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Southeast Kansas Climate Summary for 2024

Matthew Sittel, Assistant State Climatologist

The divisional data in this report are from the National Centers for Environmental Information (NCEI). The NCEI generated monthly divisional averages based on individual station data from observers within the 14 counties that comprise this division (Fig. 1). The observations come from official reporting sites such as airports, as well as co-operative and citizen observers who measure both temperature and precipitation.

Precipitation was below normal in southeast Kansas in 2024. This was the fifth consecutive year with below normal precipitation. The year ranked as the 66th driest year on record in the division, dating back to the beginning of NCEI records in 1895. More notably, temperatures averaged above normal for the year, and 2024 was the second-warmest year on record in this division; only 2012 was warmer.

Southeast Kansas finished 2024 with a divisional average precipitation total of 37.49 inches, or 3.27 inches below normal. While below normal, this was over 7 inches more than what was received in 2023. Only three months during the year averaged above normal: January, April, and November. While May and June are typically the wettest months, in 2024 the wettest month was November (7.00 inches), followed by April (6.47 inches) (Table 1). December was the driest month (0.33 inch), and July was the most below normal, finishing nearly two and a half inches under the average amount (-2.49 inches). Despite another year with below normal annual precipitation, drought conditions at year's end were better than at the start. There was no D2 or worse drought category anywhere in southeast Kansas in the final US Drought Monitor map of 2024, issued on December 31 (Figures 2a-b). The D1 at year's end was limited to parts of Bourbon and Crawford Counties. Much of southeast Kansas was classified as D0, or abnormally dry, a vast improvement from just two months earlier. The worst drought conditions in 2024 were during the month of October, when nearly one-fourth of southeast Kansas was classified as D3, and all areas were at D1 or worse. The very wet November brought dramatic improvements to the area. It was the third wettest November on record, and the wettest since 1992. Totals of 8 to 10 inches for the month were common across southeast Kansas, with a few higher amounts, like 10.55 inches north of Havana in Montgomery County, 10.41 inches at Fredonia in Wilson County, and 10.28 inches south of Peru in Chautauqua County.

The average annual temperature in southeast Kansas in 2024 was 59.9° F, or a departure of +2.8°. Only two months were below normal: January and July, with January the more below normal (-4.7°), thanks to a bitter cold airmass in the middle of that month. Below zero temperatures were recorded across all of southeast Kansas, as low as -10° F in Columbus on January 16. January was followed by the warmest February in 70 years. Over half the days featured highs in the 60s or warmer, with the highest readings at the

end of the month, when Sedan reached 86° F on the afternoon of February 27. Record highs for the month of February were set or tied at Winfield (85°), Parsons (85°), and Chanute (84°). Temperatures averaged above normal for summer and the growing season, but there were fewer 100-degree days at most locations, and below normal counts of days where the low temperatures failed to fall below 70 degrees (Table 4).

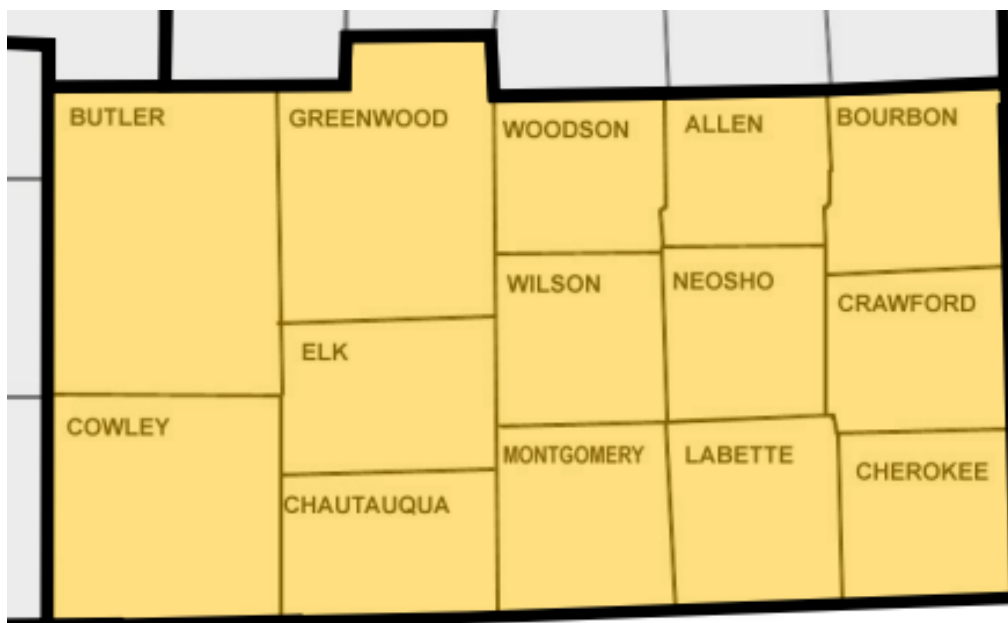
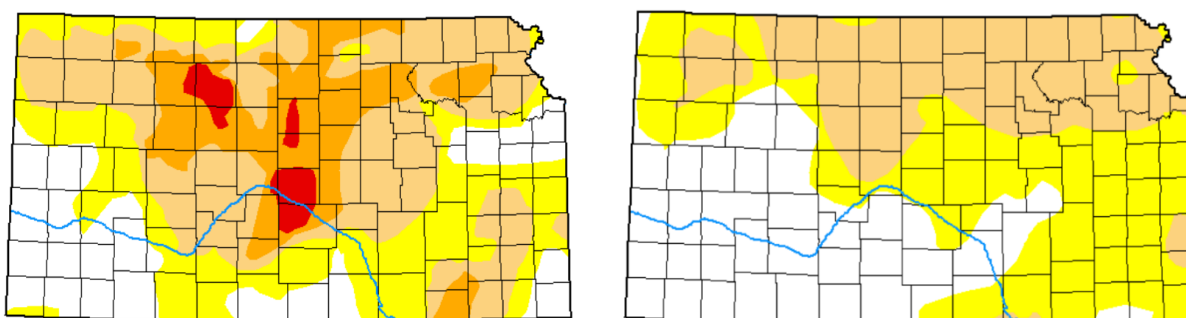


Figure 1. Map of the 14 counties comprising NCEI's southeast Kansas climate division.



Date	None	D0	D1	D2	D3	D4	DSCI
12/31/2024	35.20	36.08	28.72	0.00	0.00	0.00	94
12/26/2023	20.25	26.32	34.00	16.56	2.88	0.00	156

Figures 2a-b, Table 1. US Drought Monitor map for Kansas on December 26, 2023 (left) and December 31, 2024 (right), as well as the percentage of Kansas in each of the drought categories. D4 is the most severe category, while D0 is the least severe. None refers to drought-free conditions. DSCI is the Drought Severity Coverage Index, a composite index of overall drought conditions. Higher DSCI values indicate worse drought. The DSCI can range from a minimum of 0 (entire state drought-free) to 500 (entire state in D4).

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Table 2. Total precipitation and daily temperature averages for each month across the southeast Kansas climate division (Source: NCEI).

	Precipitation (in.)			Temperature (°F)		
	Total	Norm.	Dep.	Avg.	Norm.	Dep.
Jan	1.80	1.22	+0.58	28.4	33.1	-4.7
Feb	1.43	1.59	-0.16	47.2	37.6	+9.6
Mar	1.85	2.75	-0.90	51.7	47.3	+4.4
Apr	6.47	4.14	+2.33	60.1	56.7	+3.4
May	5.63	5.96	-0.33	68.0	65.7	+2.3
Jun	4.52	5.45	-0.93	78.0	75.1	+2.9
Jul	1.74	4.23	-2.49	79.2	79.7	-0.5
Aug	3.59	3.92	-0.33	79.3	78.5	+0.8
Sep	1.84	3.93	-2.09	71.9	70.3	+1.6
Oct	1.29	3.48	-2.19	64.8	58.5	+6.3
Nov	7.00	2.13	+4.67	50.0	46.3	+3.7
Dec	0.33	1.77	-1.44	40.3	36.1	+4.2
YEAR	37.49	40.76	-3.27	59.9	57.1	+2.8

Table 3. The five wettest, driest, warmest and coldest years in southeast Kansas since 1895 (Source: NCEI).

Precipitation					Temperature (°F)			
Wettest		Driest		Rank	Warmest		Coldest	
Amount	Year	Amount	Year		Value	Year	Value	Year
57.60"	2019	21.93"	1963	1	60.7°	2012	54.0°	1979
54.09"	2008	22.28"	1956	2	59.9°	2024	54.2°	1895
53.62"	1961	22.60"	1952	3	59.9°	1954	54.3°	1917
52.36"	1985	23.06"	1980	4	59.5°	1946	54.4°	1903
51.95"	1973	23.40"	1917	5	59.4°	1921	54.5°	1993*

Table 4. Number of days in 2024 on which high temperatures were at least 90 and 100 degrees F, and the number of days on which low temperatures were at least 70 degrees, at selected locations across southeast Kansas. The average annual counts are based on 1991-2020 data. **BOLD** numbers in the 2024 columns indicate above normal totals.

Location	90°F -Degree Highs		100°F -Degree Highs		70°F -Degree Lows	
	2024	Avg.	2024	Avg.	2024	Avg.
Chanute	81	49	8	5	57	40
El Dorado	75	53	11	6	38	38
Eureka	64	50	6	7	36	27
Girard	69	52	1	4	42	40
Independence	73	54	7	6	39	43
Iola	31	40	0	2	31	38
Parsons	57	47	0	5	31	35
Sedan	85	58	17	9	47	40
Winfield	86	55	18	9	52	35
Yates Center	49	41	3	4	30	30