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The Canadian Agriculture Weather Prognosticator

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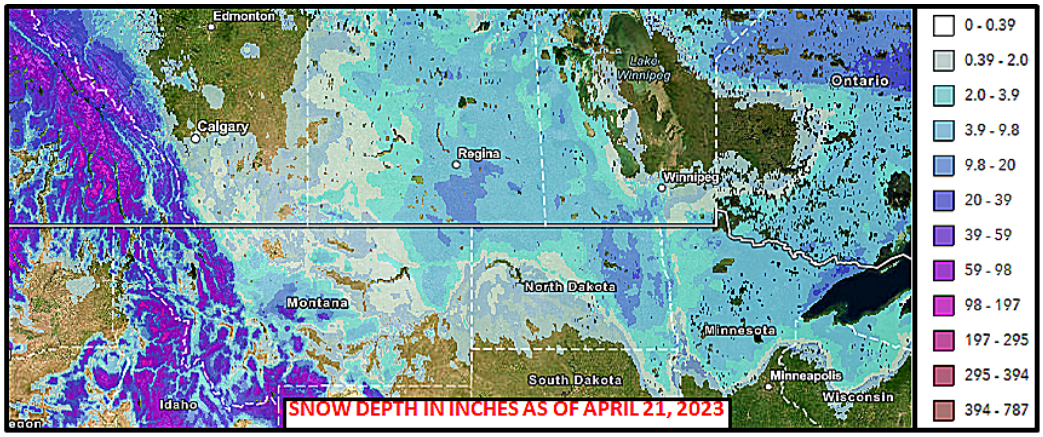
World Weather At A Glance

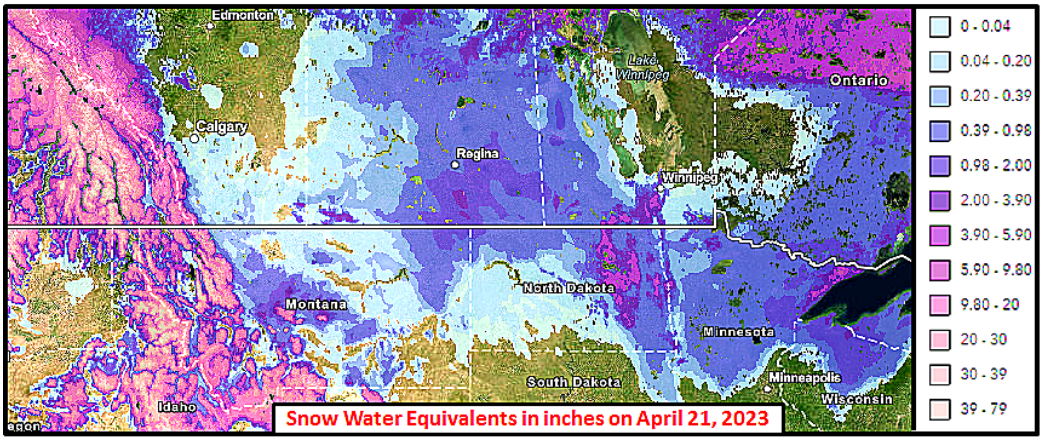
- U.S. hard red winter wheat areas are likely to get rain soon
- Russia's spring wheat region will begin drying down next week.
- India may be facing a wet finish to April and start to May raising some potential crop quality issues
- Spain and North Africa are still too dry hurting durum wheat
- Australia needs more rain in the south, but some fieldwork has begun in wheat, barley and canola areas
- Argentina is still dry, but it is good for harvesting
- Brazil's Mato Grosso will get timely rain for Safrinha corn
- U.S. Midwest corn planting to be slow until warming resumes
- Ontario and Quebec are cooling down again after a short bout of warm weather

Western Prairies Planting Prospects Improve

Portions of Canada's Prairies have seen nothing normal in the spring weather pattern so far this season. Below-normal temperatures have been the largest anomaly impacting the region. However, very poor soil moisture is still a big concern for east-central and interior southern parts of Alberta and west-central and interior southwestern parts of Saskatchewan. In the meantime, this week's snowstorm put back some of the snow that melted earlier this month and between the new snow and cold soil temperatures fieldwork will be on hold for a while longer. There is good news, though, western parts of the Prairies will slip under the influence of a high pressure ridge aloft in late April and early May which promises to induce much better planting conditions.

This week's snowstorm put up to 16 inches of snow on the ground in the Weyburn area of Saskatchewan with totals of up to 12 inches occurring south southwest into northeastern Montana and near the North Dakota border. The heavier snowfall also extended north northeast to areas east of Regina. However, 3-8 inches of snow is now on the





Western Prairies Planting Prospects Improve (continued from page 1)

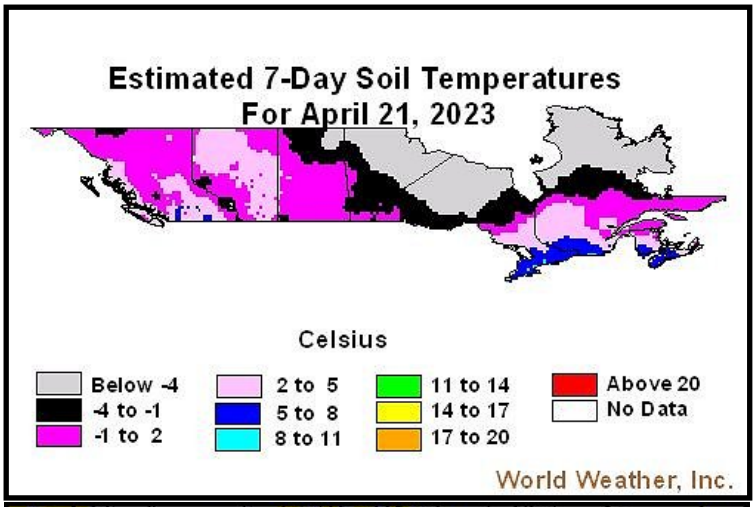
ground in many other areas from the eastern half of Saskatchewan and in western most Manitoba to the west of Lakes Winnipegosis and Manitoba.

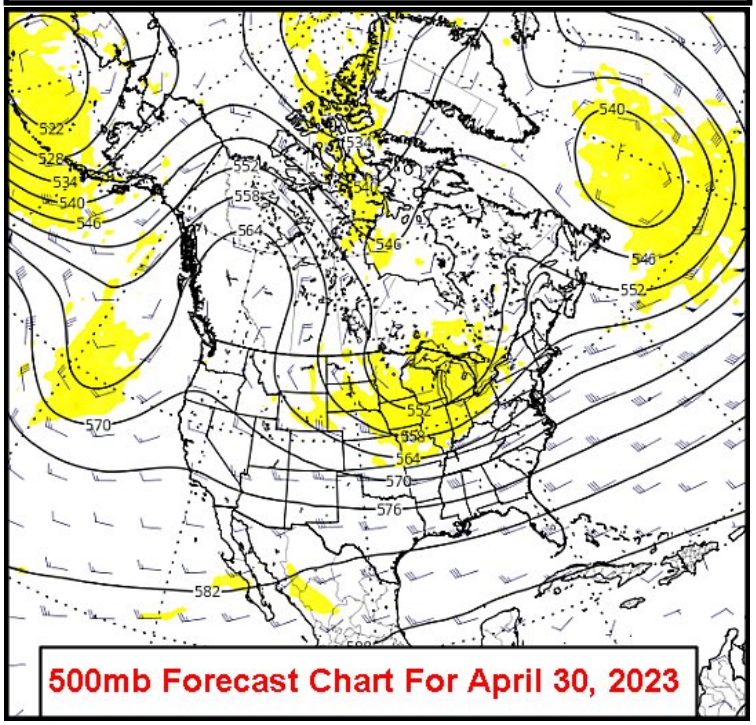
The snow water equivalents vary from 0.20 to 1.00 inch in much of the snow covered areas with some 1.00 to 2.00-inch totals suggested by satellite imagery in the deepest snow covered areas. Snow did fall in western Saskatchewan and southern Alberta, as well, but most of that will be melted away in the next couple of days. A large part of central and interior western Alberta was left snow free as was much of Manitoba's Interlake region and areas east into western Ontario at least until today (Friday, April 21).

Air temperatures this past week slipped below normal once again and that dropped soil temperatures once again as well. There is no region in the Prairies that is warm enough to support seed germination or plant emergence and for that reason there has been no planting of significance. Soil temperatures need to be above 5C to support seed germination for most crops.

Weather conditions in the Prairies will be improving this weekend and early next week. A strong surface high pressure system will settle into the central and eastern Prairies, ending all precipitation, clearing the sky and inducing sunny afternoon weather for a while. The sunshine will bring higher temperatures and that will begin melting snow. Once the snow is gone soil temperatures will have the potential to warm better with abundant sunshine.

Since much of Alberta and far western Saskatchewan is either snow free or nearly that way the first couple of sunny days will quickly translate into warmer afternoon temperatures. The warming trend will eventually bring greater warmth to the soil, but small weather disturbances will pass through the western Prairies periodically keeping temperatures a little milder than usual.





A much larger weather system will then evolve in the second half of next week that will bring widespread rain and snowfall to Saskatchewan and Manitoba favoring eastern most parts of the region. The precipitation, cloud cover and associated cooler air will stop any warm up from supporting fieldwork east of Alberta through the end of this month and possibly into the first days of May. Some light snow accumulation is possible as well.

In the meantime, while the eastern Prairies are dealing with another bout of rain, snow and coolness Alberta will be seeing more sunny days than cloudy days and the soil temperatures will begin to warm. A ridge of high pressure is expected to build aloft over British Columbia and Alberta during the last days of this month and it will persist into early May with some drifting to the east over time. The high pressure system aloft will block precipitation events from reaching the western Prairies and it will also allow air and soil temperatures to rise.

The high pressure ridge will allow soil temperatures to trend warmer, but unfortunately for some areas the western Prairies will also be dry. Dry weather in western and far northern parts of Alberta would not be a terrible thing to have, especially at this time of year when there is so much planting that needs to get done. The lack of moisture and eventual warming that occurs in late April and early May will raise soil temperatures and help get fieldwork

Western Prairies Planting Prospects Improve (from page 2)

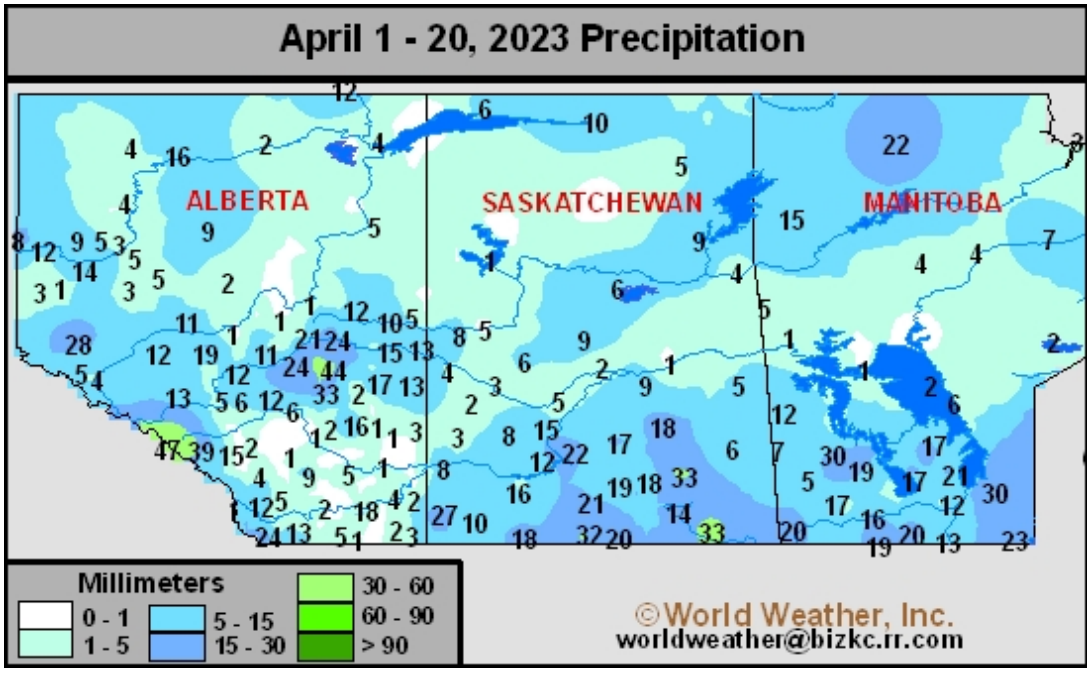
under way.

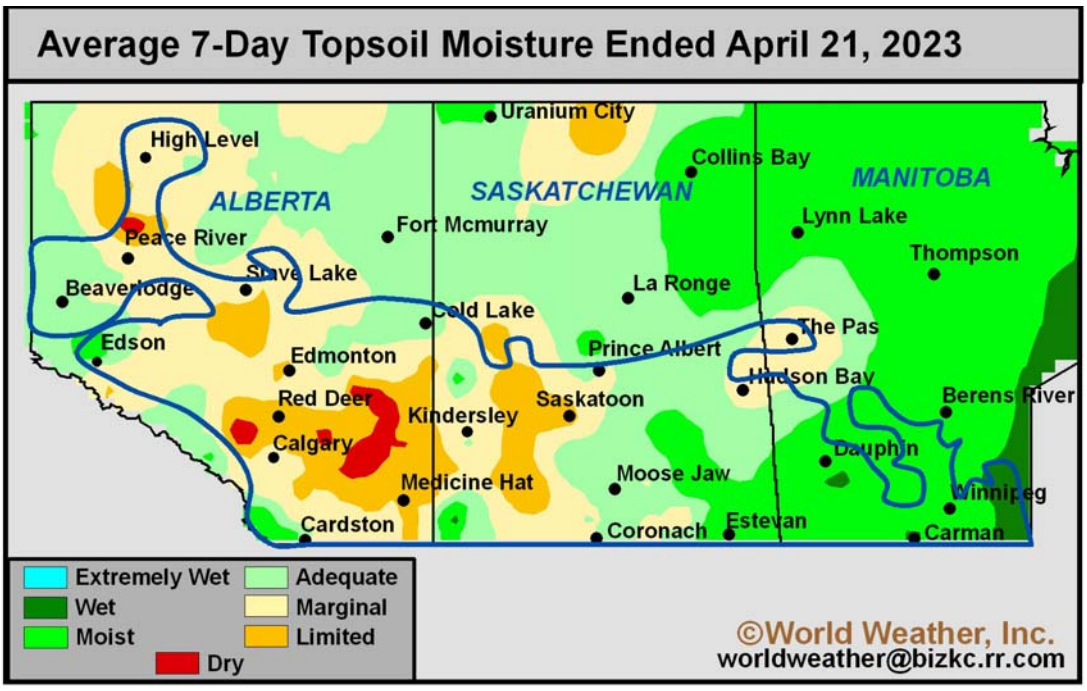
The huge ridge of high pressure will also suppress precipitation events in the eastern Prairies, although there will still be some small disturbances passing from north to south through Saskatchewan and Manitoba inducing some brief bouts of light precipitation and cooler biased temperatures. As a result, the eastern Prairies may not get ideal soil temperatures to evolve until after the first week in May, but the western Prairies should see a much better environment for planting to evolve – at least in those areas that have soil moisture.

Dryness will be the ultimate problem in east-central and interior southern Alberta where drought is already an issue. Producers will have to make a tough decision about planting or not planting in the dry soil once soil temperatures rise. The initial gut reaction would be to plant during the dry period so that when the first rain arrives seeds will quickly germinate and emerge. However, the driest areas have no subsoil moisture and once germination occurs there must be follow up rain to sustain the crop once it germinates and emerges. For areas with at least some subsurface moisture this is not going to be much of a problem. However, for the driest areas it will be necessary to wait for a while longer before planting to ensure that there will be follow-up moisture.

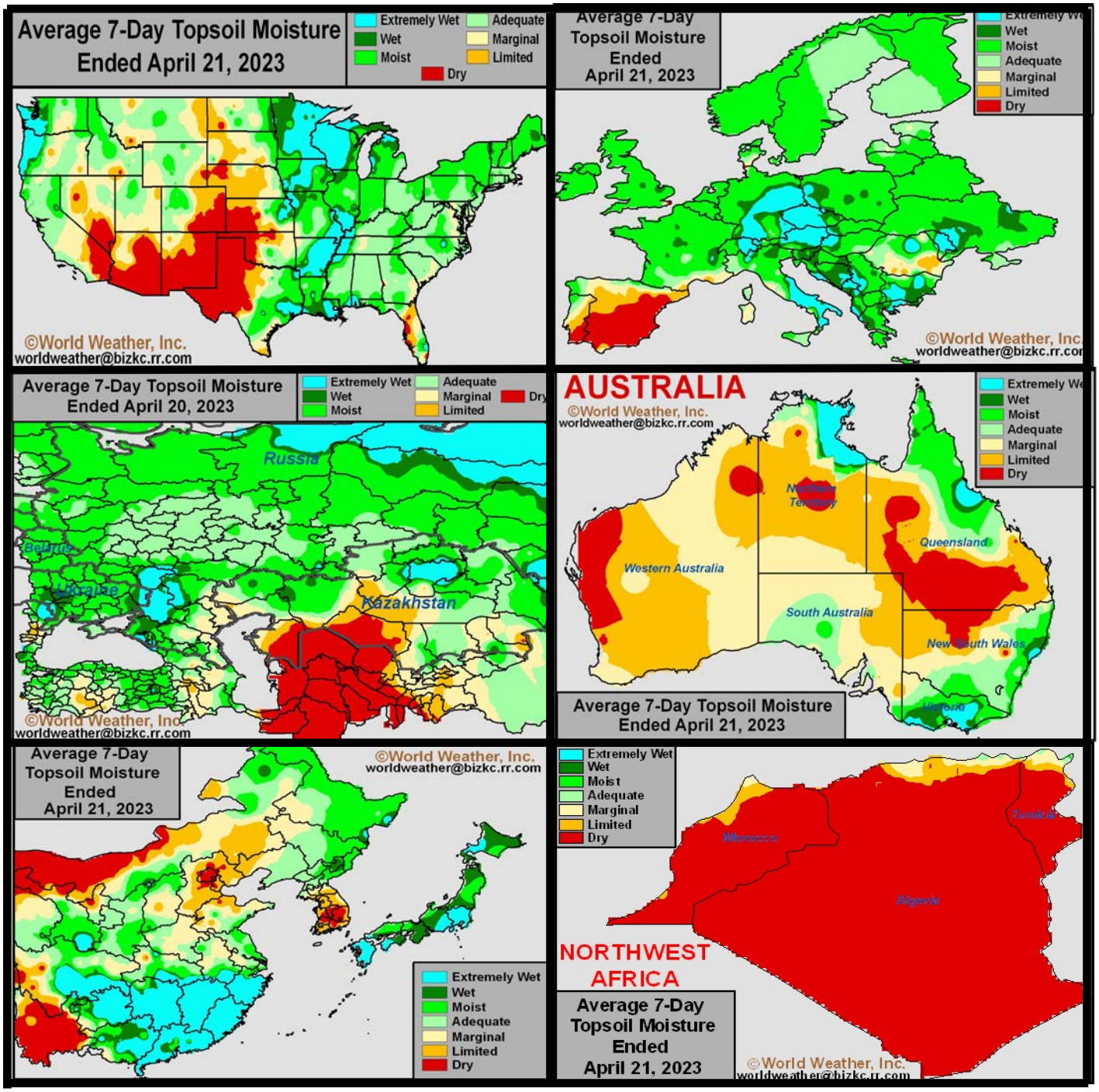
May is not likely to be a favorable month for rainfall in the southwestern Canada Prairies. That statement comes from the result of three different research studies all pointing to the same conclusion. Confidence is high that precipitation in May will be lighter than usual and temperatures in the western Prairies will drift higher than usual. Some change may occur late in the month, but the bias for the 30 days ending May 31 will be warmer and drier than usual.

The eastern Prairies will have plenty of moisture in the soil to support crops once planting occurs, but warming must occur before the ground will support germination and emergence. That will likely lead to planting delays into at least the second week of May and some areas that are excessively wet may have to wait longer.





Selected Weather Images From Around The World



U.S. soil moisture has not changed much since the start of this month with soil moisture still rated favorably in the Midwest, Delta and most of the southeastern states. Drought continues serious in the west-central and southwestern Plains where relief is needed soon to stop the failing of dryland crops. Rain is expected (see page 6). Europe's biggest dryness problem is in Spain with a small pocket of dryness still lingering in southern Romania. Most of the western CIS is also favorably rated, although some drier and warmer conditions are forthcoming in spring wheat areas over the next ten days. Australia has begun planting wheat, barley and canola, although there is still some dryness in multiple production areas and the need for rain will be high over the next few weeks to ensure successful planting. North Africa, like Spain, is still too dry and durum wheat yields will be down this year with little relief expected. China's weather is mostly good, though southern rapeseed areas are wet and rain is needed in parts of the north.

May Offers Limited Relief To Dry Areas; Some Drying East

Additional rain and some snow will fall in the next ten days over eastern portions of the Prairies. The precipitation will come with cooler than usual air extending the delays to spring fieldwork in many areas. The environment will contrast with the western Prairies where the next ten days will be more limited on precipitation and temperatures will be rising above normal.

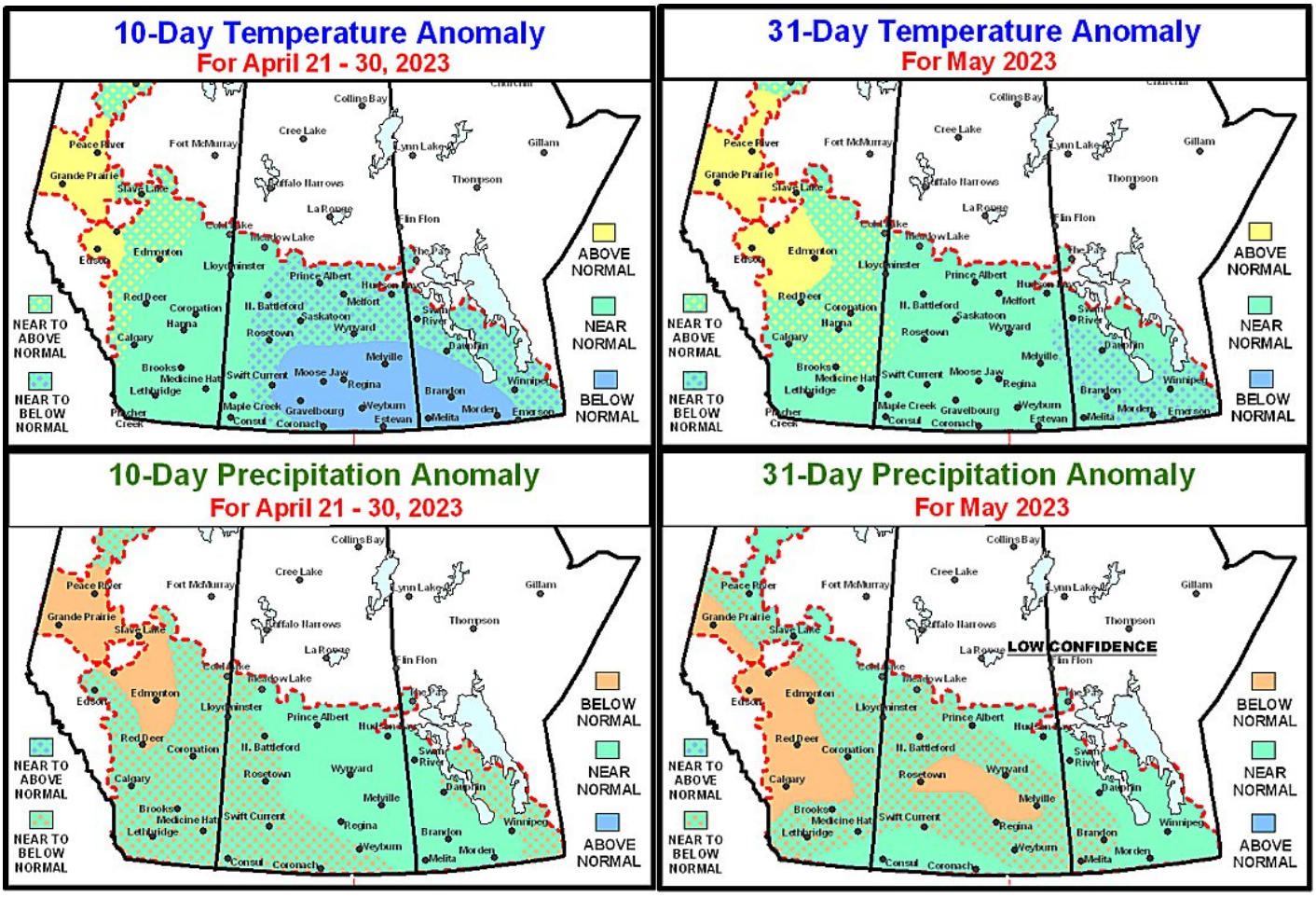
Spring fieldwork should get started soon in western and northern Alberta because of the trend for warmer and drier biased conditions, but there will not be much drought relief in the southern or east-central parts of Alberta or west-central or interior southwestern Saskatchewan.

May precipitation will be near to below average in much of the Prairies. Some recent computer forecast model runs have suggested a rising chance for rain in the southwestern Prairies briefly in early May. Confidence in this suggested change is low, but in response to the event World Weather, Inc. has reduced some of the below average rainfall expected in the southwestern Prairies during the month. However, it would not be surprising to see the advertised rainfall removed from the outlook or greatly reduced.

Early May rain in the southwestern Prairies would be welcome and help moisten the topsoil, but the odds still downplay rainfall later in the month making any early month rainfall all the more important. No drought breaking rainfall is expected during May, but it is hoped that enough moisture will fall to support planting and early season crop development.

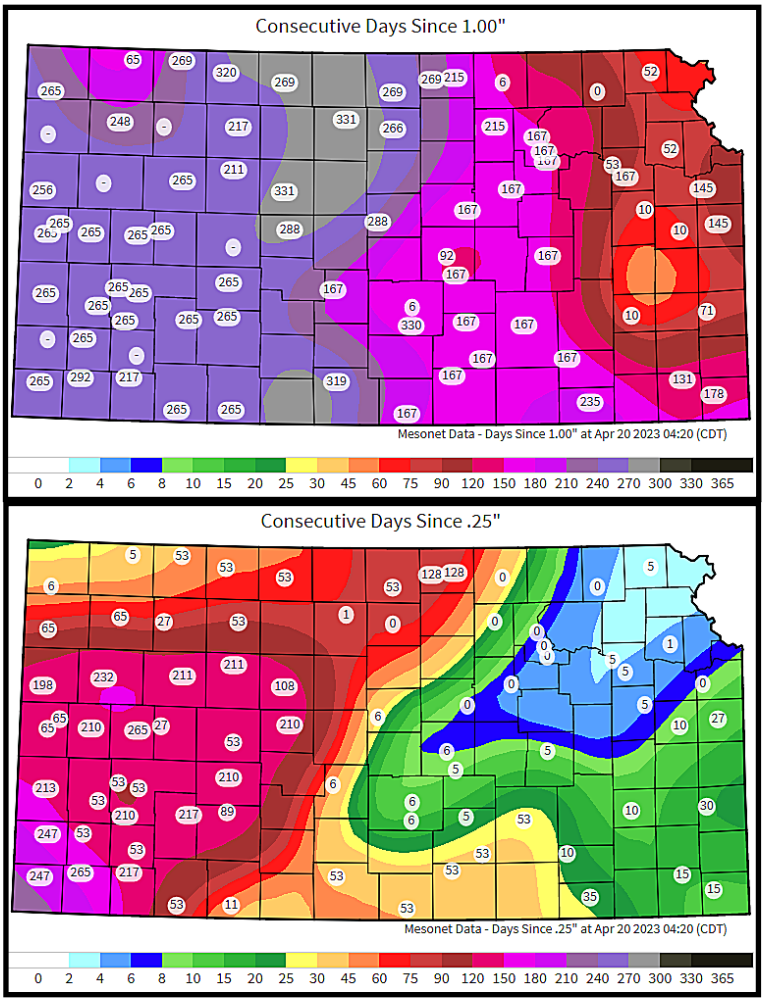
The odds still do not favor frequent rain of significance in the southwestern Prairies during May and that will leave subsoil moisture quite limited. The concern will remain over planting and emergence in marginally favorable topsoil moisture and then having no follow up precipitation to sustain crops once they are emerged. May does not offer that kind of succession in rainfall and caution is advised over that situation. June would offer the earliest opportunity for more repetition in rainfall for the driest areas, but even then confidence is not the best.

Other areas in the Prairies should experience enough of a mix in weather during May to support planting, germination and emergence once soil temperatures rise. Warming in the soil will come slowly with eastern parts of the Prairies still dealing with bouts of cool weather periodically and wet fields will be slow to dry.



Rain Will Fall In Dry U.S. Hard Red Winter Wheat Areas

Waves of cooler air moving through the central and eastern United States during the next ten days may frustrate corn and soybean farmers, but it will be a Godsend for farmers in the central Plains where drought has been prevailing for too long. A full breakdown in drought is not likely, but a break from months of poorly distributed rain is expected especially for a big part of Kansas, Oklahoma, and portions of both Nebraska and Colorado. Some of the computer forecast models recently have overdone the precipitation amounts that are expected, but the return of moisture fits extremely well with those post multi-year La Nina events in this solar cycle occurring with negative PDO. The pattern also fits the 18-year lunar cycle data that World Weather, Inc. has been monitoring for months. More moisture will be needed especially in the west.



Changes in the model forecast adjusting the amount of rain that is projected will likely take place in the next few days, but confidence is rising that rain will fall across much of the production region ending an amazingly long period of limited rain. The top chart to the right reflects the number of days that have passed since 1.00 inch or more of rain fell at various locations across Kansas. Drought has been most serious in western Kansas, eastern Colorado, western Nebraska and areas south through all of western Texas.

Contrasting airmass temperatures are the key to this rain development. The succession of cold air masses dropping through the central United States will be one of the primary reasons for the rising potential for rain. At this time of year when seasonal warming is occurring in the atmosphere contrasting airmass temperatures evolve frequently and those contrasts create an environment for warm and cold air to meet up with an influx of moisture from the Gulf of Mexico resulting in rainfall. Some strong to severe thunderstorms can occur in this environment as well. Finally, weather conditions are going to turn just enough to present this contrast and allow rain to begin falling.

The first couple of weather systems impacting the Plains will still have trouble making it rain uniformly in the high Plains region. Showers and thunderstorms are expected, but poor atmospheric moisture will limit the distribution of significant rain for a while. However, as the succession of colder air masses shifts to the east into the Midwest and southeastern states returning warm, moist, air from the Gulf of Mexico is expected flow into the central and southern Plains bringing the necessary ingredients for rain to fall.

Precipitation expected through the weekend and into Monday is expected to be sporadic with the most significant amounts avoiding the high Plains region. The pattern will be typical of what has been occurring in recent weeks, but the situation will change. Another shot of cool air expected Tuesday into Thursday of next week will generate some upslope precipitation favoring Colorado and western Kansas before shifting southeast into Oklahoma. This event may miss much of West Texas, but some rain will reach the Texas Panhandle and southwestern Oklahoma. Most of the moisture in the southwestern Plains next week will still be disappointing, but the rain that reaches into Colorado and a part of western and southern Kansas and Oklahoma will be welcome and beneficial.

One more surge of cool air and some associated rainfall is expected to occur late next week through the following weekend and it too will not bring significant amounts of moisture to the southwestern Plains, but light rain is expected elsewhere.

Putting these three precipitation events together, results in moisture

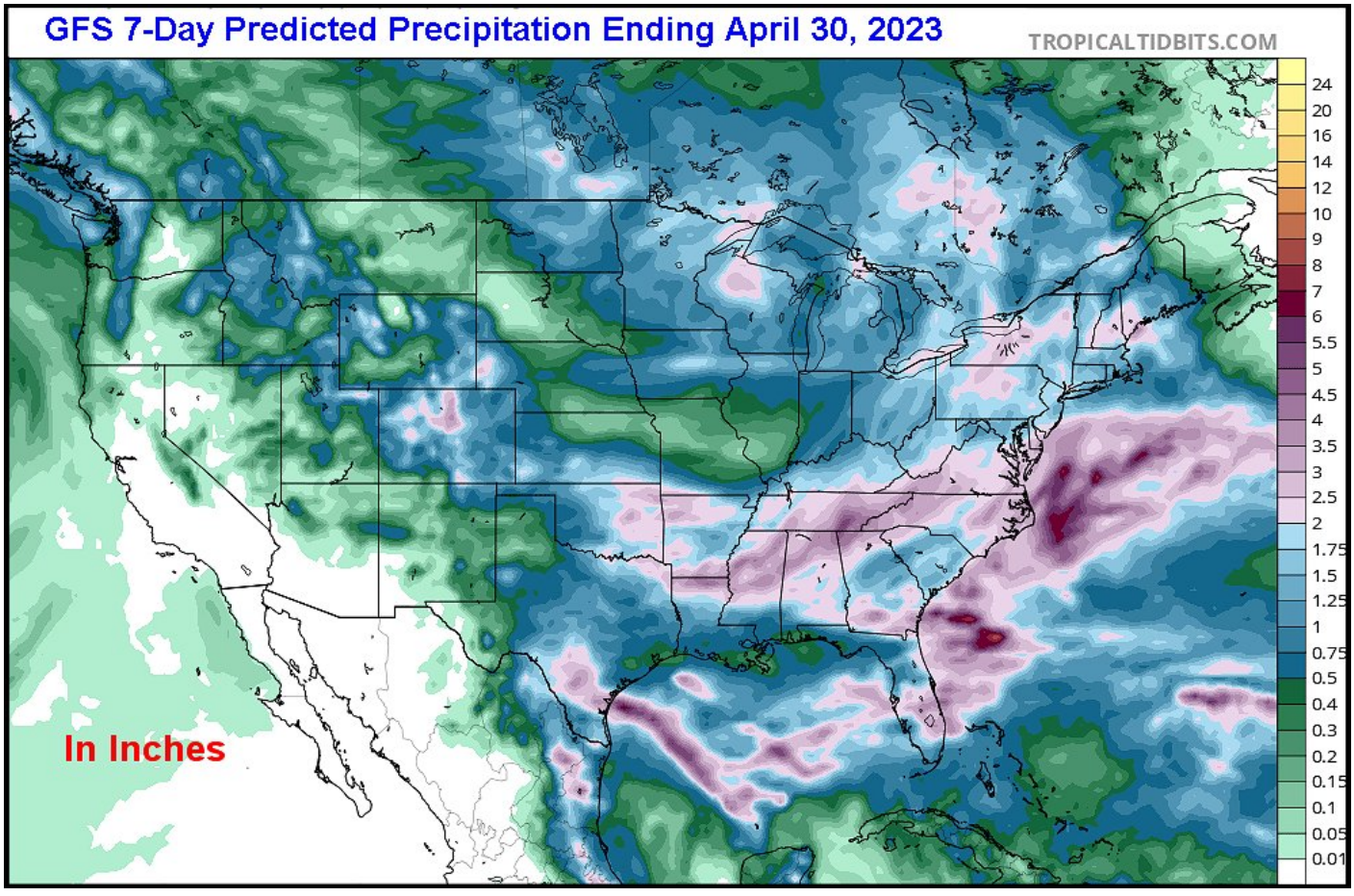
Rain Will Fall In U.S. Hard Red Wheat Areas (from page 6)

for most of hard red winter wheat country with totals of 0.50 to 1.50 inches from eastern Colorado across the heart of Kansas and into much of Oklahoma. There will be some local totals of 1.50 to 2.50 inches in central and eastern Kansas and eastern Oklahoma while southwestern Oklahoma and the Texas Panhandle receive 0.20 to 0.75 inch with a few greater amounts over 1.00 inch in the northeast Texas Panhandle. Most of West Texas cotton areas which are also hurting for moisture will receive 0.10 to 0.75 inch during the same ten day period ending April 30.

Overall, relief for the central Plains will be sufficient to temporarily improve some of the wheat crop, although a bit of the rain will come too late to seriously improve production potentials in a few of the dryland fields of the southwest. The greatest improvement to crops will occur in central Kansas, Oklahoma (away from the southwest) and in a few Nebraska and Colorado locations. Drought in the high Plains of the west-central and southwestern hard red winter wheat areas will not be broken, but it will be eased by the coming week to ten days of scattered rainfall. The southwestern Plains rainfall will be quite limited as it will be in West Texas leaving a big need for more significant rain in those areas.

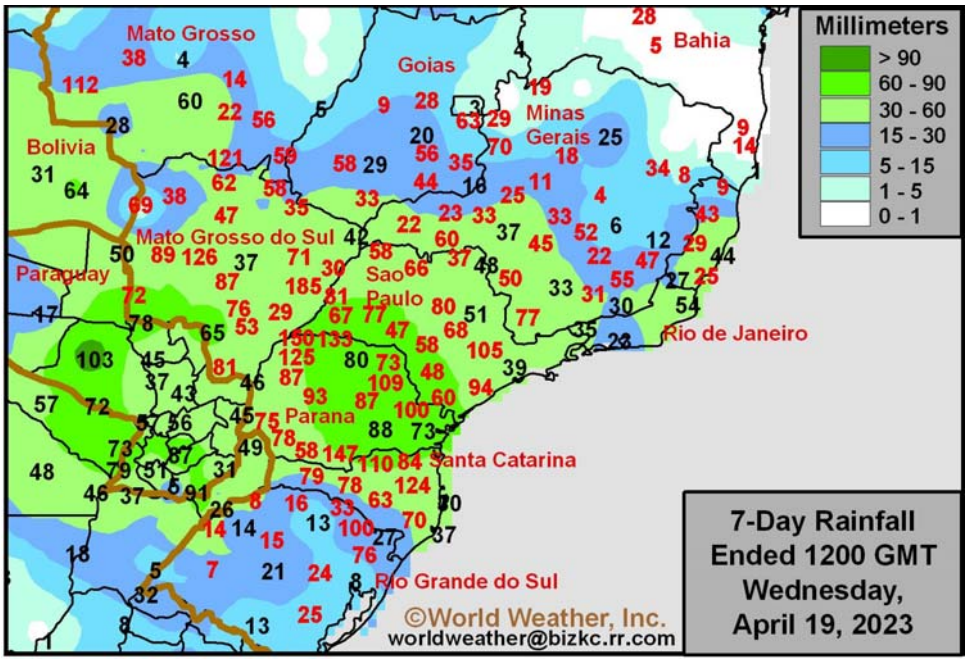
There will be some potential for increased rainfall in the southwestern Plains during May as warm air becomes more persistent in the central states and frontal boundaries that trail into the region will act as a firing line for showers and thunderstorms. Atmospheric moisture will still be limited, but "some" relief from dryness should be expected.

In the meantime, frequent bouts of frost and freezes this weekend will nip at some of the new wheat growth and shock a few crops that experienced high temperatures in the 80s and lower 90s Fahrenheit in recent days. Permanent crop damage is not expected since most of the "significant" freezes will occur in areas where wheat is not advanced enough to be seriously harmed.



Brazil's Mato Grosso To Receive Needed Rain

Portions of Mato Grosso's Safrinha corn areas have started to dry down. Dryness is not yet a concern and the region will see a good mix of rain and sunshine through the middle of next week. The environment will remain favorable in much of the state for aggressive Safrinha corn growth. Other Safrinha corn production areas from Mato Grosso do Sul into Parana and Sao Paulo have abundant to excessive soil moisture to help carry some of the latest planted crops more deeply into May without follow up moisture. Recent rainy weather in the interior southern parts of the nation stalled fieldwork including the late harvest of soybeans. Sugarcane and coffee would benefit greatly from drier weather.



Southern Bahia and northern Minas Gerais continue to have short to very short soil moisture. Portions of east-central Mato Grosso, west-central Goias, and southern Rio Grande do Sul have marginally adequate to slightly short topsoil moisture. The remaining production areas have adequate to excessive moisture except southern Rio Grande do Sul where soil moisture was also rated marginally adequate to slightly short.

As of April 13, soybean harvesting in Brazil was 86% complete, up nearly 7 percentage points from the previous week. Harvesting was 87% complete this time last year. Despite the late-season rainfall, producers have been able to catch up on the harvest in recent weeks. A bumper soybean crop is still expected this season.

Frist season corn harvesting was 54.8% done on April 15 compared to 60.0% done a year earlier. Rice harvesting was done on 71.9% of this year's acreage. Dry bean harvesting was 85.6% completed with the only fieldwork still under way in Piaui and Rio Grande do Sul.

Safrinha corn planting is generally complete across Brazil. There has been ample moisture to support aggressive establishment and growth in much of center-west and center-south Brazil. Pockets in Mato Grosso and Goias have dried a little in recent days, though there is not yet a major concern for dryness. Long-term crop prospects are generally favorable despite delayed planting.

Mato Grosso and Goias will see a good mix of rain and sunshine through the middle of next week. Scattered showers will initially evolve today with more rain occurring this weekend and early next week. Moisture totals by next Wednesday morning will range from 0.50 to 1.50 inches with drier pockets in southern Mato Gross. Minas Gerais, Bahia, Rio de Janeiro, Espirito Santo, and northern Sao Paulo will also see periodic rainfall. The most widespread rain will evolve today and Thursday with some light showers also expected this weekend and early next week. These areas will receive 0.25 to 1.50 inches of rain with drier pockets. Mato Grosso do Sul will receive minimal rainfall as will most of the far southern parts of the nation. The main production areas in Brazil will then have a few opportunities for rain April 27 – May 3.

Late-season soybean harvesting may be sluggish due to the rain and wet soil, though most producers will be able to get a significant amount of the crop out of the ground between rain events. Mato Grosso and Goias will also receive enough rain to maintain a good outlook for the Safrinha corn. The remaining Safrinha corn areas will also have ample moisture to maintain aggressive growth despite the lack of rain.

Absolute dryness is not expected

Brazil's Mato Grosso To Receive Rain (Continued From Page 8)

in Mato Grosso or immediate neighboring areas for a while even though monsoonal rainfall has withdrawn. The precipitation lingering will help to temper the loss of soil moisture through evaporation and transpiration. No excessive heat is expected either and that will help to keep drying rates normal for this time of year. All of this is very important for those worrying over long term soil moisture in Mato Grosso for this year's Safrinha crops.

Late planted crops will need some kind of significant rain during May and/or June to replenish soil moisture for long term growth and development. A couple of cold fronts from the lower latitudes could provide this needed moisture and there is potential for some significant cold surges to come across Argentina to get mid-latitude frontal systems into center south cotton and corn production areas. However, these events will be rare and there will be no such precipitation event during the next couple of weeks.

The latest planted Safrinha corn was put into the ground nearly a month later than usual in Mato Grosso do Sul, Parana and Sao Paulo. These are the states that will likely have a more serious need for precipitation in May and June or dryness could harm production potentials. These three states are far enough south in Brazil to be far more likely to receive mid-latitude cool air masses that could bring rain into the region later this autumn. Because of this possibility, World Weather, Inc. believes there will be potential for timely rainfall for the latest planted crops. Mato Grosso, however, may need a prayer or two to receive enough rain to keep fields favorably moist during reproduction.