

Champaign-Urbana 2001 Annual Weather Summary

ILLINOIS STATE WATER SURVEY

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January: After a cold and snowy December, the temperatures and snowfall for January were mild. Monthly snowfall (3.7 inches) was less than half the average for January. Only one daily temperature record was broken in January. The 2.7 inches of snow that fell on the 26th broke the old record on that date of 2.5 inches set in 1997. Through January 25th, we had received only 0.12" of precipitation and 0.6" of snow before the last, wet week of the month.

February: The 1.85" of rain on February 24th set a new record for that date, beating the old record of 0.59" set in 1930. This event helped to make the 3.84" of this month the 6th wettest February since 1888. Like January, there was a continued pattern of being warmer than average (0.8°F above average) and having less snowfall (3.0" - about half of average).

Winter season (December 2000, January and February 2001): For the winter months, this was the 13th coldest since 1888 with the winter of 1977-78 being the coldest. The mild temperatures in January and February partially offset the extremely cold December. We received 21.4" of snow this winter, compared to an average of 23.2" through the end of February.

March: March was the 4th driest on record since records began in 1888. It was the 25th coolest March in terms of the mean temperature; the 32nd coolest in terms of the high temperature; and the 19th coolest in terms of the low temperature. It was the also the 12th lowest March snowfall on record. One record set this month was the longest number of days without seeing 60°F weather. The new record is 145 days, stretching from November 6, 2000, to March 30, 2001. The old record of 125 days was set from November 11, 1919, to March 14, 1920.

April: Several records were set or tied this month (see the April 2001 issue for details). There were only eight days this month where the mean daily temperature was below normal. The mean maximum temperature for the month of 69.9°F is the warmest April on record and the mean daily temperature for the month (57.9°F) makes this April tied for the 2nd warmest April on record. The 1.09" of precipitation ties this April with 1997 for the 9th driest on record.

May: May was unusual in that it started off warm and then ended with cool, rainy weather. New record highs of 90° and 92°F were set on May 15 and 16 respectively. Since this record warmth during the first half of the month was tempered by the change to colder than normal weather during the last 11 days, this May tied with 1921, 1953, and 1986 for only the 26th warmest May since 1888.

Spring (March, April, May): Spring precipitation was 5.77 inches (normal – 11.66 inches), making this the 7th driest spring since 1888. The mean temperature of 52.9°F made this the 15th warmest spring since 1888.

June: While the middle of June had temperatures higher than average, cooler temperature at the start and end of the month resulted in this June being tied with 1961 for the 28th coolest since 1888. No records were set or tied during the month. June initially seemed as if it would reverse the 2001 trend of below average precipitation when 2.28 inches fell during its first week. However, this turned out to be almost 80% of the total precipitation for June when only 0.55 inches fell during the remainder of the month. The 2.83 inch total made the June the 39th driest on record.

July: A new record high precipitation was set on July 3rd, when 1.52" of rain fell, breaking the old record of 1.23" set on July 3, 1970. July finished as the 5th month in a row with below-average precipitation. The strong thunderstorms of July 23rd brought damaging winds to the area, knocking down many tree branches. However, only 0.66" of precipitation was recorded at the Water Survey. While the month started off on a cool note and no temperature records were set, persistent high heat during the latter half of the month resulted in this July being only 0.5° above average. Coupled with the 90+ degree temperatures were high humidity levels, making for dangerous heat indices.

August: This was the first month since February 2001 with above average precipitation, although Champaign-Urbana was still 6.62 inches below average for the year. The majority of the precipitation came during 3 very electrical storms. The storm of the 30th set a

new record high precipitation of 1.70", replacing the old record of 0.86" which was set in 1965. The average mean temperature for the month ranks August, 2001 as the 20th warmest on record since 1888.

Summer (June, July, August): Summer precipitation was 11.26 inches, only 1.99 inches below the normal. The mean temperature of 73.4°F was only 0.1°F above normal.

September: September was a fairly typical month in Champaign-Urbana, with temperatures near normal and precipitation slightly above average. There were also no new temperature records set during September. The average mean temperature for the month ranks September 2001 as the 20th coolest on record. The month began with a beautiful Labor Day weekend; however, the following weekend saw Champaign-Urbana receiving more than 80% of its total precipitation for the month during heavy thunderstorms.

October: Temperatures in October averaged out to make the month close to normal, although slightly on the cool side. The monthly mean temperature of 53.0°F ties this October with 1904, 1933, and 1945 as the 24th coolest October on record. The most significant weather event of the month occurred on Wednesday, October 24th when a line of severe thunderstorms struck the area. While cells near the Water Survey only caused wind gusts to a maximum of 34.7 miles per hour, an F1 tornado at the northern edge of Champaign had estimated wind speeds of 80 to 85 miles per hour. Damage was reported to several structures, including the shifting of a warehouse off of its foundation and a home with half of its roof ripped off. A tractor-trailer was blown off of Interstate 57. As part of the same system, a F2 tornado, with winds of 120 to 130 miles per hour, did touch down in southwest Monticello, IL and caused significant damage. All of the above damage statistics were taken from the Lincoln, IL National Weather Service Storm Assessment. For further information, please see their web site at <http://www.crh.noaa.gov/ilx/> The precipitation total for the month of 6.45 inches ranks this as the 6th wettest October since records began in 1888.

November: With an average monthly temperature of 49.3°F, November 2001 was the 3rd warmest November since climate records began in 1888. It was surpassed only by November 1931 (50.2°F) and November 1909 (49.8°F). The average monthly maximum temperature of 60.6°F was the warmest on record and the average monthly minimum temperature of 37.9°F was the 6th warmest since 1888. There were more than twice as many clear days during the month than normal. The 6 days of 70°F or above were only 3 days behind the record number of 9 set in 1964. The November 2001 precipitation total was 1.91 inches, which ranks it as only the 32nd driest November on record.

Fall (September, October, November): Fall precipitation was 11.91 inches (normal – 9.43 inches), making this the 21st wettest fall since 1888. The mean temperature of 55.6°F (normal – 53.9°F) made this the 21st warmest fall since 1888.

December: During the first 23 days of December 2001, Champaign-Urbana was on target to have the 2nd warmest December since 1888. However, the colder temperatures that arrived during the final week of December markedly dropped all of the averages and December 2001 fell back to being the 16th warmest on record. The December 2001 precipitation total was 2.21 inches, which ranks it as the 59th driest December on record. The snowfall total of 1.7 inches tied December 2001 for the 14th lowest snowfall on record.

Entire year: Annual precipitation was 35.46" (normal – 41.05"). While on the dry side, it was not noteworthy in the ranking of annual precipitation since 1888. The mean annual temperature for 2001 was 53.2°F (normal – 51.7°F), which made this the 15th warmest year since 1888. The snowfall for the snowfall season of October 2000 to April 2001 was 22.7", which is below the 1971-2000 normal of 26.2". However, it was not noteworthy in the long-term rankings of snowfall since snowfall below 20" is very common in past winters.

2001 Annual Climate Summary for Champaign-Urbana

MON	Temperature (°F)					Precipitation		Degree Days			Wind (mph)		
	Avg Max	Avg Min	Avg Mean	High Temp	Low Temp	Total (in)	Snow (in)	Heat	Cool	Corn Grow	Dir	Speed	Peak Gust
Jan	32.1	18.8	25.5	44	0	1.32	3.7	1218	0	0	W	6.4	29.8
Feb	39.0	21.9	30.5	59	-1	3.84	3.0	964	0	14	S	7.2	41.7
Mar	46.5	27.5	37.0	62	14	0.85	1.3	859	0	31	NW	6.4	30.2
Apr	69.9	45.8	57.9	88	28	1.09	0.0	250	42	346	S	8.5	47.1
May	75.6	52.6	64.1	92	39	3.83		112	89	463	SW	5.6	37.6
Jun	80.5	59.4	70.0	92	46	2.83		38	194	590	S	4.2	24.1
Jul	86.3	64.6	75.5	96	48	3.64		2	333	759	W	3.4	33.3
Aug	85.5	64.0	74.8	95	55	4.79		0	310	752	SW	3.5	29.3
Sep	76.6	52.7	64.7	89	38	3.55		83	79	466	NE	3.9	34.2
Oct	62.9	43.0	53.0	83	26	6.45	0.0	376	9	239	S	6.2	40.4
Nov	60.6	37.9	49.3	75	27	1.91	0.0	466	0	177	SW	6.4	32.9
Dec	42.3	27.6	35.0	66	5	2.21	1.7	922	0	27	W	6.4	34.0
Tot/Avg	63.2	43.0	53.1	96	-1	36.31	9.7	5290	1056	3864	S	5.7	47.1
Dep	+1.9	+1.0	+1.4			-4.69	-16.5	-535	+70	+208	S	-0.7	

Degree days: heating and cooling base 65°F. Corn Growing Degree Days base 50°F with a max temp cutoff at 86°F. Departures from the 1971-2000 30-year average.

Number of Days With:

MON	Precipitation					Temperature				Weather Phenomena						Sky Cover			
	Snow					Max	Min			R	L	S	Z	T	A	F	CLR	PC	CLD
	>= .01	>= .10	>= .50	>= 1.00	>= 1.0	>= 90	<= 32	<= 32	<= 0										
Jan	9	4	1	0	1	0	14	31	1	4	3	11	5	0	0	5	10	7	14
Feb	11	6	2	1	1	0	7	27	1	11	1	10	0	3	0	5	5	11	12
Mar	8	2	0	0	0	0	1	24	0	7	1	6	0	0	0	0	10	11	10
Apr	9	3	0	0	0	0	0	4	0	11	0	2	0	5	0	0	9	12	9
May	15	10	3	0	0	2	0	0	0	16	0	0	0	7	0	0	5	17	9
Jun	7	5	3	0	0	6	0	0	0	8	1	0	0	4	0	2	8	14	8
Jul	8	6	2	1	0	12	0	0	0	12	0	0	0	7	0	0	8	15	8
Aug	10	6	4	1	0	5	0	0	0	11	1	0	0	6	0	5	7	14	10
Sep	6	4	3	2	0	0	0	0	0	9	0	0	0	3	0	2	16	6	8
Oct	11	9	5	2	0	0	0	3	0	12	1	1	0	1	0	1	12	8	11
Nov	10	4	1	0	0	0	0	7	0	10	1	1	0	0	0	2	15	4	11
Dec	10	6	1	0	1	0	7	20	0	9	0	10	0	0	0	6	6	12	13
Total	114	65	25	7	3	25	29	116	2	120	9	41	5	36	0	28	111	131	123
Dep	-4	-8	-1	-4	-6	+5	-13	-3	-6	+4	-26	+1	-4	-6	-4	-21	+3	+17	-20

Seasonal Statistics

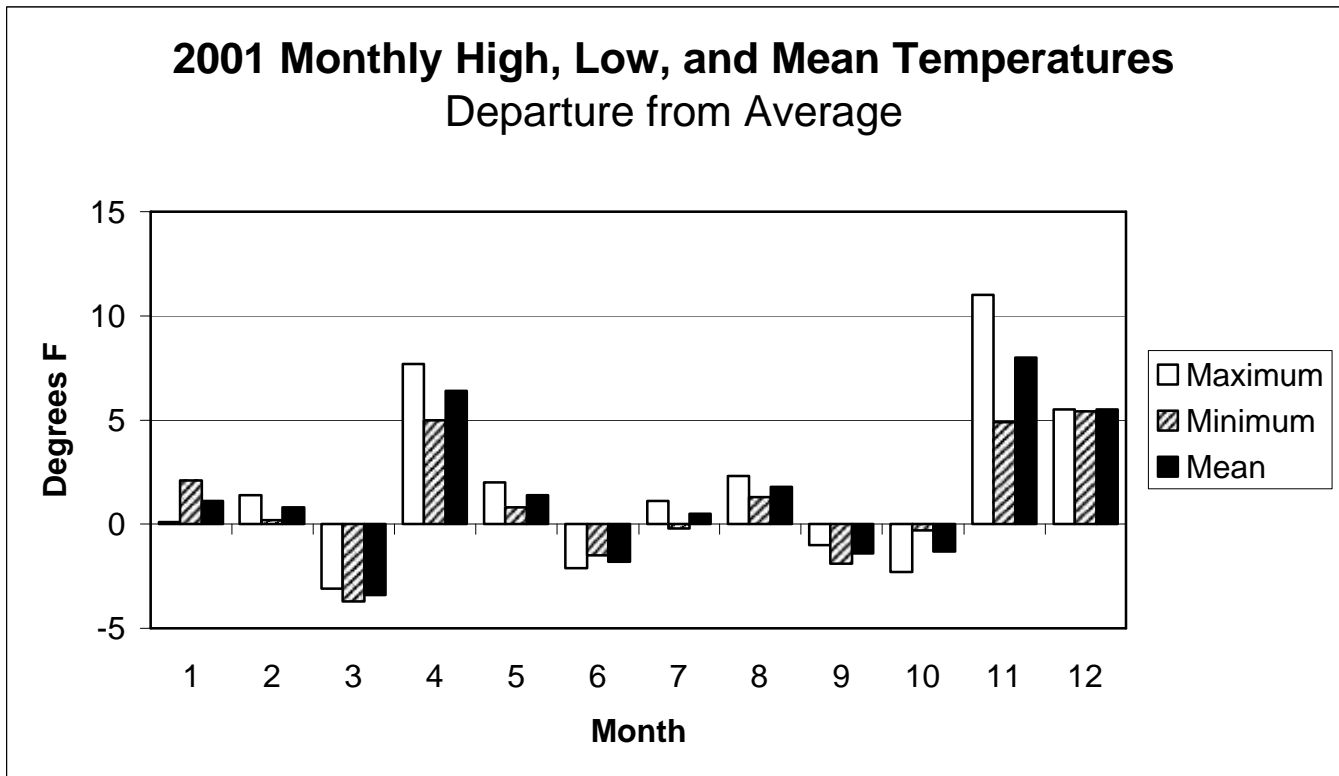
	Mean Temp (°F)	Diff. From Avg.*	Precip (in)	Diff. From Avg.*	Snowfall (in)	Diff. From Avg.*
Winter**	23.9	-4.0	6.89	+0.23	21.4	+1.2
Spring	53.2	+1.7	5.77	-5.89	1.3	-2.5
Summer	73.4	+0.1	11.26	-1.99		
Fall	55.6	+1.7	11.91	+2.48	0.0	-2.2

**Dec. 00 - Feb. 01

*All climatological averages based on 1971-2000 data

The 2001 Growing Season

Last 32°F temperature in spring: April 18 (29°F)
First 32°F temperature in fall: October 17 (30°F)
Length of growing season: 182 days (+4)
Growing season precipitation (4/1-9/30): 19.73 inches (-5.19 inches)
Total growing season Corn GDD (4/1-9/30): 3,376 (+171)



2001 Precipitation and Snowfall Departure from Average

