

KANSAS CLIMATE SUMMARY

June 2022

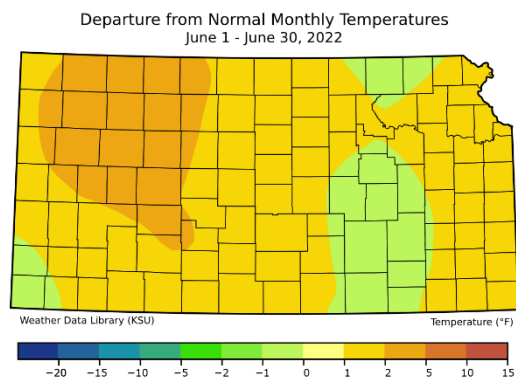
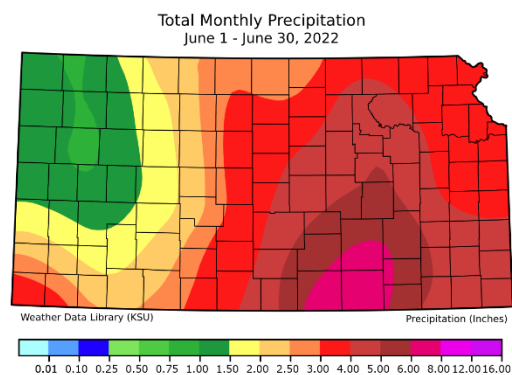
Above normal temperatures and below normal precipitation. Western critical drought conditions persist as the heaviest rainfall fell in eastern half of Kansas.

Highlights:

- A cool start and end to the month, but a stretch of mid-month heat led to a warm month overall, ranking 29th warmest.
- Precipitation averaged near normal for the state as a whole, but not everyone saw heavy rain. The month ranked as 54th driest.
- Outlooks for July favor statewide above normal temperatures and below normal precipitation.

Discussion:

Statewide precipitation for June averaged very close to normal: 3.69", or 98% of the normal amount of 3.76". This ranks as the 54th driest June out of 128 years of records for the state. The distribution of rainfall across Kansas was not uniform, both spatially and temporally. Over half of the average monthly rainfall (1.97") fell in the first week of June. The middle of the month was very dry and hot, and the end of June was cooler with additional rainfall. The southeast quarter of the state fared best during the month, with above normal precipitation, while northwest and west central Kansas had just under half their normal rainfall. Most of the heaviest precipitation reports came from the Wichita metropolitan area, with over a dozen CoCoRaHS observers recorded from 7" to as much as 11.5" of rainfall during June. Meanwhile, there were a few observers in northwest Kansas that ended June with less than an inch of total rainfall.



The start and end of June were generally cooler, but an extended stretch of hot weather mid-month led to an above average month for temperatures. The June statewide average temperature was 75.9°, 2.3° above normal. Historically this ties 1986 for the 29th warmest June out of 128 years of climate data. All regions of the state finished the month above normal. Northwest Kansas was the most above normal (+3.6°), while south central Kansas, thanks to multiple days of clouds and plentiful moisture, finished the least above normal (+1.4°). The heat in the middle of June brought triple-digit temperatures to most of the state. The co-op observer in Tribune (Greeley County) recorded 11 days in June with highs at or above 100°, the most of any reporting site. Dodge City was a close second with 10 days

above the century mark. The co-op site 3 miles north of Russell Springs (Logan County) recorded the most days at or above 90°, with 19.

There were many records set during the month. Of these, there were 35 cold and 157 warm records eclipsed. Of those 157, 131 were record warm minimums, and of those, 8 were monthly records and 3 were all-time records! The low on June 13th in Dodge City was 83°, breaking the old record for warmest ever minimum of 81° set on July 12th, 1978. That same morning, Milford Lake also fell to only 83°, one degree warmer than the previous record set on July 12th, 1966. Finally, Courtland in Republic County fell to 81°, one degree warmer than the old record set on July 26th, 2017. All three sites have over 50 years of

climate data. Sites setting new monthly records for warmest minimum include Topeka (82°, June 14) and Hugoton (82°, June 13). Wichita-Eisenhower tied their record warmest minimum for June on the 24th with a low of 79°.

Records Reached/Broken during June 2022				
	Daily		Monthly (All-Time)	
	Broken	Tied	Broken	Tied
Record High Max Temperature	26	15	0	0
Record High Min Temperature	131	54	8 (3)	9 (0)
Record Low Max Temperature	16	8	0	0
Record Low Min Temperature	19	5	0	0
Record Most Precipitation	43	2	1 (0)	1 (0)

There were a total of 20 tornadoes in Kansas during June, six above normal. The most reports were on June 11, with 8, all from Marshall and Pottawatomie Counties. There were 79 hail reports (much below the normal 125) and 148 wind reports (much above the normal of 79) during the month, with June 7 the date for the most hail (23) and wind (46) reports in the state.

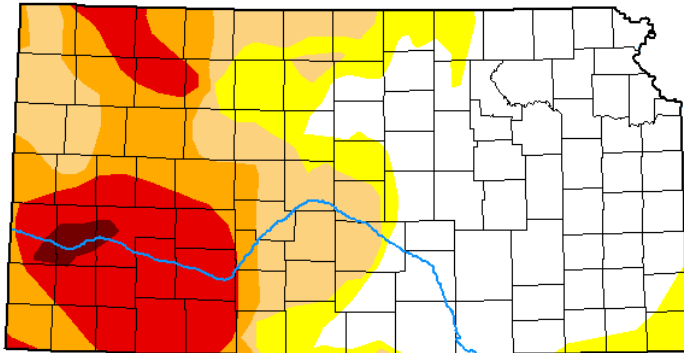
Drought conditions persisted over the western third of Kansas in June, with a small area of northwest Kansas worsening to D2 (severe drought). The far southeastern part of the state went from drought-free to D0 (abnormally dry) status. There were more areas with improving conditions, however, especially in central Kansas where most locations saw a one category improvement. Parts of Lincoln County improved from D2 to drought-free, thanks to ample moisture; a CoCoRaHS observer south of Beverly recorded over 5.5" of rain during June. Far southwestern Kansas saw a 2-category improvement; over 6" of rain fell during the month in eastern Morton County.

Overall, the percentage of drought-free areas in the state improved 10% during the month to 43%. The composite Drought Severity Coverage Index for Kansas dropped 30 points from 179 on May 31 to 149 on June 28, signifying improving conditions. The Climate Prediction Center's outlook for July is not encouraging however. Almost all of the state is favored (by as much as 60-70%) for above normal temperatures. Additionally, the entire state is favored for below normal precipitation through the month. The previous drought improvements could potentially evaporate with rapid drought onset/worsening should this forecast verify.

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U.S. Drought Monitor Kansas

June 28, 2022
(Released Thursday, Jun. 30, 2022)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	43.05	56.95	45.10	29.18	16.25	1.02
Last Week <i>06-21-2022</i>	36.82	63.18	47.93	29.18	16.25	1.03
3 Months Ago <i>03-29-2022</i>	27.76	72.24	66.49	46.00	7.12	1.89
Start of Calendar Year <i>01-04-2022</i>	25.19	74.81	52.34	14.06	2.45	0.00
Start of Water Year <i>09-28-2021</i>	51.22	48.78	15.04	4.14	0.00	0.00
One Year Ago <i>06-29-2021</i>	89.59	10.41	0.00	0.00	0.00	0.00

Intensity:

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

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

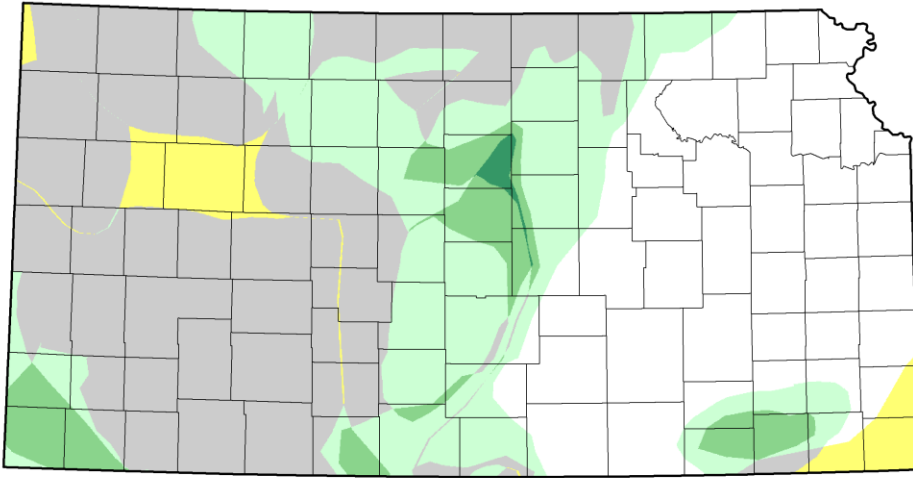
Author:

Curtis Riganti
National Drought Mitigation Center



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U.S. Drought Monitor Class Change - Kansas 4 Week



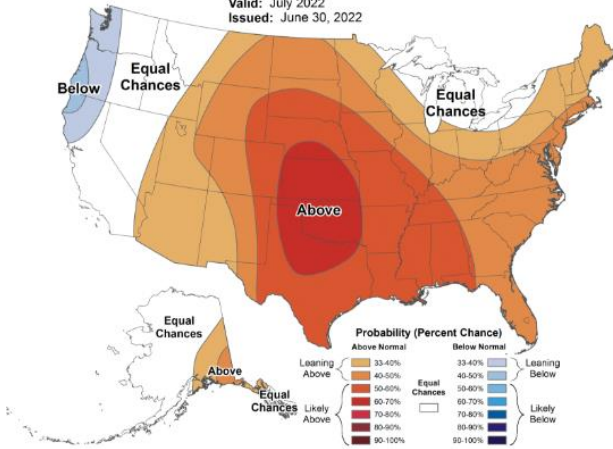
- 5 Class Degradation
- 4 Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 Class Improvement
- 5 Class Improvement

June 28, 2022
compared to
May 31, 2022

droughtmonitor.unl.edu

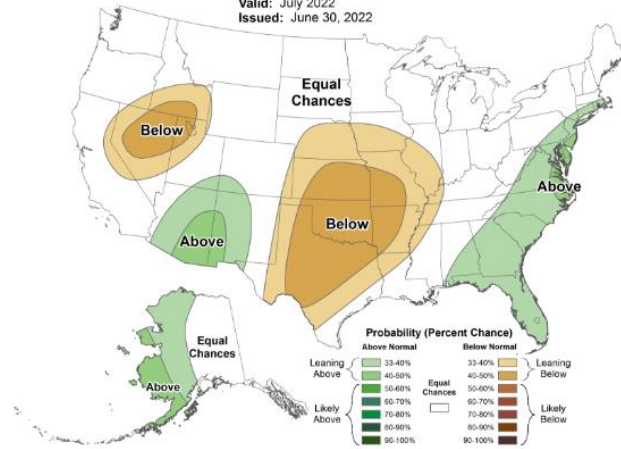
Monthly Temperature Outlook

Valid: July 2022
Issued: June 30, 2022



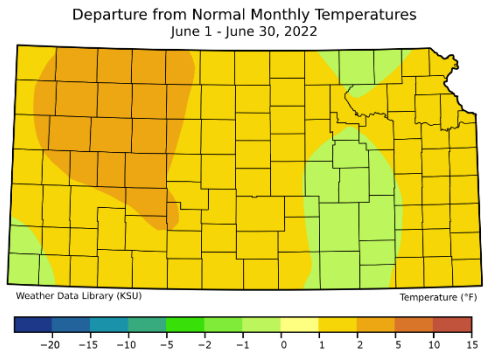
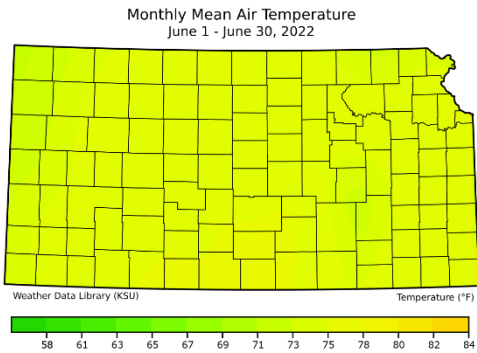
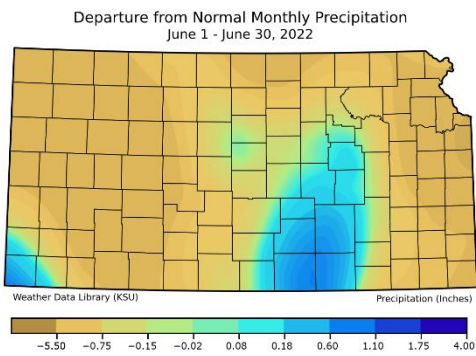
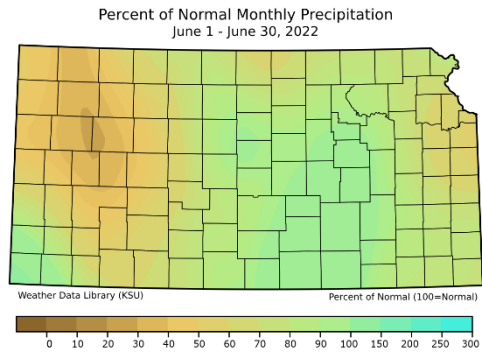
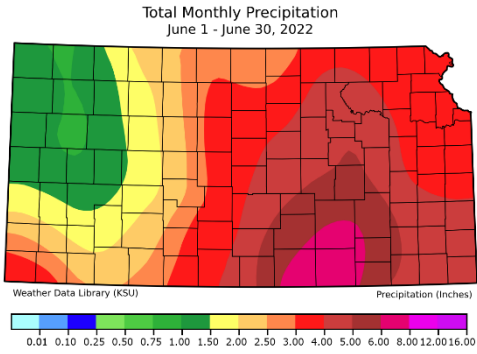
Monthly Precipitation Outlook

Valid: July 2022
Issued: June 30, 2022



Appendix:

Precipitation and Temperature Maps



**June, 2022
Kansas Climate Division Summary**

Division	Precipitation (inches)						Temperature (°F)			
	June			2022 (through June 30)			June		Monthly Extremes	
	Total	Dep. ¹	% Normal	Total	Dep. ¹	% Normal	Avg.	Dep. ¹	Max	Min
Northwest	1.31	-1.63	45	5.66	-5.17	53	74.7	+3.6	111	40
West Central	1.29	-1.40	48	5.53	-4.67	54	75.5	+3.1	109	39
Southwest	2.45	-0.50	83	5.70	-4.60	55	76.5	+2.5	108	43
North Central	3.14	-0.27	92	11.67	-1.97	86	75.8	+2.5	107	43
Central	4.73	+1.15	132	14.02	-0.46	97	76.6	+2.1	107	42
South Central	4.33	+0.31	108	14.34	-0.83	95	77.3	+1.4	105	49
Northeast	4.33	-0.33	93	17.38	+0.23	101	75.3	+1.8	101	42
East Central	5.13	+0.27	106	20.90	+2.39	113	76.0	+2.2	100	46
Southeast	6.22	+1.22	124	22.28	+2.44	112	76.8	+2.1	101	49
STATE	3.69	-0.07	98	12.95	-1.41	90	75.9	+2.3	111	39

1. Departure from 1991-2020 normal value.

Source: KSU Weather Data Library

June, 2022 Monthly Extremes	Value	Location (Observer Category)	County	Date
Highest Temperature	111°	Atwood (COOP)	Rawlins	June 13
Lowest Temperature	39°	Wallace (Mesonet)	Wallace	June 2
Highest 1-Day Precipitation	5.60"	Howard (COOP)	Elk	June 1
Highest Average Temperature	78.6°	Ashland 8S (Mesonet)	Clark	
Lowest Average Temperature	70.3°	Elkhart (COOP)	Morton	
Highest Total Precipitation	11.57"	Derby 2.3 N (CoCoRaHS)	Sedgwick	

June, 2022 National Weather Service Summaries		Precipitation (in.)		Temperature (°F)		
	Station ¹	Actual (Departure ²)	Percent Normal	Average (Departure ²)	Maximum (Date)	Minimum (Date)
West	Burlington, CO	1.77 (-0.99)	64%	73.4 (+3.3)	104 (13)	43 (3)
	Dodge City	1.18 (-2.11)	36%	77.7 (+2.6)	106 (24)	46 (2)
	Garden City	0.61 (-2.90)	17%	75.7 (+1.9)	104 (13,24)	44 (2)
	Goodland	1.35 (-1.61)	46%	73.2 (+2.5)	103 (13)	43 (2,3)
	Guymon, OK	3.18 (+0.30)	110%	77.7 (+1.5)	107 (12)	53 (28)
	Hill City	1.70 (-1.09)	61%	77.4 (+3.2)	108 (13)	44 (2)
	Lamar, CO	4.56 (+2.47)	218%	73.2 (-0.7)	104 (13)	46 (28)
	McCook, NE	1.85 (-1.24)	60%	75.5 (+3.3)	109 (13)	41 (2)
	Springfield, CO	1.64 (-0.21)	89%	73.6 (+2.4)	105 (12)	49 (1)
Central	Concordia	2.65 (-1.18)	69%	78.1 (+3.7)	105 (13)	47 (2)
	Hutchinson	3.16 (-1.04)	75%	76.5 (+0.5)	103 (24)	47 (2)
	Medicine Lodge	4.99 (+1.06)	127%	78.3 (+0.7)	103 (12,24)	50 (2)
	Russell	2.84 (-0.47)	86%	75.9 (+0.8)	103 (24)	44 (2)
	Salina	3.74 (-0.01)	100%	77.5 (+1.3)	103 (13)	48 (2)
	Wichita (Eisenhower National)	4.31 (-0.62)	87%	77.8 (+0.9)	100 (21,24)	52 (2)
	Winfield	6.75 (+1.47)	128%	78.3 (+1.7)	100 (21)	55 (2)
East	Chanute	3.68 (-1.94)	65%	78.6 (+2.4)	101 (25)	53 (3)
	Coffeyville	3.90 (-1.05)	79%	78.4 (+1.8)	100 (25)	55 (3)
	Emporia	5.77 (+1.24)	127%	76.7 (+2.5)	97 (13,21)	52 (2)
	Falls City, NE	4.56 (-0.27)	94%	75.3 (+1.6)	100 (13)	47 (2)
	Olathe (Johnson County Exec. Airport)	1.19 (-3.96)	23%	77.0 (+3.0)	97 (13,21)	55 (2,3)
	Joplin, MO	2.23 (-3.37)	40%	77.9 (+2.3)	100 (25)	53 (3)
	Kansas City, MO (International Airport)	4.73 (-0.52)	90%	76.3 (+2.2)	97 (13,21)	52 (3)
	St. Joseph, MO	2.40 (-2.35)	51%	73.7 (-0.5)	98 (13)	47 (2)
	Topeka (Billard Airport)	2.28 (-2.64)	46%	77.8 (+2.3)	100 (13,21)	52 (2)

1. Airport Automated Observation Stations (NWS/FAA)
2. Departure from 1991-2020 normals value

T – Trace
M – Missing

