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

The Canadian Agriculture Weather Prognosticator

Volume XVI, Issue III http://www.worldweather.cc May 11, 2024

World Weather At A Glance

- Frost and freezes recently have induced some damage to Russia and Ukraine crops
- Argentina's late season crops have also been impacted by earlier than usual freezes
- Copious amounts of rain fell in Rio Grande do Sul in late April and early May resulting in horrific flooding and damage to property and agriculture
- U.S. wet weather in recent weeks has pushed spring planting behind the usual pace in parts of the Midwest and Delta
- Western U.S. hard red winter wheat areas are expecting partial relief to dryness, but some of it may come a little late
- Western and South Australia are too dry for wheat, barley and Canola planting
- Ontario and Quebec will be a little too wet for a while to prevent a slow start to their spring planting season

Planting Moisture Improves Greatly

Two significant storm systems that moved through the Prairies during the 15-day period ending May 8 bolstered soil moisture in nearly all areas outside of the Peace River Region. The increase in precipitation was most significant in eastern and southern Alberta and west-central through southern Saskatchewan where a multi-year drought had produced much concern over the future of 2024 crops.

The precipitation events were better than expected and that gives us a green light that this atmosphere is ready to fight back from drought. In recent past years, it was obvious that drought was in control because storm after storm would move through the Prairies and disappoint everyone with their dismal rain coverage and amounts. The storm system that occurred earlier in this past week was a classic example of what the atmosphere used to do and it was a huge signal toward verification of changing atmospheric conditions.

Rain totals over much of the region east of Alberta Highway Two through west-central and southern Saskatchewan to southern Manitoba varied from 30 to 80 millimeters with local totals to 114mm. Despite the delay to farming activity, most producers waited patiently for the rain to stop since the precipitation was absolutely imperative if there was going to be any hope for a successful growing season.

Prior to these two storm systems impacting the Prairies very few areas in east-central or interior southern Alberta or west-central, interior southwestern or south-central Saskatchewan had enough soil moisture to sustain crops once they emerged. Now the situation is much better with good planting moisture in most of these areas, although follow up rain will be imperative in assuring a favorable environment for long term crop growth.

Unfortunately for the Peace River Region, significant precipitation failed to evolve and the ground remains too dry for unirrigated crops to develop normally—in at least a part of the region. Planting moisture that was largely absent across eastern Alberta and west-central through central and south central Saskatchewan in mid-April is now rated quite favorably. Subsoil moisture is still rated poorly and despite the surplus topsoil moisture in a part of the Prairies earlier this past week it will not take long for the moisture to percolate downward to help replenish the parched subsoil.

Warm temperatures and abundant sunshine in recent days helped to speed along the drying trend and many producers were already in the fields planting as aggressively as possible before the next rain event arrives.

Follow up rain is needed and will likely occur much more easily than in recent past years and, despite World Weather, Inc.'s previous forecasts for a drier May it would appear that rainfall will be sufficiently improved to sustain the improving trend for many areas and possibly induce some delay to farming activity.

A few areas in southern Alberta, central Saskatchewan and southwestern Manitoba were actually a little too wet for a while this past week. Improving weather the past few days should have helped to reduce the surplus moisture,

Planting Moisture Improves Greatly (from page 1)

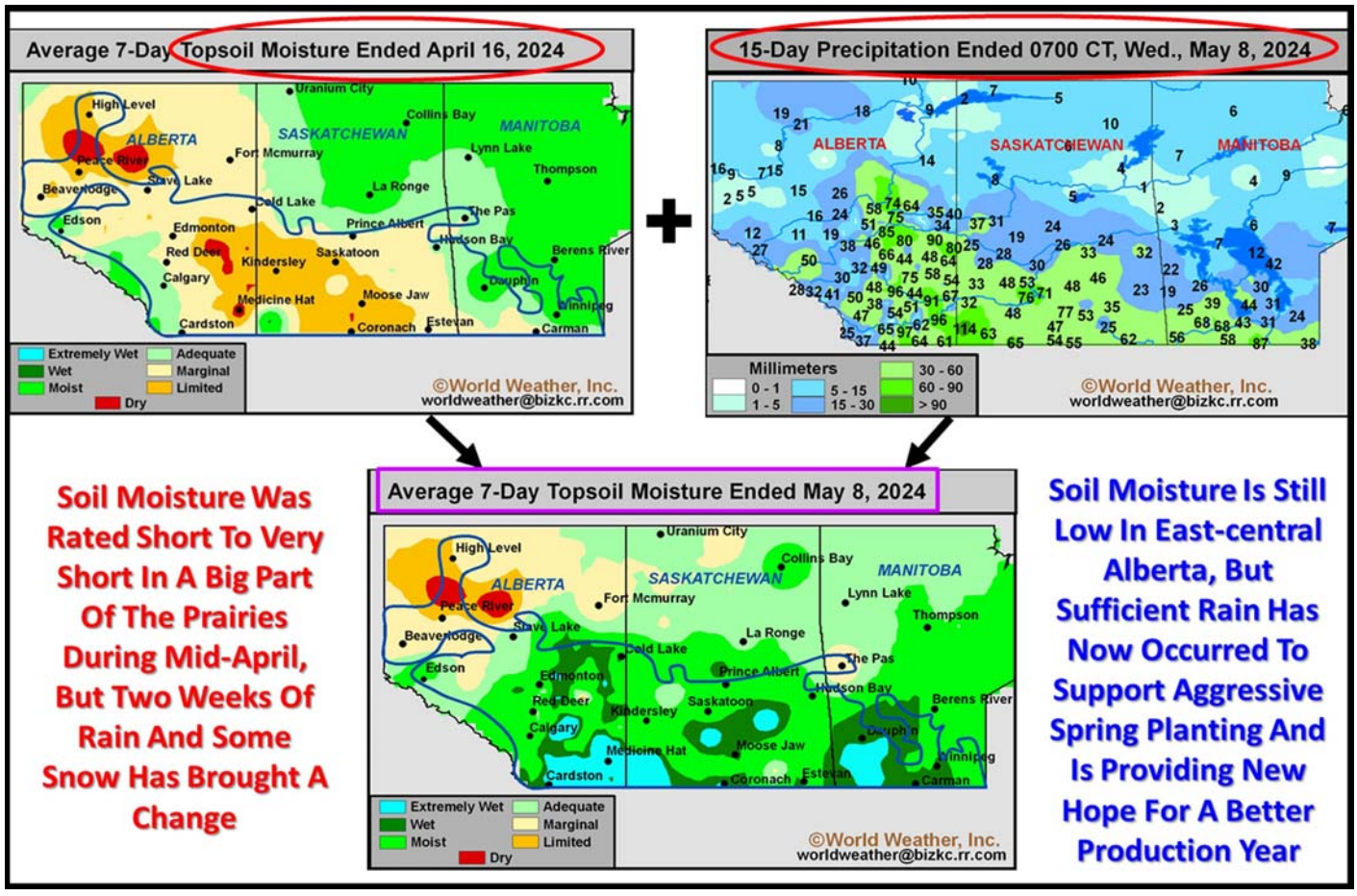
although additional delays to farming may occur next week as a couple of follow up storm systems impact the Prairies.

The follow up rain events slated for early and again late next week will disrupt farming activity once again. Temperatures will be trending more seasonable in the coming week and the two may slow the drying rates across the region forcing producers to change their mentality from waiting for significant rain to fall to waiting for windows of opportunity for dry weather. It has been a while that rain frequency was great enough to slow farming activity in some areas.

Now that the atmosphere has proven its ability to produce significant moisture the weather forecasts will have to be changed from more conservative rainfall outlooks to greater volumes of moisture. Previous prognosticators demonstrated that in past 18-year cycle years there was a tendency for summer rainfall to be abundant in west-central and northwestern Saskatchewan and east-central and northern Alberta (east of the Peace Country). The past two weeks of weather have shown that this trend from the past could not only verify, but the wetter bias may be more broad based impacting a greater part of the Prairies.

Also, new information on the developing La Nina has confirmed that the cooling pace in the eastern equatorial Pacific Ocean has picked up sufficiently to suggest this year may be one of those years in which rapid transitions from El Nino to La Nina ends up supporting greater rain across the Prairies rather than less. The primary exception to that would be in southern Manitoba and a few southeastern Saskatchewan locations where some dryness may evolve during the heart of summer as the U.S. anticipated high pressure ridge sets up forcing some of the rain expected in the eastern Prairies a little farther to the north.

While La Nina development favors more rainfall in part of the Prairies this summer there are two other potentials that need to be considered. First, an active jet stream promises to bring frequent storms of size to the U.S. Pacific Northwest and second, cooling ocean water west of the U.S. Pacific Coast may help build a stronger ridge of high pressure in the central U.S. Combining these two patterns may lead to a greater potential for excessive rain in a part of northeastern and east-central Alberta and western and north-central Saskatchewan. That potential, however, is for June and July and hopefully planting will advance swiftly until that time so that crops get planted and established. Before it gets too wet.



Additional Rain in May; June Wetter

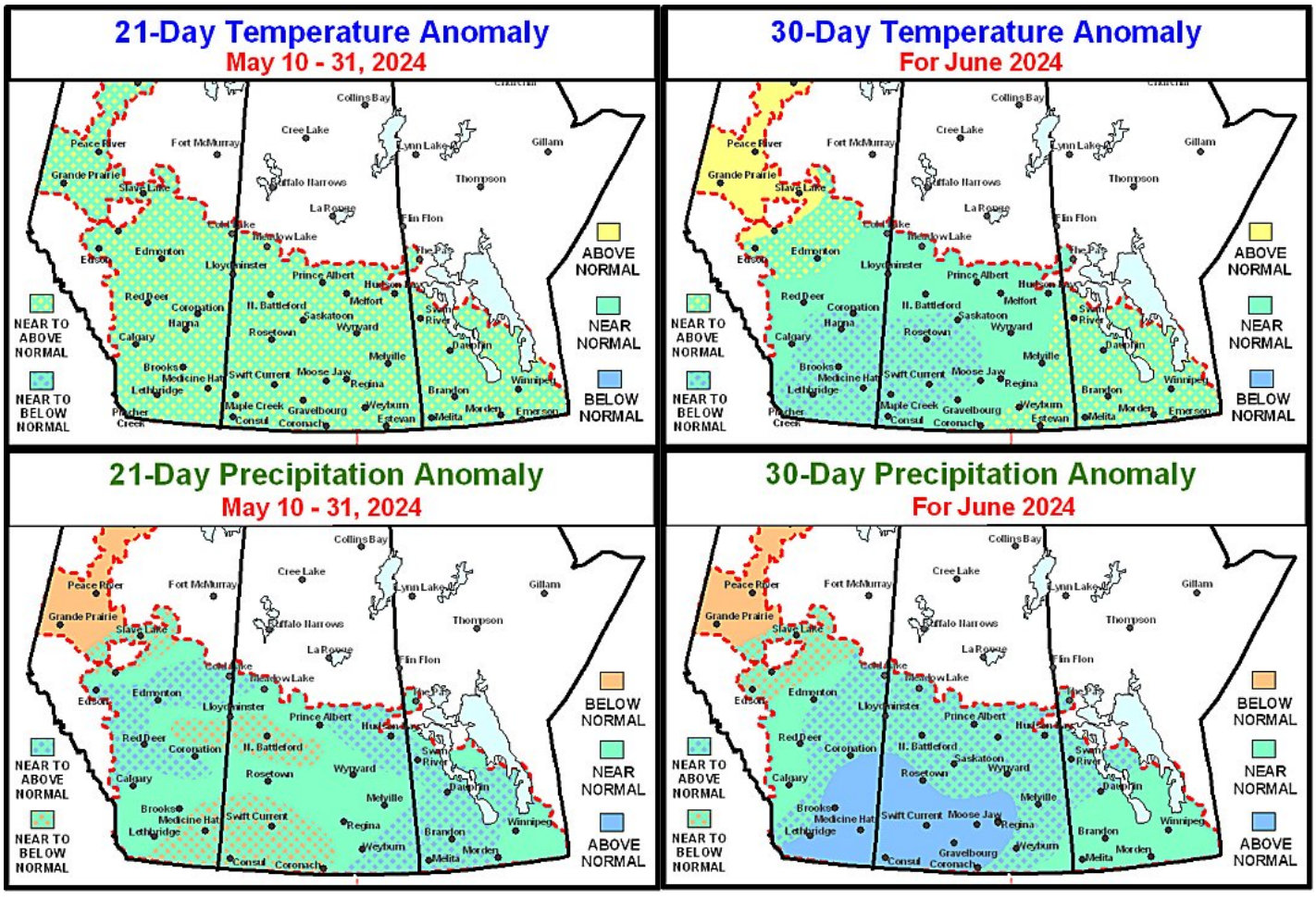
Rainfall in the past two weeks was greater than expected which suggests that the influence of drought has diminished. Future rain systems are liable to behave more typically than like that of recent past years. For that reason, rainfall has been increased for the month of May and June and the intensity of the expected U.S. high pressure ridge has been weakened. These changes make the weather outlook more normal.

The balance of May is expected to be a little warmer than usual, although next week's temperatures may slip a little cooler than usual especially near and slightly beyond mid-month. The changing temperature regime from warmer than usual this week to near to below normal next week and then back to warmer than usual at the end of this month will also feed into the greater volume of rain expected. The balance of May is expected to be a little drier than usual in the southwestern Prairies once again and there may be another band of similar conditions extending from northeastern Alberta into northwestern Saskatchewan. The driest area relative to normal will be the Peace River Region where precipitation will be more decisively below normal.

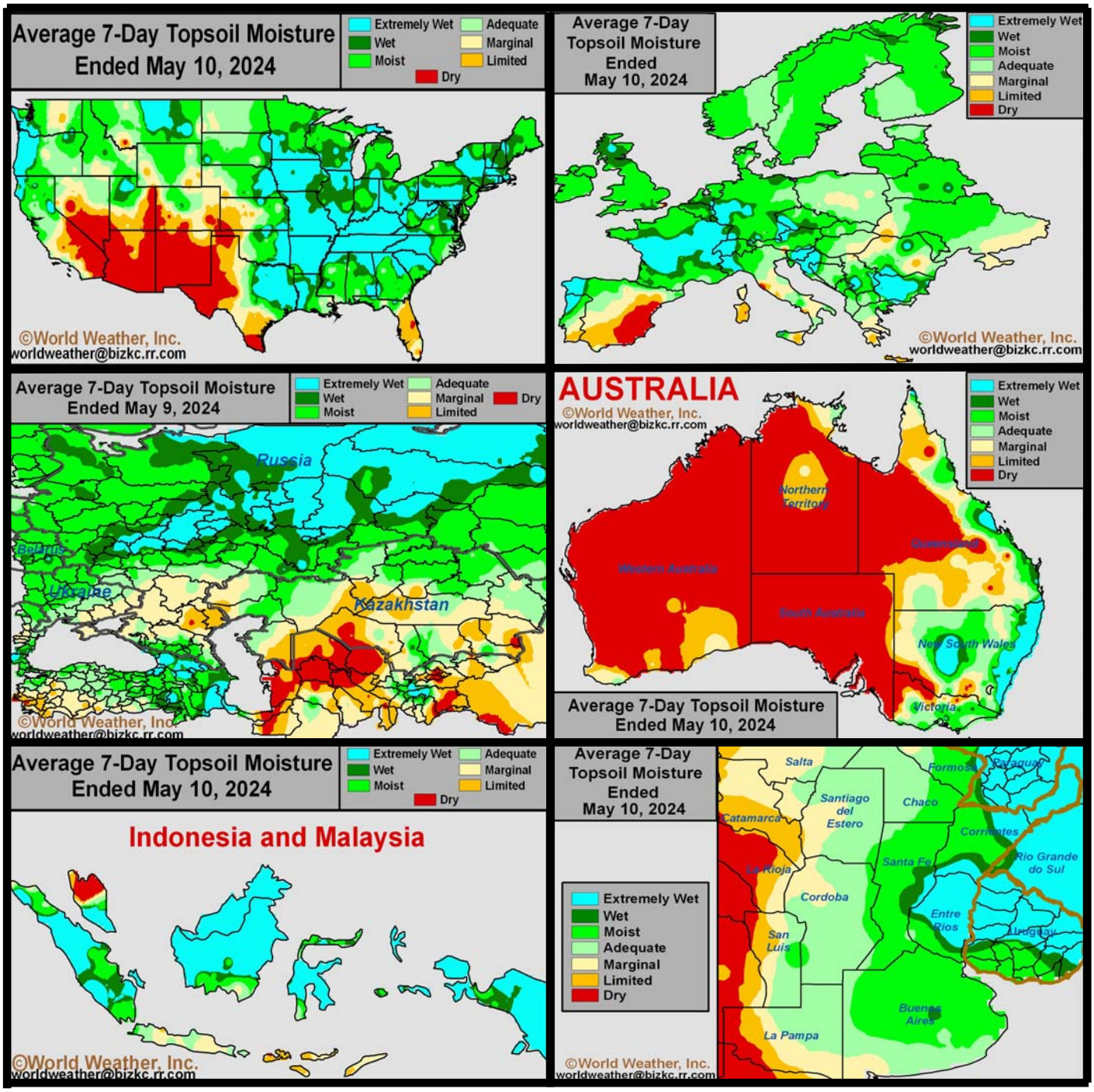
Near to above normal precipitation is expected in portions of eastern Saskatchewan, Manitoba and interior western and some central Alberta locations. This pattern change will lead to a slower planting pace at times, but it should not be so wet that no fieldwork advances.

June rainfall previously was advertised to be above normal in northeastern and east-central Alberta and west-central and northwestern Saskatchewan while the southeastern and far northwestern Prairies are a little drier than usual. This prognosticator has expanded the near to above normal precipitation in June to include a larger part of the Prairies. The Peace River Region will continue drier than usual while rain in the southeastern corner of the Prairies may be a little closer to normal than previously suggested.

The wetter bias in the southeastern Prairies is more the by-product of a slower development rate in the strong ridge of high pressure expected this summer in the central U.S. Keeping the ridge of high pressure weaker longer will allow more rain to impact the southeastern Prairies. By late June, though, the ridge will be strong enough to suppress rain in parts of Manitoba. Temperatures may be cooler biased in the central and southwestern Prairies and warm elsewhere.



Selected Weather Images From Around The World



U.S. soil conditions are saturated and this is causing some spring planting delay and it may also lead to a weaker ridge of high pressure early this summer delaying the onset of the warmest and driest conditions in both the central U.S. and the southeastern Canada Prairies. Portions of Western Europe are a little too wet and need to dry down while most other areas in the continent are in relatively good shape for winter and spring crops. Spain needs more moisture. Eastern Australia's rain recently has been good for winter wheat, barley and canola planting especially in Victoria and New South Wales. Russia's Southern Region and eastern Ukraine continue drier than usual and vulnerable to production cuts if significant moisture does not fall prior to the arrival of summer heat and dryness. Argentina is poised for one of its best wheat and barley planting seasons seen in years. Recent freezes damaged a few immature summer crops. Indonesia and Malaysia weather has been very supportive of oil palm and other crop production.

Another Bout of Cooling May 18-25, Warmer After That

Celebrating drought relief has the Prairies wound up for a better production year, but there is still one issue that we need to keep in mind and that is one of potential coolness.

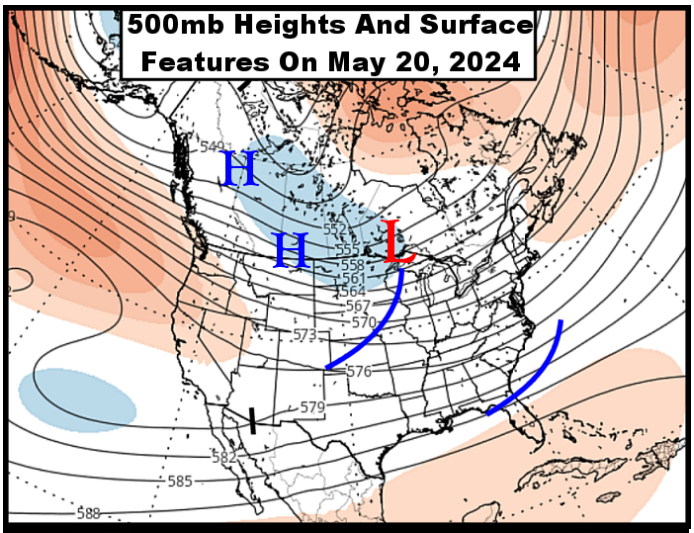
Winter was unusually warm, but this spring has had some interesting bouts of cool weather. March was colder than usual and April temperatures were near to above normal. Some cooling is expected back across the Prairies in May beginning next week and possibly being a little more significant in the following week.

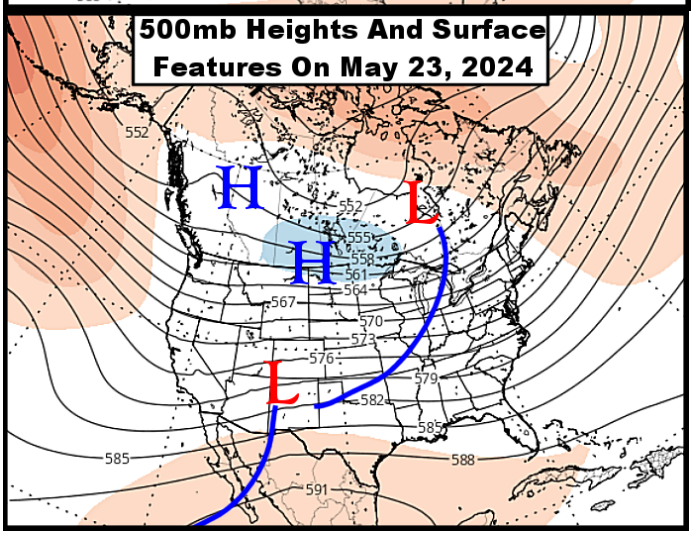
Earlier this year, World Weather, Inc. found that in the past when El Nino events in January gave way to La Nina by mid-year there tended to be more cool air around during the spring. That was a bit of a concern on its own, but one that was discounted because of recent decades of atmospheric warming. There have been two other influences that are still showing a role for influencing the weather in the Prairies and they are a 45-day weather cycle of coolness and the lunar or 18-year cycle that suggested some coolness may still linger in the eastern Prairies during short periods of time in late spring.

Putting all three of these influences together does suggest that we may not be done with cold weather especially not in the eastern Prairies. Medium-range computer forecasts models are beginning to agree with the 45-day and 18-year cycles that some cooler biased conditions may evolve in the next two weeks across eastern portions of the Prairies. Most of the medium range modeling has not suggested an unusually great cold surge, but some frost and freezes may still be forthcoming a little later this month.

Early canola planting that has begun across the Prairies may be at risk if the cold gets more significant toward the end of this month since crops planted most recently may be emerged in the coming ten days and could be vulnerable to freezes late this month. Very little planting of canola had occurred prior to this past week's big rain event which is good. Planting that is under way today is probably fine too since there is not going to be a prolonged period of warm weather through the next ten days.

Friday and today (Saturday, May 11) are two hottest days expected in the Prairies. Cooling in the coming week will bring temperatures down closer to normal. Additional cooling in the following weekend (May 18-19) could extend a little later into the week of May 20 and could lead into a few more freezes of significance. At the time of this writing, there was no sign of bitter cold, but the coolness would likely support some frost and freezes.





For newly emerging canola the cold may not be much of an issue, but any canola that was planted early and gets a little more advanced than expected could be vulnerable to a little damage and some replanting. World Weather, Inc. believes that the risk of frost and freezes may be greatest from May 18 to May 25. After that period some warming is expected.

The key to how cold it will get will be determined by the upper air wind flow pattern. At the time of this writing the cold surge is not looking very intense, but there will be frost and freezes in the Prairies. The impact of those freezes should be relatively low depending on how warm it is in this coming week, how far advanced early planted canola gets by that time and how cold it actually gets during the colder days. Most of the canola being planted today should be able to handle the cold assuming it takes ten days to emerge and that it will not be very far advanced because of mild weather next week.

Ridge building in central North America in the early days of June should reduce the risk of frost and freezes greatly. The return of the 45-day cool cycle in mid-June should fail to be a threat because of the building high pressure system pushing the cold farther to the north.

An Encouraging Precipitation Outlook For Rest Of May

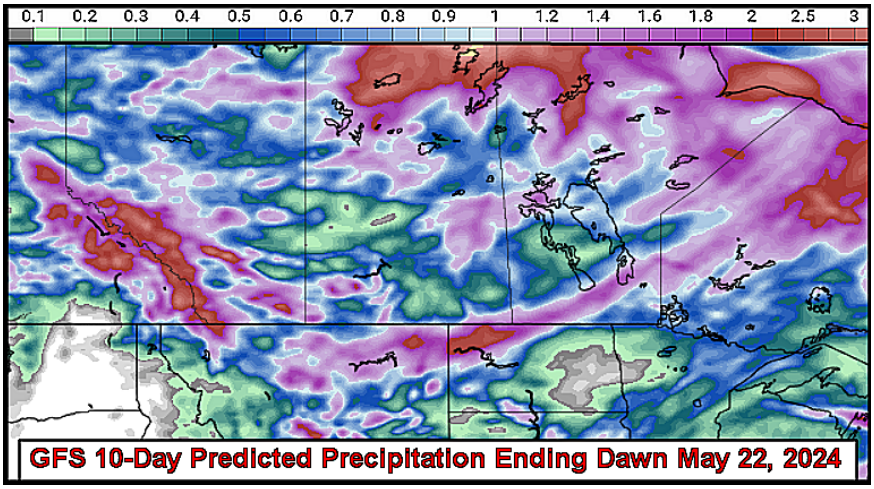
As noted on the page one article of this prognosticator rain has sufficiently bolstered topsoil moisture for excellent field working conditions during the next couple of weeks. However, there is more rain coming to interfere with field operations periodically. For most areas in the Prairies the outlook is really not bad.

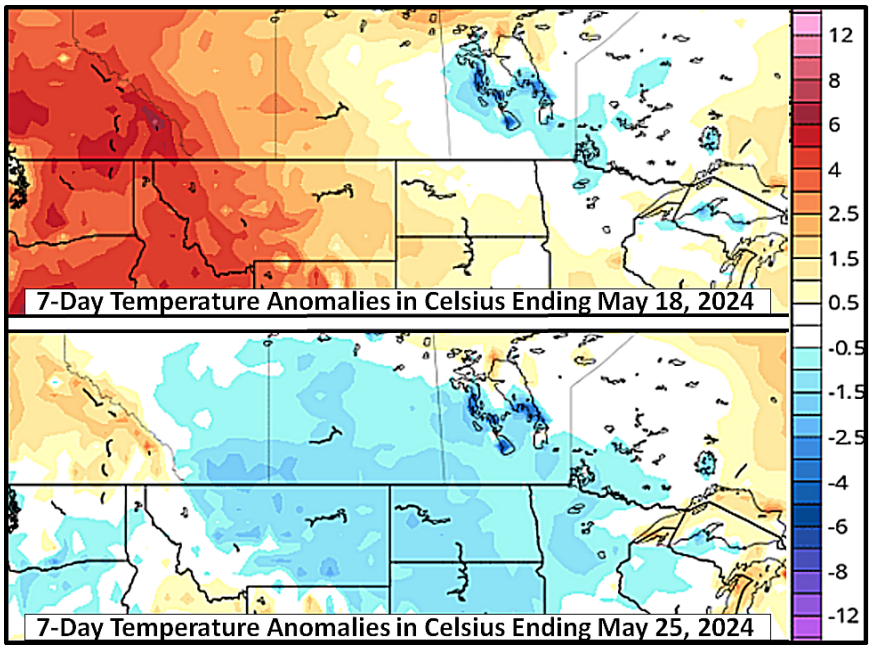
Drought has not ended in the Prairies, but enough rain has occurred recently to support planting. The outlook is for an erratic rainfall pattern to impact the region over the next ten days and during much of the balance of May. Precipitation will be highly varied and there will be some areas that will get greater rain than others.

The graphics shown here are only a sample of what the balance if May will provide. The specifics of where the greatest rain falls and where the driest pockets are likely to be will probably change at least somewhat. The point of the graphics is to illustrate the expectation that most areas in the Prairies will not be subjected to copious amounts of rain during this next two week period and probably not for the balance of May. That should lead to a favorable spring planting opportunity. Yes, there will still be areas of delay and, yes, there may be some pockets that slip back into dryness, but overall the planting environment should be interpreted as mostly near normal.

Just about all spring planting seasons present some challenges at times, but given where we were a few weeks ago and where we might have been had the doom and gloom forecasts been correct this is welcome.

Alternating periods of rain and sunshine are expected through the balance of this month. Late May will probably be driest due to the cooler and drier air that is expected to slip across much of the nation beginning late next week and continuing for about a week thereafter. Until the coolest and driest air arrives, there will be bouts of rain that will disrupt fieldwork. The dry and warm weather that was present in much of the Prairies at the time of this writing will probably be rare the find again in the next two weeks. That does not mean weather conditions will not be supportive of planting, though it does suggest some disruption from time to time.





The most important part of the forecast here is that once the colder weather of late May abates, the potential for greater rain may evolve once again and the month of June could be more challenging for late season planting especially in the central and western parts of the Prairies. For that reason, it might be good to push through the less favorable days so that fieldwork can be done before greater rainfall days arrive.

The high pressure ridge expected in June will have much to say about where it will be driest and warmest and where rain will fall most abundantly. That position is still unclear today, but if we go with the Lunar (18-year) cycle and the El Nino to La Nina patterns we would expected the wetter bias to be in the western and northern Prairies and less so in the southeast. The Peace River Region in the meantime, may get some timely rain, but its moisture deficits will likely prevail making timely rain very important.

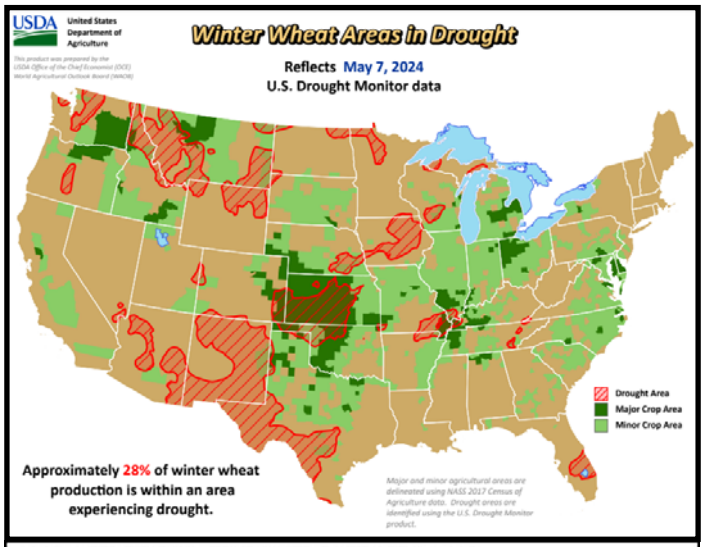
U.S. Hard Red Wheat To Receive Needed Rain

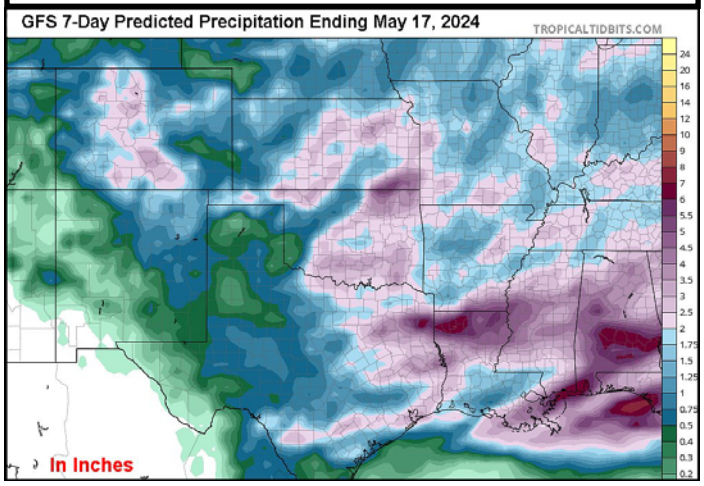
Hard red winter wheat conditions are highly variable across the U.S. central and southern Plains. Drought or abnormally dry conditions are ongoing in portions of central and western Kansas, eastern Colorado, and western Oklahoma despite some recent rainfall. Several areas are reporting poor or very poor wheat conditions, though there is still time to improve development before crops start to mature.

Moisture shortages are ongoing in the Texas Panhandle, Oklahoma Panhandle, southwestern Kansas, and southeastern Colorado despite recent rainfall. The moisture profile is more favorable in the remaining production areas. However, a large section of western and central Kansas, western Oklahoma, and southeastern Colorado remained in moderate to severe drought or were abnormally dry as of May 7.

Hard red winter wheat conditions are variable due to the ongoing drought or abnormally dry conditions in several production areas. As of May 5, approximately 33% of the wheat in Kansas was rated poor to very poor. Colorado had 27% of its wheat rated poor or very poor. In Texas, 19% of the wheat was rated poor or very poor, compared to 7% in Oklahoma and 5% in Nebraska.

A significant amount of the wheat in Texas and Oklahoma has already headed and some heading is also occurring in Kansas. Very little of the wheat in Colorado and Nebraska had headed. All crops would benefit from timely rain, but especially those in the driest areas. Production potential can still improve, but time is running out. Overall, yield potentials remain more favorable than last year, despite some lingering drought .





An active weather pattern is in store for hard red winter wheat country during the coming week. A low pressure system will drift through the region this weekend and early next week that will bring rain and isolated thunderstorms. Another disturbance and frontal boundary will generate additional rain Tuesday and Wednesday. Moisture totals by next Thursday will range from 0.65 to 2.50 inches in Kansas and parts of Oklahoma with local amounts over 3.00 inches. Pockets in the Texas Panhandle will only receive 0.25 to 0.75 inch of moisture.

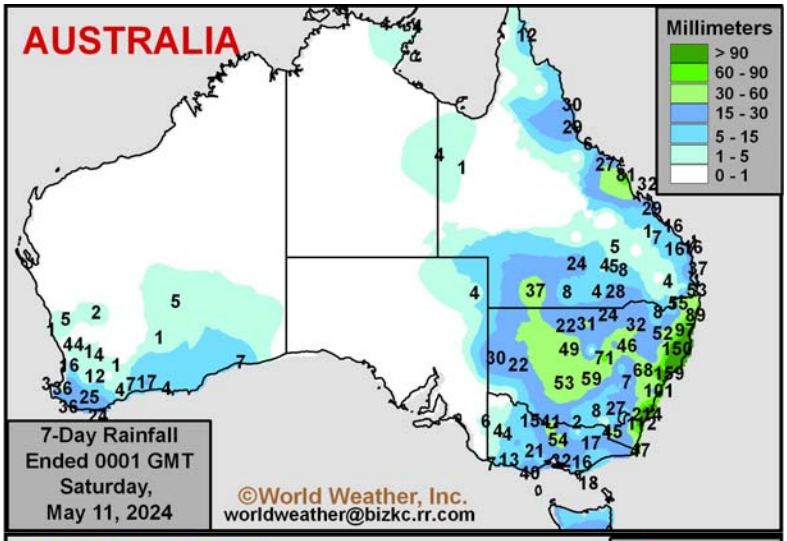
Temperatures will be seasonable to slightly warmer biased with highs frequently in the 20s Celsius and a few readings over 30.

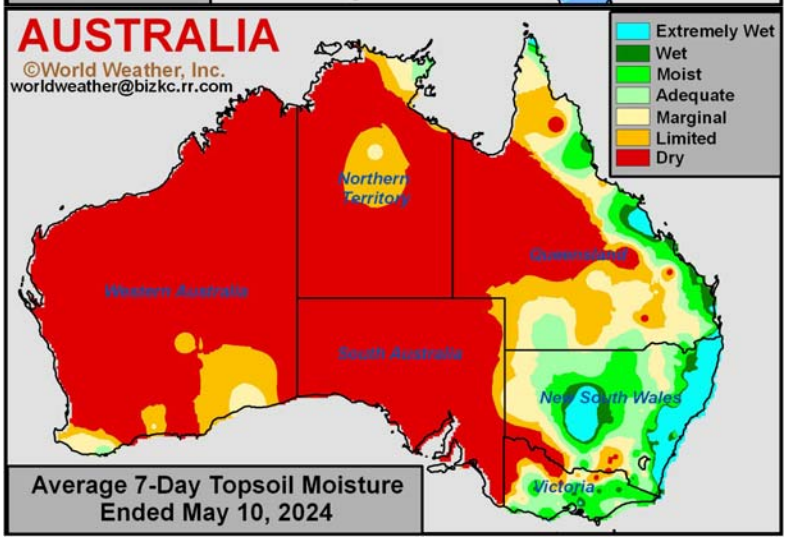
Weather during the May 18 – 24 period will be dependent on a high-pressure ridge that may settle over central North America. The ridge may not be strong enough to completely restrict precipitation from hard red winter wheat country, though there is potential for drier and slightly cooler weather. That should help conserve soil moisture and support crops as they approach and enter reproduction.

Rainfall during the coming week will help bolster soil moisture across the central and southern Plains. Wheat development conditions will either improve or remain favorable for much of crop country. Yield potentials may increase in areas that are currently in a drought. Damage due to wind and hail from thunderstorms cannot be completely ruled out, though overall impacts should be negligible. Most locations should have sufficient subsoil moisture to carry on normal crop development when drier and warmer weather returns with our without rain.

Western Australia Too Dry For Winter Planting

New South Wales received some of the most significant rain in Australia during the past week. The rain will be beneficial for long-term winter grain and oilseed prospects, though cotton quality was compromised. These conditions will continue through the weekend as another wave of rain comes and goes. The additional rain will be welcome for winter wheat, barley, and canola planting and emergence. In the meantime, portions of Western and South Australia are too dry and need rain.





Rainfall fell across the main production areas in Australia during the past week. However, New South Wales was wettest with general rain totals of 1.00 to 2.32 inches in the heart of the state's wheat, barley can canola areas. Unfortunately for cotton producers, it was damaging to cotton fiber quality and threatened some loss in production. Rain in southern Queensland varied from nothing in the interior southeast to upwards to 1.10 inches in south-central parts of the state. Central Victoria also received rain of significance while South Australia was dry and Western Australia only reported rainfall to 0.45 inch.

Topsoil moisture is rated adequate to slightly surplus in much of northern and central New South Wales. And adequately in Victoria. Southern Queensland had marginally adequate to very short topsoil moisture while South and Western Australia were still quite dry and in need of moisture for planting.

Winter wheat, barley, and canola planting is either underway or will be underway in the coming weeks for much of eastern Australia, South Australia, and Western Australia. Timely rain in April and earlier this month has been beneficial for establishment and early-season growth in Queensland, New South Wales, and Victoria. These areas still need additional rain to completely fix the moisture deficits at subsoil levels in order to support ideal long-term crop conditions. South Australia and Western Australia are otherwise in need of abundant rainfall to support ideal planting and establishment.

Australia will experience a more limited rainfall pattern for the next ten days. Some lingering showers in the east will end today and that will be followed by mostly dry conditions except a few coastal areas. That will leave Western and South Australia crop areas dry and in a growing need of significant rain.

Recent rain in eastern Australia will have aggressive planting taking place over the next ten days and early crop emergence and establishment should advance swiftly.

Worry over dryness in Western and South Australia will eventually grab a few headlines, although there is still plenty of time for improved rainfall. Atmospheric conditions this autumn and winter should provide a good environment for planting and establishment in eastern Australia, although dryness may prevail in South Australia and evolve in Victoria eventually. That leaves Western Australia and it will have a favorable mix of weather that should eventually support planting, but producers will have to wait a while

Brazil Safrinha Crops May Get Important Late May Rain

Incredible amounts of rain fell in Rio Grande do Sul, Brazil and immediate neighboring areas during late April and the first ten days of May. Flooding was exceptional in the middle two-thirds of the state after 12 to 25 inches of rain resulted. Damage to unharvested soybeans, rice and other crops resulted.

In the meantime, Safrinha corn and cotton areas from Mato Grosso to Mato Grosso do Sul, Goias and Sao Paulo steadily dried down during the past few weeks—which is not unusual for this time of year. Subsoil moisture was still adequately rated for most of the late season crops which are approaching and entering reproduction.

Late planted corn will need some rainfall to supplement subsoil moisture and to ensure the best potential yields. Another week of drying is expected with warmer than usual temperatures which will raise crop moisture stress for many areas from Mato Grosso into Mato Grosso do Sul, Goias and Sao Paulo, but the situation will not be critical.

Rain is advertised for the May 18-24 period and if that precipitation occurs as advertised crops in Mato Grosso do Sul and Sao Paulo will improve while those in both Parana and Paraguay will remain in good shape since their moisture profile on Friday was still rated quite favorably.

Overall, the environment still looks favorable for Safrinha crops in Brazil, despite a high level of concern about late planted crops. Those crops may still yield poorly, but the Safrinha crop will not be a disaster especially if the timely rain comes next week as advertised.

In the meantime, additional rain is coming to Rio Grande do Sul and neighboring areas of Santa Catarina, southern Parana, southern Paraguay and far northeastern Argentina. The additional rain in these areas will maintain soggy field conditions in many areas and maintain some concern over crop quality.

Unharvested soybeans in Rio Grande do Sul are most at risk of additional damage due to more rain. However, World Weather, Inc. believes the damage is done and not much new damage is likely.

In the meantime, northeastern Brazil will continue seasonably dry with little reason for concern. Crops in the northeast are being harvested and that process will continue without disruption.

Argentina will experience good drying conditions for its harvest as well, although temperatures will be colder than usual.