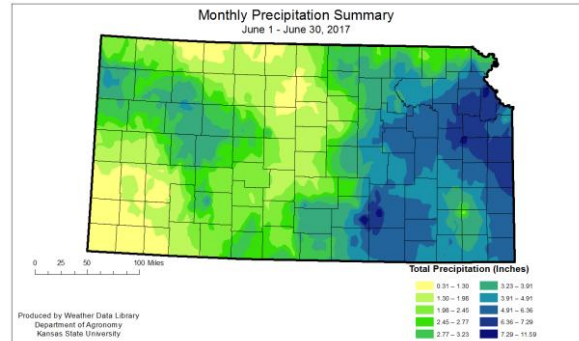


KANSAS CLIMATE SUMMARY

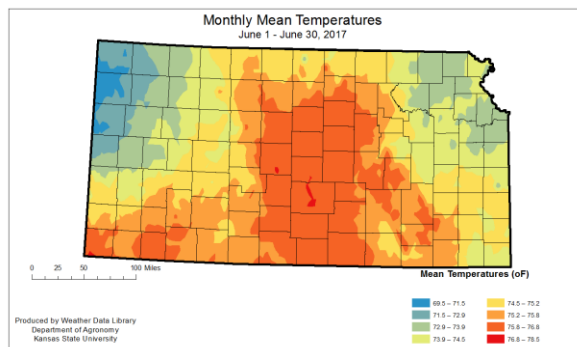
June 2017

Uneven rainfall

The wet May gave way to uneven rainfall in June. The statewide average precipitation was 3.23 inches or 74 percent of normal. The East Central and West Central divisions came closest to normal. The East Central Division averaged 5.57 inches or 99 percent of normal. The West Central Division averaged 2.74 inches or 98 percent of normal. In contrast, the Southwest Division averaged just 1.63 inches or 50 percent of normal, marking it as the division with the lowest percent of normal. The greatest monthly precipitation total for a National Weather Service (NWS) Coop station was 11.59 inches at Easton, Leavenworth County. The greatest monthly total for a Community Collaborative Rain, Hail and Snow (CoCoRaHS) station was 9.65 inches at Derby 2.9 N, Sedgwick County. The highest 24hr totals: 4.45 inches at Blue Rapids, Marshall County, on the 17th (NWS); 4.85 inches at Hope 9.4 WNW, Dickinson County, on the 30th (CoCoRaHS).

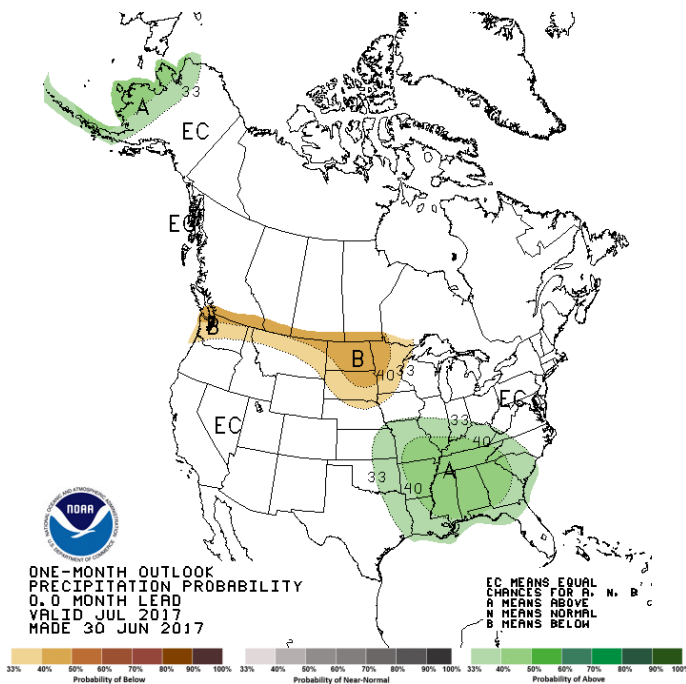
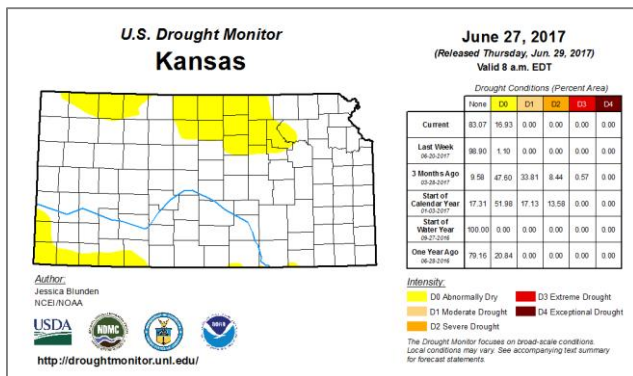


Temperatures rebounded from the cooler-than-normal conditions in May. State-wide temperatures averaged 74.9 °F or 1.6 degrees warmer than normal. The Southeast Division averaged closest to normal with an average of 74.6 °F, or 0.4 degrees warmer than normal. The Southwest Division had the greatest departure with an average of 76.4 °F which was 2.9 degrees warmer than normal. The warmest reading for the month was 110 °F at Tribune 14N, Greeley County, on the 17th. The coldest reading was 39 °F, recorded at Atchison 1S, Leavenworth County, on the 23rd. Despite the warm temperatures, there were only four record high maximum temperatures during the month and 12 record high minimum temperatures. On the cold side, there were 17 new record cold maximum temperatures in June and 10 new record low minimum temperatures. None of the temperature records set new records for the month of June. All divisions saw high temperatures reach 90 °F or more, with all but the eastern divisions having highs in the 100s.



Severe weather was again a feature of the month, with most of the events in the form of hail and high winds. There were 3 reports of tornadoes, which is less than the 1950-2016 average of 14 tornadoes in June. In addition, there were 152 hail reports, and 178 high wind reports. One of the worst outbreaks came during the week of June 14th to June 20th when 117 hail events and 124 wind events were reported. The largest hail stones reported were 4.5 inches in diameter, reported near Ulysses, KS on the 20th.

The lower than normal precipitation with warmer than normal temperatures resulted in a return to abnormally dry conditions in parts of the state. The July outlook calls for a slightly increased chance of wetter than normal conditions the across the eastern third of the state coupled with higher chances of above normal temperatures. At this point, the dry pattern expected for the next week is providing a window for field work, but increasing concerns for spring field crops, especially those with poorly developed root systems, due to earlier saturated fields.



Appendix:

Precipitation and Temperature Maps

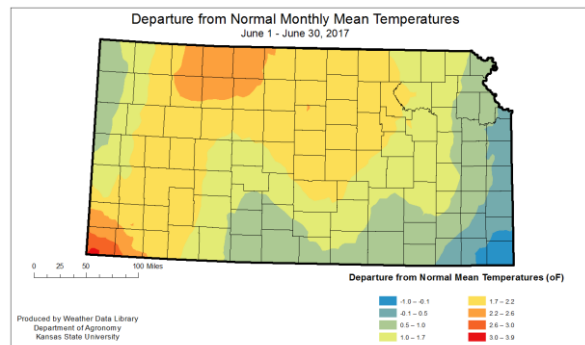
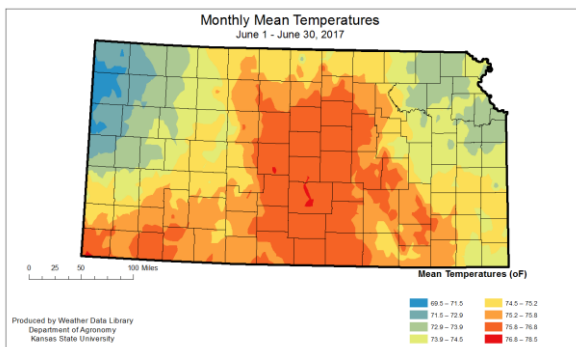
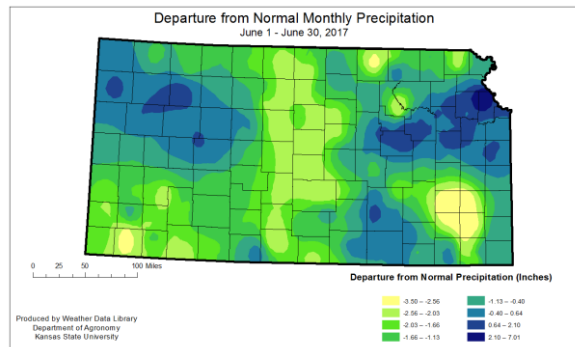
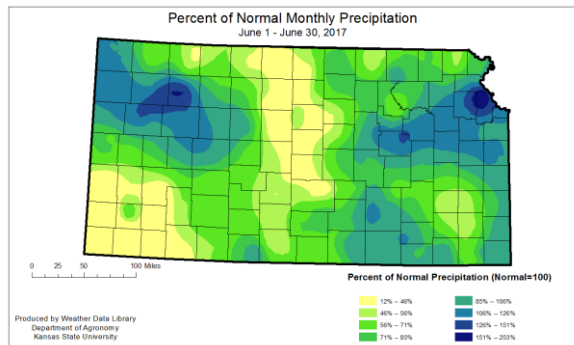
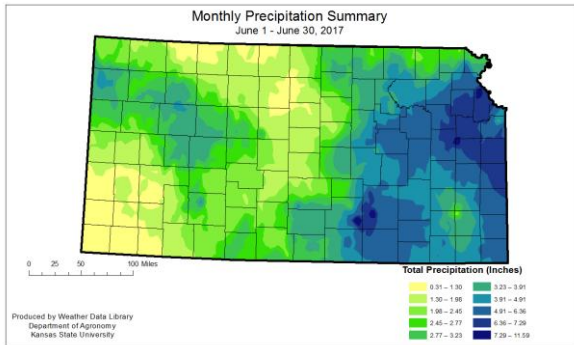


Table 1.

Table 1 Jun-17 Kansas Climate Division Summary										
Division	Precipitation (inches)						Temperature (°F)			
	Jun-17			2017 through June			Ave	Dep. ¹	Monthly Extremes	
	Total	Dep. ¹	% Normal	Total	Dep. ¹	% Normal			Max	Min
Northwest	1.95	-0.88	71	12.82	2.15	121	73.0	2.1	105	45
West Central	2.74	-0.07	98	14.52	4.27	142	74.0	2.2	110	46
Southwest	1.63	-1.58	50	14.62	4.66	147	76.4	2.9	105	52
North Central	2.17	-1.66	54	16.08	2.18	115	75.4	2.1	101	47
Central	2.82	-1.26	69	17.48	2.51	118	76.4	2.0	103	50
South Central	3.64	-1.15	75	20.76	4.26	126	76.3	1.3	101	53
Northeast	3.84	-1.30	74	18.33	0.94	106	73.7	0.9	97	48
East Central	5.57	-0.01	99	19.25	0.04	99	74.2	0.9	96	50
Southeast	4.88	-1.06	82	24.67	3.07	114	74.6	0.4	95	49
STATE	3.23	-1.03	73	17.79	2.85	122	74.9	1.6	110	45

1. Departure from 1981-2010 normal value

2. State Highest temperature: 110 oF at Tribune 14N, Greeley County on the 17th.

3. State Lowest temperature: 39 oF at Atchison 1S, Atchison County, on the 22nd.

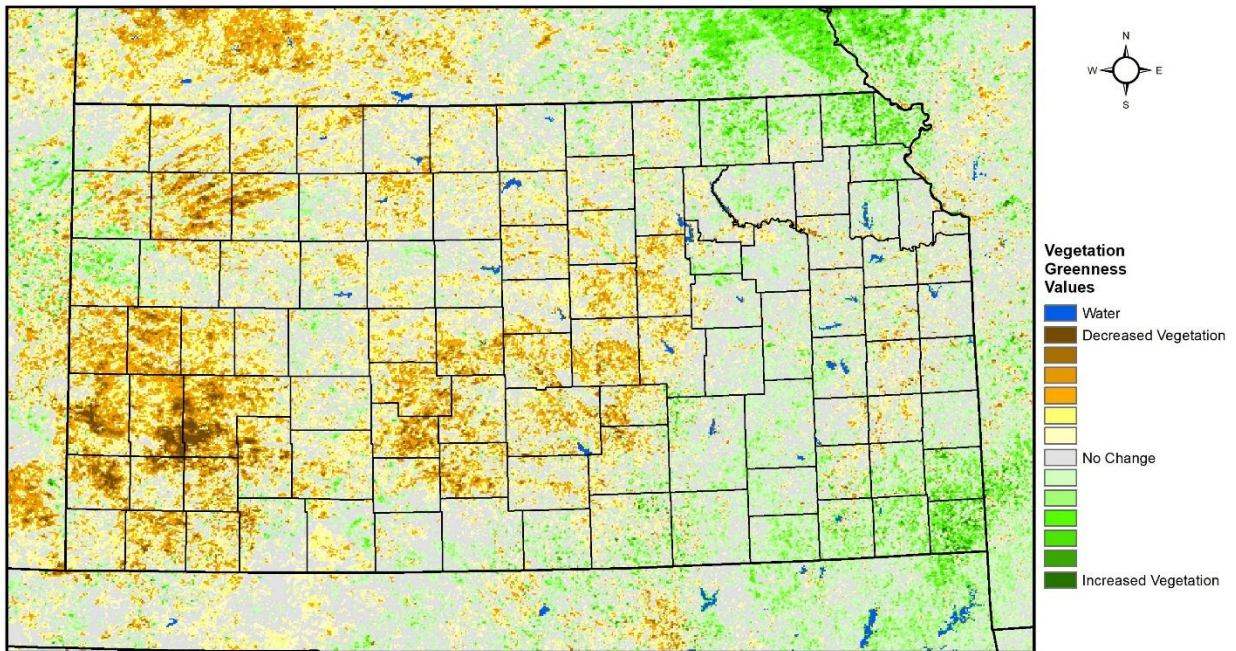
4. Greatest 24hr: 4.45 inches at Blue Rapids, Marshall County, on the 17th; 4.85 inches Hope 9.4 WNW , Dickinson County, on the 30th (CoCoRaHS).

Source: KSU Weather Data Library

June Summary							
Station ¹	Precipitation (inches)			Temperature oF			
	Total	Departure	Percent Normal	Mean	Extreme (Date)		
					Departure	Highest	Lowest
West							
Burlington, CO	4.24	1.36	147%	70.2	1.7	99 (21)	47 (14)
Dodge City	3.12	-0.12	96%	75.4	1.5	102 (17)	56 (26,2)
Garden City	0.65	-2.83	19%	76.0	3.1	104 (17,11)	53 (14)
Goodland	4.44	1.19	137%	71.5	1.8	100 (21)	48 (1)
Guymon, OK	1.79	-1.15	61%	77.0	2.9	105 (17)	56 (19,1)
Hill City	1.57	-1.19	57%	76.3	3.3	104 (22)	49 (24)
Lamar, CO	0.73	-1.62	31%	74.1	2.5	105 (22)	45 (14)
McCook, NE	0.27	-3.11	8%	74.8	4.9	106 (21)	47 (24)
Springfield, CO	0.54	-1.96	22%	71.2	-0.2	101 (22)	49 (14)
Central							
Concordia	3.34	-0.71	82%	75.8	2.4	98 (20,15)	52 (24)
Hebron, NE	0.77	-4.01	16%	75.6	3.6	99 (15)	49 (24)
Medicine Lodge	1.99	-2.12	48%	77.1	0.5	99 (17)	56 (19)
Ponca City, OK	3.41	-1.65	67%	78.2	1.6	97 (16,15)	57 (8)
Salina	1.69	-2.42	41%	79.2	3.6	103 (17)	56 (24)
Wichita (ICT)	4.58	-0.62	88%	77.1	1.3	96 (16,15)	58 (8)
East							
Bartlesville, OK	2.55	-2.82	47%	75.8	-0.4	95 (15)	50 (8)
Chanute	1.87	-4.16	31%	75.7	1.1	93 (15)	49 (8)
Falls City, NE	3.53	-1.35	72%	74.4	1.0	97 (15)	50 (27,26)
Johnson Co. Exec. Apt	5.79	0.01	100%	73.6	0.3	91 (5)	50 (26)
Joplin, MO	4.18	-1.68	71%	75.7	0.2	93 (16)	54 (8,7)
Kansas City (MCI), MO	6.43	1.20	123%	74.7	1.1	93 (15,5)	53 (26)
St. Joseph, MO	2.77	-1.41	66%	75.2	1.6	96 (5)	51 (25,24)
Topeka (TOP)	6.59	1.19	122%	75.5	1.3	94 (15)	53 (26)
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:

Kansas Vegetation Condition Comparison Late-June 2017 compared to the 28-Year Average for Late-June



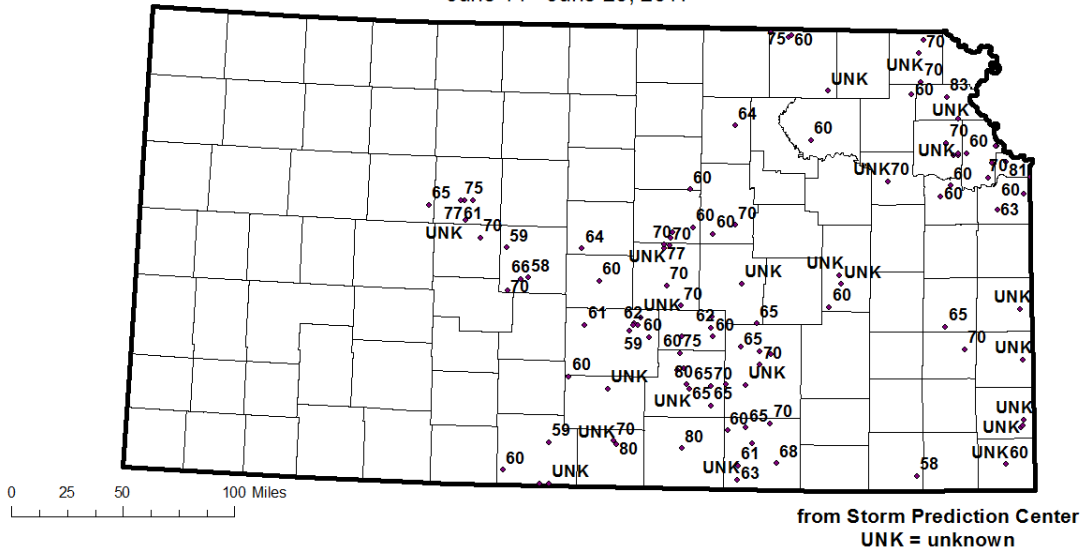
0 25 50 100 150 200 Miles

Nan An, Imaging Scientist, an_198317@hotmail.com
Antonio Ray Asebedo, Assistant Professor, ara4747@ksu.edu



Weekly Wind Reports (mph)

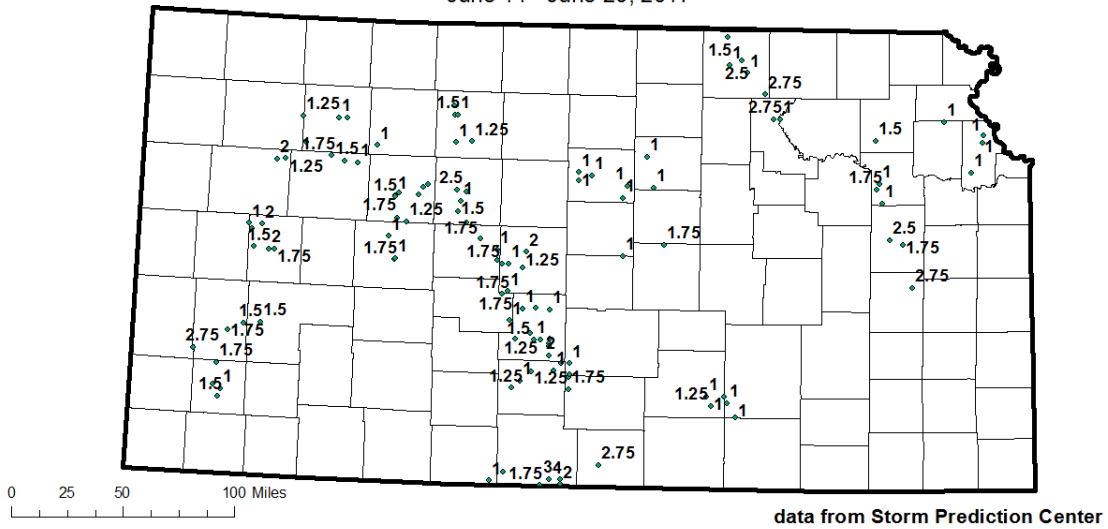
June 14 - June 20, 2017



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Kansas State University

Weekly Hail Reports

June 14 - June 20, 2017



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