TO SUBSCRIBE CALL 913-383-1161 OR WRITE TO WORLDWEATHER@BIZKC.RR.COM

The Canadian Agriculture Weather Prognosticator

Volume XVII Issue VII | http://www.worldweather.cc | August 1, 2025

Reminders

It is very frustrating for all of us to have to deal blocked and bounced messages. We at World Weather, Inc. find this to the be the number one biggest problem with our products and services.

Sasktel.net, Hotmail.com and outlook.com are frequently blocking our services. There is not much we can do about it, but if you use those domains and do not get your products periodically the following items can help you deal with the situation.

1) First be sure to whitelist our email addresses. If you need help with this send us a note or call the office

2) Always remember a copy of the daily forecast and all of the prognosticators as well as the audio and video links are available under your log in credentials on our website

3) We strongly encourage those who are using the above domains to get a gmail address and use that for our services. We rarely have a problem with gmail accounts.

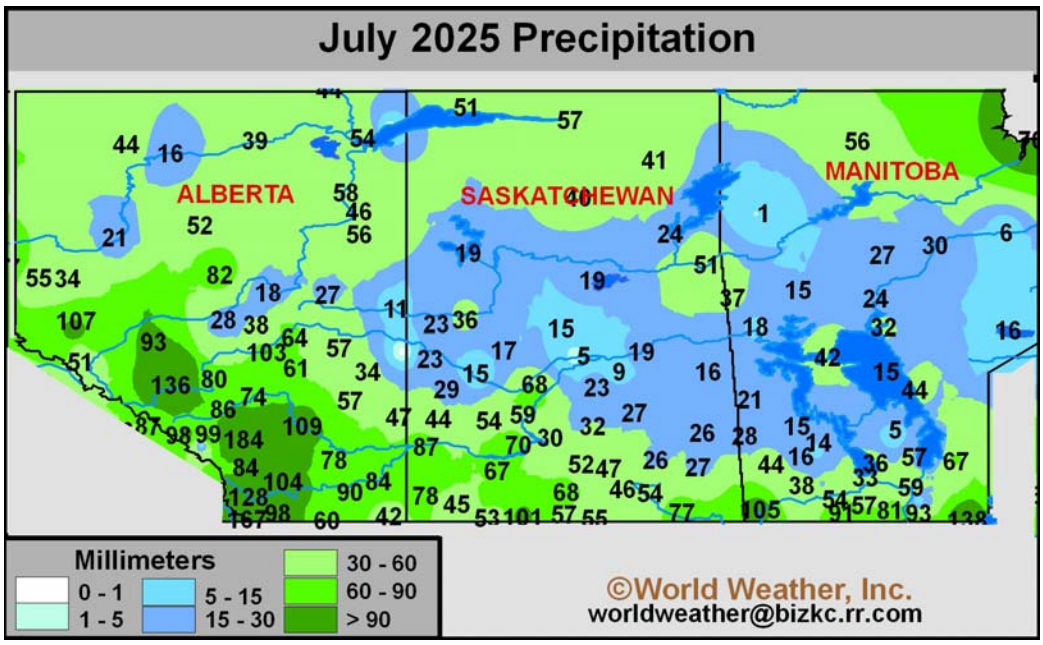
Drought Concentrates On NE Prairies

Relief from drought has been slowly evolving across western and far southernmost parts of the Prairies in recent weeks. The process has been painfully slow for many areas, but there are also some areas in the southwest that have actually become a little too wet and that is raising some new concern. Most of the excessively wet areas have been in southwestern Alberta where some totals have ranged from 80 to more than 180 millimeters (3.15 to 7.08 inches) in July alone.

Some relief has also come to the previously driest areas in some west-central and southwestern Saskatchewan locations where rainfall of 1.00 to nearly 3.50 inches (25-89mm) fell during July. Several other areas in far southern Manitoba and southeastern Saskatchewan also received some significant rainfall, but most of those locations have been near the U.S. border.

In contrast, some northern and east-central Saskatchewan crop areas have reported little to no rain while a few others have received 9-28 millimeters or (0.35 to 1.10 inches) Clearly, the contrast between wet and dry conditions in July can be seen in the graphic below. There are also many areas in the Peace Country of Alberta and British Columbia as well as in areas from near Athabasca through the Cold Lake and Lloydminster areas of Alberta into northwestern Saskatchewan that have not done well with rain this month either. Each of these drier biased areas have been drier biased during much of the growing season and drought is prevailing, despite a little rain in some of these areas.

The latest soil assessment shows a huge part of south-central through north-central Saskatchewan and areas east through east-central and northeastern crop areas in the province to much of cen-



Drought Concentrates On NE Prairies (from page 1)

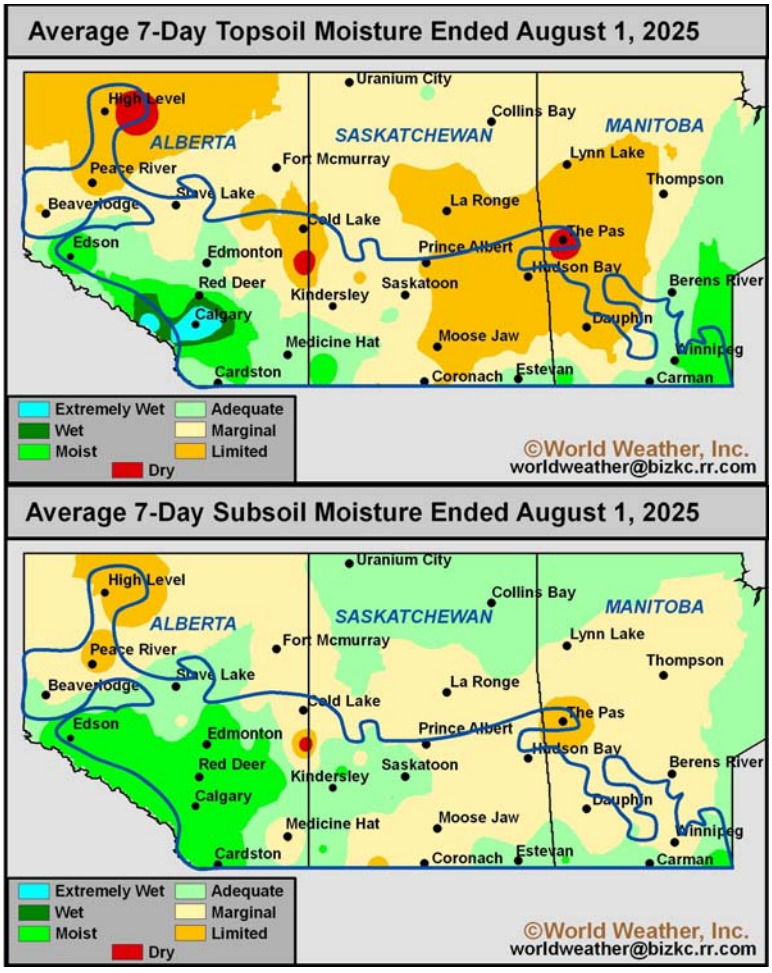
tral and northern Manitoba as being very short of topsoil moisture and short to very short of subsoil moisture. There are some locations that are and have been critically short of moisture for quite a while and production cuts occurred a long time ago. Most of those chronically dry areas have been centered upon the far northern parts of Saskatchewan and Manitoba. Many other areas in north-central and northwestern Saskatchewan and a number of areas west into the Peace River region have also been quite dry during a large part or even most of the growing season, but this comes as not new news to most producers across the Prairies.

There has been a considerable amount of variation in rainfall from one farm to another. The soil moisture maps only provide an approximation of the moisture situation. Due to data density limitations there are many other pockets that are either drier or wetter than shown here, but these images reflect the general trend across the Prairies.

Reports of crop losses have varied greatly by location and by the assessor, but there is no way that the bottom line is going to be a great crop for Canada's Prairies. With that said, though weather this year has been much improved in portions of Alberta relative to that of last year and some producers will tell you the same is true for some areas in west-central and southwestern Saskatchewan. Some areas in south-central Saskatchewan may tell you the same, but there are just as many folks seeing improved crop weather this year as there have been producers reporting much poorer conditions. Assessing production for this summer will be very difficult until the harvest is complete.

Most of the driest farms in the east and north have suffered production declines and some of the crop is already done for the season. Other farms are still teetering on notable production declines and August weather will have much to say about the bottom line for late planted canola, corn, soybeans flax and some other crops that were planted late.

That brings the forecast for August to a very high level of interest. Some producers in Alberta that have seen the greatest frequency of rain in recent weeks have been dealing with some wet weather disease and fungus issues along with a growing level of concern about early season crops maturing in a wet environment. Southwestern parts of the Prairies are ready for some drier weather while the need for a little more rain in the first half of August in all other areas remains high especially if temperatures are going to rebound into a warmer than usual mode.



The Prairies have been largely blessed by the lack of excessive heat this year. Some the rainfall patterns seen in recent weeks were reflecting those of 2021 only without the heat. Had the Prairies been as hot as 2021 the impact of dryness would have been many times worse than it is.

The kind of heat that came in years 2021-2024 was largely associated with the 22-year solar cycle and the lingering effects of the 2022 Hunga Tonga Volcanic eruption. The effects of both these phenomena have passed and the Prairies were blessed with a more typical if not a little cooler summer relative to normal. The milder conditions have seriously saved so much of the struggling crops across the Prairies.

August temperatures will be a little warmer than usual and it would not be surprising to see a couple of short term bouts of very warm to hot weather, but they should not last long. There will also be some bouts of milder conditions, but the month is not likely to be as mild as July for as long as it was mild.

The first half of August rainfall is going to look like that of July, but there may be little better distribution of rain for some areas in late August.

September Offers First Chance For Change

The odds are becoming a little more favorable that cooling will come quickly and easily across the Prairies during September, but there will still be plenty of warmth in the United States and that may keep a stationary or nearly stationary frontal system near or over the southern Prairies offering repetition in rainfall that may provide a more meaningful boost in soil moisture. THIS IS STILL A LOW CONFIDENCE FORECAST, though. There are conflicting signals.

Confidence is moderately high that temperatures in September will be normal to below normal and that combined with the more active weather pattern being signaled by some entities translates into more frequent precipitation. However, that kind of a forecast when trying to break from drought can be extremely dangerous. Confidence will rise over September's weather during the latter part of August, but given the forecast track record for this growing season no one should be holding their breath.

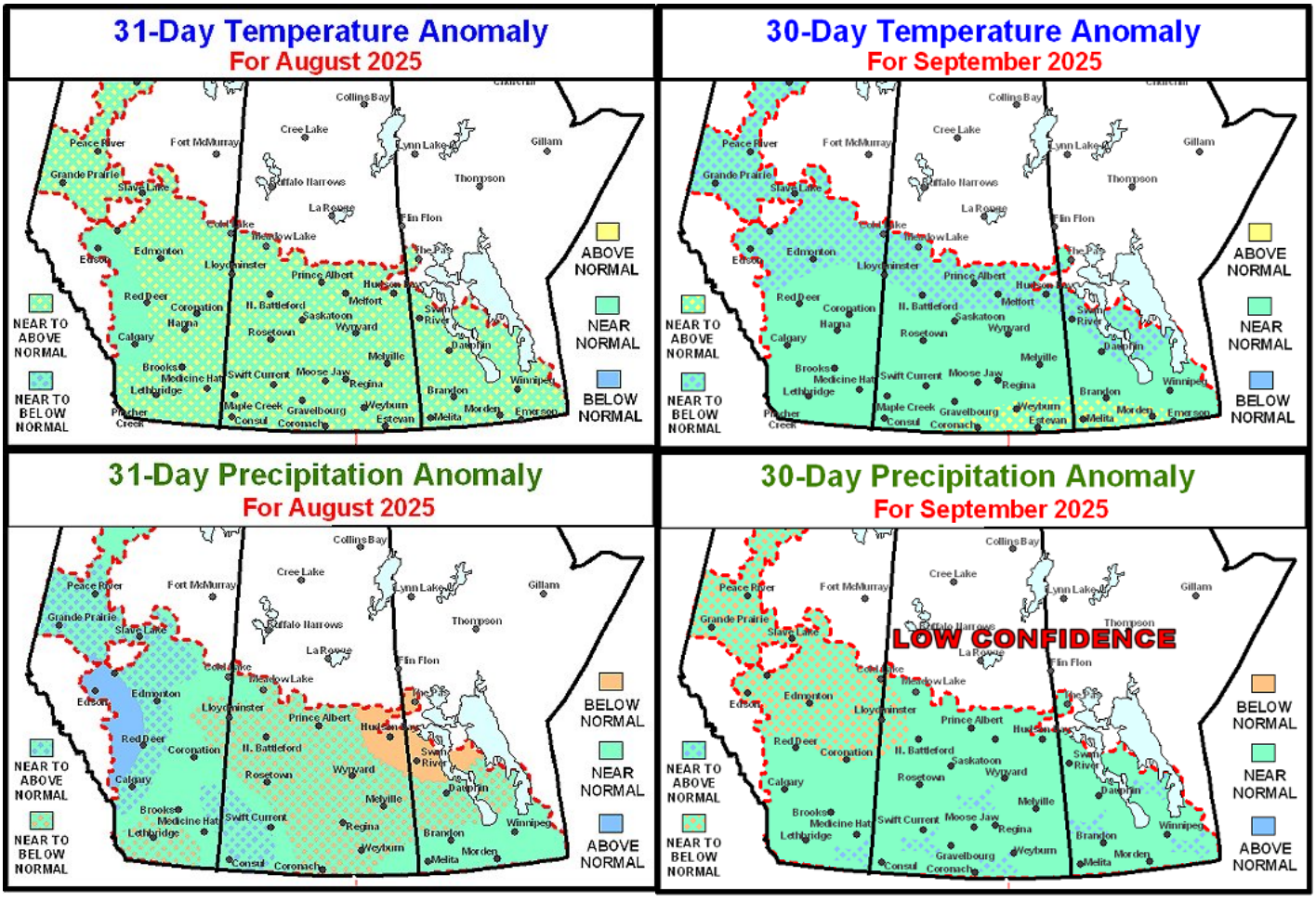
There is potential for some La Nina like conditions to evolve later this autumn which may squelch the wetter bias or at least delay its development and there may be some tendency for warming to occur too depending on how aggressive the La Nina like conditions become. Confidence in the La Nina event itself is very low.

August weather will start out similar to July with the southwest wetter than usual while the northeast is quite dry. A full week of mostly dry conditions is expected in the northeast and after that there will be some potential for showers, but resulting rainfall is unlikely to be very great.

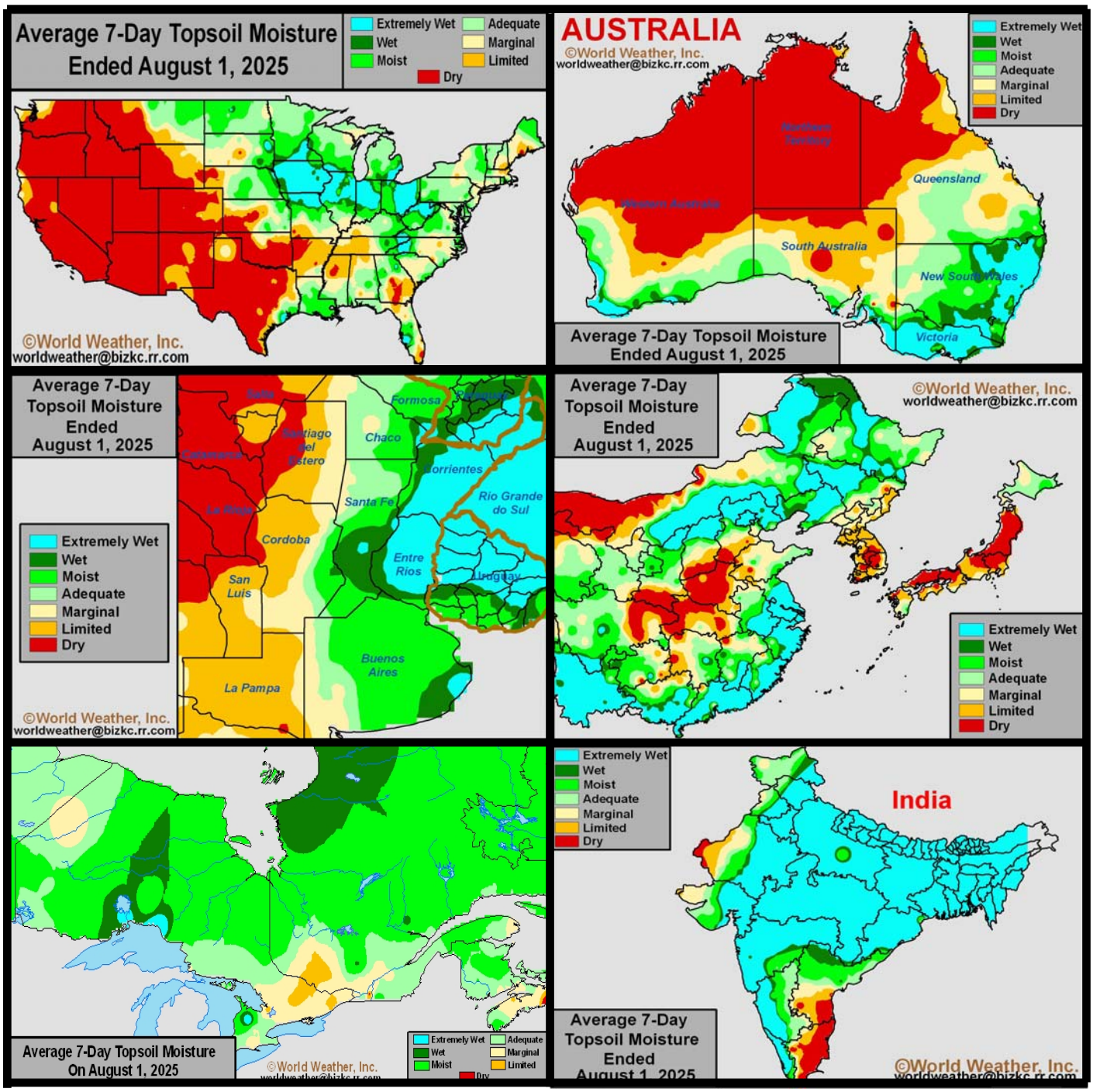
In the meantime, waves of rain will be persistent in the southwest during the first half of August and the moisture will keep temperatures a little milder than usual as well.

There is some potential in the second half of August for some cooling to begin forcing greater contrast in airmass temperatures across the Prairies and that may lead to some greater rain potential. Confidence is very low on the timing of this change. There is more confidence that this evolution toward cooling will occur in the last days of August and early September than there is for the third week of the month.

Most of the cooling expected in August will come late in the month and warm biased conditions will dominate the first half to two thirds of the month making it difficult for late month cooling to have much impact on the month's average anomaly.



Selected Weather Images From Around The World



Recent weather in the U.S. has brought timely rain to most of the Midwest corn and soybean production areas, although net drying has occurred in the Delta, Tennessee River Basin and southern Plains. Production potentials from the nation are still high, but August weather will be important. Recent rain in Australia has greatly improved soil moisture in wheat, barley and canola areas that should lead to better plant establishment prior to aggressive growth in the spring. Western Argentina wheat areas are still a little drier than desired and timely spring rain will be needed to get the crop better established, although most of the nation's wheat and barley is in much better shape than last year at this time. China's dryness in east-central parts of the nation will last for several more days and then relief is likely. India's crop moisture remains very good and no change is likely except rain will fall in the far south. Ontario and Quebec soil moisture is also rated favorably for good production.

Autumn Analogies: Persistence May Be The Best Forecast

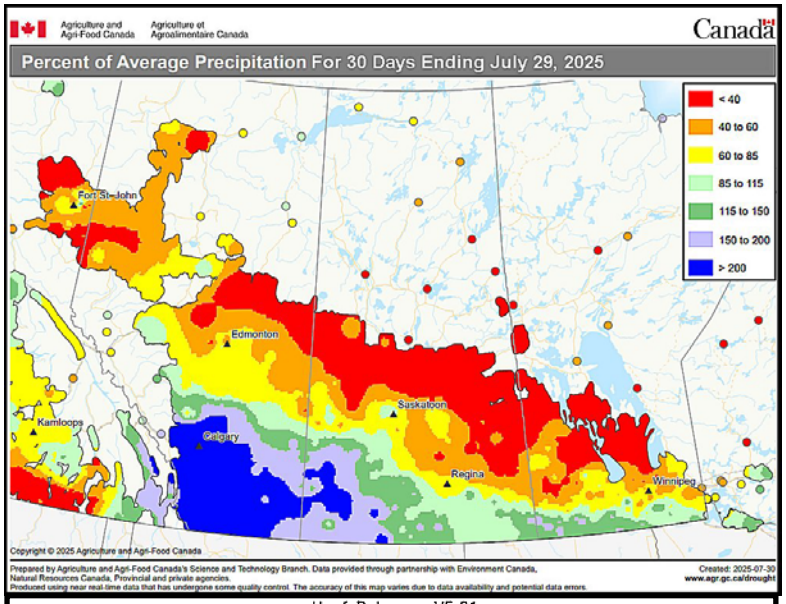
The most recent 30 days brought a notable boost in precipitation to central and southern Alberta and west-central into southwestern Saskatchewan. Some areas reported more than twice the usual rainfall and that brought up soil moisture to more favorable levels in southwestern Saskatchewan and southeastern Alberta; however, a few areas in west-central Saskatchewan had already reported good rainfall in June and the precipitation led to a handful of locations in the area to become a little too wet.

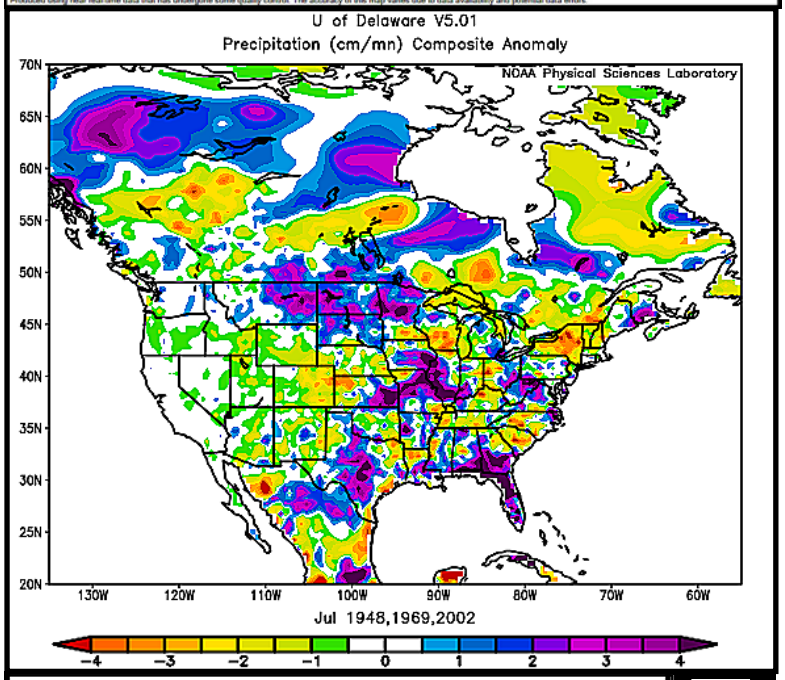
A wet bias has also evolved in southwestern Alberta where concern about wet weather disease and delayed early season crop maturation and harvesting was raised. The need for drying in a few areas was becoming great, but not as great as the need for rain in northern parts of the Prairies.

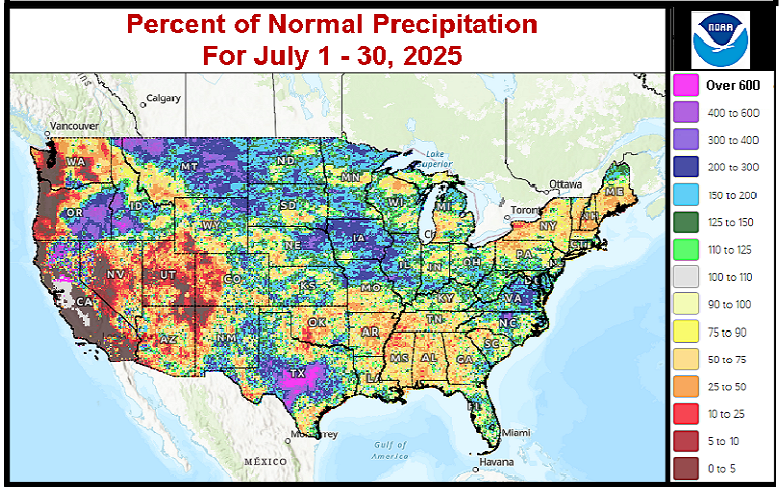
Below normal July rainfall anomalies in northeastern parts of the Prairies were nearly as great as those in May and some areas had been reporting extremely poor rainfall since the beginning of the year. Parts of the Peace River region have also dealt with dryness; though it began last summer. Partial relief to dryness has been reported for brief periods of time in recent weeks in the Peace country, but not so much in other northern Prairies' locations.

Earlier this year World Weather, Inc. presented a list of 7 post solar cycle maximum years in which we studied along with the 18-year cycle data to see if some kind of parallel existed between this year and those of the past. The composite of the 7 post solar cycle maximum years came closest to the weather this year. Further research in the seven years found three of the seven to be somewhat similar to the dryness across the northern Prairies as seen in July. Those years were 1948, 1969 and 2002. The composite rainfall imagery from the study is shown as the middle map on the right side of this newsletter page. Take a look at the map ad see what anomalies agree and disagree with the other two maps showing percent of normal rainfall for the U.S. and Canada's Prairies during July.

The northern Prairies were drier biased in the 1948, 1969 and 2002 composite while the southern Prairies were wetter biased. The anomalies do not match in magnitude; though, the areas involved were similar. A similar parallel can be seen in Montana, the northern U.S. Plains, Iowa, Illinois, Missouri and parts of Kansas as well as central Texas which were all wetter biased this year as they were in the past. Rain in the eastern Midwest was more varied, but similar to these past years. The U.S. Delta and Tennessee River Basin were drier, biased, but this anomaly appears in the 18-year cycle







Persistence May Be The Best Forecast (continued from page 5)

and the 7 post solar maximum years as well as showing up in a 1968 parallel that was present in the United States this year.

It is fun to find these years of similarity, but they are useless if they cannot be used as a proxy in long range forecasting. This summer has shown proof once again that quite often persistence is the best forecasting tool. If there is no confident sign that patterns will change it is sometimes best to keep the same pattern in place until a more identifiable pattern change becomes evident.

Persistence would have been the best forecast this year for the northern Prairies since the weather pattern in May and July was quite similar keeping the north drier biased and in the case of the northeastern corner of the Prairies those areas have been drier than usual since the beginning of the year. "Hindsight is 20/20" as the old adage states and that was certainly the case this year.

Despite the similarities between July of this year and the weather of 1948, 1969 and 2002, caution is needed in using these years in the official forecast. Weather patterns do not appear to be changing for the first half of August and that suggests the rainfall anomalies for the entire month may look more like those of last month than like the composite graphic for August shown above. The official forecast will be based on a blending of these patterns. Continued limited rain in this first half of August in the northeast half of Saskatchewan and much of Manitoba will put crops in those areas at risk of continued below normal precipitation for the entire month, despite the potential for some wetter conditions in the second half of the month.

That latter statement is most important. The odds are very good that dryness will continue to be a serious concern for northeastern Saskatchewan and central and northern Manitoba in the first half of August and that will push the most drought stressed crops well beyond the point of recovery even though some fields were already in that state in late July.

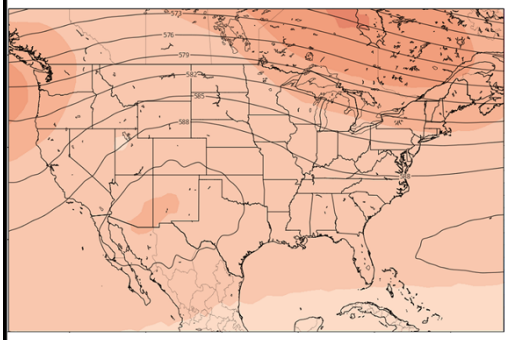
In the meantime, there is still much support for British Columbia and a part of the Peace River region of Alberta to experience additional rain in August. Some areas may trend a little too wet, but most likely the wet pattern will be disrupted in a timely manner to help field conditions dry down a little before the next wave of rain arrives. The Peace country and northern Alberta are no longer expected to be quite as wet as previously suggested, although the recovery from dryness will continue.

The orientation of the upper level high pressure ridge over central North America will determine much about August and September weather. The ridge is not likely to be seriously strong and there is support for cooler air to return across Canada in early September and possibly late August. That cooling trend should set the stage for some greater rain to fall across portions of the Prairies with the east possibly more favored than the west.

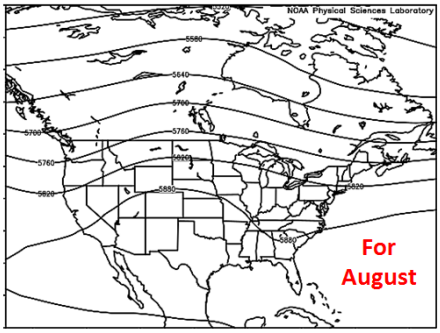
Most of the rain that evolves in late August will likely fall too late in the season to seriously improve production potentials in the most drought stressed fields and there may be some delay to early season fieldwork. World Weather, Inc. does not believe rain that occurs in late August will be great enough to seriously disrupt fieldwork or threaten crop conditions, but it will arrive a little too late to be of much use to this year's production.

A milder weather pattern during the autumn this year along with some greater rainfall at times may leave the Prairies in a better position to enter 2026 with an improved moisture profile and production potential.

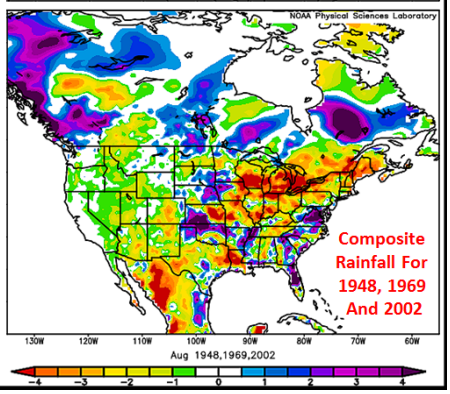
CFS Predicted 500mb Heights For August 2025



1948, 1969 and 2002 500mb Composite



Despite the similarity between the CFS predicted upper air wind flow pattern and that which occurred in the composite years of 1948, 1969 and 2002 some adjustment must be made to the forecast. The official forecast shown on page 3 of this prognosticator shows how the official forecast was modified. Persistence is sometimes the best forecast and some of that has been applied to the official outlook.



September May Bring A Chill To The Prairies

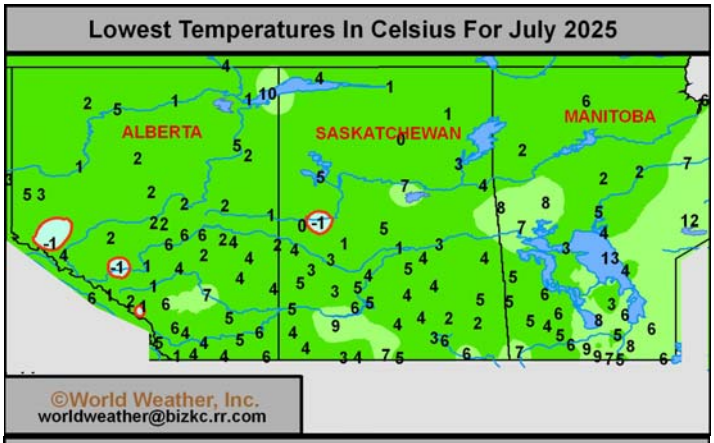
July temperatures bounced around greatly, although the month was generally milder than many had feared. Computer forecast models and some private forecasters were predicting hot temperatures for the summer, but as it turned out most of the heat in July was of short duration. The combination of periodic milder-than-usual temperatures and smoke from the northern fires helped keep temperatures quite reasonable.

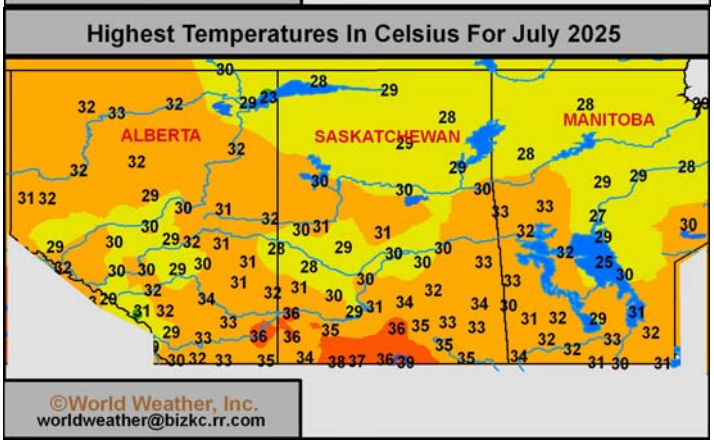
With that said, there were a few bouts of unusual cold during July and soft frost was noted a few times in parts of the Prairies. Most of the cold ended up not having a very big impact, although freeze conditions did occur briefly at High Level, Spiritwood, Meadow Lake, Sundre and a few neighboring areas. Most of the temperatures stopped short of being a serious threat to production, but the cool conditions were still disturbing.

World Weather, Inc. continues to monitor a 45-day cycle of cool weather that keeps appearing in the Prairies this year. The cycle first evolved in late October 2024 and has been cycling in and out of the Prairies ever since. Most of these intra-year short term patterns dissipate during the late summer or early autumn, but the coolness in July was of some concern due to the fact the coolness not only came a week earlier, but it stayed several days longer.

Earlier this year, World Weather, Inc. speculated that if the peak of the July cold cycle occurred around July 23 there would be some potential for frost and light freezes in the first and third weeks of September. The July cold peaked twice, once on the 15th and again on the 23rd verifying that the 45-day cycle was still around.

Recent and ongoing research for September has suggested a general cooling during the month that may bring down the temperatures with or without the 45-day cycle repeating. The cooler bias expected in September will be brought on by early season cooling in the higher latitudes and that will likely induce greater cloudiness and periods of precipitation which may help hold the temperatures up at night while keeping the afternoon readings below normal.





If the September cooling occurs with precipitation there would not likely be a threatening frost or freeze event, although harvesting could be disrupted and for some of the moisture sensitive crops there might still be a crop quality issue. Most crops in the Prairies should be on a normal to earlier than usual maturation pace because of dryness during the growing season. The exception to that may be in southwestern Alberta where the wet weather of late has slowed crop maturation rates. In other areas, like the drought stricken areas of the northeast, crops are going to be mature much earlier than usual minimizing the concern over frost and freezes. Production will have already been slashed by the drought even though freezes might not have much impact.

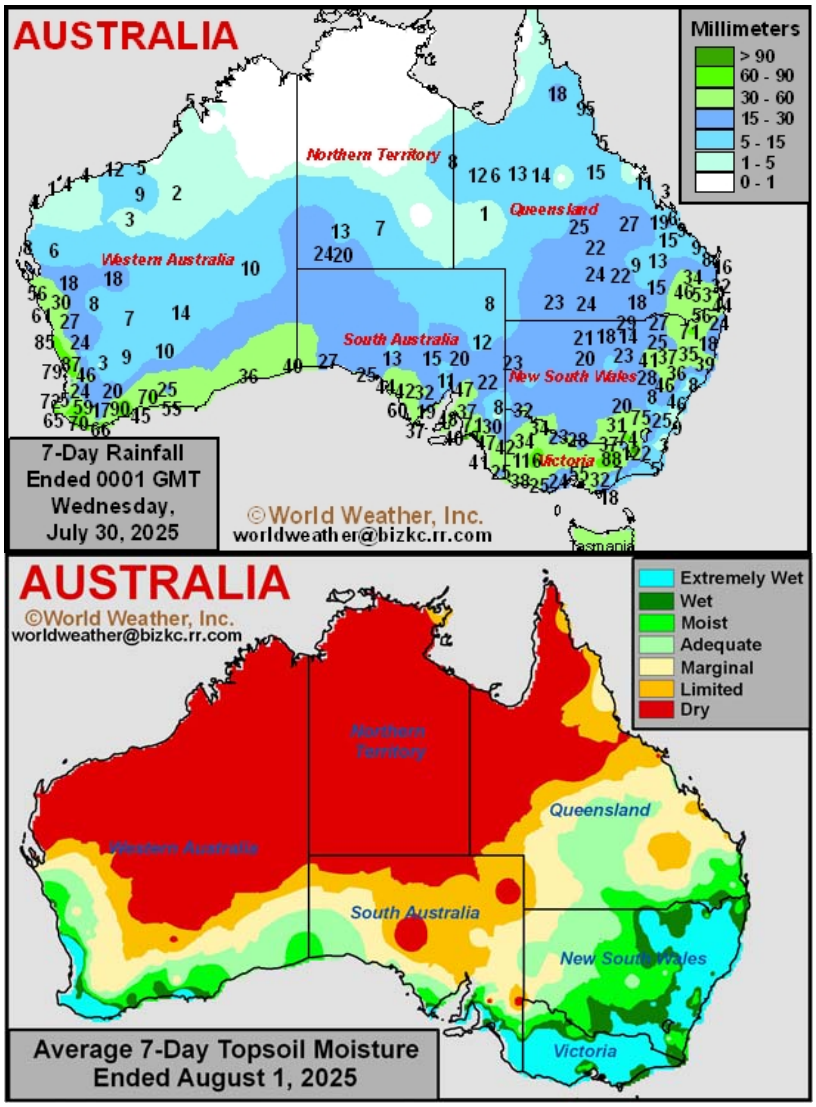
There is always some potential for the tropics to become so active that a strong ridge of high pressure builds up in the central parts of North America and pushes the cold back to the north, but that seems a little doubtful this year. The lack of strong ridge building in most of the Northern Hemisphere this summer has resulted from greater cool air in the higher latitudes and warmth in the lower latitudes which has made the jet stream quite strong. Strong jet streams in the autumn usually restrict big high pressure systems from evolving, but the situation does not always remove the risk of frost and freezes. The risk of cold damage to crops should be low unless August turns much wetter.

Eastern Australia Rainfall Welcome; More Needed

Queensland, interior portions of South Australia and New South Wales saw welcome relief from dry conditions during the past week. Periods of rain helped improve short-term conditions for the winter wheat, barley and canola; although, more rain was needed. Western Australia, southeastern South Australia, and Victoria saw several waves of rain during the past week that helped maintain favorable long-term production potentials. Periods of rain will continue for Western Australia through the middle of next week. Wheat, barley, and canola conditions will remain favorable. Other production areas will either receive light rain or will be mostly dry through the middle of next week. Queensland and portions of New South Wales will again dry down and the need for timely rain will increase later in August.

Recent rainfall helped improve topsoil moisture to adequate or marginally adequate levels in much of Queensland and New South Wales. However, Queensland and portions of interior South Australia and interior Western Australia still have short or very short subsoil moisture. Southeastern South Australia, Victoria and a few areas in New South Wales have adequate to excessive topsoil moisture, although it will not take long for the surplus moisture to soak deep into the ground.

Winter wheat, barley, and canola prospects remain favorable in a large section of Western Australia, South Australia, and Victoria despite some fields being a little too dry during the planting season. Rainfall over the winter has helped improve long-term production potentials for these areas and New South Wales. Recent precipitation was also welcome for Queensland; although more moisture was needed restore soil moisture to normal.

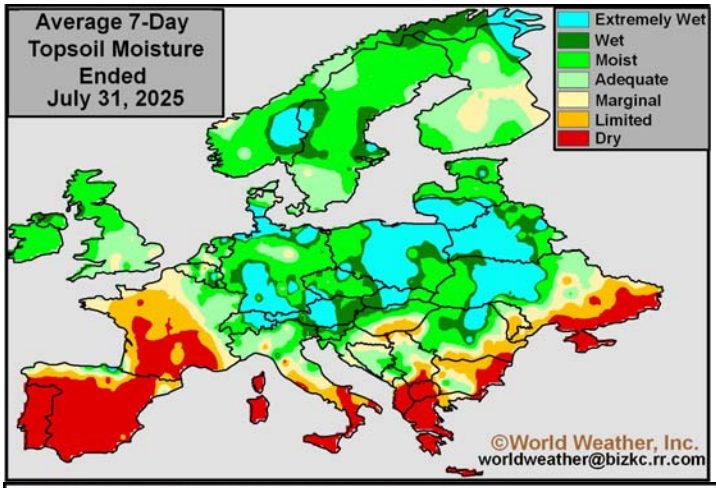


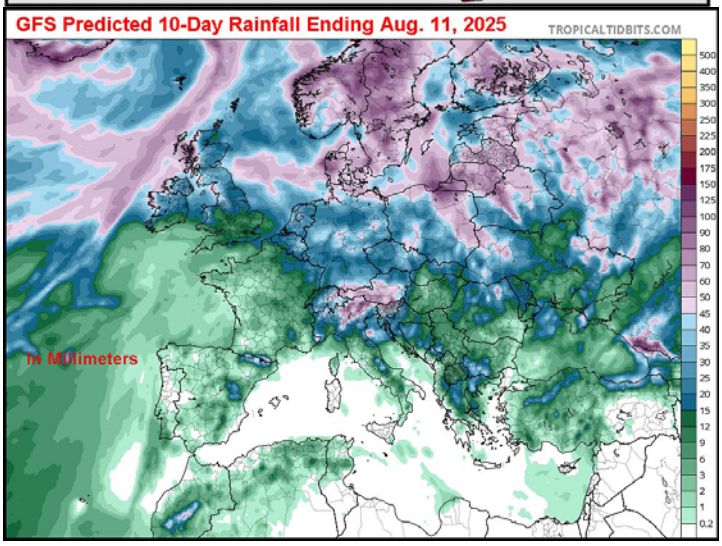
Western Australia and portions of northern New South Wales and southeastern fringes of Queensland will receive 0.40 to 1.50 inches of rain by the end of next week with a few areas to get upwards to 2.00 inches. South Australia, Victoria, and other areas in New South Wales and Queensland will either be dry or not receive enough rain to impact long-term soil conditions. The main production areas will again have a few opportunities for erratic rainfall August 7 -13.

Winter grain and oilseed potentials are favorable, although poor establishment earlier this autumn and winter may have a small negative impact on production, but much of that will be determined by early spring weather. Periods of rain and mild temperatures over a few weeks this spring would provide the best recovery potential whereas if temperatures suddenly turn very warm and conditions dry out the poorly established crops will not have time to improve enough to bring back the best yield potentials. World Weather, Inc. anticipates a relatively good mix of weather this spring to support production in a favorable manner.

France, Lower Danube River Basin Drought Unchanging

Drought and unusually dry-biased conditions have dominated much of this growing season in France and the lower Danube River Basin. Weather during this past week did include some rain; although, amounts and coverage were well below that which was needed to fix the situation. Despite the short term bout of relief for some areas, the majority of both regions still have a huge need for significant rain to stop the decline of unirrigated crop production potentials and the next ten days will continue drier biased. Other areas in Europe received enough rain to maintain relatively favorable crop conditions during the past week and additional moisture during the coming week will continue to support good crop prospects.





Many areas in France, the lower Danube River Basin, and much of the Iberian Peninsula and the southern two-thirds of Italy continue to have short or critically short soil moisture. While dryness is common in Spain and Italy this time of year, ongoing dryness in France and the lower Danube River Basin continues to promote a less than favorable to poor environment for the grains, oilseeds, and other crops produced this time of year. Some of the drier biased areas in France and neighboring areas of the U.K. have been dealing with below normal precipitation most of this calendar year. All of the drier biased areas have struggled with dryness for much of July and production potentials in unirrigated areas have been slipping lower. A general soaking rain in the near future would still be welcome to support better late-season development.

The remaining production areas in Europe have adequate to excessive topsoil moisture. The environment remained relatively favorable for aggressive growth, even in areas that have abundant moisture. Production potentials remain favorable.

The United Kingdom and Ireland through Belgium, Netherlands, Germany, and Denmark into Poland, Belarus, the Baltic States, and western fringes of Ukraine will receive 0.50 to 3.00 inches of rain by next Thursday morning. However, pockets in southern England will only receive 0.10 to 0.50 inch of rain. Eastern fringes of France and the remaining locations in Eastern Europe will receive 0.10 to 1.00 inch of rain, though pockets in the lower Danube River Basin will receive 1.50 to 2.00 inches of moisture. Other areas in France and much of the Iberian Peninsula will either be dry or not receive enough rain to counter evaporation. A high-pressure ridge may then build over Europe August 8 – 14 and could promote drier than normal conditions for much of the continent.

France and the lower Danube River Basin will remain too dry for favorable crop conditions in the coming weeks despite some better rainfall in pockets of extreme southeastern Europe. The rain that does fall will be too light to significantly improve the moisture profile. Concern over additional production losses will increase, especially if the warmer and drier bias verifies during the second week of the outlook.

The remaining production areas in Europe will either receive enough rain or have enough moisture in the soil to maintain aggressive growth for at least the next seven days. Portions of southern England may trend a little dry next week and would welcome a boost in rain.