

MONTHLY CLIMATE SUMMARY, JULY 2010
NIU WEATHER SERVICE: DE KALB, ILL.

Day	Record HI	Record LO	Average HI	Average LO	Obs. HI	Obs. LO	Obs. Avg.	CDD	HDD	GDD	Precip. (in)	Snowfall (in)
1	101	43	82	60	76	54	65	0	0	15	0.00	0.0
2	104	45	83	60	77	58	67.5	2.5	0	17.5	0.00	0.0
3	102	41	84	62	82	59	70.5	5.5	0	20.5	0.00	0.0
4	106	43	84	63	86	62	74	9	0	24	0.00	0.0
5	104	45	83	61	89	69	79	14	0	29	0.06	0.0
6	105	43	85	62	88	72	80	15	0	30	0.01	0.0
7	103	46	85	62	90	70	80	15	0	30	0.16	0.0
8	105	41	85	63	89	71	80	15	0	30	0.55	0.0
9	101	47	85	64	84	67	75.5	10.5	0	25.5	0.00	0.0
10	105	46	86	63	84	65	74.5	9.5	0	24.5	0.00	0.0
11	107	42	84	63	87	65	76	11	0	26	0.00	0.0
12	106	45	84	64	84	61	72.5	7.5	0	22.5	0.80	0.0
13	106	44	86	64	82	62	72	7	0	22	0.04	0.0
14	109	45	85	64	85	69	77	12	0	27	0.00	0.0
15	98	42	86	64	90	71	80.5	15.5	0	30.5	0.00	0.0
16	100	40	86	64	87	63	75	10	0	25	0.00	0.0
17	100	43	86	64	89	66	77.5	12.5	0	27.5	0.00	0.0
18	100	44	85	64	91	70	80.5	15.5	0	30.5	0.00	0.0
19	100	45	86	66	90	65	77.5	12.5	0	27.5	0.00	0.0
20	102	47	86	65	80	66	73	8	0	23	T	0.0
21	106	46	85	65	86	66	76	11	0	26	0.00	0.0
22	103	43	84	64	88	67	77.5	12.5	0	27.5	T	0.0
23	106	45	81	62	90	69	79.5	14.5	0	29.5	0.23	0.0
24	106	48	83	62	91	68	79.5	14.5	0	29.5	4.67	0.0
25	104	41	83	63	85	67	76	11	0	26	0.14	0.0
26	105	46	84	62	81	61	71	6	0	21	0.00	0.0
27	102	46	83	62	83	67	75	10	0	25	0.00	0.0
28	103	48	83	62	87	69	78	13	0	28	0.00	0.0
29	104	46	83	62	86	63	74.5	9.5	0	24.5	T	0.0
30	104	45	83	62	81	64	72.5	7.5	0	22.5	T	0.0
31	104	44	83	61	76	65	70.5	5.5	0	20.5	0.26	0.0

Temperature

1971-2000 AVG. HI: 84.2(F)
 1971-2000 AVG. LOW: 62.9(F)
 1971-2000 AVG. TEMP: 73.5(F)
 July 2010 AVG. HI: 85.3(F)
 July 2010 AVG. LO: 65.5(F)
 July 2010 AVG. TEMP: 75.4(F)

Precipitation

July 2010 TOTAL: 6.92 in.
 July AVG: 4.26 in.
 July 2010 SNOW: 0.0 in.
 2010 liquid-eq. YEAR TO DATE: 26.27 in.
 liquid-eq. YEAR TO DATE AVG: 21.88 in.
 2010-11 Seasonal SNOW TO DATE: 0.0 in.
 Seasonal SNOW TO DATE AVG: 0.0 in.

Degree Days

COOLING: 7/10: 322.5
 1/10-Now: 597
 HEATING: 7/10: 0
 7/10-Now: 0
 GROWING: 7/10: 787.5
 1/10-Now: 1972.5

Discussion

Temperatures were substantially above historical averages in July 2010. The average (mean) temperature was 75.4 degrees, 1.9 degrees above the 1971-2000 historical average of 73.5 degrees; although the mean temperature was tied with 1995 as only 21st warmest on record since 1896, it was the warmest July since 2002, when the mean temperature was 77.3 degrees. Warm nights (as shown from the monthly average low temperature) were the main contributor to the above-average mean temperature: while the average high temperature of 85.3 degrees was only 1.1 degrees above the historical average, the average low temperature of 65.5 degrees was 2.6 degrees above the historical average and ties with 2006 as the sixth warmest on record since 1896. It is clear that elevated humidity from above-average rainfall and soil moisture and a maturing corn and soybean crop in excellent condition (at least locally) contributed to the warmer-than-average nights.

Precipitation was well above the historical average in July. The monthly total rainfall of 6.92 in. was 162 percent of the historical average total of 4.26 in., ranked 13th greatest since 1896, and was the greatest since 2007, when the fifth greatest total (since 1896) of 8.20 in. was recorded. Rainfall events lacked even distribution, for they were concentrated around the end of the first and the second weeks as well as the fourth week of the month. Seventy percent of the monthly rain fell during a series of nocturnal thunderstorms on the night of the 23rd and early morning of the 24th such that 4.67 in. was recorded on the 24th (a record amount for that date, ninth greatest daily rainfall on record since 1896, and greatest daily amount since 24 August 2007) and 0.14 in. on the 25th (as well as 0.23 in. on the morning of the 23rd, where amounts of up to 1.63 in. (at the Genoa Co-op Station) were recorded in northern DeKalb County, in association with rainfall from the same synoptic feature for a 23rd-to-25th storm rainfall total of 5.04 in. at DeKalb). Storm rainfall totals for the 23rd to 25th ranged widely across DeKalb County from less than three inches in the far south to over seven inches from Sycamore proper northward. As of 31 July, year-to-date liquid-equivalent precipitation totaled 26.27 in., which is 120 percent of the historical average. Crop moisture in northern Illinois was labeled on 24 July by NOAA's Climate Prediction Center (<http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/regional_monitoring/cmi.gif>) as "abnormally moist" west of a La Salle-Peru to Rockford line and "wet" east of that line.

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 This summary was prepared by Daniel J. Brouillette, 2 August 2010.

Forecast Information (updated once daily at approximately 7:30 am): (815) 753-1623
 Website: <http://climate.niu.edu>

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July 2010 Daily Highs and Lows with 1971-2000 Average Highs and Lows
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