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Indiana State Climate Office

Monthly Weather Report

Sep 8, 2008



<http://www.iclimat.org>

August 2008 Climate Summary

Summary

The emergence of neutral ENSO conditions and the expectations of a quick change to El Niño were confirmed during August. While the beginning of summer was extremely warm and wet the end of summer was just the opposite with a nice transition period in the middle. August was abnormally cool and dry.

All nine Indiana climate divisions experienced below normal temperatures. The northeast was the closest to normal at only 0.02°F below the normal of 70.6°F. The statewide average was 71.6°F, more than a degree below normal (1.1°F). The northwest experienced the coolest conditions, with an average temperature of only 70.0°F, 1.6°F below normal.

Eight of the nine climate divisions experienced below normal precipitation totals in August. The northwest was the only “wet” region but even there they were only 0.07 inches above the normal of 3.81 inches. Indiana averaged only 2.20 inches as a state (58% of normal), a full 1.59 inches below the monthly normal. The southwest was the driest area, receiving only 32% of the August normal of 3.67 inches.

Based on past climatic data, when a La Niña ends and neutral conditions persist through September, conditions in Indiana are usually slightly wet and cool for the first unofficial month of autumn.

August 1st – 7th

A cold front that began to move south out of Canada at the end of July continued to produce scattered rain showers over much of the state on August 1st and 2nd. Temperatures cooled off as the front passed but still hovered around normal for this time of year. Conditions cleared up on the 3rd and remained this way for much of the state on the 4th. A stationary front began to enter the state from the west late on the 4th, bringing some heavy isolated heavy rains and severe thunderstorms to the northwest counties. Over 2.7 inches of rain was reported in southern Porter County that night and an EF2 tornado was confirmed in Lake County. The stationary front brought more widespread rain and storms on the 5th and 6th, when it became a fully developed cold front. The atmospheric wave patterns started to push the cold front south on the 7th, but some light rain did fall across the southern counties. Despite the presence and passing of 2 cold fronts during the first week of August, temperatures never dropped more than 4°F above or below normal.

August 8th – 15th

High pressure settled in behind the exiting cold front and brought cooler air down from Canada. The cool air would persist through the entire week as high temperatures struggled to reach the upper-70's and would remain at least 5°F below normal. In the late evening of the 9th a cold front began to enter the northern part of the state, once again dropping out of Canada. It would produce some light, scattered showers that night across the northern counties. The rain would become more abundant on the 10th with rainfall reported as far south as Bloomington. However the cold front weakened and sped out of the state before some southern counties received any rain at all. The entire state was dry and cool on the 12th and 13th. The second week of August ended a bit moist as a minor disturbance crossed the state on the 14th. The rain would carry over to the start of week three, with light rain on the 15th as well. As with most of the storms this month, rain was scattered and isolated resulting in miniscule accumulations of under ¼ of an inch in a day or less than ½ inch over 14th and 15th combined.

August 16th – 25th

High pressure would once again return to the Mid-West on the 16th. The second batch of high pressure brought dry conditions until the end of the week. Very little rain, if any, fell between the 16th and 21st. During this time temperatures remained cool, about 5°F below normal, with highs maxing out in the mid-70's for much of the state. Rain would finally come late on the 22nd as a large cold front pushed through the Mid-West. The system slowed down as it entered the central U.S., resulting in scattered showers over much of the western half of the state late on the 22nd and throughout the 23rd. The part of the frontal system over Indiana dried up and left the eastern counties sans rainfall from this disturbance. Lingering showers did result in some trace totals in the northwestern counties on the 24th and in the southeast on the 25th. It also resulted in a bigger drop in temperatures on the 25th, as much as 10°F below normal.

August 26th – 31st

The Great Lakes were the location of a region of high pressure that brought dry conditions to the state this time around. In conjunction with the passed cold front and more high pressure, temperatures fell even farther below normal (as much as 15°F) on the 26th and 27th. The high pressure region and dry conditions lasted through the 26th and most of the 27th as well but gave way to some moisture associated with a minor low pressure system centered over the Carolinas. Weak scattered showers covered the southern and eastern counties late on the 27th and through the 28th, until a cold front breached the state that night. The last disturbance of the month didn't last long. The fast moving system dropped more scattered storms on the 29th but rainfall totals were minimal once again. Temperatures on the 28th and 29th warmed considerably but still remained as much as 5°F below normal. As conditions dried out to finish August 2008 temperatures rose above normal for the first time since the first week of the month.

August Summary

Temperature

Region	Temperature	Normal	Deviation
Northwest	70.0	71.6	-1.6
North Central	70.0	71.0	-1.0
Northeast	70.4	70.6	-0.2
West Central	71.3	72.8	-1.5
Central	71.0	72.2	-1.2
East Central	70.4	71.4	-1.0
Southwest	74.1	75.2	-1.1
South Central	73.2	74.5	-1.3
Southeast	73.0	73.8	-0.8
State	71.6	72.7	-1.1

Precipitation

Region	Precipitation	Normal	Deviation	Percent of Normal
Northwest	3.88	3.81	0.07	102
North Central	3.06	3.83	-0.77	80
Northeast	1.73	3.68	-1.95	47
West Central	2.04	3.96	-1.92	52
Central	2.41	3.75	-1.34	64
East Central	2.04	3.55	-1.51	57
Southwest	1.16	3.67	-2.51	32
South Central	1.45	3.91	-2.46	37
Southeast	1.99	3.90	-1.90	51
State	2.20	3.79	-1.59	58

Summer-to-Date

(June, July, and August)

Temperature

Region	Temperature	Normal	Deviation
Northwest	71.2	71.8	-0.5
North Central	70.9	71.2	-0.3
Northeast	71.1	70.9	0.3
West Central	72.5	73.0	-0.5
Central	72.0	72.4	-0.4

East Central	71.5	71.6	-0.1
Southwest	75.2	75.2	0.0
South Central	74.2	74.4	-0.2
Southeast	73.5	73.6	-0.2
State	72.5	72.8	-0.2

Precipitation

Region	Precipitation	Normal	Deviation	Percent of Normal
Northwest	12.01	12.01	0.00	100
North Central	10.89	11.93	-1.04	91
Northeast	9.91	11.42	-1.51	87
West Central	17.20	12.68	4.52	136
Central	16.82	12.11	4.71	139
East Central	14.54	11.88	2.66	122
Southwest	11.52	12.04	-0.52	96
South Central	10.68	12.32	-1.64	87
Southeast	11.73	12.23	-0.50	96
State	13.03	12.08	0.95	108

Annual-to-Date

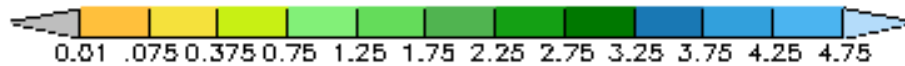
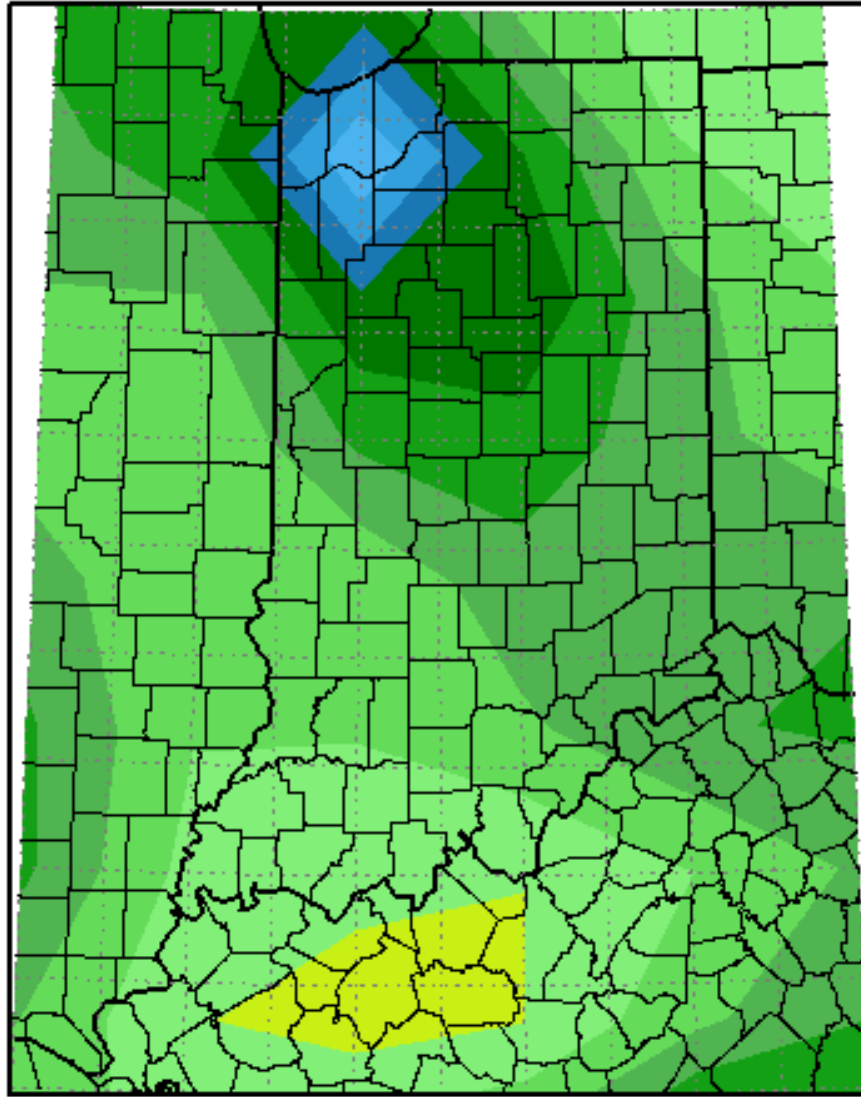
Temperature

Region	Temperature	Normal	Deviation
Northwest	50.7	52.0	-1.3
North Central	50.6	51.5	-1.0
Northeast	50.7	51.2	-0.4
West Central	52.4	53.7	-1.3
Central	52.4	53.2	-0.8
East Central	51.8	52.4	-0.6
Southwest	56.1	57.0	-0.9
South Central	55.4	56.4	-1.0
Southeast	54.6	55.5	-0.9
State	52.8	53.7	-0.9

Precipitation

Region	Precipitation	Normal	Deviation	Percent of Normal
Northwest	30.25	26.09	4.16	116
North Central	30.56	26.02	4.54	117
Northeast	28.17	25.16	3.02	112
West Central	38.11	28.75	9.36	133
Central	40.16	28.32	11.84	142
East Central	35.65	27.49	8.16	130
Southwest	42.37	31.58	10.79	134
South Central	42.45	31.94	10.51	133
Southeast	39.66	31.06	8.60	128
State	36.77	28.55	8.22	129

Total Precipitation in Inches
August 1, 2008 to August 31, 2008

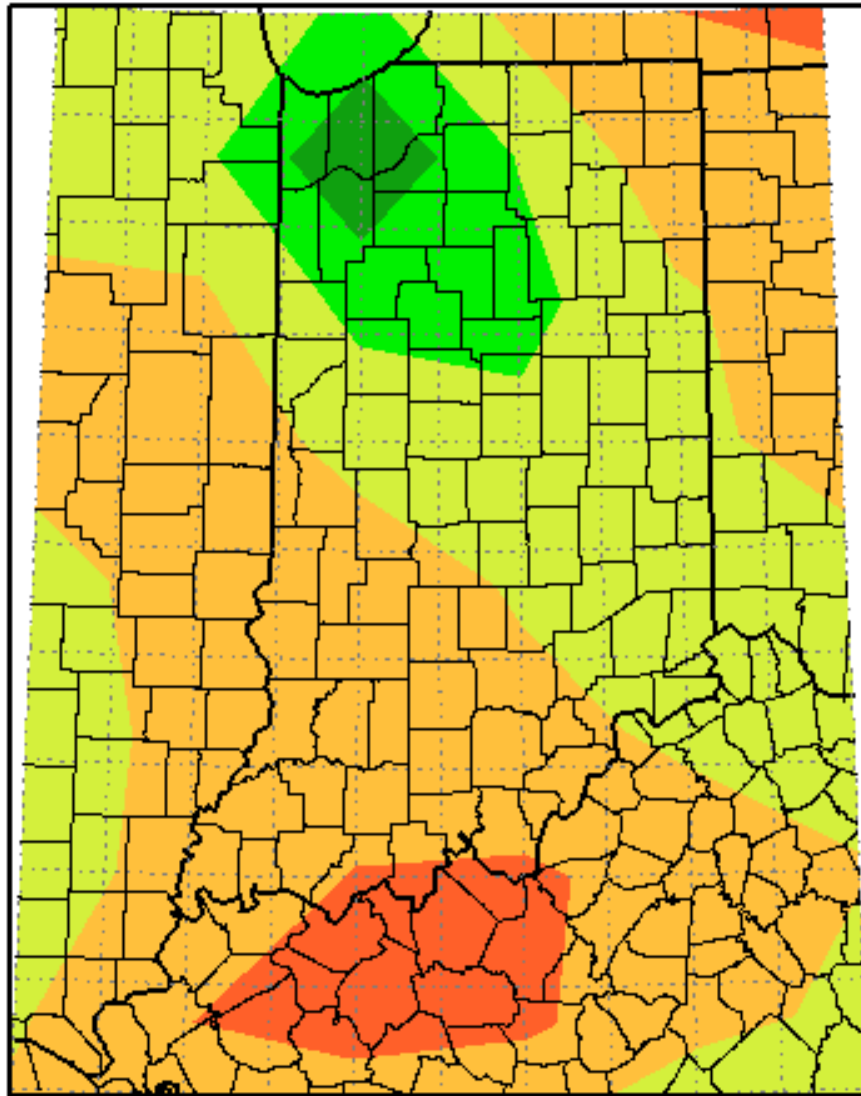


NOAA Midwestern Regional Climate Center

Illinois State Water Survey

Champaign, Illinois

Total Precipitation Percent of Mean
August 1, 2008 to August 31, 2008

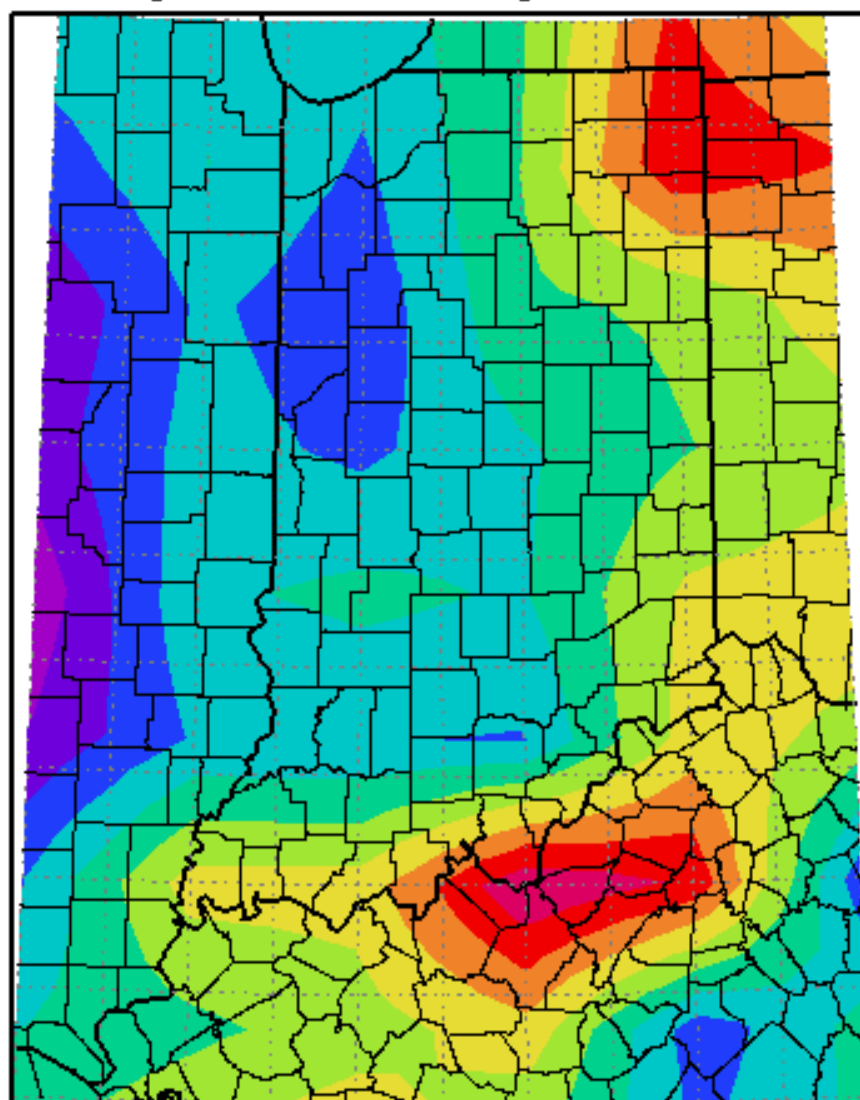


NOAA Midwest Regional Climate Center

Illinois State Water Survey

Champaign, Illinois

Average Temperature Departure from Mean in Degrees F
August 1, 2008 to August 31, 2008



NOAA Midwestern Regional Climate Center

Illinois State Water Survey

Champaign, Illinois

Drought Summary from the U.S. Drought Monitor

Below is a drought summary for the state of Indiana from the U.S. drought monitor. Areas in white are not experiencing any drought. Yellow areas are abnormally dry, but not entirely considered a drought. Drought begins when the moisture levels become more severe, with beige, orange, red, and brown indicating increasing levels of drought (moderate, severe, extreme, and exceptional, respectively). The table below indicates how much of the state is not under drought conditions, and also how much of the state is under drought conditions from its respective column upwards.

For example, August 5th has 0.00% of Indiana under no drought, and 0.00% of Indiana under at *least* D0 through D4 drought status. This is followed by 0.00% as D1 through D4 status. To obtain the amount that is D0 status, simply subtract the D1-D4 column from the D0-D4 column, thus giving you the percentage of area with abnormally dry conditions. Please note, however, that these areas are not exact, and much of this drought map has been created from reports throughout the state and estimation, so use this information as a general view rather than for specifics.

D0 Abnormally Dry
 D1 Drought - Moderate
 D2 Drought - Severe
 D3 Drought - Extreme
 D4 Drought - Exceptional

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
08/05/08	100.00	0.00	0.00	0.00	0.00	0.00
08/12/08	100.00	0.00	0.00	0.00	0.00	0.00
08/19/08	99.64	0.36	0.00	0.00	0.00	0.00
08/26/08	73.52	26.48	0.00	0.00	0.00	0.00

August 5th Drought Summary



August 12th Drought Summary



August 19th Drought Summary



