The Canadian Agriculture Weather Prognosticator

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<u>World</u> Weather

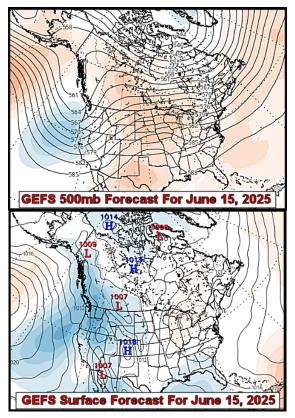
- China dryness is likely to expand, but it is not big enough to have a big impact—at least not yet
- Recent drying in southern Russia is not likely to fester into a big problem, but rain is needed
- Western Australia
 wheat, barley and
 canola areas will get
 some rain in the next
 ten days to improve
 planting conditions
- Argentina planting of wheat will be aggressive over the next two weeks
- Safrinha corn areas in Brazil received some welcome rain recently reducing some of the yield losses expected
- France is now the driest crop region in France and rain is needed, but not very likely for a while
- More flooding rain is expected in central U.S. to threaten wheat and delay farming activity.

Is It A Mirage Or Will It Really Rain

At mid-day Friday, May 30, the GFS Ensemble produced the two forecast charts noted to the right. At first glance it may look as though a new high pressure ridge aloft was being predicted over the heart of the Prairies and that might be perceived as a very bad thing since most of the region is already suffering under the recent influence of a blocking high pressure ridge over the heart of the Canada's crop region. However, these images are really quite encouraging.

The first of two thoughts running through this meteorologist's mind when running across this forecast was 'no way...the model has rarely accurately predicted a weather feature two weeks ahead of time in the Prairies. So why buy into this forecast now? The second thought was when in a desert and you are dying of thirst and you see what looks like an oasis most of the time the image of relief turns out to be a mirage.

After talking to a few producers on Friday and describing what it would take to get rain in Palliser's Triangle, these forecast maps appeared out of nowhere and looked like a mirage. The recent blocking weather pattern in North America has included a ridge of high pressure over the Prairies and a deep trough of low pressure over the central United States. This pattern is called a "rex block" and it is renowned for preventing any rain from falling near the ridge of high pressure while areas to the south close to the trough of low pressure get repetitive rain often resulting in saturated soil, flooding and a cessation of fieldwork. That is exactly what has been occurring.



While no rain has been falling in the heart of the Prairies over the past ten days it has been raining like crazy in the U.S. central Plains, lower Midwest and northern Delta region.

To break the pattern and bring rain to the Prairies at this time of year this block must go away. Instead of having a ridge over Canada's Prairies and trough of low pressure in the central U.S. we need a ridge of high pressure in the central United States and a deep trough of low pressure along the Pacific Coast that would draw moisture inland from the Pacific Ocean and send low pressure systems through the northwestern U.S. into Montana and Alberta....just like you see above. The set up is "almost" a classic environment for a

Is It A Mirage Or Will It Really Rain (from page 1)

"Montana Low" pressure system to evolve that would move both east and northward into the Prairies bringing rain with it.

Despite much pressure to present the imagery from page 1 and state that relief is just two weeks away, this meteorologist knows better. Even though the pattern would help the 18year cycle maps that were presented in previous prognosticators showing abundant rain in Alberta, southwestern Saskatchewan and the northern U.S. Plains in June to verify we must not get ahead of ourselves. The advertised weather change would be a Godsend without any question and for those of you who believe in the power of prayer this is the event we need to pray over. However, dryness in the Prairies is quite serious from eastern Alberta through most of western and northern Saskatchewan to northwestern Manitoba and weather systems coming into the Prairies have been dissipating as they move through that dry region recently proving there is no moisture to work with.

There must be a moisture source to bring rain to the Prairies and until there is such a source of moisture even "Montana Low" pressure systems will struggle to produce rain. Ending the rain in the central United States must be the first change to see. Once the excessive rain abates from that part of North America a ridge of high pressure will need to build up in the U.S. Plains and the surface wind flow must become southerly so that Gulf of Mexico (America) moisture flows northward under the ridge and through the Great Plains toward Canada.

Once that change is in place there must be a deep trough of low pressure aloft along the west coast of North America or at least a series of troughs that are along the northern California, Oregon and Washington coasts. If the high pressure ridge n the U.S. Plains is not too intense a southwesterly flow

of air aloft should evolve bringing mild and moist air inland from the U.S. Pacific coast into Montana where a surface low pressure can evolve pulling moisture from the U.S. Plains and Gulf of Mexico Coast into the southwestern Prairies. "If" all of this takes place, the contrast in airmass temperatures between the Plains and eastern Prairies warmth and the milder air from the Pacific should help induce rain and thunderstorm activity.

That is how rain falls in Palliser's Triangle and quite often when this pattern evolves storms will move both north and east out of the southwestern Prairies bringing rain to other areas of the Prairies. Sometimes, though the ridge from the U.S.

LATE MAY NORTH AMERICA "REX" BLOCK

is strong enough to limit rain in the southeastern Prairies making southern Manitoba and southeastern Saskatchewan drier and warmer biased.

Everything described in this article so far matches the anticipated weather outlook for June into early July which is why the forecast has always been tilted toward June being the best month for potential rain in some of the driest areas in the Prairies.

It is so frustrating to see so much of the Prairies suffering from dryness so early in the growing season and to see so much crop stress and potential plant development issues so soon after planting. The old adage saying "plant in the dust and your bins will bust" seems like a complete impossibility. World Weather, Inc. is not now nor has it ever suggested that would be the case for the Prairies this year. However, each of the 18-year cycle years going back to the early 1950s has shown June to be a better than average month of rainfall for portions of Alberta and sometimes southwestern Saskatchewan and neighboring areas of the U.S. Plains.

The consistency of the 18-year cycle years to show this improved rainfall anomaly does not mean rain in June is a sure thing. Obviously, many changes in the atmosphere must occur to bring significant rain to the region. That is way the GEFS forecast maps from Friday seem like a mirage rather than something

we can hang our hats on.

Just because the 18-year cycle data suggests a significant rain is possible in June does not mean that will happen. Especially in this year when the solar cycle has suggested below normal rainfall for May and June in the Prairies. Melding these two patterns together makes some sense and in doing so May was advertised to be drier than usual in most of the Prairies except

southeastern Manitoba and western Alberta where rainfall was closer to normal. Well, that is "kind of" what happened.

Melding the 18-year cycle and the solar cycle historical data for June suggested above normal rain in southern Manitoba and southeastern Saskatchewan as well as in western and parts of southern Alberta with near to below normal precipitation in other parts of the Prairies. This solution does not promote severe drought across the Prairies so there is hope that before June is over there will be timely relief from dryness. A "fix-all" rain event is not very likely, but better conditions are probable.

June, July Weather Should Better Than May

May weather was not bad in southern Manitoba, southeastern Saskatchewan or portions of western Alberta, but most other areas in the Prairies might argue heavily that it was not a very good month due to dryness and some short term bouts of heat and strong wind.

June and July will provide a little more variety in the rainfall pattern offering some of the driest areas a few opportunities for rain. The best distribution of rain may hold off until the middle and latter parts of the month, but relief is expected. How significant the relief will be remains to be seen, though many of the drier areas today will receive enough moisture to revitalize crops. Unfortunately, some areas in the north may still be dry enough to continue the worry over production.

Most areas in the Prairies will get

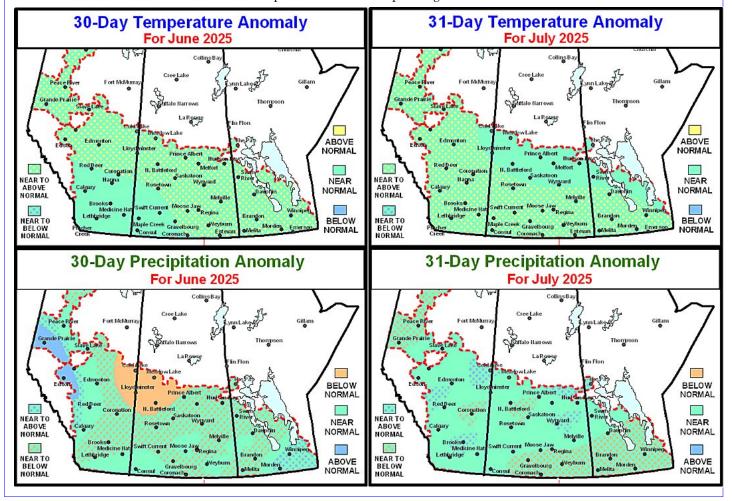
rain in June and July. A full restoration of low subsoil moisture is not very likely and the timeliness of rain will be very important. Temperatures will be warm at times keeping evaporation rates high which is likely to lead to an ongoing need for rain in many of today's driest areas even though some relief is likely.

The warmer temperature bias will be different from that of recent past years. There should not be a "super" ridge of high pressure that dominates for weeks this summer. An active weather pattern should bring disturbances around frequently enough to limit the duration of the hottest weather. That in combination with some periodic rainfall should support crops a little better than feared with the spring pattern producing net drying conditions for the middle twothirds of the Prairies. Unfortunately, the proof will be in the "pudding" and

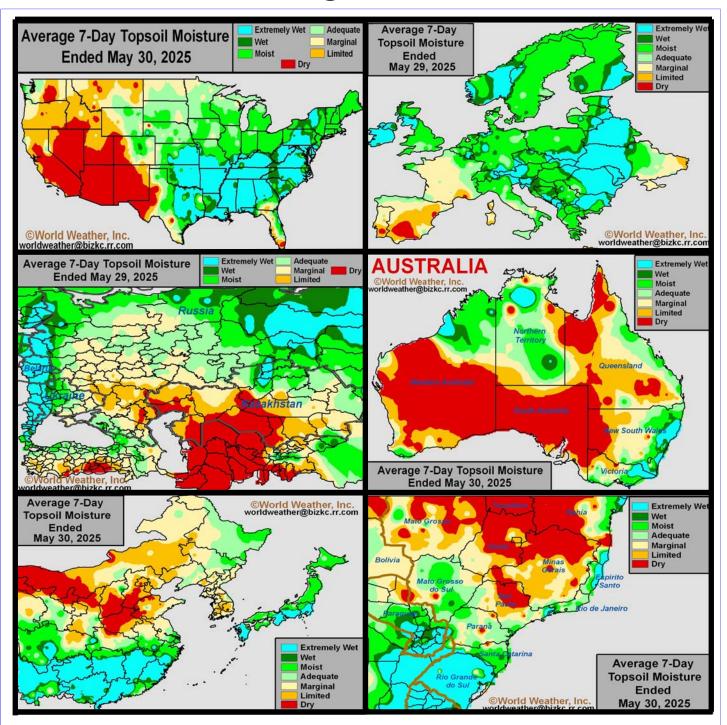
patience will be necessary—not that anyone in the Prairies has not shown patience with the past few years of challenging weather.

A portion of the south-central Prairies and possibly a part of the south-east could trend drier than usual in July. There is potential for a larger part of Manitoba and the southeast-ern part of Saskatchewan to have a more significant drier bias during the month which will make the greater rain that fell in late May and that which comes in June of great importance.

Looking forward into August the outlook is expected to trend wetter than usual in western and northern Alberta with timely rain in many other areas, although some dryness may prevail in the southeastern part of the Prairies raising some concern over possible late summer crop stress.



Selected Weather Images From Around The World



Central and southeastern portions of the U.S. Plains and areas from the Ohio River Valley southward through the Delta to the Tennessee River Basin are still dealing with excessive moisture. Crop weather in other areas is mostly good. France is now the most anomalously dry region in Europe and another week of limited rain and warm weather is predicted. Spain and Portugal normally dry out at this time of year. Russia, eastern Ukraine and western Kazakhstan are becoming too dry once again and the trend will last one more week before there is opportunity for rain once again. Australia's dryness is a big worry for wheat, barley and canola producers and traders especially since Canada is also having some trouble getting rain to fall in the Prairies. China still has drought in the central Yellow River Basin and it will expand to the east into the North China Plain during early June while timely rain falls in NE China. Some Safrinha corn areas of Brazil received significant rain recently to help improve yields in late-planted fields.

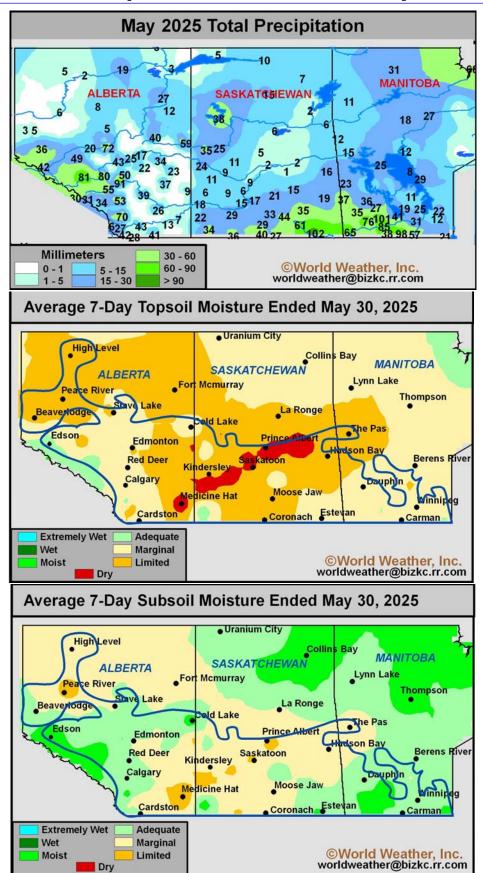
Prairies Weather, Soil Snapshot At The End Of May

Weather conditions in May were highly varied across the Prairies. The forecast for improved rainfall in southern parts of the region verified to some degree with the late May rain event that brought improved soil moisture briefly to southern Manitoba and southeastern Saskatchewan. The rain event was not expected to do more than bring a break from drying and that is more or less correct, although a few areas came in with some significant moisture totals that are still carrying crops favorably.

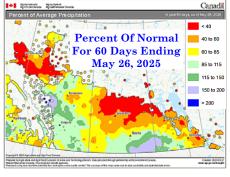
Southwestern Alberta was wettest with areas near the mountains seeing rain multiple times to improve soil moisture; however, dry weather and warm temperatures late in May did bring on some firmer soil.

By far, the greatest problems with dryness during May, and for many areas the majority of the growing season, have been in the Peace River Region and from eastern Alberta through western and northern Saskatchewan. The Peace country has been struggling dryness since late last summer, although there were a couple of rain events recently offering a little break on the British Columbia side of the border. Some areas in northern Saskatchewan and a few in northeastern Alberta and far northwestern Manitoba have received little to no moisture since early this calendar year. Lastly, of course, there are some areas in the southwestern parts of Saskatchewan and eastern Alberta (in Palliser's Triangle) that have been dealing with some level of dryness and drought for 8-9 years.

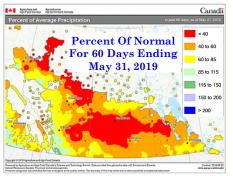
Subsoil moisture is favorable in some northern and western Alberta locations (away from the Peace region) and from southeastern Saskatchewan through much of central and southern Manitoba. These are the areas that received the greatest rain earlier in May. Dryness in some central parts of the Prairies and Peace River region has delayed emergence and establishment.

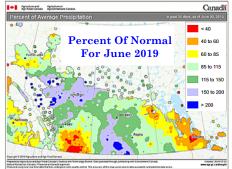


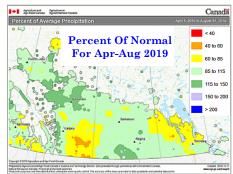
Comparing This Year's Dryness With Other Recent Years

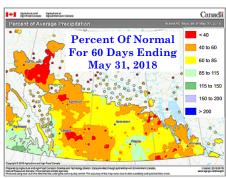


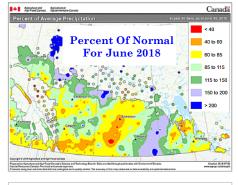
The poorest rainfall over the 60-day period ending May 26, 2025 was in the Peace River region and across northern Saskatchewan. Dryness has also been quite serious in a few areas in SW Saskatchewan and SE Alberta. The percent of normal rainfall map to the left does not accurately reflect how much of the Prairies is running low on soil moisture today, but it does give us a gauge to use for finding other recent years of similar or worse dryness in the same 60-day period. The years 2019, 2018 and 2015 got off to worse starts than this year, although those years were not coming off of a multi-year drought as we are today. The first column of maps are for the 60-day period ending May 31 for those other drier years. The middle maps are for June and the far right maps are for the growing season thru Aug. 31 of the same years.

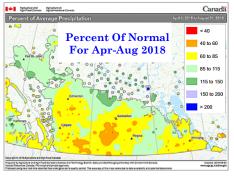


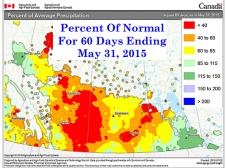


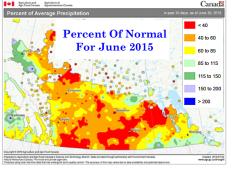


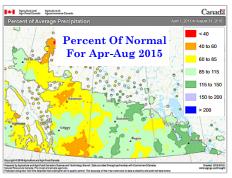












These images are too small to reveal detail. Let your eyes guide you into determining which periods are dry and wet. Notice that 2015 was the only April/May dry period that was followed by another month of dryness in June. Relief did occur in both 2018 and 2019 in June, although the southwestern corner of the Prairies did not get much relief in either year. Also notice that some flavor of dryness remained in parts of the Prairies for the growing season from April through August. This would not be surprising for this year as well, although World Weather, Inc. believes the Peace River region will end up with a wetter bias for April through August . Also be careful to keep in mind that below normal precipitation does not have to be a problem if what rain does fall occurs in a timely manner. This year's weather is not expected to be as dry as it has been in the April/May period through the entire growing season. Relief is expected. Ideal conditions are not very likely, but enough rain should fall to eek out a favorable production year.

North China Plain Will Continue To Dry Down

Despite some spotty rain during the past week, dryness prevails for a large portion of China's North China Plain and central Yellow River Basin. Much of the rain that fell was either

lost to evaporation or too light to impact long-term soil conditions. Precipitation will remain limited for at least another ten days with temperatures gradually rising above normal. The ground will remain too dry or become that way to support unirrigated spring and summer crop emergence, and establishment. Winter wheat will be sped to maturity with quick harvesting to follow.

The Vegetative Health Index for China is reflecting the more stressful weather that has evolved recently; however the situation has not yet reached a critical point. Rain that fell in Shandong, Hebei and some immediate neighboring areas during the week ending May 20 induced some short term improvements in crop conditions especially in Shandong and Hebei. This more recent past week (ending May 28) brought dry weather back to Shandong and Hebei while some rain briefly brought some relief to Shaanxi, Shanxi, Henan and neigh boring areas.

Soil moisture is rated adequate to excessive in much of southern China and the Yangtze River Basin. Localized flooding was possible in areas that received the greatest amount of rain; though, precipitation was spread out enough to limit severe flooding. Crop and structural damage were suspected of being minimal. Soil moisture is rated short to very short

Average 7-Day ©World Weather, Inc. worldweather@bizkc.rr.com **Topsoil Moisture** Ended May 30, 2025 **Extremely Wet** Wet Moist Adequate Marginal Limited Drv 10-Day GFS Forecast Rainfall In Millimeters Ending June 8, 2025

> in much of the North China Plain and central Yellow River Basin into portions of Inner Mongolia. Northeast China has adequate to marginal

ly adequate moisture.

Ongoing dryness in unirrigated areas of the North China Plain and central Yellow River Ba-

sin continues to promote less than favorable germination, emergence and establishment conditions for coarse grains, oilseeds, cotton, rice and other crops. There is still time for improved rainfall prior to the end of the planting season which comes later in June, but time is running down since the next ten days will be dry biased and warm.

Drier-than-usual weather will prevail for the North China Plain and central Yellow River Basin through the end of next week and possibly into the following weekend. Scattered showers will still evolve from Shaanxi and Henan into northern Anhui and immediate neighboring locations Thursday and Friday of this week with the passage of a disturbance. Another disturbance tracking near the region will promote light rain over the weekend. Portions of Shaanxi, Henan, northern Anhui, and neighboring locations will receive 0.25 to 1.00 inch of rain with local amounts of 2.00 inches or more in southern Henan by next Wednesday morning. Oth-

er production areas will either miss out on much of the rain or not receive enough to counter evaporation. Below normal precipitation will prevail June 5-11 as well.

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Western Australia To Receive Three Waves Of Rain

Parts of New South Wales, Victoria, and pockets in South Australia, Western Australia, and southern Queensland saw periods of spotty rain during the past week. Overall,

rainfall was too light to fix the moisture deficits and much more rain was needed. New South Wales has the best planting moisture today and Western Australia is expecting at least three waves of rain from late this week through the end of the first week in June to improve planting moisture. South Australia will be driest over the next ten days and only limited rainfall is expected in Victoria. New South Wales and Queensland where more precipitation is needed to get crops planted, emerged and established.

Victoria and South Australia was drier or much drier than normal during the past month with only 25-50% of normal rainfall reported for the 30-day period ending May 25. Queensland, New South Wales, and Western Australia also received near to below normal precipitation.

ginally adequate in central New South Wales and portions of Victoria. Other production areas in Australia continue to have short or critically short soil moisture despite the periods of spotty

Extremely Wet ©World Weather, Inc. worldweather@bizkc.rr.com Moist Adequate Marginal Limited Wheat Production Areas Average 7-Day Topsoil Moisture Ended May 30, 2025 500 400 350 300 250 225 200 150 Northern 125 Territory Queensland 60 50 45 40 35 30 25 20 15 12 By TropicalTid **ECMWF Model Predicted 10-Day** 3 Rainfall In Millimeters Ending Dawn June 10, 2025

rain.

Planting of the winter grains and oilseeds is ongoing in Australia. Ger-

mination and establishment conditions have been less than favorable, notably in the driest areas of Western Australia and South Australia. Spotty rainfall during the past

> week was welcome where it occurred, though the main production areas are in need of much more rain for ideal long-term crop prospects.

> Three waves of rain are expected to pass through Western Australia during the coming week and some rain is also predicted for eastern portions of the nation next week. The moisture totals resulting are not likely to be substantially great, but wheat does not require a tremendous amount of moisture to germinate and begin development. Follow up rain will certainly be needed, but the moisture totals varying from 0.20 to 0.75 inch in most production areas by June 10 should be sufficient to help ease dryness and support more aggressive planting and emergence.

Crop areas near the coasts will likely receive greater precipitation amounts with parts of Victoria getting 1.00 to 2.00 inches and the same may oc-

cur in southeastern parts of South Australia and near the southwest coast of Western Australia.

Soil moisture is adequate or mar-

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