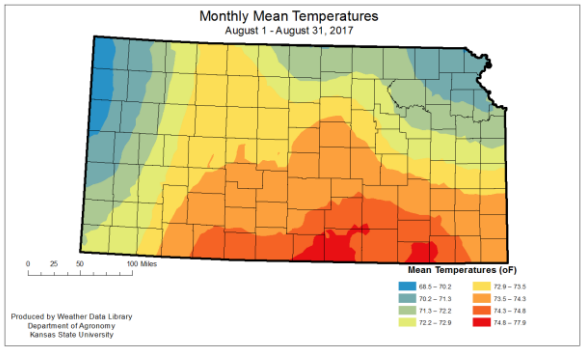
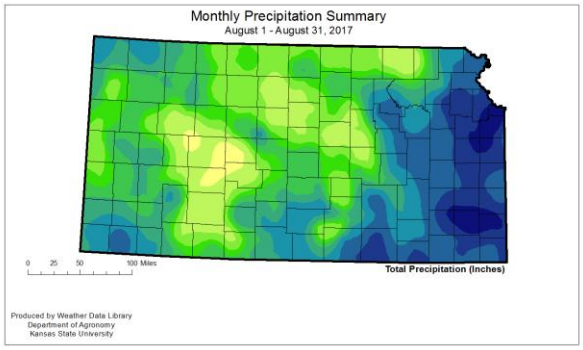
KANSAS CLIMATE SUMMARY
August 2017

Cool

The most notable weather feature for August was the cooler than normal temperatures. The state-wide average temperature was 72.7 ºF, which is a -4.4 degree departure from normal. All divisions were in the cooler than normal range. The Northwest Division was closest to normal with an average temperature of 71.1 ºF, or -3.6 degrees from normal. The East Central Division had the greatest departure; the average for that division was 72.1 ºF which resulted in a departure of -5.0 degrees. Only the three eastern divisions failed to break the 100 degree mark. The warmest reading was 104 ºF, reported at Larned #2, Pawnee County, on the 21st. The coldest reading was 43 ºF, reported at Brewster 4W, Thomas County, on the 28th. Not surprisingly, there were no new record high maximum temperatures and only three new record high minimum temperatures. On the other hand, there were 49 new record low daily maximum temperatures and 16 new record low minimum temperatures. None of the temperature records were records for the month.

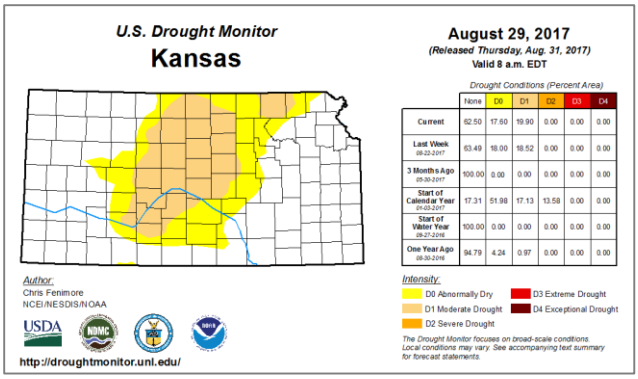


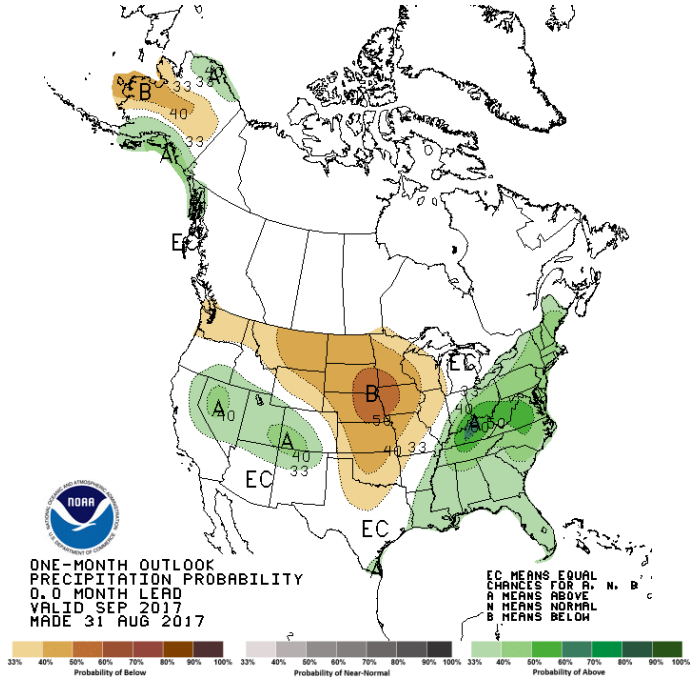
August had closer to normal precipitation than July, but was skewed heavily to the east. State-wide precipitation averaged 3.46 inches which was 104 percent of normal. All three eastern divisions plus the South Central division averaged at or above normal for the month. The Central and West Central divisions tied for the lowest percent of normal at 60 percent each. For the Central Division that meant an average of 2.51 inches or a departure of -1.42 inches. For the West Central that was an average of 1.56 inches with a departure of -1.05 inches. The greatest daily precipitation total reported at a National Weather Service Coop (NWS) station was 8.85 inches at Hillsdale Lake, Miami County, on the 22nd. The greatest daily total reported at a Community Collaborative Rain Hail and Snow network station (CoCoRaHS) was 8.30 inches at Wellsville 3.6 NNW, Douglas County, also on the 22nd. The monthly extremes for both networks: 12.52 inches at Erie, Neosho County (NWS) and 13.00 inches at Overland Park 1.7 NE, Johnson County (CoCoRaHS).



Severe weather was again limited this month, with most of the events in the form of hail and high winds. There was one reported tornado, which is less than the 1950-2016 average of 3 tornadoes in August. In addition to the tornado, there were 56 hail reports, and 63 high wind reports. The most damaging event of the month was the flooding in Eastern Kansas, following the heavy rains on the 5th and 6th of August. Flooding was reported along several local streams, including areas that had been flooded at the end of July.

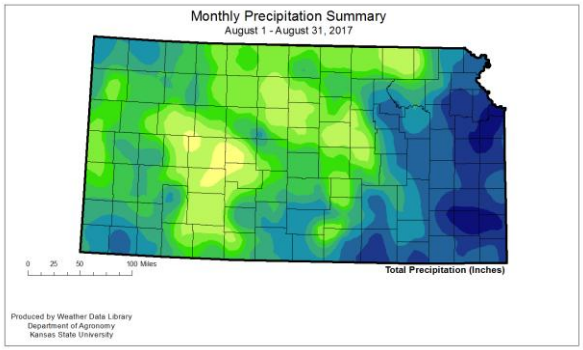
The near normal precipitation coupled with cooler than normal temperatures limited the expansion of the abnormally dry condition. However, areas of the state with much lower than normal precipitation had an expansion of moderate drought. The September outlook calls for drier than normal conditions state-wide. This is coupled with increased chances of below normal temperatures in the eastern half of the state, with equal chances of above or below normal temperatures across the rest of the state. The much cooler than normal temperatures that have started the month will reduce some of the evaporative demand. Extended dry weather, however, will result in further intensification of the drought.

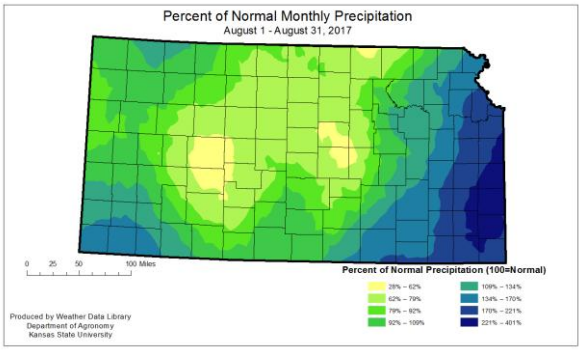


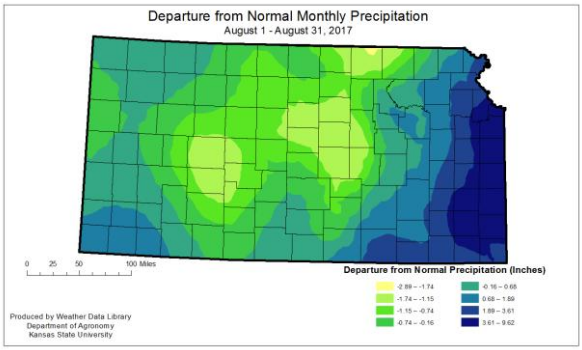


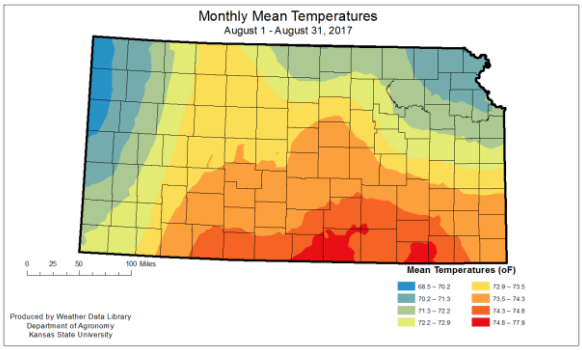
Appendix:

Precipitation and Temperature Maps









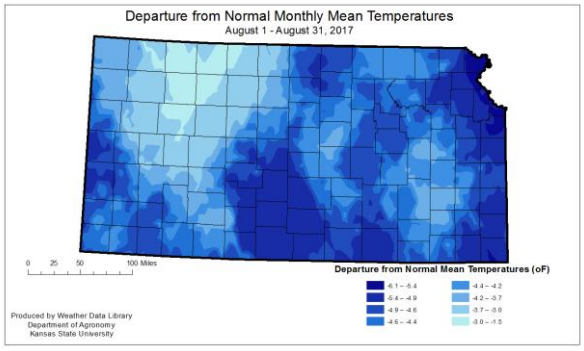


Table 1.

Aug-17 Kansas Climate Division Summary										
	Precipitation (inches)						Temperature (ºF)			
	Aug-17			2017 through August					Monthly Extremes	
Division	Total	Dep. [1]	% Normal	Total	Dep. [1]	% Normal	Ave	Dep. [1]	Max	Min
Northwest	2.04	-0.69	74	16.71	16.89	98	71.1	-3.6	101	43
West Central	1.56	-1.05	60	18.62	16.29	115	71.9	-3.7	101	47
Southwest	2.50	-0.21	92	20.72	15.44	135	73.1	-4.2	100	49
North Central	2.54	-0.75	77	21.09	21.31	98	72.5	-4.5	101	47
Central	2.15	-1.42	60	21.16	22.48	94	73.5	-4.6	102	49
South Central	3.54	0.10	103	25.55	23.47	109	74.4	-4.8	104	50
Northeast	3.93	0.03	100	24.58	25.66	95	71.5	-4.8	95	49
East Central	5.56	1.47	136	27.57	27.61	99	72.1	-5.0	96	51
Southeast	6.88	3.14	188	34.30	29.41	116	74.0	-4.6	99	53
STATE	3.46	0.13	104	23.61	22.00	108	72.7	-4.4	102	43

1. Departure from 1981-2010 normal value

2. State Highest temperature: 104 oF at Larned #2, Pawnee County, on the 21st.

3. State Lowest temperature: 43 oF at Brewster 4W, Thomas County, on the 28th.

4. Greatest 24hr: 8.85 inches at Hillsdale Lake, Miami County, on the 22nd (NWS); 8.30 inches at Wellsville 3.6 NNW, Douglas County, on the 22nd (CoCoRaHS).

Source: KSU Weather Data Library

August Summary

Station[1]	Precipitation (inches)			Temperature oF			
						Extreme (Date)	
	Total	Departure	Percent Normal	Mean	Departure	Highest	Lowest
West							
Burlington, CO	3.67	1.26	152%	70.6	-1.5	93 (20,19)	52 (29,28)
Dodge City	0.94	-1.81	34%	78.1	-3.0	100 (19)	51 (23)
Garden City	2.49	0.04	102%	73.2	-3.5	95 (19)	52 (29)
Goodland	1.75	-0.95	65%	70.9	-2.8	94 (19)	52 (17)
Guymon, OK	2.17	-0.75	74%	74.6	-3.5	98 (5)	50 (31)
Hill City	1.98	-0.93	68%	74.6	-2.0	102 (20,19)	52 (29,23)
Lamar, CO	0.73	-0.54	57%	61.9	-0.8	85 (19)	39 (30,25)
McCook, NE	3.64	0.50	116%	72.1	-1.7	97 (19)	49 (4)
Springfield, CO	1.70	-1.14	60%	69.8	-4.4	91 (19,18)	48 (31,30)
Central							
Concordia	3.39	0.25	108%	72.2	-4.9	94 (20)	51 (23)
Hebron, NE	2.57	-1.16	69%	72.0	-3.2	93 (20)	50 (4)
Medicine Lodge	3.61	0.49	116%	75.5	-4.8	101 (5)	53 (30,29)
Ponca City, OK	2.46	-0.79	76%	76.9	-4.1	100 (5)	55 (30)
Salina	1.09	-2.86	28%	76.5	-3.1	102 (20)	54 (23)
Wichita (ICT)	2.20	-1.51	59%	76.4	-3.6	99 (19)	57 (29,24)
East							
Bartlesville, OK	8.98	5.91	293%	75.7	-4.5	97 (19)	55 (30)
Chanute	11.33	7.64	307%	75.0	-3.9	95 (20,19)	55 (24)
Falls City, NE	2.42	-1.62	60%	71.3	-4.1	89 (2)	50 (4)
Johnson Co. Exec. Apt	9.57	5.85	257%	72.0	-5.6	90 (19)	54 (23)
Joplin, MO	5.46	2.11	163%	76.3	-3.4	96 (20)	60 (29,24)
Kansas City (MCI), MO	10.19	6.30	262%	71.8	-5.3	91 (19)	52 (4)
St. Joseph, MO	3.68	-0.30	92%	70.5	-4.8	92 (19)	47 (4)
Topeka (TOP)	6.93	2.69	163%	73.0	-4.4	93 (19)	53 (4)

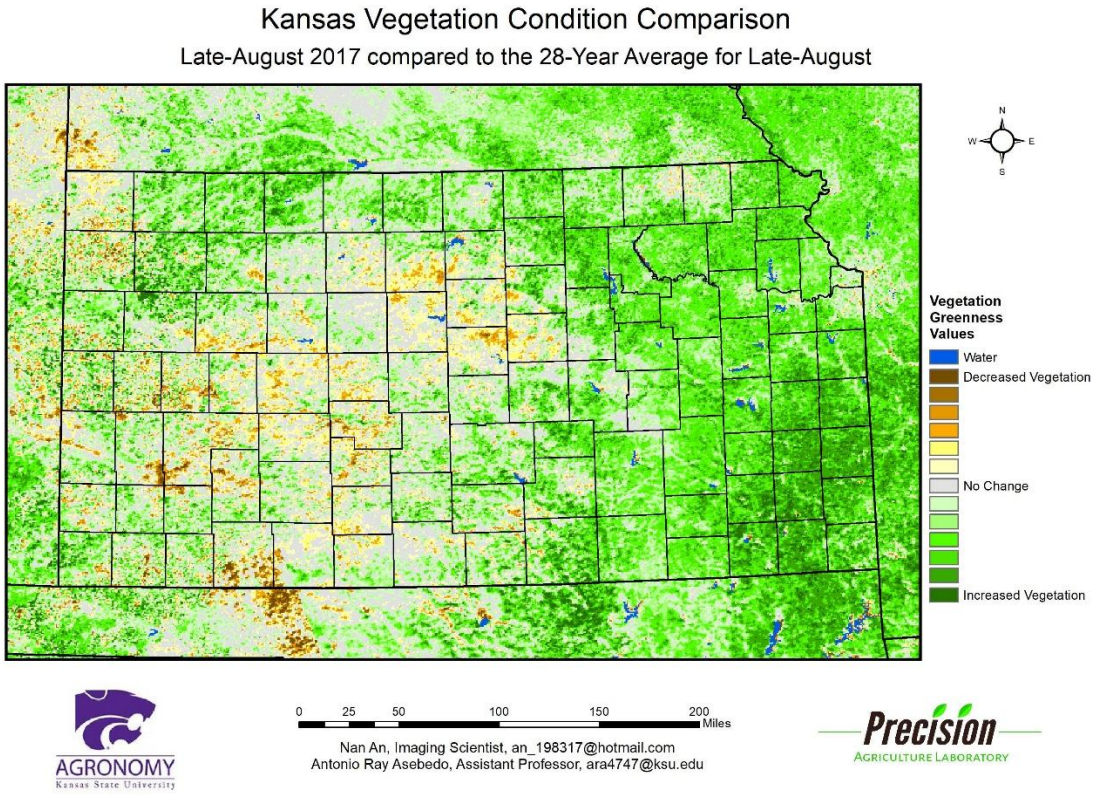
1. Airport Automated Observation Stations (NWS/FAA)

2. Departure from 1981-2010 normal value

T - Trace; M - Missing; --- no normal value from which to calculate departure or percent of normal

Source: National Weather Service F-6 Climate Summaries

Vegetative Health Index Map:



Sorghum Growing Degree Days compared to Normal: