

Soil Temperature Climatology Tool:

Historical Soil Temperature Statistics

About the Tool

The Soil Temperature Climatology Tool (<https://mrcc.purdue.edu/clim/Soil-T>) provides 4" soil temperature statistics based on the period 1991 to 2020 for the north-central United States. This tool can be used to answer questions such as:

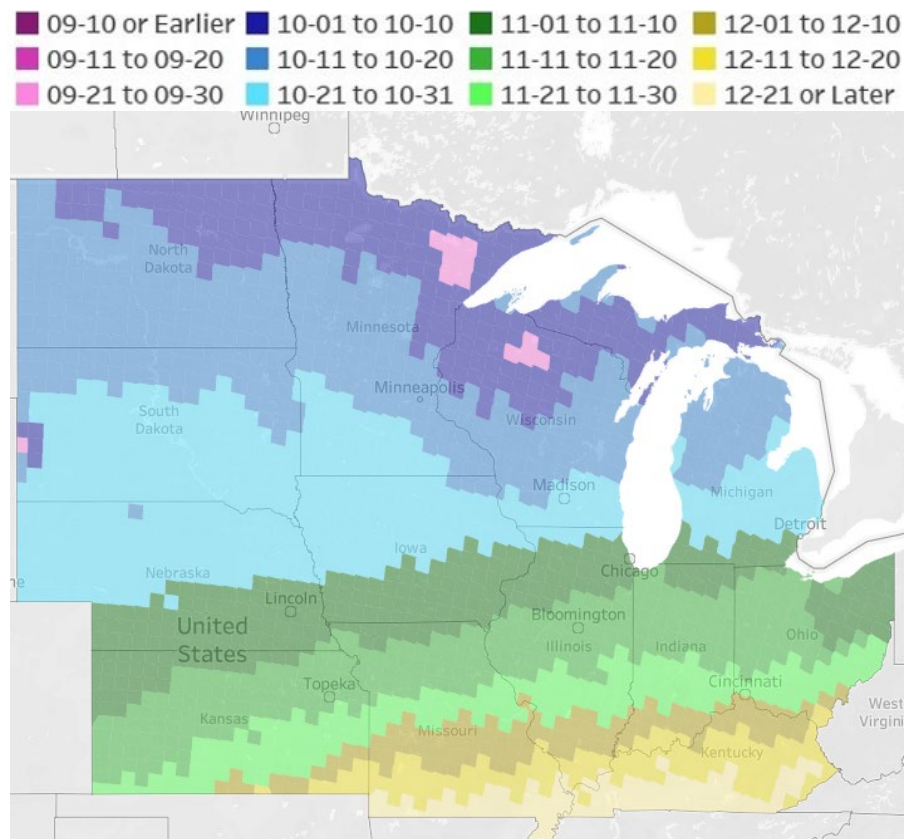
- On average, on what day of the year does a location's soil temperature warm above or cool below a threshold temperature, say 50°F?
- What would be considered an early date for a location's soil temperature to warm above 50°F? What about cool below 50°F?
- What is the record-latest or record-earliest date when a location's soil temperature has warmed above or cooled below 50°F?
- What is the distribution of dates when a location's soil temperature has warmed above 50°F?
- Keep an eye out for additional functions to come!

How are the dates calculated?


The tool uses the North American Regional Reanalysis (NARR) daily average 4" soil temperature data from 1991 through 2020 available at an approximate 20-mile grid spacing. To read more information on the tool, visit the About page (<https://mrcc.purdue.edu/clim/Soil-T-About>).



Average Date When Soil Temperature Cools Below 50°F



How do I use this tool?

On the tool's webpage, decide whether you would like to stay on the "cools below" view or move to the "warms above" view by clicking the grey button on the right-hand side of the page. Then, select the threshold temperature you'd like to visualize from the drop-down menu on the right-hand side of the page: 30°, 32°, 35°, 40°, 45°, 50°, 55°, and 60° Fahrenheit. To see the specific dates when soil temperature cools below or warms above, hover over the colored polygons on the map. For more details on a polygon, click the polygon, then click the "View Data" icon  at the top of the pop-up box. To go back to viewing the entire region, click again on the previously selected polygon. Zooming in on the map will overlay the county boundaries and names, large cities, and major roads.



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