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Indiana State Climate Office

Monthly Weather Report

Jul 6, 2005



June 2005 Climate Summary

June 1-3

Temperatures that started out around the 80 degree mark on the first fell to the upper 60s by the third as a low pressure system approached the area from the south. Associated with this low pressure system were cloudy and rainy conditions. Even though most areas received precipitation, rainfall amounts were still below normal. Normal rainfall amounts for the state were 0.45 inches of rainfall whereas the state received 0.19 inches in 2005 during this period.

June 4-5

An upper-level trough provided the setup for an area of rising motion and unstable air during this time period. Only Lake County experienced severe weather on the fourth with damaging wind and 0.88 inch hail, however a wider area of severe weather occurred across Indiana on the fifth as the system progressed eastward.

June 6-9

The status of most of Indiana could be described as hot and dry. Temperatures rose to the upper 80s and low 90s across the state as high pressure loomed steadily over the state. Low temperatures did not drop much with values that ranged from the 60s to low 70s in some portions in southern Indiana. These temperatures were about eight degrees warmer than normal. Precipitation amounts were also below normal for this time of the month, especially in the central and southern portions of the state where rainfall totals were about a half inch below normal.

June 10-12

There was relief from the dry conditions, however warm temperatures in the 80s still persisted over Indiana. With the Bermuda high pressure system set up off the east coast, as is common this time of year, warm moist air was allowed to be pumped in from the Gulf of Mexico. This was the case for this period as rain dominated. A few severe storms dropped hail on the tenth. Three quarter inch hail occurred in Morgan, Vigo, Howard, and LaPorte Counties. The remnants of what was previously tropical storm Arlene moved northward affecting the southern and central portions of the state. The northern counties did not receive as much rainfall with this system. This is one of the reasons northern Indiana is facing more of a drought than southern

Indiana is. Multiple tornado warnings were issued with reports of tornadoes in Jefferson County and Jennings County in southern Indiana. One wind damage report occurred in Johnson County with trees down. In addition, heavy rainfall covered a large portion of the state.

June 13-14

A diffluent upper-level trough and supportive upper-level wind pattern was in place during this time-frame setting up a scenario for severe weather over parts of Indiana. On the thirteenth Indiana only received one wind report in Tippecanoe County due to the timing of the system. The severe weather did not occur until later in the evening and therefore a great deal of the momentum for producing severe weather had dissipated before crossing over into Indiana. On the fourteenth however the system had progressed eastward and the cold front allowed for a series of severe weather reports over the south-eastern corner of the state. These reports included mainly wind reports, however a few hail reports were also recorded. These storms did allow for precipitation amounts to be above normal with a state two day average of 1.40 inches. The normal value would be 0.31 inches of precipitation.

June 15-20

Drier conditions were in place as high pressure kept most of the rainfall out of Indiana. On average only 0.09 inches of precipitation fell with higher amounts in the southern parts of the state. This is a deviation of 0.72 inches from normal. The temperatures also deviated with a state average of only 65.8 degrees Fahrenheit, 6.4 degrees below normal. This decrease in temperature was due to a constant stream of winds out of the northerly direction and therefore not able to bring up the warm moist air from the Gulf of Mexico.

June 21- 24

Summer began with a steady climb that ended up in the 90s as a solid ridge of high pressure kept rainfall and cooler temperatures from entering the region. Rainfall amounts usually average around a half-inch for this four day period, however most locations saw no measurable precipitation. The northern half of the state faces a drought at an instrumental time when rainfall is needed for the crops.

June 25-30

Not much in the way of relief from the heat as temperatures hovered steadily in the low to mid 90s. Parts of the state received afternoon pop-up thunderstorms, which are common to this part of the year. These thunderstorms were induced due to a stationary front and a series of disturbances that moved through. Most regions of the state however were still below average in precipitation amounts. Elkhart was the only location that received severe weather on the 25th with wind damage. More severe weather on the 27th brought small hail, high winds, and frequent lightning to Tippecanoe County which caused numerous power outages. Southeast Indiana near the Ohio border had numerous reports of trees down as damaging winds moved during the overnight hours across the state. The low-level jet, which is a band of higher winds speeds at lower levels in the atmosphere, brought in the support and moisture needed to sustain these

storms. On the 28th a few scattered hail reports of an inch in diameter fell with several other wind damage reports being reported across the state as well. A little break in the severe weather occurred on the 29th with only Putnam County receiving 0.88 inch hail. June finished off with another hot and humid day in the 90s and dew points up into the 70s. The Storm Prediction Center in Norman, Oklahoma had the entire state under a slight risk for severe weather. Numerous wind and hail reports were recorded, beginning in the southwest area of the state and moving to the northeast corner. Even with this instrumental rainfall, the last few days of June were still 0.25 inches below the state average of 0.84 inches for June 25th-30th.

Temperature

Region	Average	Normal	deviation
Northwest	73.8	70.0	3.8
North central	73.4	69.4	3.9
Northeast	73.5	69.1	4.4
West central	74.0	71.3	2.7
Central	73.6	70.7	2.9
East central	73.2	69.8	3.4
Southwest	75.3	73.3	2.0
South central	74.5	72.4	2.1
Southeast	74.0	71.5	2.5
State	74.0	70.9	3.0

Precipitation

Region	Total	Normal	deviation	percent of normal
Northwest	2.92	4.34	-1.42	67
North central	2.93	4.31	-1.38	68
Northeast	2.24	4.08	-1.84	55
West central	3.27	4.33	-1.06	75
Central	3.57	4.10	-0.53	87
East central	3.28	4.23	-0.95	78
Southwest	3.68	4.10	-0.42	90
South central	3.79	4.09	-0.29	93
Southeast	2.92	4.22	-1.30	69
State	3.23	4.19	-0.96	77

Local extremes with over 50% data available

	Site	Observed	Deviation	percent available data
Low Precipitation	Decatur 1N	0.18	-3.93	57
High Precipitation	Merom 2ESE	5.42	1.22	93

**Summer Season-to-date
(same as June 2005)**

**Annual-to-date
January - June 2005**

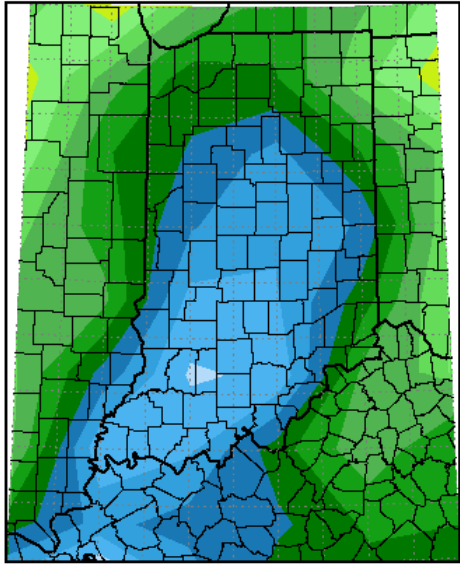
Temperature

Region	Average	Normal	deviation
Northwest	46.4	45.0	1.3
North central	45.7	44.6	1.0
Northeast	45.0	44.2	0.8
West central	48.3	46.9	1.4
Central	47.8	46.5	1.3
East central	46.8	45.6	1.1
Southwest	52.3	50.5	1.8
South central	51.3	50.0	1.3
Southeast	49.9	49.0	0.9
State	48.3	47.0	1.3

Precipitation

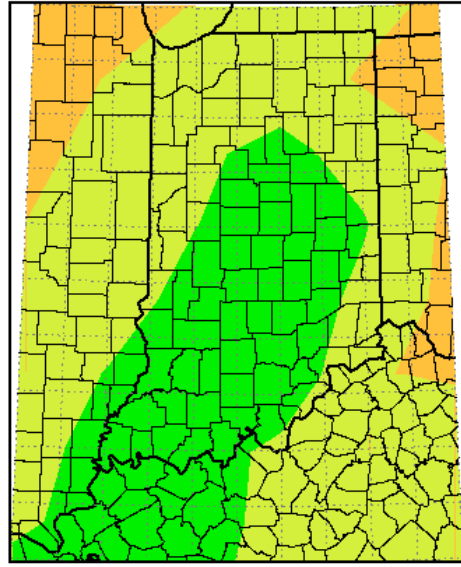
Region	Total	Normal	deviation	percent of normal
Northwest	15.70	18.39	-2.69	85
North central	16.78	18.37	-1.59	91
Northeast	16.02	17.80	-1.78	90
West central	21.22	20.39	0.84	104
Central	23.90	20.30	3.60	118
East central	22.24	19.83	2.41	112
Southwest	22.23	23.64	-1.42	94
South central	23.63	23.70	-0.06	100
Southeast	21.99	23.03	-1.05	95
State	20.58	20.65	-0.06	100

Total Precipitation in Inches
June 1, 2005 to June 30, 2005



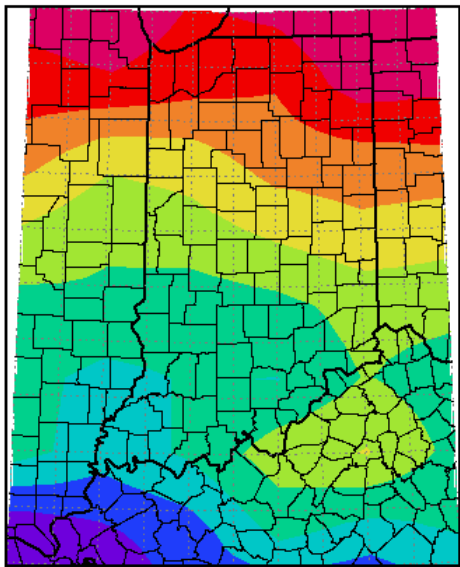
0.1 0.15 0.75 1.5 1.8 2.1 2.4 2.7 3 3.3 3.6 3.9 4.2 4.5
Midwestern Regional Climate Center
Illinois State Water Survey
Champaign, Illinois

Total Precipitation Percent of Mean
June 1, 2005 to June 30, 2005



0 2 5 10 25 50 75 100 125 150 175 200
Midwestern Regional Climate Center
Illinois State Water Survey
Champaign, Illinois

Average Temperature Departure from Mean in Degrees F
June 1, 2005 to June 30, 2005



0.5 1 1.5 2 2.5 3 3.5 4 4.5
Midwestern Regional Climate Center
Illinois State Water Survey
Champaign, Illinois

Contributions by AI Shipe NWS Indianapolis