The Hoosier Observer

Indiana CoCoRaHS monthly e-newsletter

July 2023

June 2023 Statistics

Total observers reporting	558
Observers with no missing reports	333
Percent of total	60
Average Daily Reports per Day	462
Max # of Daily Reports and Day	501/14
Significant Weather Reports	17
Condition Monitoring Reports	88
E-T Reports	193

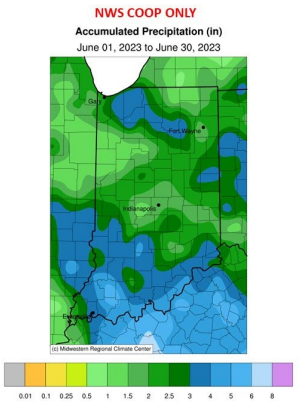
July Coordinator Update

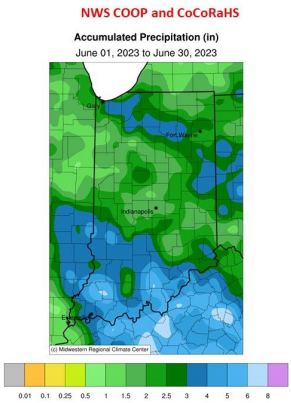
As always, we'd like to thank everyone for their reports through the month of June, it was a dry month for many so we always appreciate those zeroes. This month we'd like to highlight our Facebook page for Indiana CoCoRaHS. When you joined you should have received an email from one of the coordinators with information on that Facebook page, so if you haven't followed the page, we encourage you to do so. Feel free to like and share any of those posts to help us reach more Hoosiers across the state.

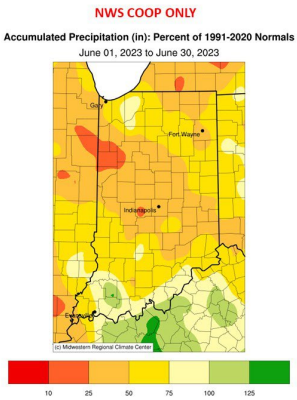
We totaled over 500 daily reports last month on the 14th. With over 560 observers reporting, if everyone could enter reports we'd be consistently seeing those high number days. We'd also like to recognize the 14 new Indiana observers (Clay, Dubois, Greene, Howard, Marion, Marshall, Porter, Pulaski, Shelby, Tippecanoe, Warrick[4]) that joined CoCoRaHS in the last month. Thanks for joining the team!

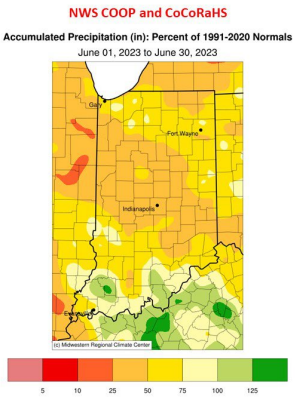
June 2023 Precipitation in Indiana

Statewide, June 2023 precipitation ran between 10 and 75 percent of the 1991-2020 climatological average. The heaviest totals occurred in southern Indiana where some spots saw more than four inches of precipitation, especially along the Ohio River. Northern and eastern Indiana saw additional areas with more than three inches of rain. June 2023 state precipitation maps (accumulated precipitation and percent of normal) are included below for NWS COOP ONLY (left) and NWS COOP and CoCoRaHS (right).









Data from stations that had 100% reporting for June are as follows: The highest precipitation total in Indiana (6.62 inches) was measured at FREDERICKSBURG 3.6 NNE, located in Washington County. GEORGETOWN 1.6E, located in Floyd County, measured the second most precipitation, 6.47 inches (2.83 inches was reported on June 26). FRANCISCO 0.1SE (Gibson County) measured 4.76 inches on June 30, which was the highest single day total in June 2023.

MOUNT AYR 1.6 NNE, located in Newton County, measured 0.89 inches, which was 3.82 inches below normal for the month and took

Archived Newsletters

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home the title of lowest precipitation total in the state for June 2023. This was back to back months of the lowest precipitation in the state. CUMBERLAND 0.7E, located in Hancock County, measured 1.12 inches. This was the second lowest observation in the state with 100 percent reported data for June 2023.

There are several stations with less precipitation, but did not have 100 percent of data reported for the month. Be sure to report zeros on days when no precipitation fell!

Rain brings drought improvement, but for how long?

By: Beth Hall

After another week of decent rains across the state (Figure 1), abnormally dry and drought conditions continue to improve according to the latest U.S. Drought Monitor (Figure 2). This has been promising news for both water supplies and agricultural production across the state. As we wonder how long this good fortune might last, we need to think in terms of both temperature and precipitation. Certainly, regular rain events help to keep the environment from getting too dry. However, excessively warm temperatures can increase the rate of dryness even if rain events pass through the area. Did you know we just past the heart of the climatological warmest weeks of the year? This isn't true everywhere in the U.S. Figure 3 shows the average date when the warmest temperatures occurred from 1991-2020. In Indiana, this has typically occurred in the first half of July. If this year mimics this climatological average, then the evapotranspiration rates should start to decrease the latter half of July or early August. Unfortunately, climate outlooks for July 25th through August 2nd are heavily favoring above-normal temperatures with near normal precipitation amounts. Near the end of that period, there is a slight chance for above-normal precipitation over Indiana, but will that be too little, too late? It is quite possible that Indiana may experience drought conditions worsening slightly for a few weeks before conditions start to return to near normal or more favorable patterns. The monthly outlook for August (released July 20th) provides no guidance regarding temperature, but with probabilities slightly favoring above-normal precipitation in southern counties. The seasonal outlook for August through October is slightly favoring above-normal temperature with relatively weak probabilities for southern Indiana.

Temperature over the past 30 days has remained near normal across Indiana. This has led to accumulated modified growing degree days to run about 60 to 180 units behind the 1991-2020 average for this time of year (see Figures 4 and 5).

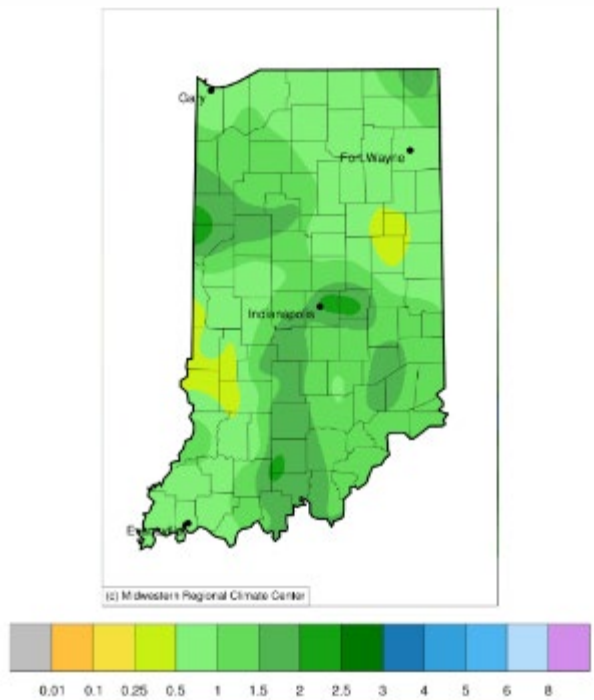


Figure 1. Total precipitation (inches) from July 13-19, 2023.

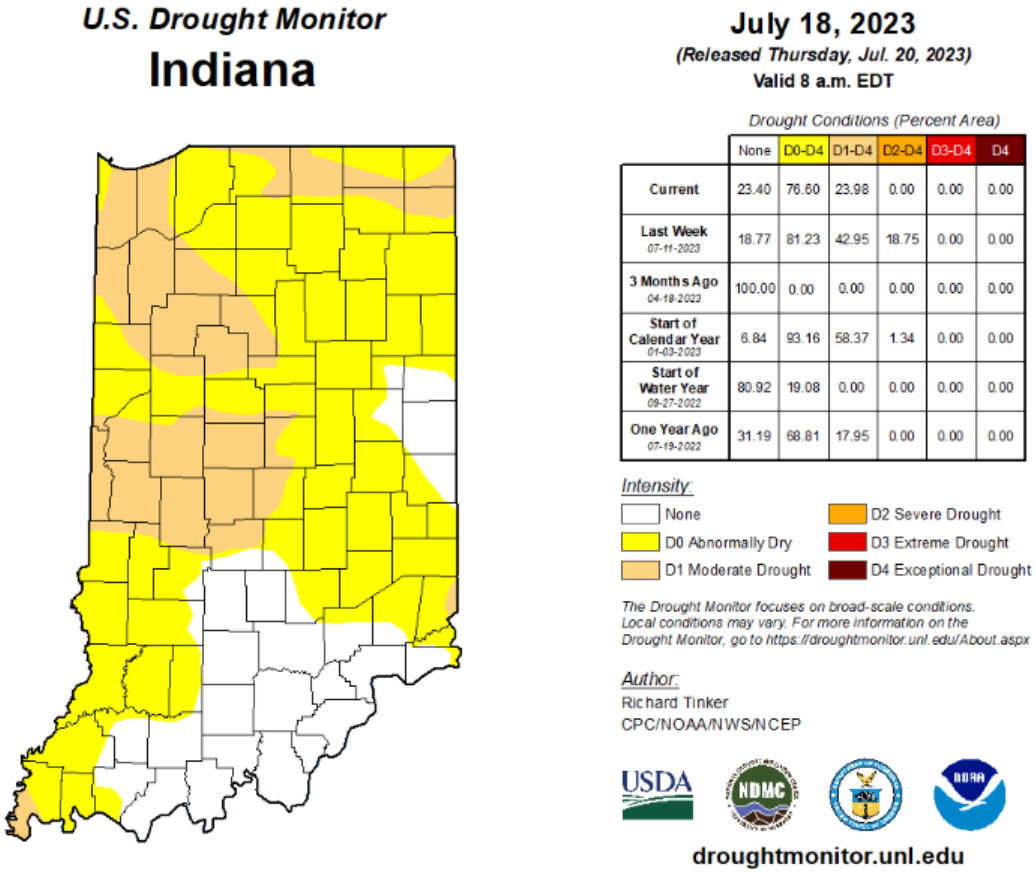


Figure 2. U.S. Drought Monitor status for Indiana based upon conditions through Tuesday, July 18, 2023.

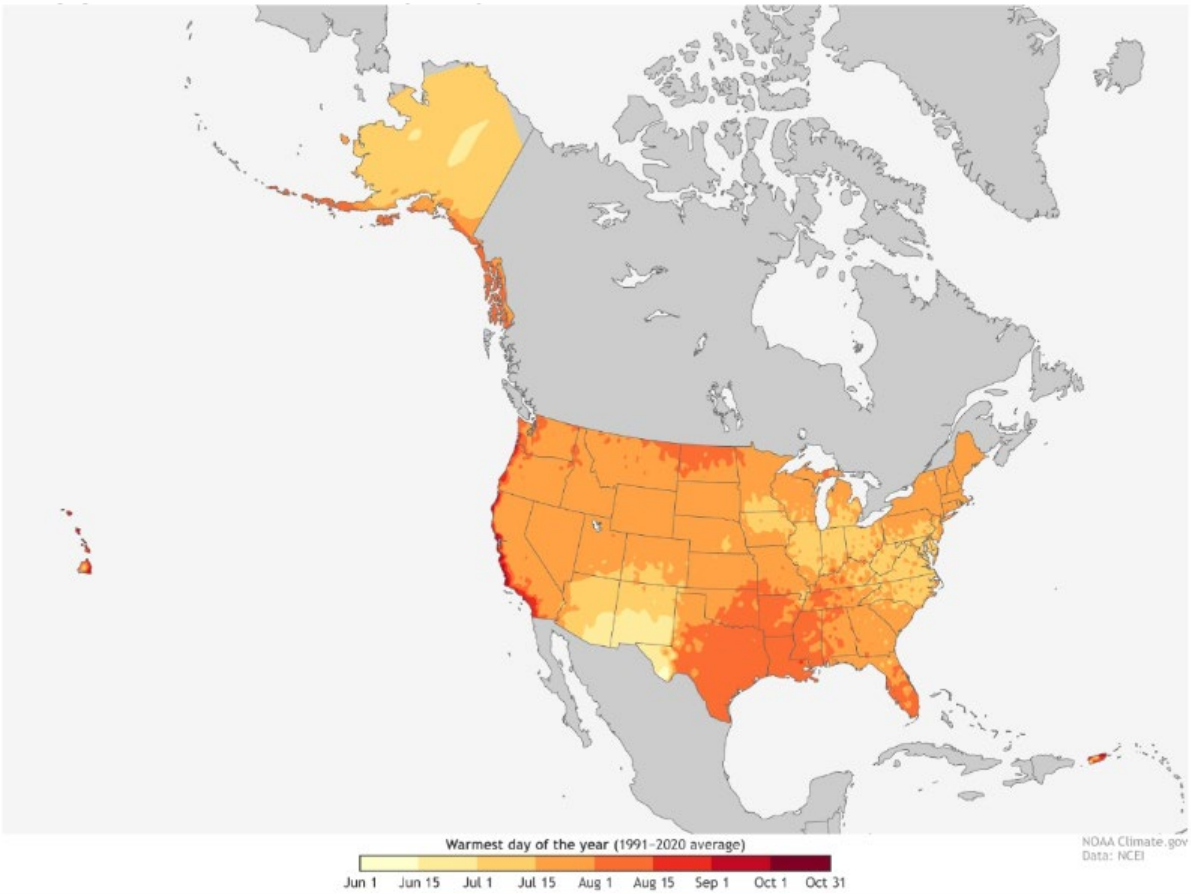


Figure 3. Warmest day of the year based upon data from 1991-2020.

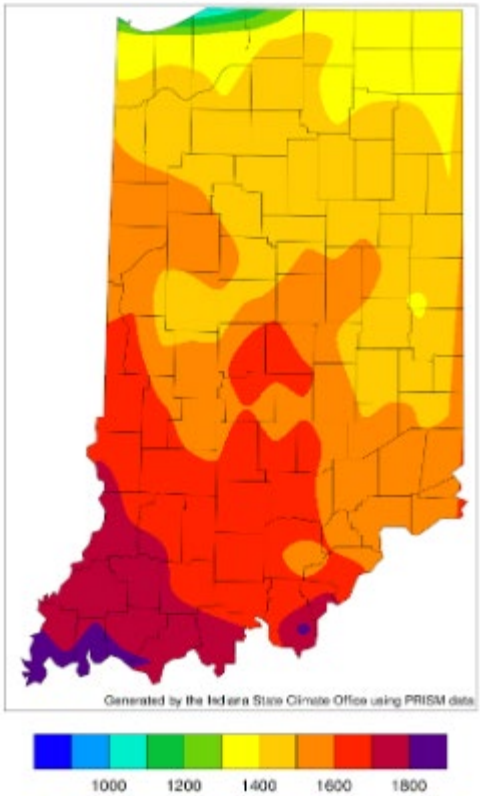


Figure 4. Modified growing degree day (50F/86F) accumulation from April 15-July 19, 2023.

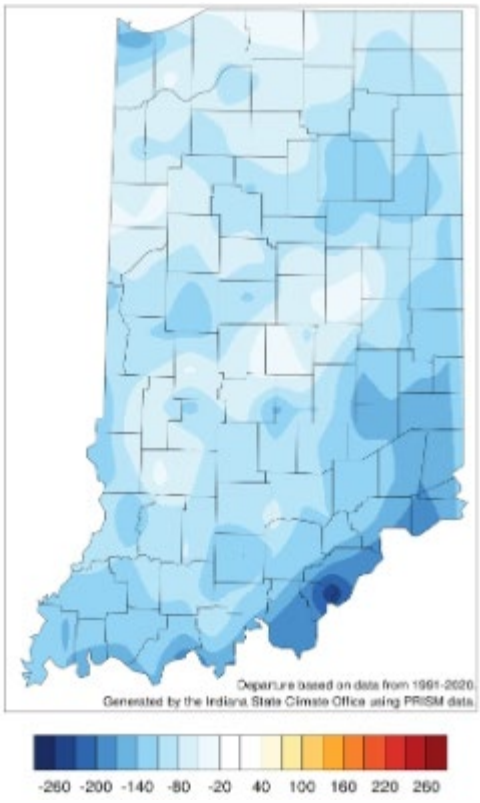


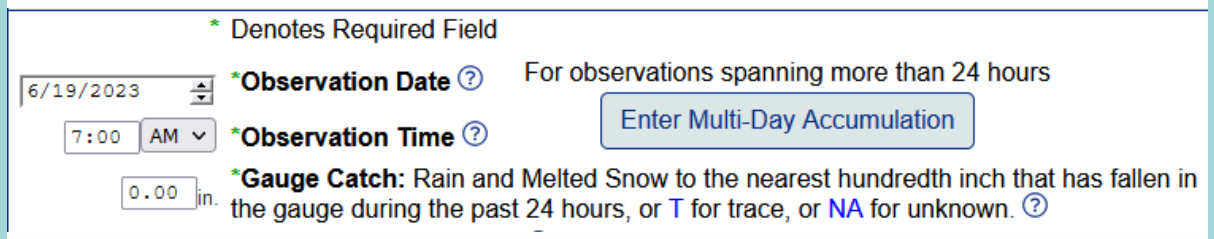
Figure 5. Modified growing degree day (50F/86F) accumulation from April 15-July 19, 2023, represented as the departure from the 1991-2020 climatological average.

A Little Reminder to Enter Multi-day Accumulations

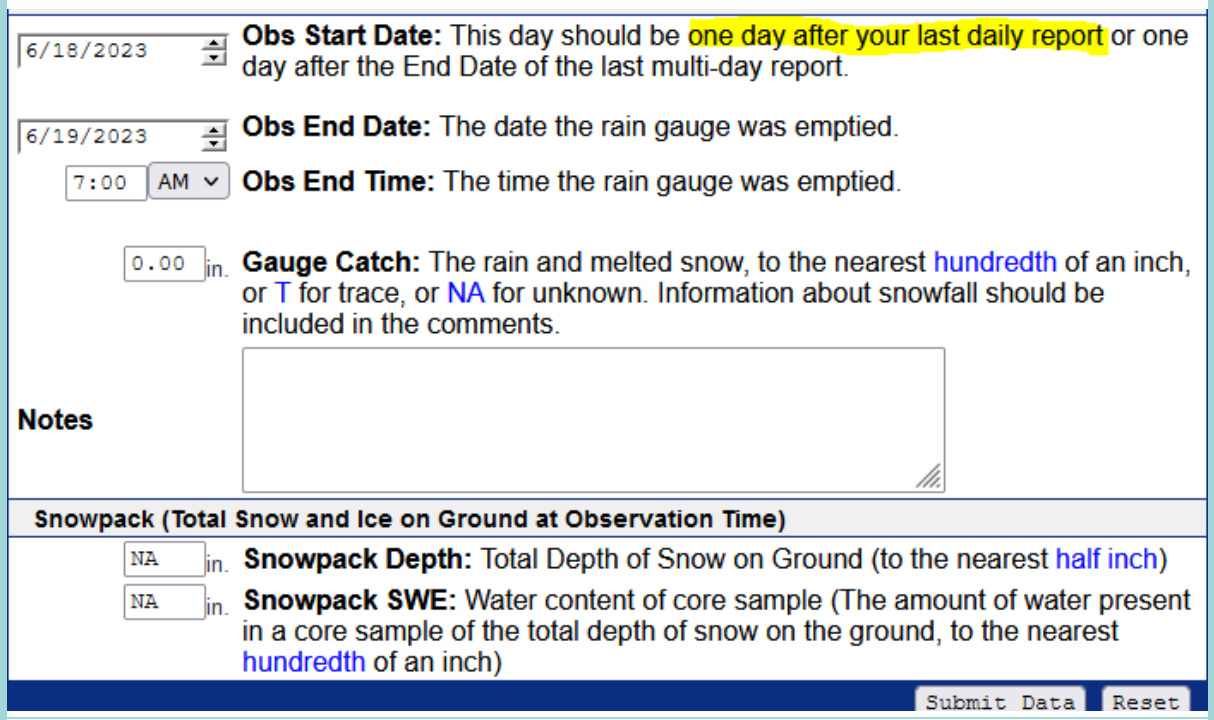
By Steve Hilberg

If you submit your observations using the web site, you may have noticed a new option on the Daily Report form

that displays after you log in. A link is now available for you to go directly to the Multi-Day Accumulation form and serves as a reminder that this is available.



When you click this link, you will be taken to the Multi-Day Accumulation Form.



A New Rain Gauge Option for CoCoRaHS

By Steve Hilberg

For those of you who may have missed the initial announcement, about a month ago the Tropo rain gauge from Climalytic Instruments was approved for use by CoCoRaHS observers. This is a "premium" alternative to the Stratus gauge manufactured by Productive Alternatives and does cost more. These are the only two gauges approved for CoCoRaHS (along with the NWS 8" standard rain gauge). It has a number of user-friendly features and is more accurate than the original Stratus gauge. Both gauges meet the accuracy requirements of the National Weather Service. You can read more about the features of this rain gauge on the Climalytic web site, and about its accuracy and other information in this CoCoRaHS blog post.

Tell Us About It in the Observation Notes

By Steve Hilberg

Comments about your observation, the current weather, or anything else that may help interpret your daily observation are encouraged. Some observers include comments about the progress of their gardens, or the flow in a nearby creek, or anything else that may be of interest. Information that helps explain your observation is especially of interest. For example, "Yes, I really measured 3.00 this morning. It came from a thunderstorm last evening" tells us more than you had three inches of rain. It tells us that it is not a misplaced decimal (in case there is a question based on surrounding reports), when it rained, and that it was a thunderstorm — all important information. So, don't be shy about including comments. Mobile app users — you can include comments as well!

Just click on the "Optional notes" field on your screen and type away. And yes, we do read them. Once in a while an observer will "test" us by asking a question or stating something like "I bet no one is reading this." They may have been surprised to get an email from me or one of the other coordinators in response! If you would like to see what type of comments are typically entered, click on View Data in the top menu and then select Daily Comments Reports below on the page.

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