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Indiana State Climate Office

Monthly Weather Report

Nov 4, 2008



<http://www.iclimat.org>

October 2008 Climate Summary

Summary

October was a mixed bag of conditions; one day it was cold and wet and the next it was warm and dry. When averaging the monthly conditions we see that October 2008 appears about normal temperature-wise but slightly on the dry side. Looking closer would show that the month experienced both extremes.

There were times during the month when temperatures were 15°F above *and* below zero. Slightly warm conditions compared to normal occurred in central Indiana. Southern regions were right at the normal while the north was slightly cool. This can be related to the storm systems and their paths.

The cooler areas also received more precipitation. Though none of Indiana's 9 climate divisions received 100% or more of their normal rainfall, divisions 1, 2, and 3 (all in the north) were closest coming in at 92%, 91%, and 85% respectively. Storm paths again clipped the north or lost most of their moisture here. The driest area was division 9 in the southeast. They received only 64% of the normal for October. As a result of the dry conditions across much of the southern and central areas of the state, drought conditions began to worsen. Thankfully due to the time of year, effects of the drought have been minimal.

October 1st – 7th

Remnants of the final system from September produced some light showers across northern Indiana on the first and second days of the tenth month of the year. Some rain would be in the forecast on the 3rd as well but from a different system. The first big disturbance of October pushed south from Canada early on the 3rd, producing light rain across much of northern Indiana for the third straight day. Accumulations on each day were small and the rain was inconsistent and sporadic. Luckily for the rest of the state the system choked, losing its available moisture and keeping a vast majority of the state dry. Unfortunately the system would stall just south of Indiana, meet up with a front from the west, and impact the state on the last day of the first week of the month. This time around the system delivered rain to the entire state. The heaviest totals on the 7th were reported in the extreme southwest, in Posey, Vanderburgh, and Gibson counties. Accumulations, however, did not breach 0.6 inches.

Temperature-wise, week one of October 2008 were a bit of a roller coaster. A tiny one, with only small hills. But a roller coaster nonetheless. High's on the 1st were very cold, reaching the

mid-60's, about 10°F below normal. They warmed slightly on the 2nd, into the upper-60's, but were still more than 5°F below normal for this time of year. They remained in this area on the 3rd but warmed quickly on the 4th, into the mid-70's, right around the normal. They stayed in the mid-70's on the 5th and warmed into the upper-70's on the 6th. Things cooled off again as that front entered on the 7th, dropping highs back into the upper-60's.

October 8th – 15th

The storm system brought even stronger rains on the 8th. Accumulations on this date were much higher than the previous 7 days combined. While the northeast received lighter rain, the rest of the state was experiencing strong rains with accumulations close to 0.8 inches. The largest accumulations were in the southern counties, which received as much as 1.2 inches. While this system exited the state late on the 8th, more rain fell on the 9th. However this rain was from a completely separate system. A second disturbance was almost piggy-backing its way across the Mid-West. Because of its location, moisture was limited and rainfall was limited, though much of the state did experience some light showers. Then, enter a dry period. After the successive systems exited late on the 9th the state would be dry as a bone from the 10th through the 14th. This was a direct result from high pressure that originated out west, pushed over the Great Lakes, and then rotated clockwise around the Ohio Valley. It would not be until the 15th that Indiana would experience rain again. A cold front pushed out the high pressure and dropped light rain across the southern part of the state while the north received some heavier rains. Accumulations did not grow above ¼ of an inch though.

High temperatures were right at the normal (low-70's) to start the week. They warmed by more than 5°F on the 9th, reaching the upper-70's. Highs continued to climb on the 10th and settled near 80°F. They warmed a bit more on the 11th into the low-80's, thanks to the high pressure region. The 12th brought a new record high to South Bend (84°F, old was 83°F set in 1995) and Fort Wayne (87°F, old was 83°F set in 1995). High temperature would remain right around 83°F on the 12th but would regress a bit on the 13th. This decrease continued more on the 14th as high's fell into the mid-70's, just a tad above normal. Because of the location of the cold front passing over the state, temperatures were much warmer in the central and southern regions than in the north on the 15th. While the north struggled to hit 70°F, central and southern counties were comfortable in the upper-70's.

October 16th – 25th

The heaviest rain from the cold front fell on the 16th. The entire state was engulfed with rain. While southeastern counties received a mere 0.15 inches, elsewhere saw closer to ¾ of an inch (Lake, Porter, La Porte, Wells, and Adams counties). Fort Wayne reported a new daily precipitation high of 0.88 inches, besting the record set in 1914 of 0.61 inches. As the system exited the region on the 17th, some extreme southern portions of counties along the Indiana-Kentucky border received some light showers. The remainder of the state was dry thanks to developing high pressure in the Central Plains. This high pressure area grew and pushed east on the 18th, 19th, and 20th, prolonging the dry conditions. Another cold front pushed south from Canada and into the state late on the 20th and brought rain back to northern Indiana on the 21st. This particular front was rather weak and lacked available moisture to produce significant

rainfall. The state was dry on the 22nd and 23rd before a strong system brought heavy rain early on the 24th. A strong occluded synoptic low pressure system that had been stalled over the Central Plains finally moved eastward towards the Ohio Valley on the 24th. This disturbance dropped significant amounts of rain over much of the western half of Indiana. The southwest in particular was drenched. Gibson, Posey, and Vanderburgh counties received over 0.8 inches of rain on the 24th. Another rainfall record was set in Fort Wayne on this date too (0.95 inches, old was 0.50 inches in 1955). The disturbance lasted through the 25th, dropping another 0.8 inches in northeastern counties this time around. The 2-day storm totals were close to an inch across the southern counties, with a high of 1.2 inches in Harrison and Washington.

The cooling experienced in the north on the 15th pushed to the south on the 16th, in conjunction with the progressing cold front. Temperatures fell more than 5°F below normal, with highs in the low-60's. Temperatures continued their fall on the 17th, with highs settling near 60°F, where they remained on the 18th and 19th as well. They rose some on the 20th as the effects of the persistent high pressure were finally felt. High's rose into the upper-60's and were very close to normal (near 70°F). However, as expected, temperatures dropped again on the 21st as the cold front did its job. High temperatures across Indiana were more than 10°F below normal on the 21st, reaching a mere 57°F. Highs would hover in the upper-50's on the 22nd. Temperatures warmed a bit on the 23rd with highs in the low- to mid-60's, right at normal for this time of year. Of course they wouldn't last as the strong occlusion entered the state on the 24th, dropping highs back into the mid-50's. They would remain there while the front crossed Indiana on the 25th.

October 26th – 31st

The state dried out on the 26th. It wouldn't last. Another cold front barreled down from Canada on the 27th. Like a few of the earlier frontal systems this month, this cold front had little moisture. While temperatures cooled significantly, rain was limited to northern counties but even then accumulations were minimal. A strong area did develop over Wells, Adams, and Jay counties, resulting in about ½ inch of rain. The precipitation remained focused in the north as the large cold front pushed south into the Gulf of Mexico. The system was gone late on the 28th. Any precipitation witnessed on the 29th, 30th, or Halloween was lake effect (it's that time of year again).

With a dry day on the 26th, temperatures were able to warm slightly and highs approached 60°F. The 27th saw a giant drop. Highs on that Monday failed to reach 50°F anywhere in the state. The statewide average was about 46°F, approximately 15°F below normal! Things continue to cool on the 28th, with highs in the mid-40's. A strong warming occurred on the 29th, once the cold front pushed far enough south. Temperatures returned to the mid-50's, which is still below normal. Luckily they continued to rise through the end of the month. Highs reached the mid-60's on the 30th and Halloween was quite warm, with the entire state experiencing temperatures close to 70°F.

October Summary

Temperature

Region	Temperature	Normal	Deviation
Northwest	52.3	52.9	-0.6
North Central	51.6	52.2	-0.6
Northeast	51.0	51.8	-0.8
West Central	54.4	54.1	0.3
Central	53.9	53.5	0.4
East Central	53.1	52.7	0.4
Southwest	57.1	56.7	0.4
South Central	55.9	56.0	-0.1
Southeast	55.2	55.2	0.0
State	53.9	54.0	-0.1

Precipitation

Region	Precipitation	Normal	Deviation	Percent of Normal
Northwest	2.69	2.92	-0.23	92
North Central	2.67	2.95	-0.28	91
Northeast	2.30	2.70	-0.40	85
West Central	2.17	2.90	-0.73	75
Central	2.30	2.82	-0.52	82
East Central	2.12	2.73	-0.61	78
Southwest	2.20	3.04	-0.84	72
South Central	2.28	3.02	-0.74	76
Southeast	1.91	2.98	-1.07	64
State	2.31	2.90	-0.59	80

Autumn-to-Date

(September & October)

Temperature

Region	Temperature	Normal	Deviation
Northwest	58.9	58.6	0.3
North Central	58.6	58.0	0.6
Northeast	58.6	57.6	1.0
West Central	60.7	59.9	0.8
Central	60.5	59.3	1.2
East Central	60.0	58.5	1.5
Southwest	63.5	62.4	1.1
South Central	62.4	61.6	0.8
Southeast	62.1	60.9	1.2

State	60.6	59.7	0.9
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Precipitation

Region	Precipitation	Normal	Deviation	Percent of Normal
Northwest	11.07	6.13	4.94	180
North Central	9.03	6.25	2.78	144
Northeast	7.06	5.90	1.16	120
West Central	5.84	5.93	-0.09	99
Central	4.53	5.81	-1.28	78
East Central	4.00	5.52	-1.52	73
Southwest	5.08	6.18	-1.10	82
South Central	4.97	6.13	-1.16	81
Southeast	3.63	5.95	-2.32	61
State	6.18	5.99	0.19	103

Annual-to-Date

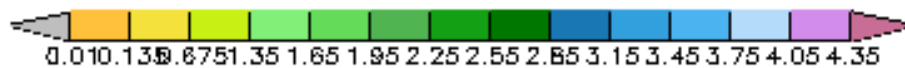
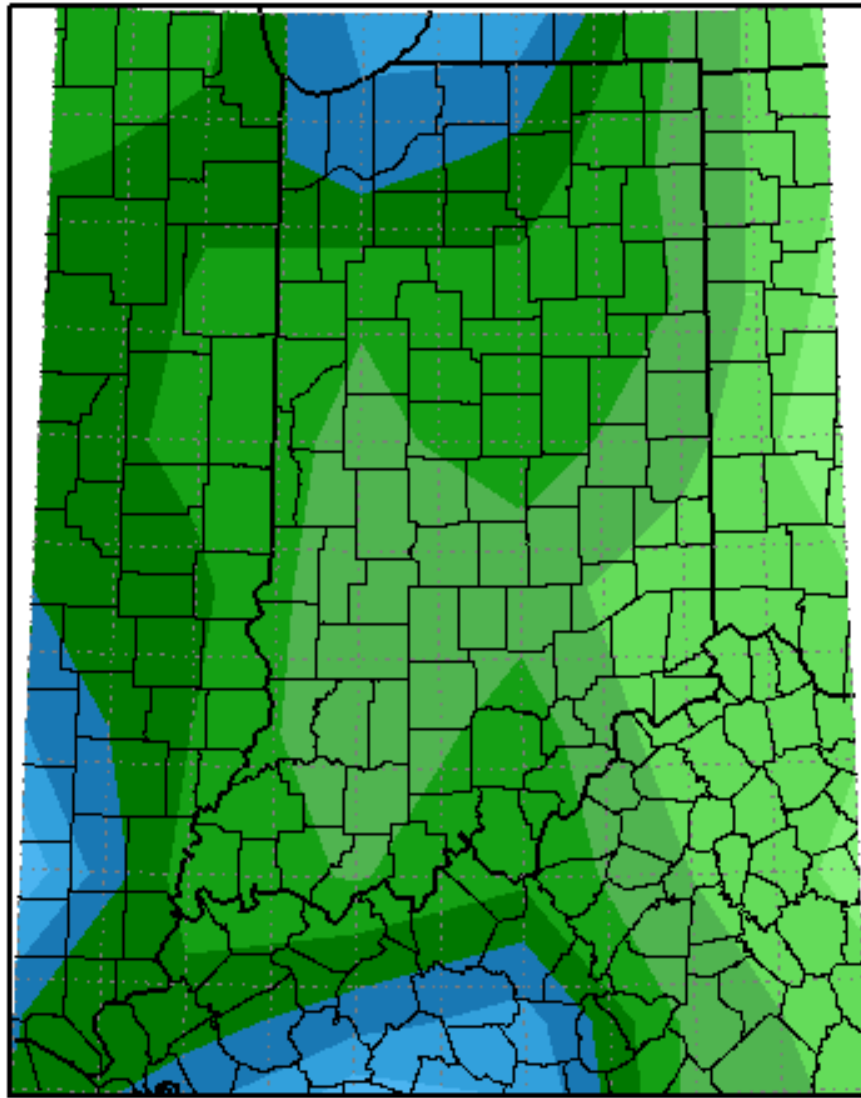
Temperature

Region	Temperature	Normal	Deviation
Northwest	52.3	53.3	-1.0
North Central	52.2	52.8	-0.6
Northeast	52.3	52.4	-0.1
West Central	54.0	54.9	-0.9
Central	54.0	54.5	-0.5
East Central	53.5	53.6	-0.1
Southwest	57.5	58.0	-0.5
South Central	56.8	57.4	-0.6
Southeast	56.1	56.6	-0.5
State	54.4	54.9	-0.5

Precipitation

Region	Precipitation	Normal	Deviation	Percent of Normal
Northwest	42.20	32.23	9.97	131
North Central	40.26	32.27	7.99	125
Northeast	35.78	31.05	4.73	115
West Central	44.67	34.67	10.00	129
Central	45.25	34.13	11.12	133
East Central	40.19	33.01	7.18	122
Southwest	47.08	37.76	9.32	125
South Central	47.13	38.06	9.07	124
Southeast	43.48	37.01	6.47	117
State	43.32	34.54	8.78	125

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

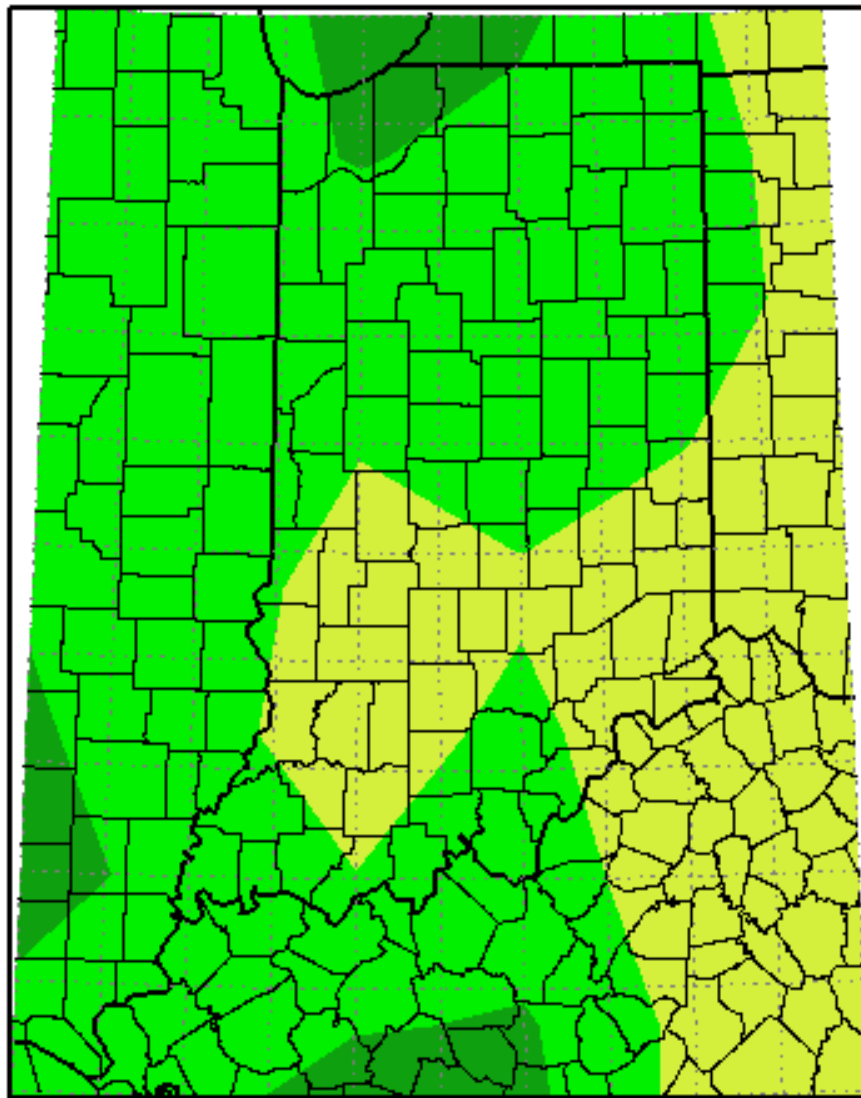


NOAA Midwestern Regional Climate Center

Illinois State Water Survey

Champaign, Illinois

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

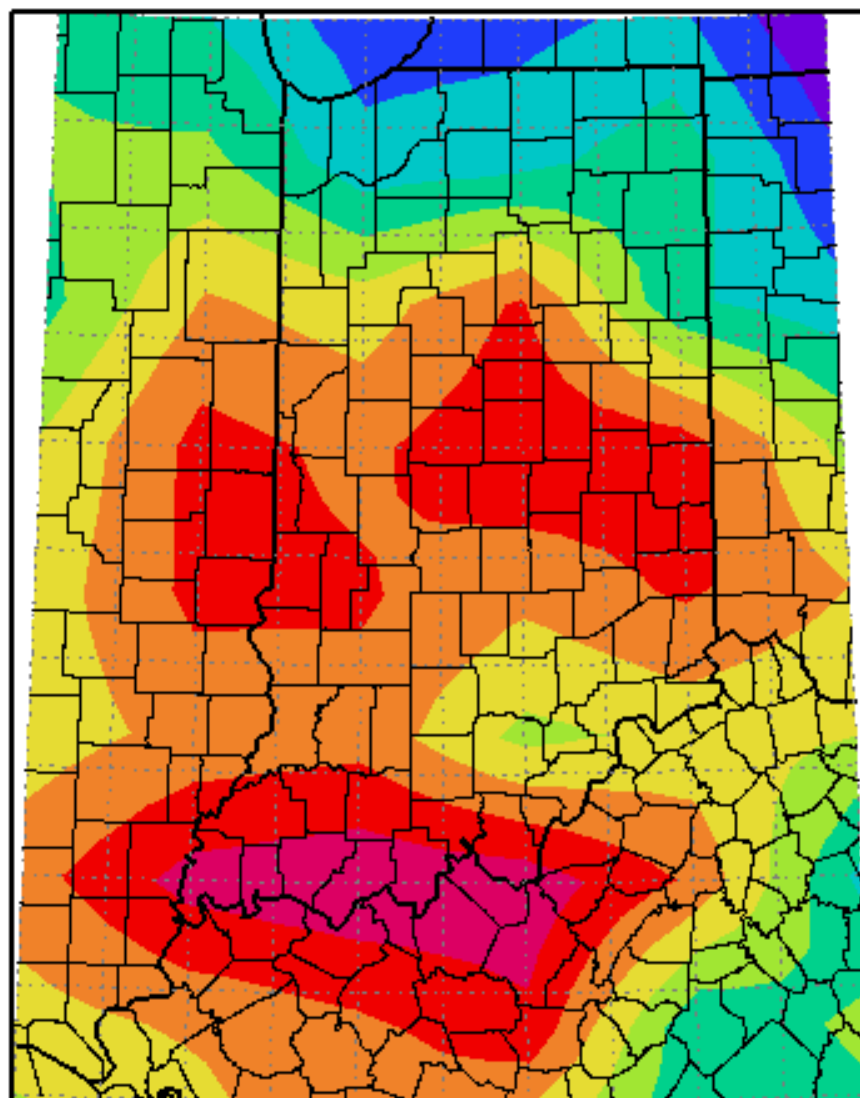


NOAA Midwestern Regional Climate Center

Illinois State Water Survey

Champaign, Illinois

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

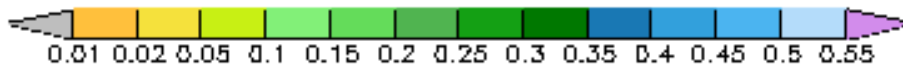
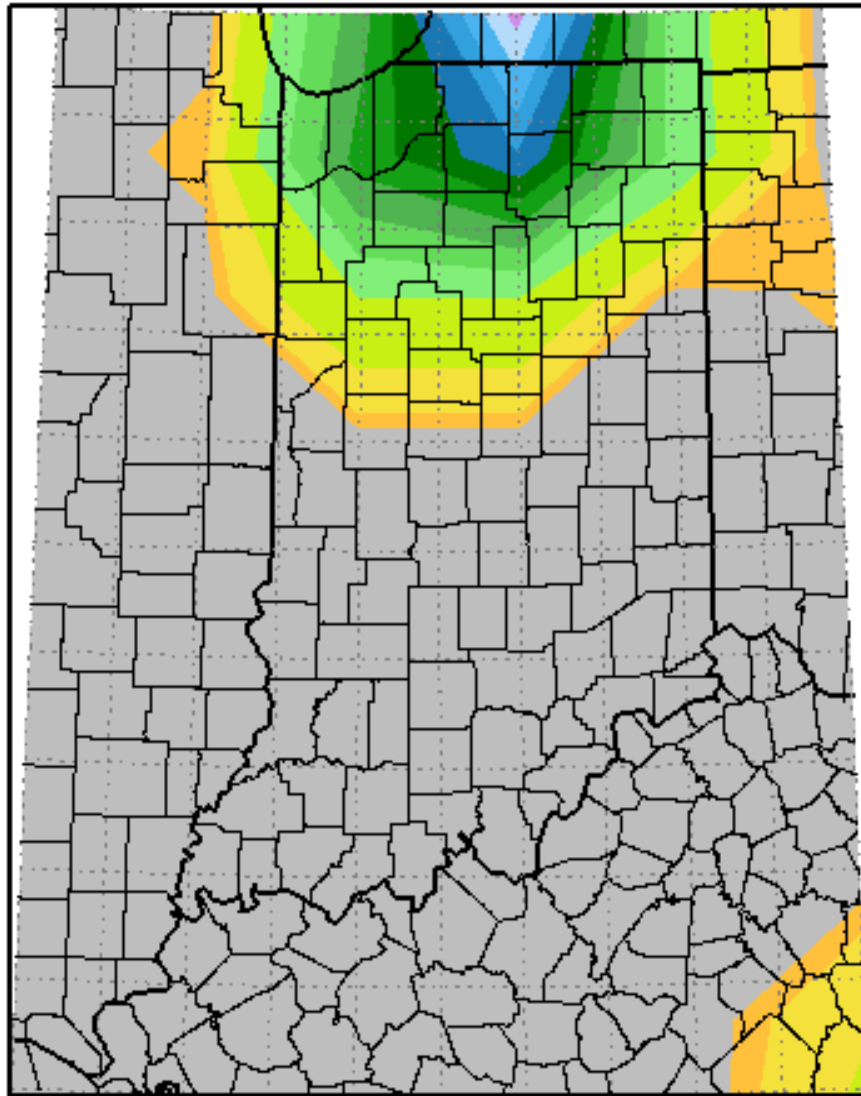


NOAA Midwestern Regional Climate Center

Illinois State Water Survey

Champaign, Illinois

Total Snowfall in Inches
October 1, 2008 to October 31, 2008



NOAA Midwestern Regional Climate Center

Illinois State Water Survey

Champaign, Illinois

Drought Summary from the U.S. Drought Monitor

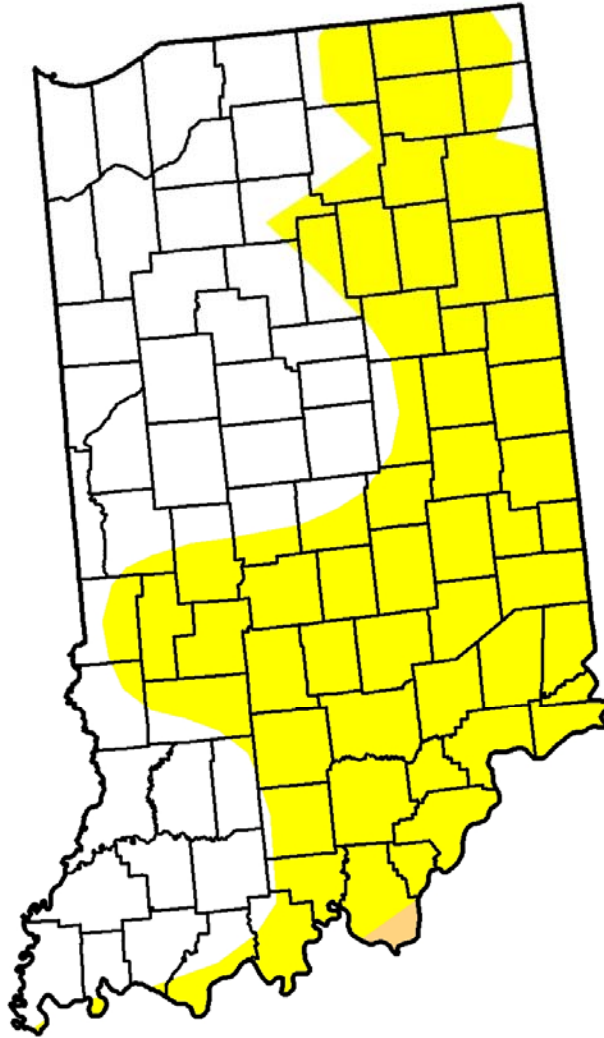
Below is a drought summary for the state of Indiana from the U.S. drought monitor. Areas in white are not experiencing any drought. Yellow areas are abnormally dry, but not entirely considered a drought. Drought begins when the moisture levels become more severe, with beige, orange, red, and brown indicating 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, October 7th has 54.74% of Indiana under no drought, and 45.27% of Indiana under at *least* D0 through D4 drought status. This is followed by 23.15% 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.

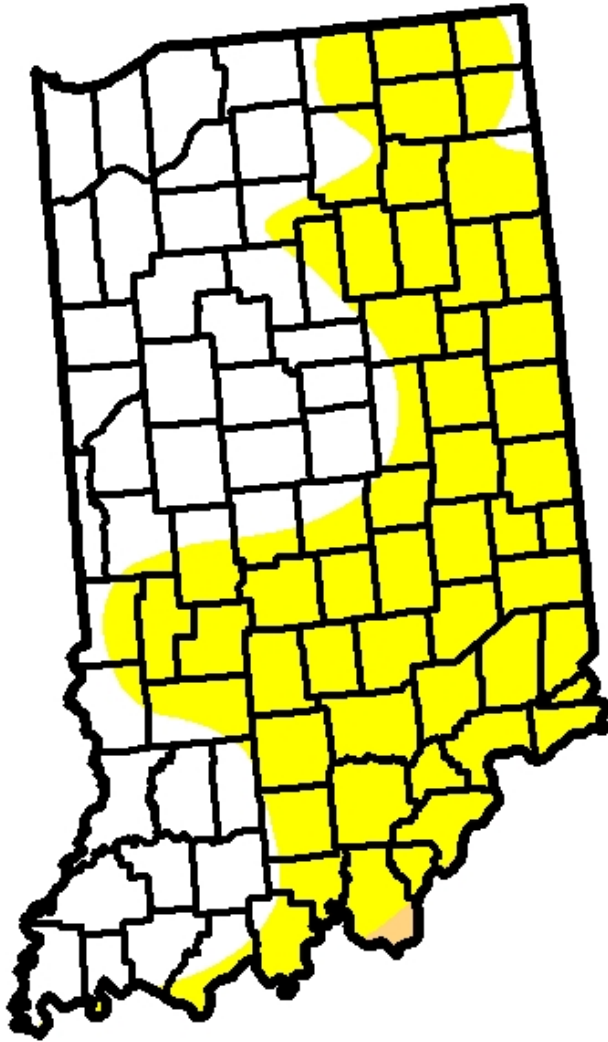
D0 Abnormally Dry
 D1 Drought - Moderate
 D2 Drought - Severe
 D3 Drought - Extreme
 D4 Drought - Exceptional

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
10/07/08	54.74	45.27	23.15	9.02	1.73	0.18
10/14/08	58.11	41.90	21.12	9.01	1.74	0.12
10/21/08	56.46	43.54	22.42	9.47	1.74	0.12
10/28/08	58.34	41.66	21.59	9.39	1.70	0.12

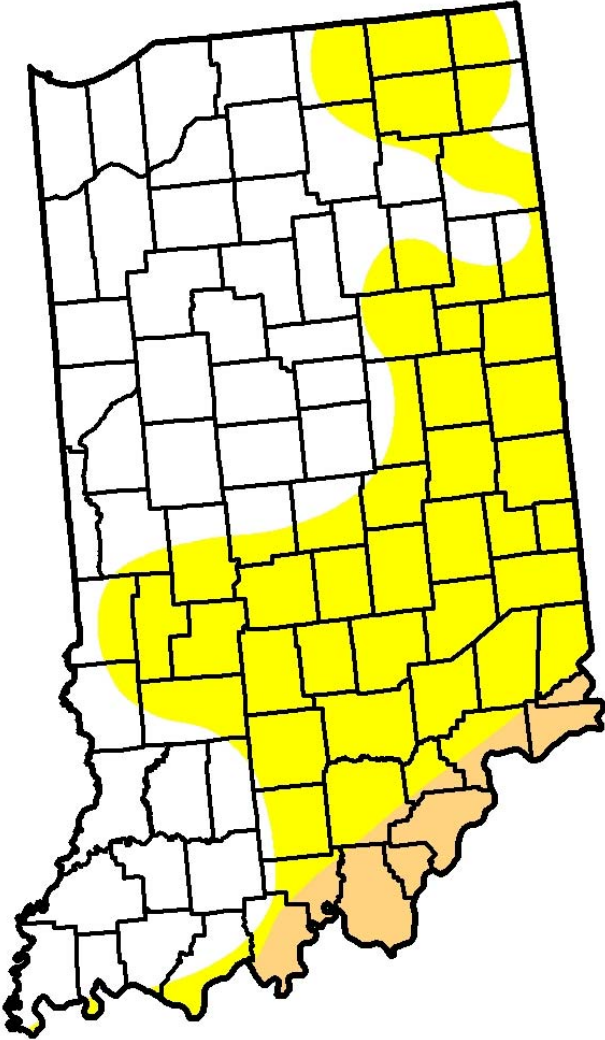
October 7th Drought Summary



October 14th Drought Summary



October 21st Drought Summary



October 28th Drought Summary

