -3.0	1.5 -0.3	Trace -2.3	0.0 -0.4	Trace -0.1	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 -0.8	5.0 +4.0	0.0 -4.6	7.0 -7.4
Manhattan	1.1 -3.7	0.1 -4.9	Trace -1.8	Trace -0.1	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	6.0 +4.9	2.5 -2.3	9.7 -7.9
Location	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Marysville	4.8 -0.1	1.6 -2.7	1.9 +0.4	0.0 -0.7	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 -0.1	2.9 +1.0	2.6 -0.7	13.8 -2.0
Medicine Lodge	0.5 -1.6	0.0 -4.0	0.0 -0.8	0.0 -0.1	0.0 -0.1	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	7.5 +7.2	0.0 -2.1	8.0 -1.4
Olathe	1.7 -2.2	1.5 -1.8	0.5 -0.9	0.0 -0.3	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 -0.3	2.0 +0.8	0.0 -3.4	5.7 -8.1
Pittsburg	1.5 -1.9	Trace -1.0	0.0 -1.6	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 -0.6	0.0 -2.9	1.5 -8.0
Salina	3.0 -0.8	0.1 -3.9	0.3 -1.0	0.0 -0.4	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 -0.5	4.2 +2.8	2.0 -2.1	9.6 -5.9
Scott City	8.0 +3.5	5.0 +1.0	Trace -3.9	0.0 -1.8	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	Trace -1.2	2.0 +0.9	0.0 -3.1	15.0 -4.6
Smith Center	7.5 +3.1	4.2 -1.7	Trace -2.3	0.0 -0.7	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 -0.5	1.0 -0.5	1.0 -2.0	13.7 -4.6
Topeka	3.1 -1.5	0.6 -4.6	0.3 -1.4	Trace -0.1	Trace +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	Trace -0.4	7.2 +6.2	1.3 -2.8	12.5 -4.6
Tribune	12.4 +8.2	5.8 +1.6	0.0 -3.6	0.0 -2.1	0.0 -0.3	0.0 +0.0	0.0 +0.0	0.0 +0.0	0.0 -0.1	0.0 -1.3	0.0 -2.1	3.3 -0.5	21.5 -0.2
Wichita	1.6 -1.1	Trace -3.6	Trace -2.1	0.0 -0.2	Trace +0.0	Trace +0.0	0.0 +0.0	0.0 +0.0	0.0 +0.0	Trace -0.2	7.8 +7.0	0.2 -2.9	9.6 -3.1

Table 5. Monthly/annual snowfall total at various locations across Kansas, and the monthly/annual departures from normal. Trace amounts in warmer months are due to hail.

	Maximum Temperature		Minimum Temperature		Maximum Monthly Precipitation	
Month	Value Date	Location	Value Date	Location	Value	Location
January	74.6° 2nd	Cherokee	-11.2° 30th	Cheyenne	2.45”	Corning 2NW
February	80.4° 26th	Moscow 10NW	-6.4° 23rd	Ludell 3N	3.33”	Hiawatha
March	85.4° 22nd	Lake City	1.1° 19th	Gray	3.56”	Olathe
April	96.6° 12th	Sherman	13.4° 6th	Scandia	3.44”	Overbrook
May	98.1° 7th	Lake City	26.7° 1st	Oberlin 7NE	10.21”	Ludell 3N
June	104.5° 28th	Gypsum	45.9° 13th	Belleville 2W	7.38”	Meade
July	108.0° 17th	Ness City	46.3° 9th	Cheyenne	8.74”	Lake City
August	113.6° 19th	Ashland Bottoms	45.3° 7th	Sherman	6.97”	Cherokee
September	106.2° 4th	Ashland 8S	38.7° 24th	Cheyenne	4.49”	Scott City 3SE
October	94.2° 1st	Bunker Hill 3NE	5.7° 30th	Wallace	6.97”	Ottawa 2SE
November	89.2° 7th	Ashland 8S	0.4° 27th	Flickner Tech Farm	3.20”	Harper
December	79.6° 7th	Ashland 8S	5.3° 10th	Hamilton	3.58”	Howard 14NW
YEAR	113.6° Aug 19th	Ashland Bottoms	-11.2° Jan 30th	Cheyenne	10.21” May	Ludell 3N

Table 6. Maximum and minimum temperatures and maximum total precipitation by month across the Kansas Mesonet.

Kansas Mesonet Extremes – 2023

Variable	Period	Extreme	Value	Location	County	Date
Precipitation	Year	Most	37.29”	Overbrook	Osage	
		Least	15.71”	WaKeeney	Trego	
	Month	Most	10.21”	Ludell 3N	Rawlins	May
		Least	0.00”	3 locations (Cheyenne, Colby 1SW, Goodland Tech Farm)		September
	Week	Most	6.95”	Ottawa 2SE	Franklin	Oct 24-Oct 30
	Day	Most	4.86”	Overbrook	Osage	May 31
	Hour	Most	2.07”	Hiawatha	Brown	Jul 4
High Temperature	Year	Highest	113.6°	Ashland Bottoms	Riley	Aug 19
		Lowest	4.7°	Tribune Tribune 6NE	Greeley Greeley	Jan 30
Low Temperature	Year	Highest	81.5°	Overbrook	Osage	Jul 26
		Lowest	-11.2°	Cheyenne	Cheyenne	Jan 30
High Temperature ≥ 90°	Year	Most	79 days	Ashland	Clark	
		Least	26 days	Hiawatha	Brown	
High Temperature ≥ 100°	Year	Most	26 days	Hodgeman	Hodgeman	
		Least	1 day	Hiawatha	Brown	
High Temperature ≤ 32°	Year	Most	31 days	Cheyenne	Cheyenne	
		Least	2 days	Cherokee	Cherokee	
Low Temperature ≤ 32°	Year	Most	179 days	Cheyenne	Cheyenne	
		Least	79 days	Cherokee Uniontown 3NW	Cherokee Bourbon	
Low Temperature ≤ 0°	Year	Most	7 days	Scott City 3SE	Scott	
		Least	0 days	46 locations		
Low Temperature ≥ 70°	Year	Most	32 days	Harper	Harper	
		Least	0 days	5 locations		
Average Temperature	Year	Highest	59.5°	Sedan	Chautauqua	
		Lowest	49.7°	Cheyenne	Cheyenne	
	Month	Highest	81.3°	Sedan	Chautauqua	August
		Lowest	23.4°	Cheyenne	Cheyenne	January
	Week	Highest	90.4°	Manhattan	Riley	Aug 19 - Aug 25
		Lowest	12.0°	Cheyenne	Cheyenne	Jan 28 - Feb 3
	Day	Highest	92.4°	Osborne	Osborne	Jul 26
		Lowest	0.0°	Sherman	Sherman	Jan 30

Kansas Mesonet Extremes – 2023

Variable	Period	Extreme	Value	Location	County	Date
Diurnal Range - Temperature	Year	Largest	60.5° (84.3°-23.8°)	Osborne	Osborne	Apr 17
Average Diurnal Range – Temperature	Year	Highest	33.2°	Hamilton	Hamilton	
		Lowest	20.2°	Oskaloosa 1SE	Jefferson	
Heat Index	Year	Highest	123.2° (Temp 98°, Dew Point 82°)	Cherokee	Cherokee	Aug 21
Range Between Year's Highest and Lowest Temperatures	Year	Highest	114.2° (Max 105.3°, Min. -8.9°)	Sherman	Sherman	
		Lowest	90.6° (Max 105.0°, Min. 14.4°)	Cherokee	Cherokee	
Animal Comfort Index	Year	Highest	127.3° (Temp 109°, Wind calm)	Butler	Butler	Aug 20
		Lowest	-31.3° (Temp -9°, Wind 11 mph)	Wallace	Wallace	Jan 31
Dew Point	Year	Highest	83.2°	Hiawatha	Brown	Jul 26
		Lowest	-15.2°	Ludell 3N	Rawlins	Feb 23
Average Dew Point	Year	Highest	48.1°	Cherokee	Cherokee	
		Lowest	35.2°	Tribune 6NE	Greeley	
Average Relative Humidity	Year	Highest	71.9%	Hiawatha	Brown	
		Lowest	56.8%	Richfield	Morton	
Average 4" Soil Temperature	Year	Highest	61.6°	Haysville 3SE	Sedgwick	
		Lowest	53.6°	Cheyenne	Cheyenne	
2m Wind Speed	Year	Highest	83.0 mph	Sublette 1E	Haskell	Feb 26
Average 2m Wind Speed	Year	Highest	8.7 mph	Howard 14NW	Elk	
		Lowest	2.8 mph	Olathe	Johnson	
	Month	Highest	12.6 mph	Wallace	Wallace	April
	Day	Highest	24.8 mph	Wallace	Wallace	Mar 16
Wind Chill	Year	Lowest	-27.2° (Temp -9°, Wind 11 mph)	Wallace	Wallace	Jan 31
Change in Average Temperature	Hour	Highest	+20.1° (52.4° - 72.5°)	Ashland Bottoms	Riley	Apr 4 8 to 9 AM
		Lowest	-29.0° (102.4° - 73.4°)	Scandia	Republic	Jul 28 4 to 5 PM
	Day	Highest	+21.1° (17.2° - 39.3°)	Hiawatha	Brown	Feb 3 - Feb 4
		Lowest	-31.3° (71.2° - 39.9°)	Butler	Butler	Apr 4 - Apr 5

Kansas Mesonet Annual Averages – 2023

Category	State	Highest	Location County	Lowest	Location County
Total Yearly Precipitation	23.98”	37.29”	Overbrook Osage	15.71”	WaKeeney Trego
Daily Average Temperature	55.2°	59.5°	Sedan Chautauqua	49.7°	Cheyenne Cheyenne
Daily Maximum Temperature	69.2°	73.6°	Ashland 8S Clark	64.6°	Ludell 3N Rawlins
Daily Minimum Temperature	42.4°	48.3°	Uniontown 3NW Bourbon	36.3°	Cheyenne Cheyenne
Relative Humidity	63.0%	71.9%	Hiawatha Brown	56.8%	Richfield Morton
Dew Point	40.5°	48.1°	Cherokee Cherokee	35.2°	Tribune 6NE Greeley
4” Soil Temperature	57.9°	61.6°	Haysville 3SE Sedgwick	53.6°	Cheyenne Cheyenne
2-meter Wind Speed	6.4 mph	8.7 mph	Howard 14NW Elk	2.8 mph	Olathe Johnson
Daily Maximum 2-meter Wind Speed	23.2 mph	37.1 mph	Sublette 1E Haskell	14.9 mph	Olathe Johnson
Diurnal Range Temperature	26.8°	33.2°	Hamilton Hamilton	20.2°	Oskaloosa 1SE Jefferson
Hours Temperature ≤ 32°	1402	2323	Cheyenne Cheyenne	635	Cherokee Cherokee
Hours Temperature ≤ 20°	291	597	Hamilton Hamilton	52	Cherokee Cherokee
Hours Temperature ≥ 90°	276	411	Hodgeman Hodgeman	104	Hiawatha Hiawatha
Hours Temperature ≥ 100°	34	90	Gypsum Saline	0	Hiawatha Brown
Hours Heat Index ≥ 100°	63	195	Cherokee Cherokee	0	Cheyenne, Richfield, Sherman, Tribune, Tribune 6NE
Hours Rel. Humidity ≤ 25%	527	1164	Richfield Morton	92	Cherokee Cherokee
Hours Dew Point ≥ 70°	214	705	Cherokee Cherokee	4	Ludell 3N Rawlins
Hours Wind Chill ≤ 0°	78	195	Cheyenne Cheyenne	0	Cherokee, Parsons Cherokee, Labette
Hours Wind Speed ≥ 10 mph	1747	898	Washington Washington	2505	Garden City Finney

Top 12 Warmest Days Across the Kansas Mesonet in 2023

Maximum Temperature (°F)			Rank	Minimum Temperature (°F)			Rank	Average Temperature (°F)		
Avg	Date	Dep.		Avg	Date	Dep.		Avg	Date	Dep.
105.4	Aug 19	+16.2	1	73.3	Jul 26	+6.0	1	87.1	Aug 19	+10.3
102.6	Aug 21	+13.8	2	72.0	Aug 23	+8.5	2	86.8	Jul 26	+7.3
102.2	Aug 25	+14.1	3	71.1	Aug 2	+4.1	3	86.4	Aug 23	+10.4
102.2	Aug 20	+13.1	4	70.9	Jul 28	+3.7	4	85.9	Aug 25	+10.3
101.5	Aug 22	+12.9	5	70.9	Jul 27	+3.6	5	85.7	Aug 21	+9.4
100.7	Aug 23	+12.3	6	70.2	Aug 3	+3.3	6	85.7	Aug 22	+9.5
100.6	Aug 24	+12.3	7	69.8	Jul 12	+3.0	7	85.6	Jul 28	+6.2
100.4	Jul 25	+8.7	8	69.8	Aug 22	+6.1	8	85.0	Aug 24	+9.2
100.3	Jul 26	+8.7	9	69.7	Jul 13	+2.7	9	85.0	Jul 25	+5.5
100.2	Jul 28	+8.6	10	69.6	Jul 24	+2.3	10	84.5	Aug 20	+7.9
100.0	Sep 2	+13.8	11	69.6	Jul 25	+2.3	11	84.5	Jul 27	+5.1
99.9	Sep 4	+14.3	12	69.6	Aug 1	+2.6	12	84.3	Aug 1	+5.0

Top 12 Coldest Days Across the Kansas Mesonet in 2023

Maximum Temperature (°F)			Rank	Minimum Temperature (°F)			Rank	Average Temperature (°F)		
Avg	Date	Dep.		Avg	Date	Dep.		Avg	Date	Dep.
14.5	Jan 30	-28.9	1	1.7	Jan 31	-17.6	1	9.9	Jan 30	-21.3
15.0	Jan 29	-28.2	2	4.9	Feb 23	-19.0	2	10.7	Jan 29	-20.4
24.4	Feb 23	-24.5	3	5.1	Feb 1	-14.2	3	13.4	Jan 31	-17.9
25.2	Jan 31	-18.3	4	5.4	Jan 30	-13.7	4	14.7	Feb 23	-21.8
27.6	Nov 25	-23.6	5	6.4	Jan 29	-12.7	5	19.2	Feb 24	-17.6
29.3	Feb 16	-17.4	6	7.4	Feb 24	-16.8	6	20.8	Feb 16	-13.5
31.0	Feb 24	-18.4	7	7.9	Feb 17	-14.3	7	20.9	Feb 1	-10.5
32.3	Nov 24	-19.4	8	9.4	Mar 19	-22.6	8	23.4	Nov 25	-15.7
33.1	Jan 24	-9.6	9	9.6	Feb 3	-10.1	9	23.5	Jan 22	-7.1
33.5	Jan 22	-9.0	10	9.7	Jan 23	-8.9	10	24.1	Jan 23	-6.5
34.0	Jan 21	-8.5	11	11.9	Feb 2	-7.5	11	25.1	Jan 24	-5.6
34.0	Jan 25	-8.8	12	12.4	Feb 16	-9.6	12	25.9	Mar 18	-19.2

Top 12 Most Above Normal Days Across the Kansas Mesonet in 2023

Maximum Temperature (°F)			Rank	Minimum Temperature (°F)			Rank	Average Temperature (°F)		
Avg	Date	Dep.		Avg	Date	Dep.		Avg	Date	Dep.
69.2	Dec 7	+22.9	1	57.5	Oct 24	+18.4	1	51.7	Dec 7	+16.9
88.5	Oct 20	+21.0	2	38.4	Dec 21	+18.2	2	69.4	Apr 12	+16.8
86.1	Apr 12	+20.1	3	56.4	Oct 25	+17.6	3	69.3	Apr 13	+16.5
73.0	Mar 5	+20.1	4	36.0	Dec 23	+16.0	4	69.3	Oct 23	+16.4
79.4	Nov 7	+19.9	5	34.0	Jan 2	+15.1	5	47.2	Dec 22	+15.8
85.8	Apr 13	+19.7	6	64.3	Sep 30	+14.6	6	47.0	Dec 23	+15.8
66.0	Dec 6	+19.3	7	63.8	Oct 1	+14.5	7	78.7	Sep 30	+15.7
85.6	Oct 23	+19.3	8	64.3	Sep 29	+14.1	8	78.4	Sep 29	+14.9
86.3	Apr 18	+19.0	9	43.1	Nov 19	+14.1	9	44.8	Jan 15	+14.5
68.3	Feb 26	+18.2	10	34.0	Dec 22	+13.9	10	46.0	Dec 21	+14.5
60.4	Dec 22	+17.7	11	35.3	Feb 14	+13.8	11	44.3	Jan 16	+14.0
59.4	Jan 9	+17.6	12	32.1	Jan 15	+13.6	12	76.5	Oct 1	+14.0

Top 12 Most Below Normal Days Across the Kansas Mesonet in 2023

Maximum Temperature (°F)			Rank	Minimum Temperature (°F)			Rank	Average Temperature (°F)		
Avg	Date	Dep.		Avg	Date	Dep.		Avg	Date	Dep.
14.5	Jan 30	-28.9	1	9.4	Mar 19	-22.6	1	14.7	Feb 23	-21.8
15.0	Jan 29	-28.2	2	17.2	Oct 30	-19.5	2	9.9	Jan 30	-21.3
36.3	Oct 28	-27.7	3	4.9	Feb 23	-19.0	3	29.6	Oct 29	-20.7
35.9	Oct 29	-27.7	4	1.7	Jan 31	-17.6	4	10.7	Jan 29	-20.4
24.4	Feb 23	-24.5	5	14.3	Mar 18	-17.4	5	25.9	Mar 18	-19.2
27.6	Nov 25	-23.6	6	19.2	Oct 31	-17.1	6	31.7	Oct 28	-19.1
37.5	Mar 18	-20.9	7	7.4	Feb 24	-16.8	7	31.0	Oct 31	-18.4
42.9	Oct 31	-19.7	8	26.2	Apr 23	-16.5	8	13.4	Jan 31	-17.9
32.3	Nov 24	-19.4	9	20.6	Nov 1	-15.3	9	32.2	Oct 30	-17.8
31.0	Feb 24	-18.4	10	22.3	Apr 6	-15.3	10	19.2	Feb 24	-17.6
25.2	Jan 31	-18.3	11	31.6	Oct 7	-15.0	11	23.4	Nov 25	-15.7
29.3	Feb 16	-17.4	12	7.9	Feb 17	-14.3	12	31.4	Mar 19	-14.1

Top 10 Extremes in 2023 - Kansas Mesonet

Highest Daily Maximum Temperature (°F)

Value	Station	Date	Rank
113.6	Ashland Bottoms	Aug 19	1
113.2	Rock Springs	Aug 19	2
112.9	Overbrook	Aug 19	3
112.4	Gypsum	Aug 19	4
112.0	Rocky Ford	Aug 19	5
111.6	Elmdale 1SE	Aug 19	6
111.4	Manhattan	Aug 19	7
110.9	Woodson	Aug 20	8
110.6	Flickner Tech Farm	Aug 19	9
109.9	Butler	Aug 20	10

Lowest Daily Minimum Temperature (°F)

Value	Station	Date	Rank
-11.2	Cheyenne	Jan 30	1
-9.8	Wallace	Jan 31	2
-9.3	Colby	Jan 31	3
-8.9	Sherman	Jan 31	4
-8.8	Sherman	Jan 30	5
-8.5	Colby	Jan 30	6
-7.6	Sheridan	Jan 31	7
-7.4	Tribune 6NE	Jan 31	8
-7.4	Norton 4SW	Jan 31	9
-7.3	Cheyenne	Jan 31	10

Lowest Daily Maximum Temperature (°F)

Value	Station	Date	Rank
4.7	Tribune 6NE	Jan 30	1
4.7	Tribune	Jan 30	2
4.8	Ludell 3N	Jan 29	3
5.0	Cheyenne	Jan 29	4
5.0	Wallace	Jan 30	5
5.6	Oberlin 7NE	Jan 29	6
6.1	Sheridan	Jan 29	7
6.3	Norton 4SW	Jan 29	8
6.5	Leoti	Jan 30	9
6.7	Sherman	Jan 30	10

Highest Daily Minimum Temperature (°F)

Value	Station	Date	Rank
81.5	Overbrook	Jul 26	1
80.8	Gypsum	Jul 26	2
80.7	Ottawa 2SE	Jul 26	3
80.7	Uniontown 3NW	Aug 22	4
80.6	Manhattan	Aug 23	5
80.5	Miami	Jul 26	6
80.3	Olathe	Jul 26	7
79.9	Woodson	Jul 26	8
79.9	Oskaloosa 1SE	Jul 26	9
79.6	Manhattan	Jul 26	10

Most Daily Precipitation (in.)

Value	Station	Date	Rank
4.86	Overbrook	May 31	1
4.02	Cherokee	Aug 5	2
3.64	Parsons	Aug 5	3
3.49	Ottawa 2SE	Oct 25	4
3.28	Norton 4SW	Sep 21	5
3.26	Howard 14NW	Jul 5	6
3.24	Hoisington 4S	Aug 9	7
3.17	Hiawatha	Jul 4	8
3.14	Butler	Oct 25	9
3.09	Scandia	Aug 25	10

Highest 2-meter Wind Gust (mph)

Value	Station	Date	Rank
83.0	Sublette 1E	Feb 26	1
77.8	Hodgeman	Feb 26	2
74.9	La Crosse	Aug 25	3
70.2	Corning 2NW	Jun 29	4
69.8	Elmdale 1SE	Apr 19	5
67.9	Woodson	Jul 14	6
66.4	Osborne	Oct 3	7
66.4	Osborne	May 9	8
66.3	Wallace	Jul 20	9
65.7	Lakin	Jul 20	10

Additional Extremes - Kansas Mesonet

Longest Stretch of Consecutive Days with Above Normal Average Temperatures			Longest Stretch of Consecutive Days with Below Normal Average Temperatures	
Length	Dates	Rank	Length	Dates
20 days	Jan 1 – Jan 20	1	14 days	Apr 20 – May 3
18 days	Sep 18 – Oct 5	2	10 days	Jun 10 – Jun 19
14 days	Dec 11 – Dec 24	3	8 days	Mar 7 – Mar 14 Sep 10 -Sep 17
11 days	May 4 – May 14 Jul 24 – Aug 3	4		
		5	7 days	Jan 28 – Feb 3 Mar 23 – Mar 29 Jul 5 – Jul 11 Aug 4 – Aug 10

Highest Average Daily 2-meter Wind Speed (mph)			Highest Average Daily Precipitation (in)	
Value	Date	Rank	Value	Date
16.2	Mar 16	1	0.51	Jun 17
14.7	Oct 13	2	0.48	May 9
14.3	Mar 31	3	0.47	Jul 20
13.8	Mar 30	4	0.46	Jul 5
13.6	Apr 12	5		Dec 24

Counts of Above/Below Normal Days Each Month Across the Kansas Mesonet

Daily Average Temperature

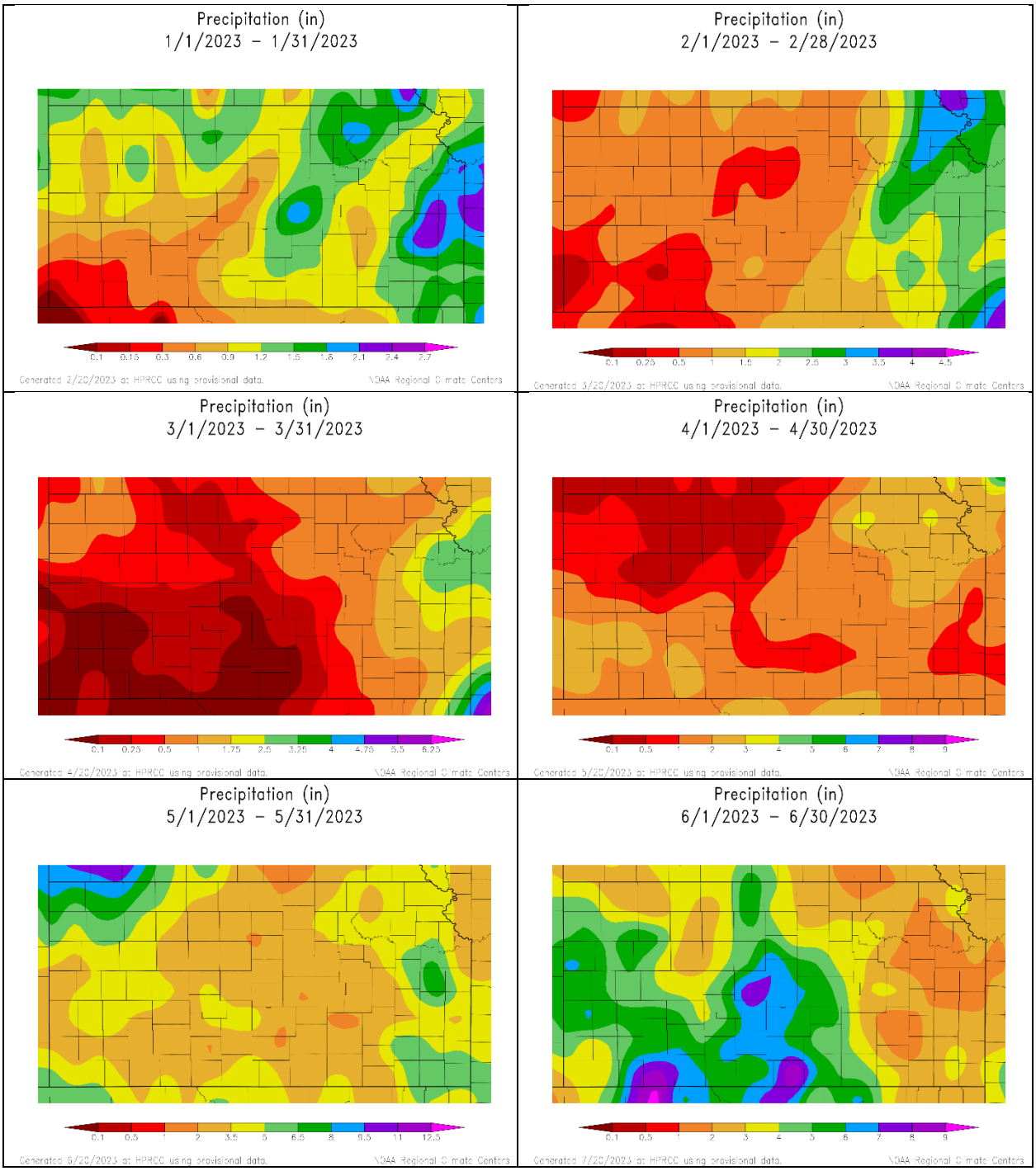
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Above	21	17	11	13	18	9	12	14	21	19	20	24	**199**
Below	10	11	20	17	13	21	19	17	9	12	10	7	**166**

Daily Average High Temperature

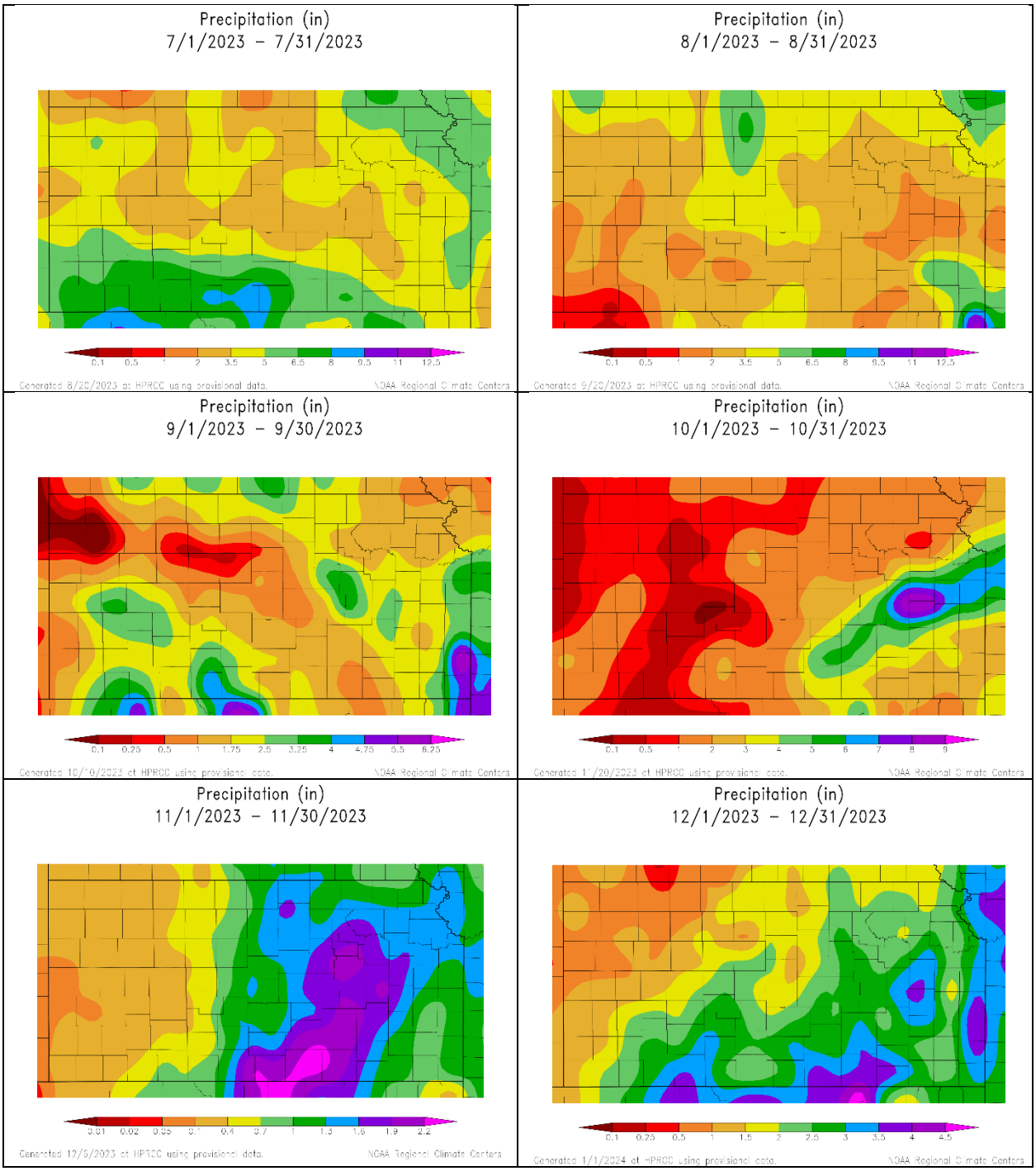
Above	19	20	13	16	18	11	14	18	23	19	21	22	**214**
Below	12	8	18	14	13	19	17	13	7	12	9	9	**151**

Daily Average Low Temperature

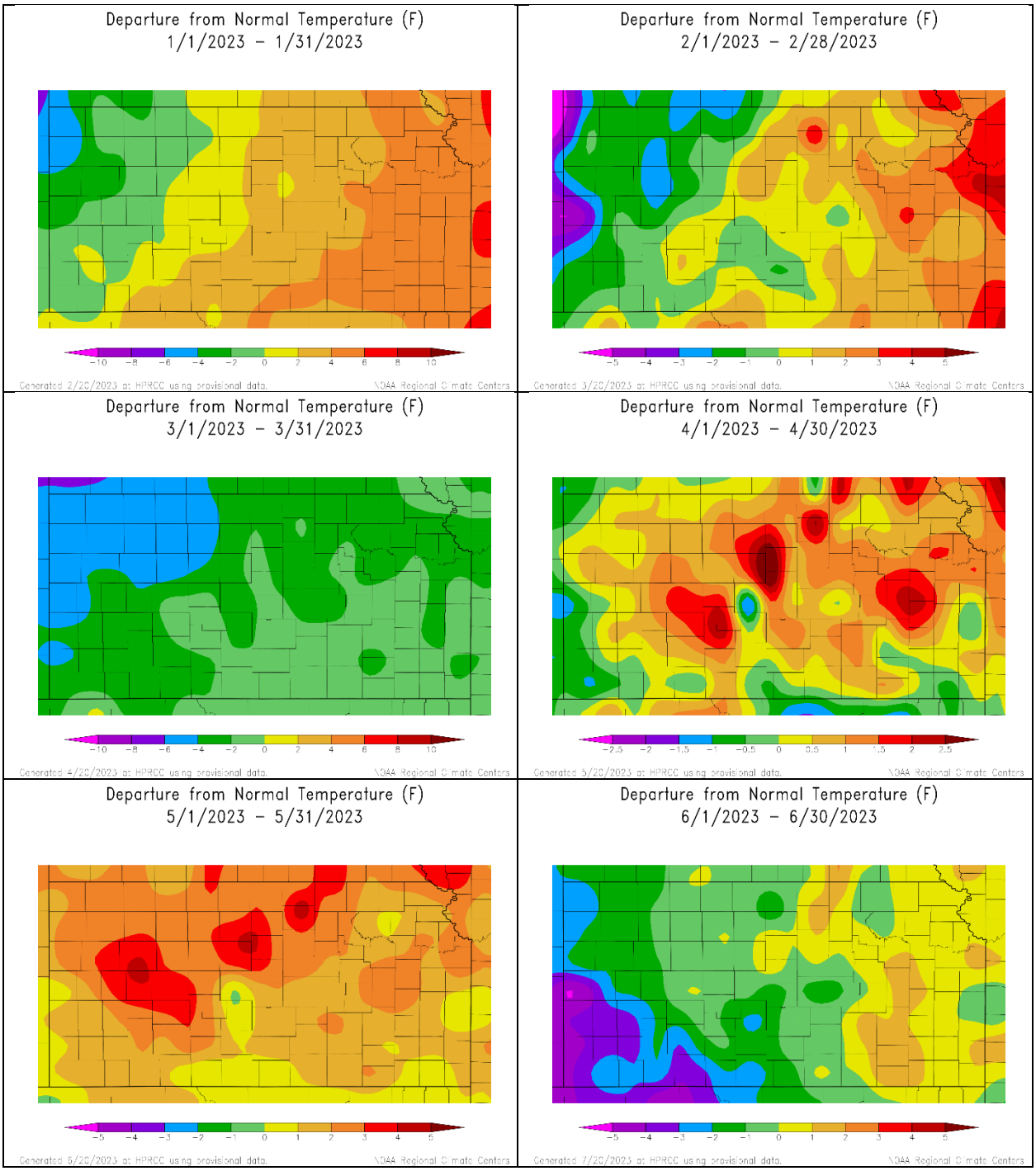
Above	22	16	17	10	20	9	12	13	18	16	16	26	**195**
Below	9	12	14	20	11	21	19	18	12	15	14	5	**170**



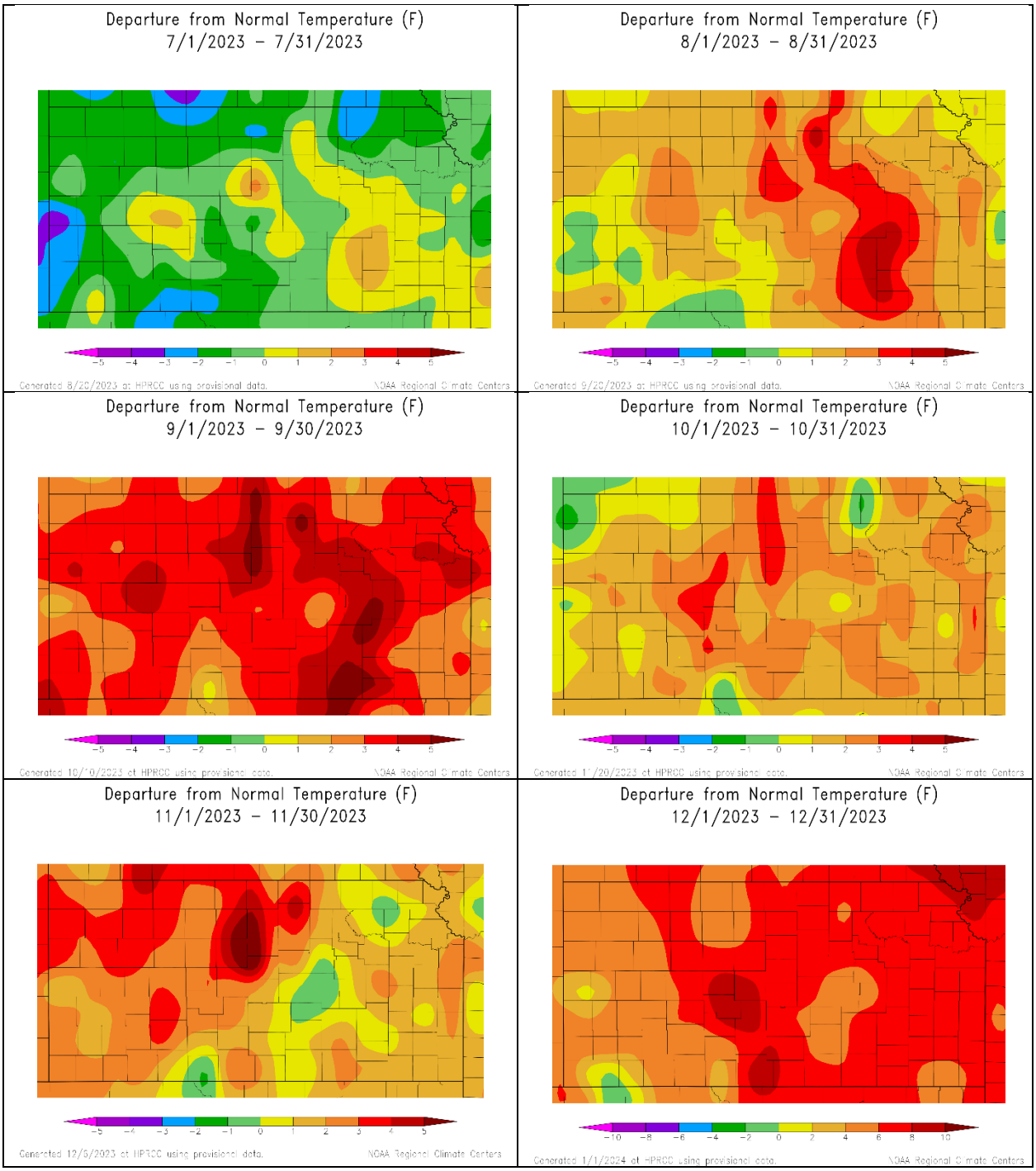
Figures 6a-f. January-June, 2023 total monthly precipitation contour plots for Kansas. Source: High Plains Regional Climate Center.



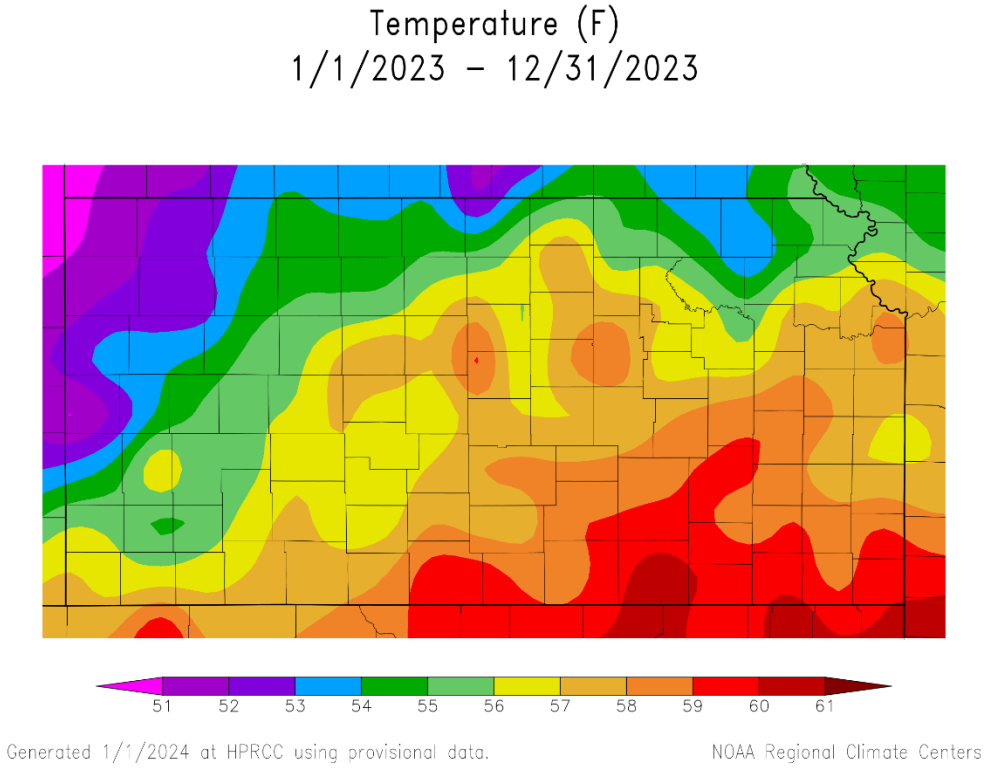
Figures 7a-f. July-December, 2023 total monthly precipitation contour plots for Kansas. Source: High Plains Regional Climate Center.

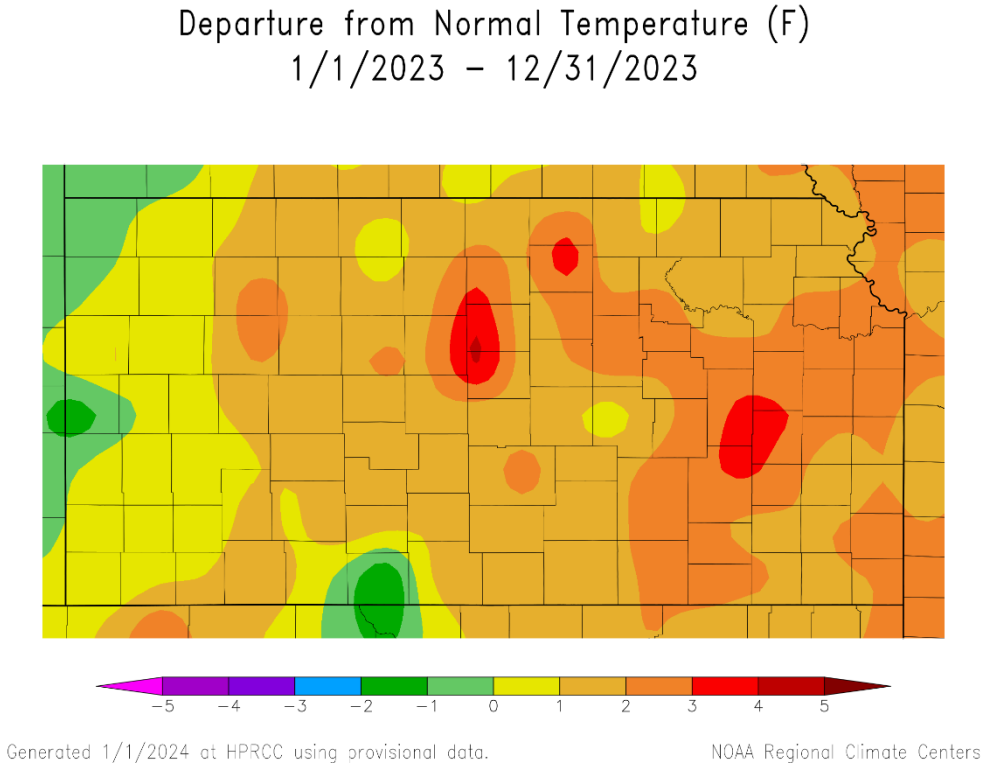


Figures 8a-f. January-June, 2023 departure from normal monthly temperature contour plots for Kansas. Source: High Plains Regional Climate Center.

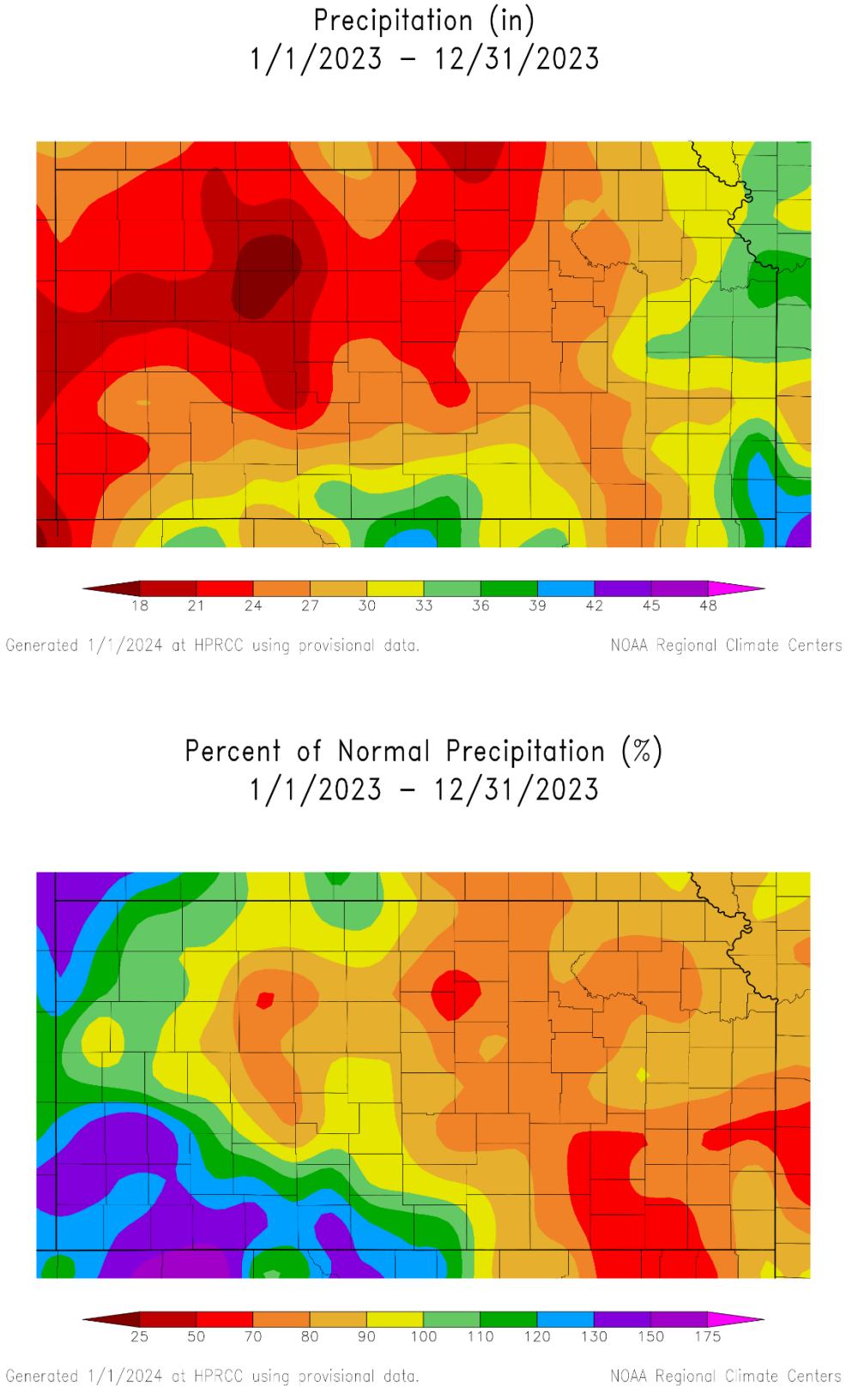


Figures 9a-f. July-December, 2023 departure from normal monthly temperature contour plots for Kansas. Source: High Plains Regional Climate Center.





Figures 10a-b. Average annual temperature and annual departure from normal. Source: HPRCC.

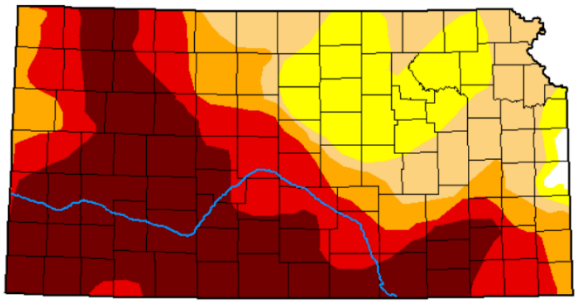


Figures 11a-b. Average annual precipitation and annual departure from normal. Source: HPRCC.

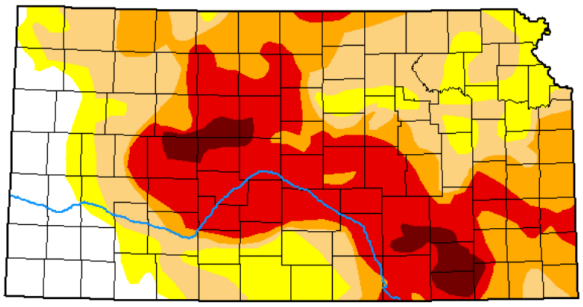
2023 Kansas US Drought Monitor Data

Percentage of State Within Drought Category Ranges

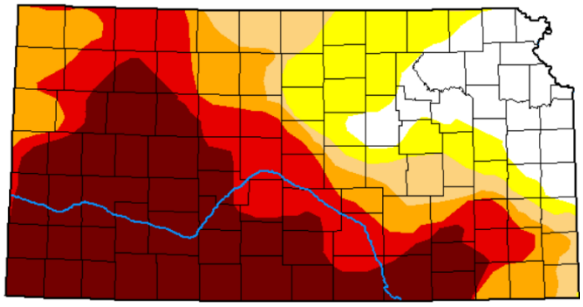
Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI	Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
3-Jan	0.5	99.5	84.5	68.9	57.0	36.9	347	4-Jul	1.8	98.2	87.0	62.6	39.2	7.6	295
10-Jan	0.5	99.5	84.5	68.9	57.1	38.0	348	11-Jul	3.6	96.4	82.0	55.3	33.3	5.6	273
17-Jan	0.5	99.5	84.5	68.9	57.1	38.0	348	18-Jul	3.6	96.4	80.4	54.6	31.8	4.9	268
24-Jan	3.6	96.4	82.8	68.7	56.4	37.4	342	25-Jul	12.1	87.9	71.9	47.7	29.2	3.7	240
31-Jan	4.0	96.0	82.8	68.7	56.4	37.4	341	1-Aug	12.1	87.9	71.5	47.7	29.2	3.7	240
7-Feb	4.0	96.0	82.8	68.7	56.4	37.4	341	8-Aug	13.4	86.6	69.8	45.1	30.0	3.2	235
14-Feb	7.2	92.8	74.7	66.7	54.5	37.4	326	15-Aug	16.3	83.7	65.8	42.1	18.3	1.3	211
21-Feb	13.2	86.8	74.5	66.7	53.2	35.4	316	22-Aug	16.3	83.7	65.8	42.1	18.3	1.3	211
28-Feb	15.0	85.1	72.8	65.5	52.4	34.9	311	29-Aug	18.0	82.0	66.8	43.5	19.1	1.3	213
7-Mar	15.0	85.0	74.9	65.2	52.4	34.9	312	5-Sep	16.2	83.8	69.8	48.3	20.4	1.7	224
14-Mar	15.9	84.1	74.6	65.1	52.4	36.3	313	12-Sep	17.8	82.2	68.6	47.0	20.7	1.7	220
21-Mar	15.7	84.3	75.0	65.6	52.4	36.3	314	19-Sep	19.1	80.9	66.8	47.0	22.1	1.7	219
28-Mar	15.7	84.3	75.0	65.6	52.4	36.3	314	26-Sep	18.6	81.4	64.3	45.6	20.6	1.7	214
4-Apr	15.7	84.3	75.0	65.6	52.4	37.6	315	3-Oct	17.4	82.6	66.7	48.4	20.6	1.7	220
11-Apr	12.0	88.0	80.7	69.1	56.3	43.5	338	10-Oct	17.1	82.9	66.9	48.0	20.6	1.7	220
18-Apr	13.0	87.0	79.8	69.1	56.8	45.0	338	17-Oct	16.5	83.5	68.0	50.2	20.5	1.7	224
25-Apr	11.5	88.5	81.9	71.2	60.4	46.3	348	24-Oct	15.9	84.1	68.1	50.6	20.5	1.7	225
2-May	9.4	90.7	83.5	75.7	63.3	39.8	353	31-Oct	15.6	84.4	63.3	39.3	7.6	0.0	195
9-May	8.0	92.0	84.5	76.5	64.4	41.1	359	7-Nov	15.4	84.6	63.4	39.6	7.6	0.0	195
16-May	12.8	87.2	81.0	70.8	59.7	35.5	334	14-Nov	11.5	88.5	68.5	42.5	7.6	0.0	207
23-May	10.4	89.6	80.9	70.7	59.8	35.5	336	21-Nov	9.9	90.1	68.5	42.6	7.6	0.0	209
30-May	3.7	96.3	85.6	72.1	56.8	32.0	343	28-Nov	10.2	89.8	68.4	42.5	7.6	0.0	208
6-Jun	9.0	91.0	80.5	67.6	46.3	16.6	302	5-Dec	10.6	89.4	64.1	30.5	7.0	0.0	191
13-Jun	9.2	90.8	79.8	61.4	43.7	13.8	290	12-Dec	9.2	90.9	65.9	30.5	7.0	0.0	194
20-Jun	3.9	96.1	79.5	57.3	38.0	7.8	279	19-Dec	14.2	85.8	61.4	22.8	4.2	0.0	174
27-Jun	2.3	97.7	84.9	60.9	37.5	7.6	289	26-Dec	20.3	79.8	53.4	19.4	2.9	0.0	156



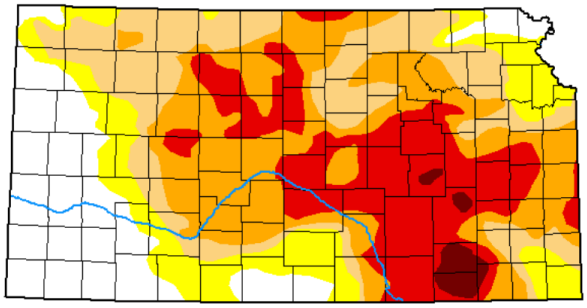
January 3, 2023. DSCI: 347
37% D4, 69% D2 or worse, 1% drought free



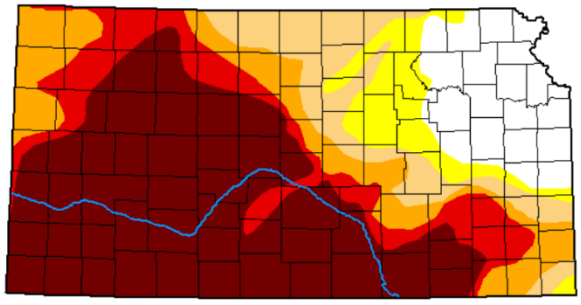
July 25, 2023. DSCI: 240
4% D4, 48% D2 or worse, 12% drought-free



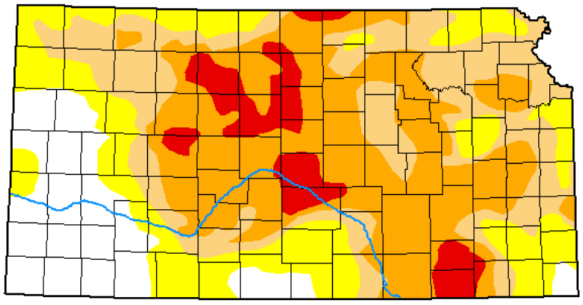
February 21, 2023. DSCI: 316
35% D4, 67% D2 or worse, 13% drought-free



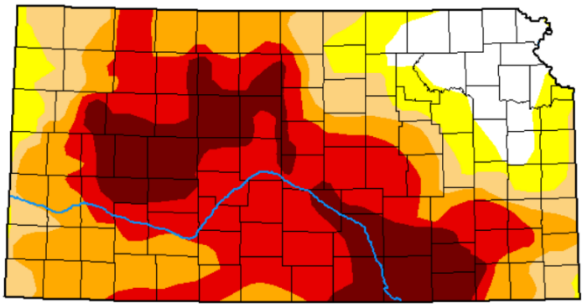
September 19, 2023. DSCI: 219
2% D4, 47% D2 or worse, 19% drought-free



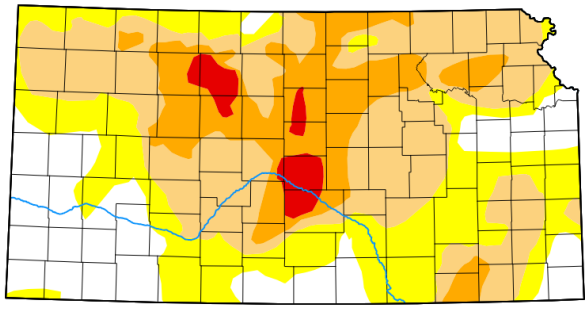
April 18, 2023. DSCI: 338
45% D4, 69% D2 or worse, 13% drought-free



November 7, 2023. DSCI: 195
0% D4, 40% D2 or worse, 15% drought-free



June 6, 2023. DSCI: 302
17% D4, 68% D2 or worse, 9% drought-free



December 26, 2023. DSCI: 156
0% D4, 19% D2 or worse, 20% drought-free

Figures 12a-h. US Drought Monitor maps detailing changes to the drought status across Kansas during 2023. DSCI is the Drought Severity Coverage Index, a composite index that ranges from 0 to 500, where higher numbers indicate worse drought conditions. Source: droughtmonitor.unl.edu.