

Joseph Mays
(765) 494-6574

Indiana State Climate Office

Monthly Weather Report

Jun 1, 2008



<http://www.iclimat.org>

May 2009 Climate Summary

Summary

May is over; how will we remember it, weather-wise? Overall it was warm and wet, though that general observation doesn't tell the whole story. The month was really normal, temperature-wise. Average high temperatures were usually between 5F above or below the normal. Only once was the daily high 10 or more degrees above or below the normal (17th, -14F below normal). Though we didn't suffer through many drastic temperature shifts that definitely doesn't mean there weren't a fair share of fronts and storms.

As was stated earlier, May 2009 was technically a warm month. However, only seven of the nine climate divisions in Indiana were above normal for the month. Of those seven only three were 0.5F or more above the normal. The statewide mean average temperature was 62.3F, 0.3F above normal. That value ties for 51st warmest May in recorded history for Indiana (tied with 1980). There was a nine day period when the statewide average high temperature for the state was normal or above normal (May 19th through 27th).

It was another wet one, that's for sure. May continued the April trend of a wet spring. Twenty-two of the thirty-one days in May experienced rain. All of the climate divisions were above normal precipitation for May but storm paths and intensities left the central, west central, and all southern counties soaking wet. Each region was more than one inch above normal. In fact, southwest, south central and west central were more than two inches above normal. The statewide average for May was 5.85 inches, 1.45 inches above normal. The wet south in May balances the wet north from April. The statewide average for May 2009 ranks as the 20th wettest on record. Statewide precipitation averages have been calculated since 1895 for Indiana. As spring comes to a close the data says Indiana has been warmer and wetter than normal, something I think Hoosiers would agree with.

May 1st – 7th

The weather during the first week of May 2009 was rather subdued. Statewide average high temperatures hovered around normal throughout the whole week, not once dropping more than 5F above or below the normal. High temperatures dropped to about 5F below normal on the 2nd and 6th. The 1st, 3rd, 4th, 5th, and 7th all had average highs a degree or two above normal. The weekly average high temperature was about 68F, which is normal for the first week of May.

A cold front passed over Indiana during the morning and early afternoon on the first day of the month, producing heavy rains across the state. The strongest part of the system continually flowed southwest to northeast and accumulations in Washington and Jackson counties, as well as areas nearby, received over an inch of rain. All stations in Indiana reported at least 0.2 inches. Moisture from the system lingered into the second but daily accumulations total about 0.1 inches as the system weakened. The movement of the system to the south and then to the east meant southern counties in Indiana received more wet weather on the 3rd and 4th while central and northern counties were dry. Again the showers in the south produced light rain and small accumulations. For the first time in May all of Indiana was dry when, on the 5th, a high pressure area moved south out of Canada, passed over the Great Lakes, and proceeded over Indiana. Rain returned on the 6th as pockets of moisture from the stationary front, located in the Tennessee Valley, pulsed through the state intermittently. Heavier rains and some strong thunderstorms passed on the seventh as a synoptic system moved to the east across the Mid-West. Rainfall totals across much of Indiana were 0.2 inches or more for the 7th. More rain fell in the south during the first week of May than anywhere else in the state. Totals for the week in the north were a mere 0.25 inches while some counties in the south reported accumulations of close to 2 inches.

The weather events during the first week of May did not cause significant problems and had little impact on the lives of residents of Indiana.

May 8th – 14th

The second week of May 2009 started off as expected statistically. The statewide average of 70F was exactly normal for May 8th. Things really weren't too variable during the week. Not once was the aggregated average above normal, usually coming in just below that mark. Temperatures were consistently above 60F but below 70F. The coldest day was the 11th when the average high temperature was about 61F, about 9F below normal. Temperature-wise week two was pleasant. The statewide average high temperature for the week was about 67F, 3F below normal.

The same can't be said relative to precipitation. It was another wet week with showers and thunderstorms continually trudging through Indiana. The week started – and ended – this way. The stationary front that brought rain to southern counties at the end of week one hung around to start week two, meaning more rain for the south. They weren't along this time. A cold front was also pushing to the southeast out of Canada, bringing rain to the entire state. The heaviest rains came from the cold front meeting the stationary front at the Indiana-Kentucky-Illinois juncture. Posey, Gibson, Spencer, and Perry counties received upwards of an inch of rain on the 8th. Northern counties saw light showers and much smaller accumulations. The cold front continued its push on the 9th resulting in another 0.2 to 0.3 inches of rainfall across Indiana. Things settled on the 10th as high pressure bulged over the Mid-West. Some light showers from a weak cold front were scattered across the state on the 11th however they left behind no more than 0.05 inches of rain. Conditions cleared again on the 12th as another area of high pressure moved into the area. Rain fell sporadically during the afternoon and evening on the 13th, and prelude to what was to come that night. Severe storms and heavy rains blasted the state. The heaviest rains came into the central part of the state and worked their way across. Accumulations during the day on

the 13th were modest, with totals reaching a respectable 0.6 inches along the Illinois border. The real stuff came just as the calendar switched to “May 14”. Owen County got it the worst, rain-wise, but the counties nearby felt the storms punch as well. *Daily* rainfall totals were as high as 2.7 inches on the 14th. An outgoing swatch of decreasing totals that ensnared the entire central region meant that about 75% of the state received at least 1.5 inches of rain. All regions in Indiana reported no less than 0.6 inches of rain. With the heavy rains at the end of the week, Clay, Owen, and Greene counties recorded seven-day precipitation totals of 3.6 inches. Elsewhere totals were routinely 1.5 inches or more. Only the extreme northeast corner of Indiana received less than a total of an inch of rain this past week.

The persistent rainfall throughout the last few weeks, coupled with heavy rains on the 13th and 14th, meant flooding became a huge issue for many Hoosiers. Flood watches and warnings were prevalent along all the major rivers in Indiana. Urban areas in Benton, Carroll, Clinton, Fountain, Montgomery, Tippecanoe and Warren counties experienced (or may experience in the coming days) some minor flooding. This already happened in Bartholomew County on the 14th, resulting in road closures. The band of strong storms that moved through central Indiana late on the 13th and during the early morning hours on the 14th produced more than just heavy rains. High winds tore down trees and power lines throughout central Indiana. A home in Whiteland was damaged by a lightning strike, which started a small fire. At least one tornado has been confirmed by the National Weather Service. An EF2 tornado touched down in Haubstadt at 3:30 AM on the 14th. Winds associated with the tornado are believed to have reached up to 120 mph. Fortunately through all the flooding and severe storms no casualties were reported.

May 15th – 21st

The third week of May was a mixed bag of temperatures. After temperatures rebounded slightly to start the week, a cold front passed dropping temperatures to the low 60s by the 17th. High temperatures in that vicinity were about 15F below normal. They warmed a bit on the 18th as the system passed but remained below normal. High pressure settled over the Great Lakes and kept approaching fronts out of the Mid West allowing temperatures to climb. Highs reached normal on the 19th and they warmed as the week progressed. Temperatures above 80F were rampant on the 20th and 21st, more than 5F above normal. The cold spell earlier in the week had lasting effects however. The weekly average high temperature statewide was about 73F, two degrees below normal for the third week of May.

The system that dumped more than five inches of rain in some Indiana cities over a few days at the end of week two slowly exited the region to start week three. Some left over moisture dropped a moderate amount of rain on the 15th, though in comparison to last week accumulations were quite small. Of course as soon as that system left a new one had its sights set on Hoosiers. This new disturbance left the Indiana-Illinois border drenched, as another 1.5 inches fell in Benton, Warren, and northern Fountain counties. Close to an inch fell from Lake Michigan south to Jasper and east to Indianapolis. The line weakened as it crossed the state meaning counties along the Ohio border were spared the onslaught. The rain lasted all day on the 16th and into the morning of the 17th, however totals on that day were minimal. And then it was over. For a long time. Once the rain stopped the morning of the 17th no more fell through the rest of the week. No rain was recorded anywhere in Indiana on the 18th, 19th, 20th, or 21st. Other than

that wet day on the 16th, the third week of May 2009 was quite dry. All of Indiana received rain during the week, with the highest totals along the Illinois border, where they reached 1.8 inches. The statewide average was about 0.8 inches for the week.

The rains from the 13th through 16th caused flooding across the state, the worst of which was at the tail end of week two. By the start of week three the worst had passed and the fear of major or flash flooding had subsided with much smaller rain totals from the 15th through 17th coupled with the prolonged period of dry weather the rest of the week. No major impacts were reported from any of the minor flooding episodes.

May 22nd – 31st

The final third of May 2009 was relatively warm. Seven of the final ten days reached normal or above normal high temperatures. The statewide daily average high temperature never was more than three degrees below normal either. The passing of weak cold fronts really didn't do much to temperatures as highs routinely reached the low to mid 80s from the 22nd through the 24th. They fell back to normal (mid 70s) on Memorial Day but promptly rebounded back into the 80s until falling back to the low 70s for the final few days of the fifth month of the year. The statewide average high temperature for the final 10 days of May was 80F, which is about 4F above normal.

The dry spell that began on May 18th lasted clear into the final full week of May and didn't come to an end until the 24th. The end of this dry period started a new wet period. From the 24th through the 31st somewhere in Indiana received rain or thunderstorms. On the 24th light showers clipped the northwest part of the state thanks to a cold front. Accumulations were miniscule. On Memorial Day 2009 the cold front successfully passed through Indiana and left behind periods of rain for central and southern counties. For the most part the showers were intermittent and weak, though Posey and Vanderburgh counties did report up to 0.5 inches of rain for the day. The back end of the system reorganized into a stronger synoptic-scale disturbance and drenched the state on the 26th and 27th. All of Indiana saw rain both days and peak accumulations were reported in Knox County of over one inch on the 26th. As the system pushed to north it dropped more rain and produced severe thunderstorms in central and northern Indiana on the 27th. The northern corners reported over 0.6 inches of rain for the day. The rain continued to fall on the 28th as wave after wave of storms passed through with the reorganized system. Another 0.2 inches fell across the state with localized totals reaching upwards of 0.5 inches in Clay and Owen counties. The system finally exited by midday on the 29th but not before sprinkling the central and southern counties with more rain. Severe thunderstorms strolled through the state on the 30th and 31st. While rainfall accumulations were minimal (less than 0.2 inches over the two days), the organized storms were quite severe, routinely producing lightning, hail and high winds. The statewide average precipitation total for the final 10 days of May was about 1.2 inches, with a maximum of 2.2 inches in Knox County.

A series of small yet severe storm systems crossed the state during the final ten days of May 2009. The worst thunderstorms rolled through Indiana during the early evening on May 27th and just after midnight on May 30th. The storms produced strong winds, hail, and lightning along the Indiana-Ohio border each night. Luckily the only damage reported throughout the counties

affected was some siding torn off buildings and downed tree limbs. There was a preliminary report of a tornado near Tipton but it has not been confirmed at this time.

May Summary

Temperature

Region	Temperature	Normal	Deviation
Northwest	60.7	60.8	-0.1
North Central	60.2	60.3	-0.1
Northeast	59.9	59.8	0.1
West Central	62.5	62.3	0.2
Central	62.0	61.7	0.3
East Central	61.7	60.8	0.9
Southwest	65.1	64.6	0.5
South Central	64.0	63.9	0.1
Southeast	63.8	63.0	0.8
State	62.3	62.0	0.3

Precipitation

Region	Precipitation	Normal	Deviation	Percent of Normal
Northwest	4.76	3.98	0.78	120
North Central	4.10	3.85	0.25	106
Northeast	4.06	3.78	0.28	107
West Central	6.71	4.38	2.33	153
Central	6.21	4.40	1.81	141
East Central	4.40	4.31	0.09	102
Southwest	7.41	4.99	2.42	149
South Central	7.83	5.00	2.83	156
Southeast	5.92	4.85	1.07	122
State	5.85	4.40	1.45	133

Spring-to-Date

(March, April and May)

Temperature

Region	Temperature	Normal	Deviation
Northwest	50.2	49.6	0.6
North Central	49.9	49.0	0.9
Northeast	49.7	48.5	1.2
West Central	52.8	51.5	1.3
Central	52.4	50.9	1.5
East Central	51.8	49.9	1.9
Southwest	56.1	54.7	1.4
South Central	54.9	54.1	0.8
Southeast	54.4	53.1	1.3
State	52.5	51.4	1.1

Precipitation

Region	Precipitation	Normal	Deviation	Percent of Normal
Northwest	14.98	10.50	4.48	143
North Central	14.47	10.22	4.25	142
Northeast	14.44	9.96	4.48	145
West Central	15.94	11.61	4.33	137
Central	14.77	11.59	3.18	127
East Central	11.27	11.16	0.11	101
Southwest	16.75	13.66	3.09	123
South Central	16.25	13.59	2.66	120
Southeast	12.86	13.01	-0.15	99
State	14.90	11.74	3.16	127

Annual-to-Date

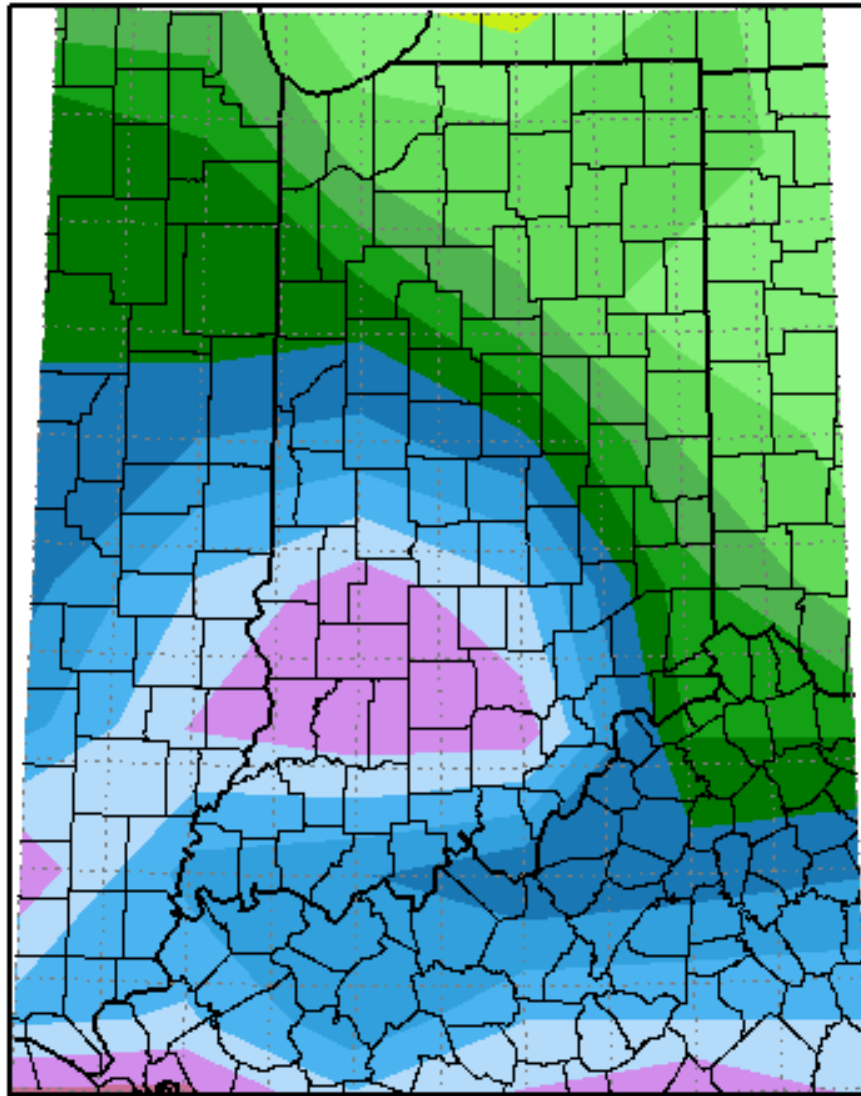
Temperature

Region	Temperature	Normal	Deviation
Northwest	39.4	40.1	-0.7
North Central	39.2	39.7	-0.5
Northeast	39.0	39.3	-0.3
West Central	42.2	42.1	0.1
Central	41.9	41.7	0.2
East Central	41.2	40.8	0.4
Southwest	46.2	45.9	0.3
South Central	45.0	45.5	-0.5
Southeast	44.5	44.5	0.0
State	42.2	42.3	-0.1

Precipitation

Region	Precipitation	Normal	Deviation	Percent of Normal
Northwest	19.10	14.05	5.05	136
North Central	18.81	14.07	4.74	134
Northeast	18.69	13.72	4.97	136
West Central	20.32	16.06	4.26	127
Central	18.88	16.20	2.68	117
East Central	14.71	15.60	-0.89	94
Southwest	22.06	19.54	2.52	113
South Central	21.35	19.61	1.74	109
Southeast	17.81	18.82	-1.01	95
State	19.37	16.46	2.91	118

Total Precipitation in Inches
May 1, 2009 to May 31, 2009



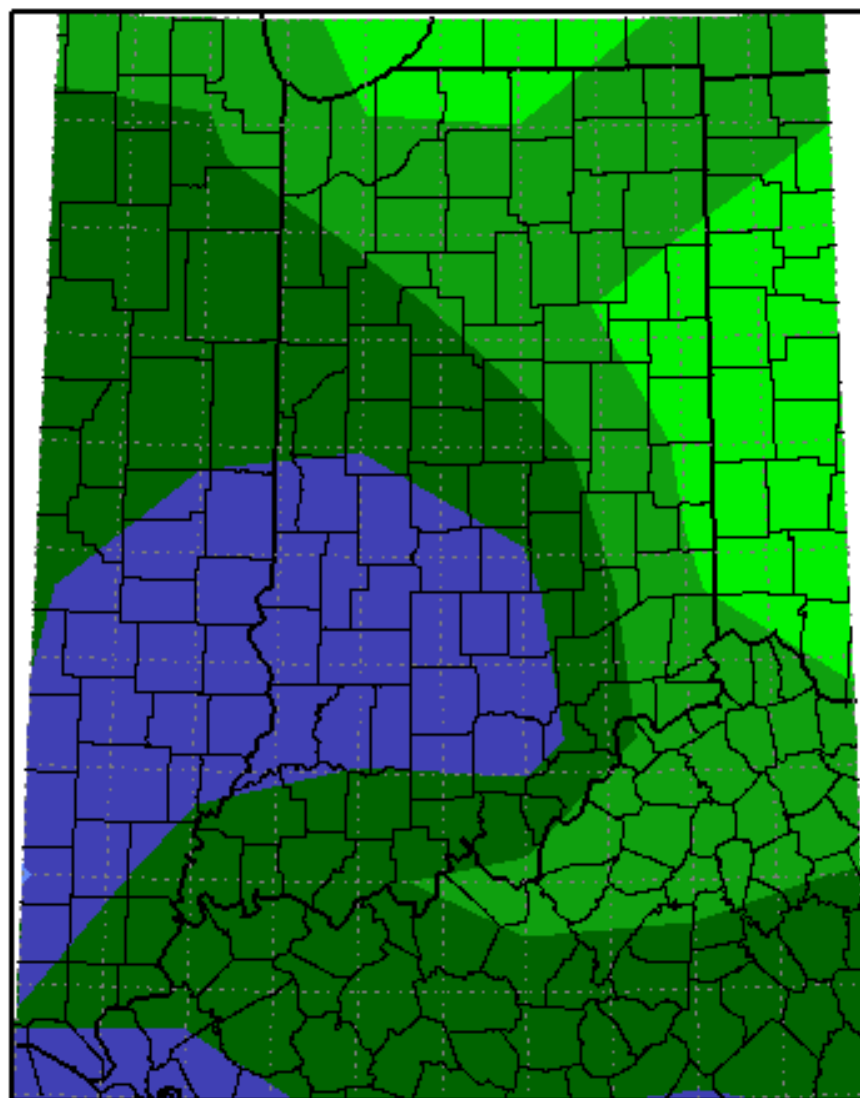
0.0 0.32 0.62 0.92 1.25 1.54 1.82 2.12 2.42 2.72 3.02 3.32 3.62 3.92 4.22 4.52 4.82 5.12 5.42 5.72 6.02 6.32 6.62 6.92 7.22 7.52 7.82 8.12 8.42 8.72 9.02 9.25

NOAA Midwestern Regional Climate Center

Illinois State Water Survey

Champaign, Illinois

Total Precipitation Percent of Mean
May 1, 2009 to May 31, 2009

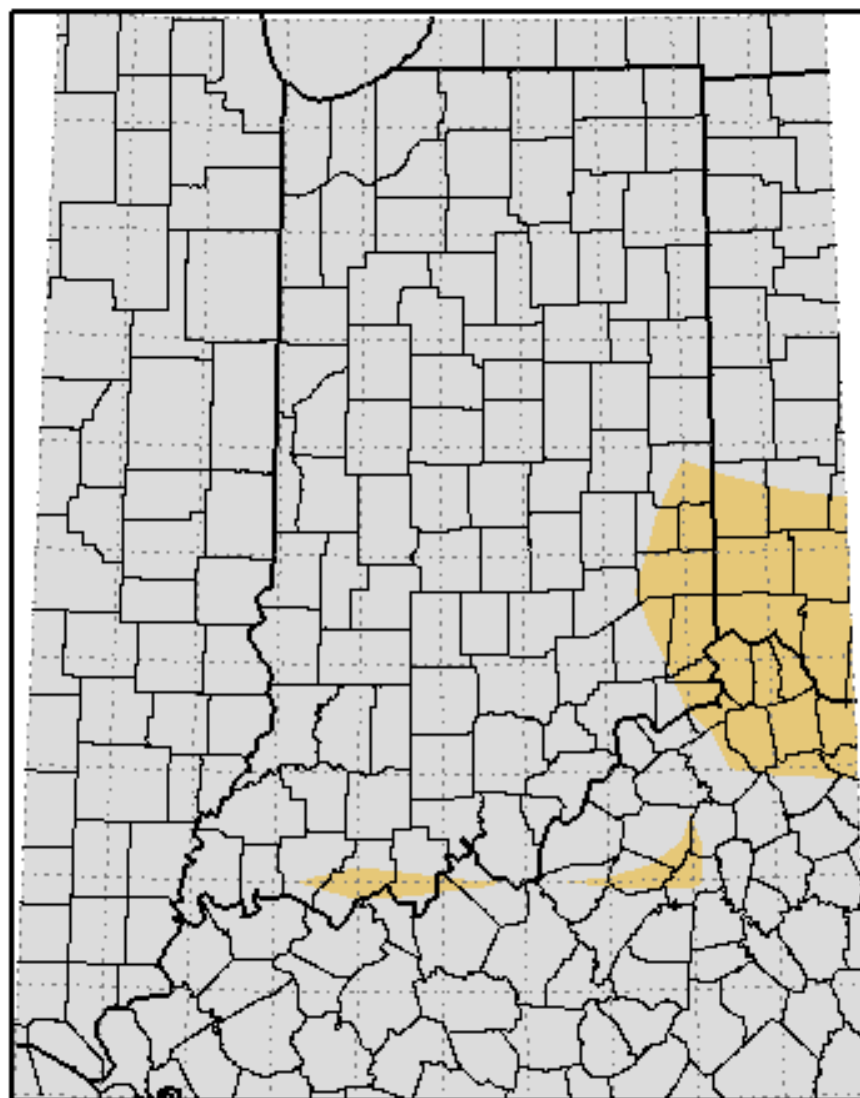


NOAA Midwestern Regional Climate Center

Illinois State Water Survey

Champaign, Illinois

Average Temperature Departure from Mean in Degrees F
May 1, 2009 to May 31, 2009



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, May 5th has 100% 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
05/05/09	100.00	0.00	0.00	0.00	0.00	0.00
05/12/09	100.00	0.00	0.00	0.00	0.00	0.00
05/19/09	100.00	0.00	0.00	0.00	0.00	0.00
05/26/09	100.00	0.00	0.00	0.00	0.00	0.00

May 5th Drought Summary



May 12th Drought Summary



May 19th Drought Summary



May 26th Drought Summary

