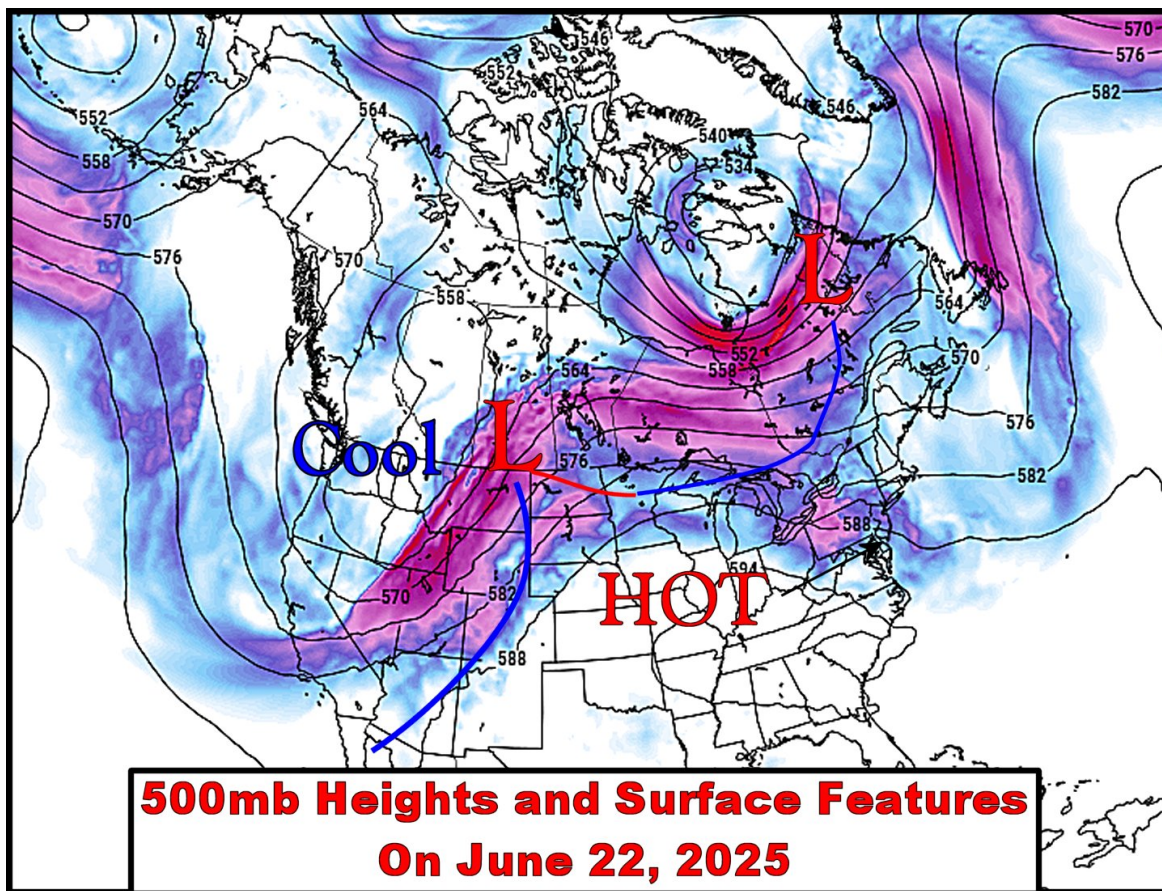


High Pressure To Bring Heatwave To East U.S., Rain To Canada

By Drew Lerner

Kansas City, June 17 (World Weather Inc.) – An active jet stream and seasonal weather changes are combining this week to bring on a strong ridge of high pressure in the central United States and a trough of low pressure over British Columbia, Canada and the U.S. Pacific Northwest. These two features in a normal year could lead to stagnating weather across North America, but the jet stream is much too strong to allow a persistent ridge of high pressure over the central United States – at least not now. **The ridge and trough will work together as they move from west to east across North America resulting in a heat wave for the central and eastern U.S. and the best chance for significant rain in Canada's dry region seen this year.**

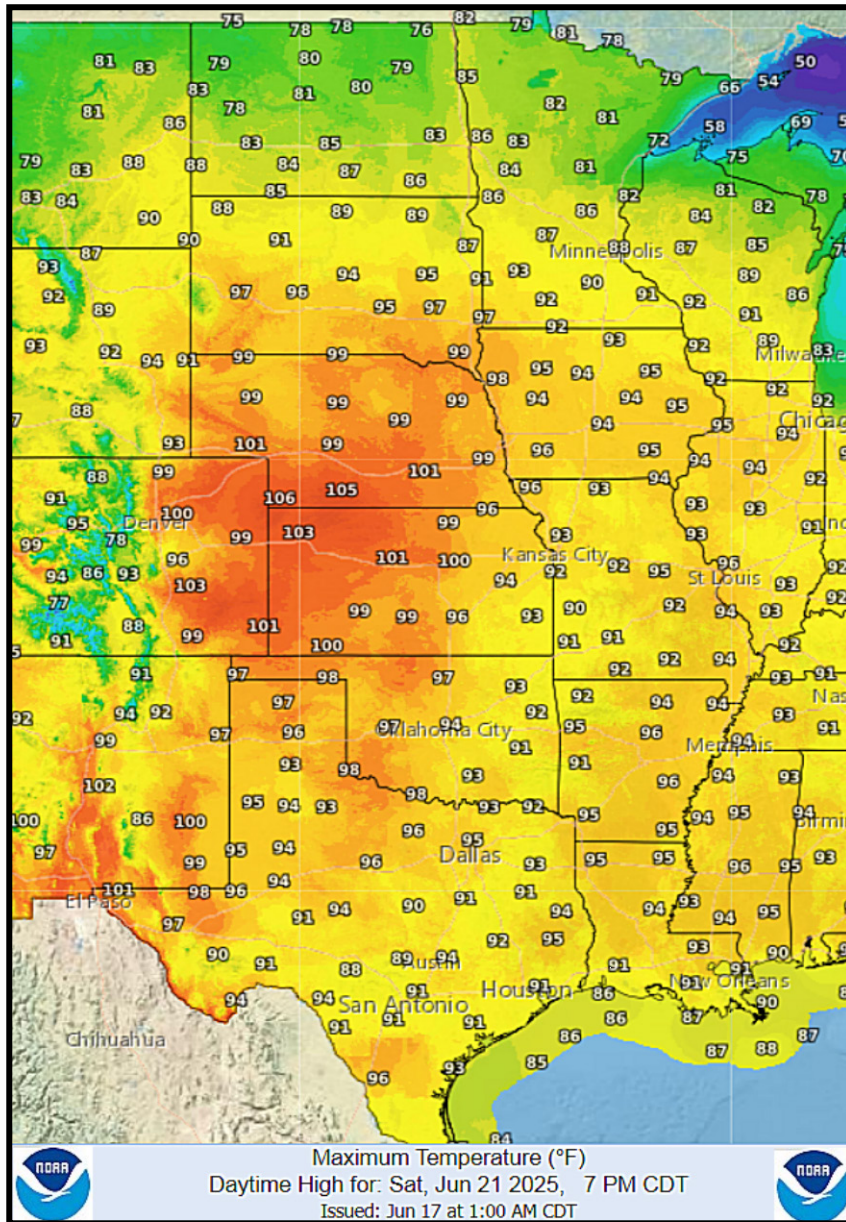


The pattern change is only temporary; however, during the second half of this week through the weekend and into early next week there is likely to be two distinctly different weather trends impacting North America. First, temperatures will rise well above normal in the Great Plains later this week. **Highest temepratures will soar into the upper 80s and 90s Fahrenheit far to the north into the Great Plains with extreme highs of 100-108.** The heat follows a period of active weather with abundant rain and as the air and soil turn warmer under the influence of the high pressure ridge aloft moisture from the soil will be fed back into the atosphere through strong evaporation resulting in high heat indices from the Great Plains into the western Midwest. **Hot and humid conditions will stress livestock and**

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human activity and induce the season's first strong demand period for supplemental cooling fuel.

The demand for air conditioning will be strongest in the Great Plains during the



second half of this week and through the weekend before shifting to the east through the heart of the Midwest this weekend into early next week. The anticipated high pressure ridge will progress to the east over a ten-day period taking the heat across the Great Plains after dominating the western states this week and then to the Midwest during the weekend and to the heavily populated Atlantic Coast States late in the weekend and early next week.

Another byproduct of the high pressure ridge will be the end of frequent heavy rainfall that has been plaguing the southern Plains, Delta and Tennessee River Basin in recent weeks. The change to drier and warmer weather will improve winter crop conditions and (at least

for a little while) will stimulate more aggressive summer crop development. World Weather, Inc. believes the drying trend will become a more dominating feature during July and August – at least until a tropical cyclone comes ashore from the Gulf of Mexico.

The high pressure ridge will produce widespread upper 80- and 90-degree high temperatures in the Midwest and Atlantic Coast States this weekend into next week. Heat indices in the upper 90s to 110 degrees Fahrenheit will be possible during the height of the heatwave which should begin to ease during mid- to late week next week.

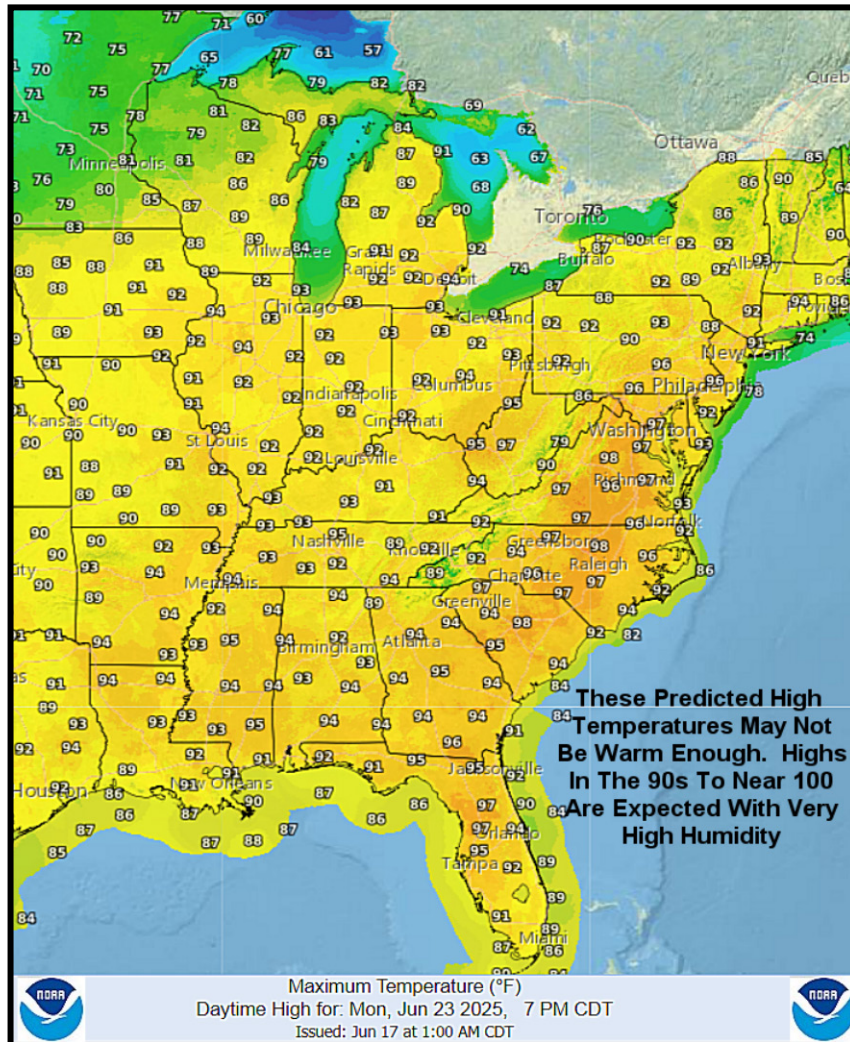
Stopping the stormy weather in the central and southern Great Plains should allow a surface wind to blow inland from the Gulf of Mexico underneath the high pressure ridge. The trough of low pressure moving east from the Pacific Coast will induce at least one and

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possibly two low pressure centers in the northern Plains and upper Midwest during the coming week to ten days. These low pressure centers will tap into the southerly wind flow moving inland from the Gulf of Mexico and help pull that moisture far to the north into

Canada's Prairies and the northern U.S. Plains.

The combination of having a warm, moist, airflow at the surface running from the Gulf of Mexico into the northern Plains and upper Midwest while a cool airmass moves from the Pacific Coast into the northern and central Great Plains this weekend and next week will lead to showers and thunderstorms. [Some badly needed rain is expected briefly in Canada's Prairies from this scenario and the same is anticipated for the northern U.S. Plains. The environment will be ripe for generating badly needed rain from Alberta through a large part of Saskatchewan](#)

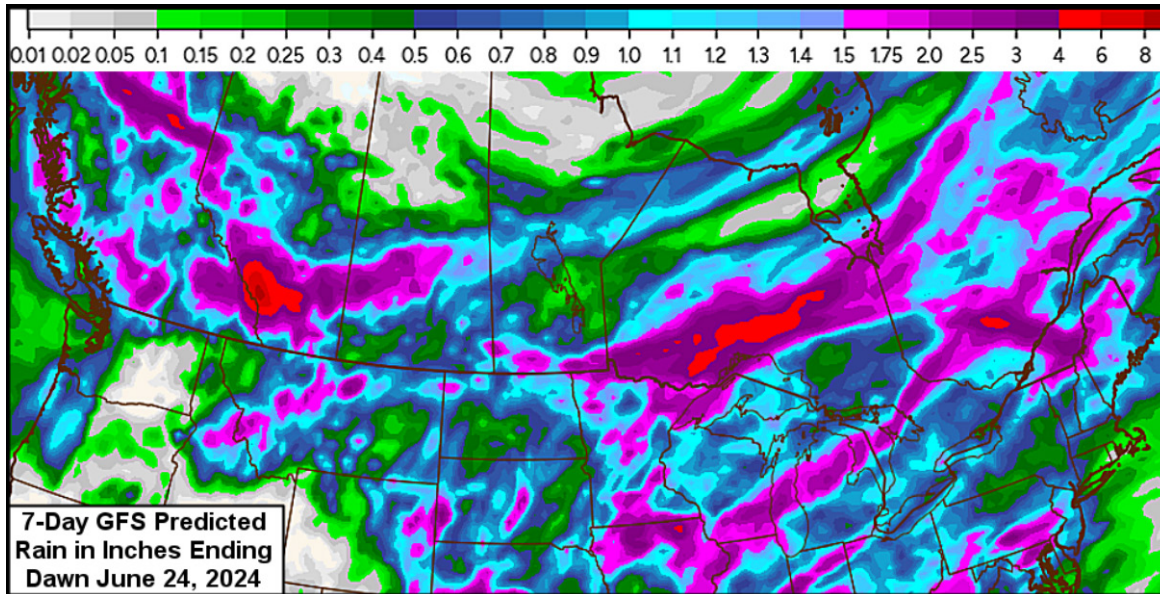


[late this week and during the weekend.](#) The rain event will generate 0.60 to 1.50 inches of rain in general with local totals of up to 4.00 inches in central and southwestern Alberta and to 2.25 inches in portions of western and northern Saskatchewan. [The precipitation is expected to then fizzle out over the southeastern Prairies and a part of the upper Midwest, although a second low pressure center may evolve next week to bring a second wave of stormy weather to Manitoba and western Ontario as well as the upper Midwest.](#)

[Montana and much of Canada's Prairies from southern and eastern Alberta through western and northern Saskatchewan are dealing with a severe drought. Rain coming late this week and into the weekend will ease the drought and temporarily improve many spring and summer crops. Follow up moisture will be imperative; although, sufficient rain is expected to stop serious crop moisture stress and induce a short term bout of aggressive crop development later this month. Follow up rain will be very important, but the rain expected in this coming week to ten days should be sufficient enough to stop the fall in production potential and to induce at least some short term improvements.](#)

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Most computer forecast models are suggesting the ridge of high pressure will return to the central United States in July. The ridge is not expected to be very strong, but it will have a tendency to reduce rainfall in the northern Plains and a part of the Prairies for a little while once again; however, the active jet stream is likely to push another trough of low pressure across North America later in July to help induce another rain event.



In additional to all of that, the same high pressure system expected to bring rain to Canada and the heat to eastern North America will also stimulate the southwest monsoon in Mexico. That will bring greater rain across Mexico from south to north bringing relief from persistent dryness and setting the stage for monsoon moisture to stream into the southwestern U.S. routinely during July and August. That moisture feed (along with the Gulf of Mexico moisture) will help support timely rain events across the central parts of North America and into the Midwest during the heart of summer ensuring some timely rainfall that should limit crop moisture stress to pockets. U.S. summer crop production is likely to be high because of these weather pattern changes in the next few weeks and Canada's Prairies will likely get enough timely rain to help improve its production potential after a difficult start to the 2025 growing season.

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