WHAT'S INSIDE?

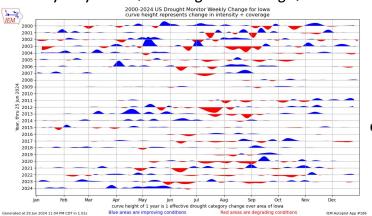
Heat Safety 2024 Preliminary Iowa Tornado Statistics New Series - Spotter Feature of the Month!

Iowa Drought Update

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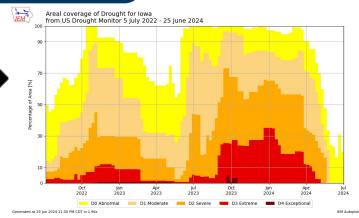
Ashley Bury, Meteorologist

Significant rainfall over the spring season has resulted in major improvements to drought conditions across Iowa. D3-D4 conditions from summer/fall 2022 into the I early months of 2024 were fully removed by May 2024 (click image to view larger).



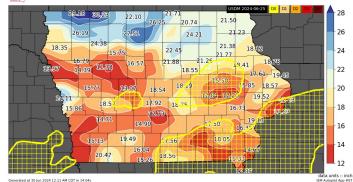
Rainfall totals from April 1st through June 2024 were around 10-20 inches in the southern two-thirds of Iowa, while northern Iowa saw higher values generally between 15-30+ inches! Overlaid in yellow is the remaining D0 (abnormally dry) <u>drought conditions</u> over portions of eastern or central Iowa as of 6/27/24 (*click image to view larger*).

All three graphics below courtesy of the Iowa Environmental Mesonet (IEM).



Improvement in drought can be seen from late March through June 2024, as shown by the consistent blue area in the graph at left (*click image to view larger*).

1 Apr 2024 thru 29 Jun 2024 Precipitation Total [inch]



Heat Safety

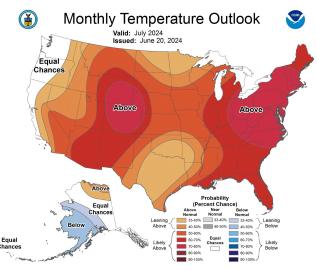
Ashley Bury, Meteorologist

With the summer season upon us, warmer temperatures will be common. Days of excessive heat as a result become more of a concern, which can lead to health issues and even death if proper safety measures are not taken. According to the Centers for Disease Control and Prevention, in the United States of America, heat is one of the top weather-related killers, with each year claiming over a thousand lives. Though heat-related illness and death can happen to anyone, people with chronic medical conditions, older adults such as the elderly, infants and young children, as well as pregnant women are more vulnerable. Heat related illnesses that can occur due to prolonged exposure to heat are heat exhaustion, heat stroke, and heat cramps.

Safety measures can be taken to reduce the potential negative effects of heat, which include:

- Reducing time outdoors, especially if in direct exposure to the sun.
- Wearing loose fitting, light colored and lightweight clothing if possible.
- Using air conditioning or portable fans to stay cool.
- Taking a cool shower or bath.
- Drinking plenty of water, regardless of whether or not you are thirsty. Avoid caffeinated and alcoholic beverages, which can actually increase dehydration risk.
- Avoiding eating heavy meals that are more difficult to digest.
- Checking on others and taking proper care of those who are more vulnerable and need help staying safe (as referenced above).

Please refer to <u>https://www.weather.gov/safety/heat</u> for more heat related information and additional resources.



The Climate Prediction Center temperature outlook for July as of 6/20/24 shows a 50-60% chance for above normal temperatures over Iowa (click image to view larger).



2024 Preliminary Iowa Tornadoes

Craig Cogil, Lead Meteorologist

As of June 30, the preliminary count of 2024 Iowa tornadoes is at 108! This includes 45 in April (breaking the April record of 40 set in 2001), 49 in May, and 14 so far in June.

The currently confirmed 108 tornadoes across Iowa thus far in 2024 ranks as the 3rd highest yearly total for Iowa:

- 1) 120 in 2004
- 2) 114 in 2021 (note 63 occurred on 12/15/21 which is both the daily and monthly lowa record)
- 3) 108 in 2024 (as of June 30*)
 *June numbers remain under evaluation
- 4) (tie) 105 in 2001 and 2008

Note, with improvements in radar and satellite data, understanding of quasi-linear convective systems (QLCS) tornadoes and improved storm reporting from social media and trained spotters, more tornadoes are able to be confirmed now than in the past.

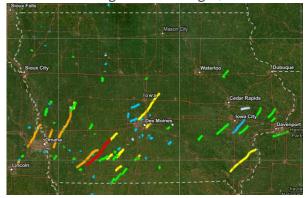


Of the 94 tornadoes in Iowa so far this year, 76 have occurred on only 4 days.

- April 16th- 13 tornadoes
- April 26th- 28 tornadoes
- May 21st 12 tornadoes
- May 24th 23 tornadoes

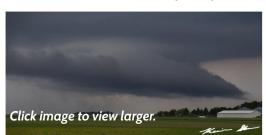
The 28 tornadoes on April 26th ties for the 3rd most on a single day and the 23 on May 24th is the 8th most.

Above: 2024 additional tornado statistics as of June 7 & as seen <u>here</u>. Below: Map of 2024 Iowa tornadoes as of <u>June 7</u>. (Click on images to view larger.)



Spotter Feature of the Month - Wall Cloud

Formal spotter training may be complete for 2024, but the continuing education does not have to end there! Welcome to our new series where we will feature one or more phenomena each month to educate our spotters and Weather Ready Nation Ambassadors on various weather they may see and can <u>report to their local NWS</u>!



Wall Cloud. Photo Credit: Kevin Skow

On the Cover: Rainbow seen just outside the office during the evening of June 5, 2024. Photo credit: NWS Des Moines.



is they slope downward toward the rain!

Wall Clouds are isolated clouds attached to the bottom of an updraft. They can be associated with both severe and non-severe storms and suggest a strong and rotating updraft within a thunderstorm. One notable feature of a wall cloud

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