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# The Canadian Agriculture Weather Prognosticator

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## *World Weather At A Glance*

- Safrinha corn production areas in Brazil received beneficial late season rainfall just before the monsoon season ended
- Argentina became too wet during the first half of April, but gradual drying is expected
- India's winter crop harvest should reveal near to below normal yields
- North China Plain is dry biased today, but late this month and in early May rain should bring relief
- Russia's Southern Region and eastern Ukraine are drying out
- Southeastern Europe dryness in early April was being eased at the time of this report
- U.S. west-central Plains are dry and need rain
- U.S. Midwest planting progress will be slow due to bouts of rain
- Mexico drought will prevail until monsoon rains begin

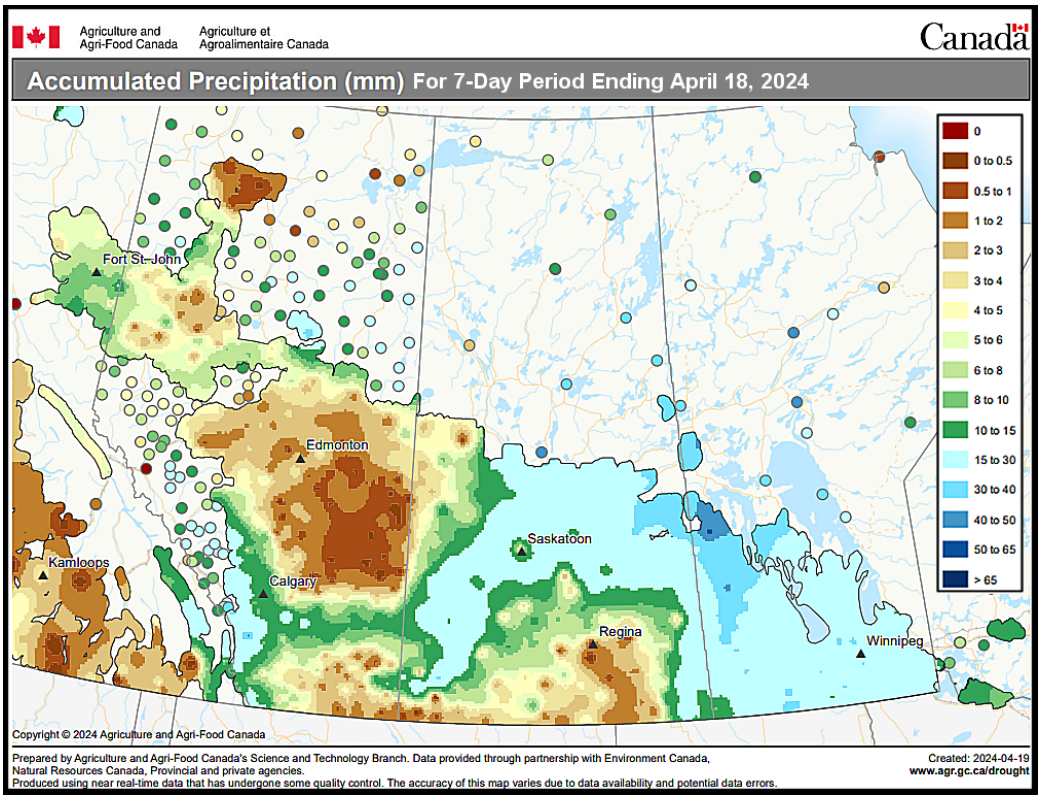
## 45-Day Pattern Brings Moisture To East

In the late March prognosticator, World Weather, Inc. wrote about a 47-50 day pattern that might return moisture to the second half of April. Well, the pattern developed on the 45th day anniversary of the early March storm system that impacted Manitoba and portions of Saskatchewan.

The storm system that brought some of the greatest precipitation of the year this week was just like the early March storm system. The storm was more impactful than the event in early March because of warmer temperatures and the fact that more moisture was available in the atmosphere in this week's storm after recent warm biased conditions.

These short term repeating weather cycles like the one of 2022-23 that was 60-days in length, can be great forecasting tools when identified. In some years, though, these patterns are too weak to repeat very many times. The next potential anniversary of this now 45 day cycle will be May 31-June 2. If this pattern is going to show up again that is the period most favored for the event.

Due to additional seasonal warming and an associated northward shift in the jet steam, the next time this pattern appears it could be a little farther to the west. This tendency will be dependent on a



# 45-Day Pattern Brings Moisture To East Prairies (from page 1)

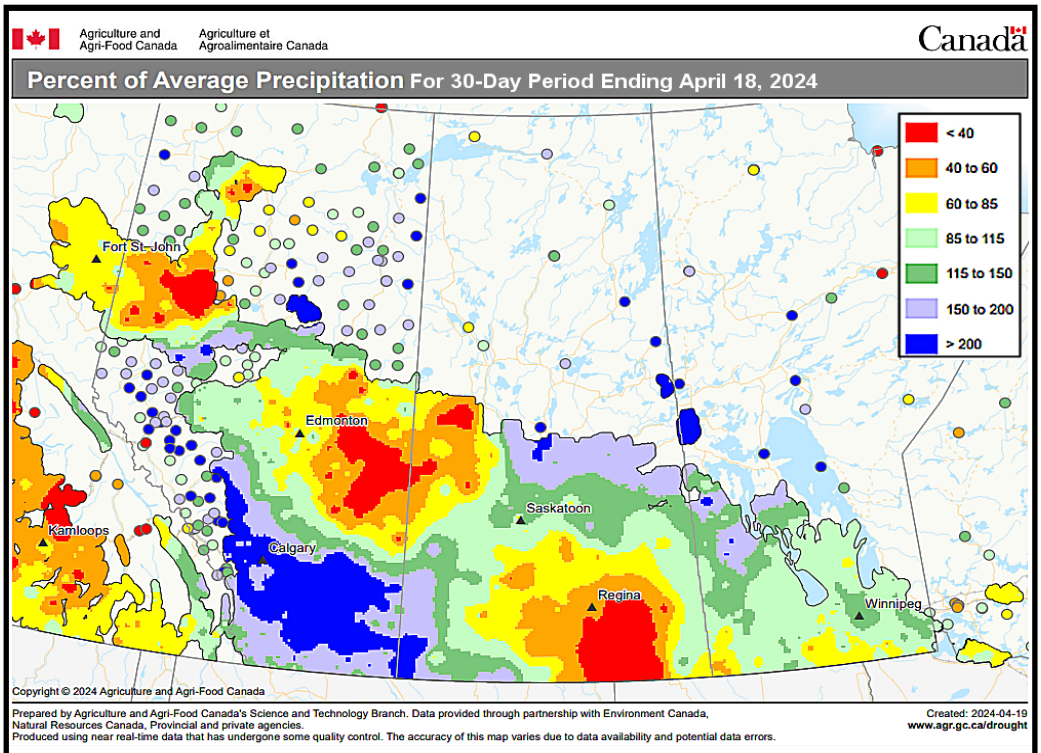
number of other weather influences on the Prairies, but this week's storm system was especially beneficial because of its slow movement.

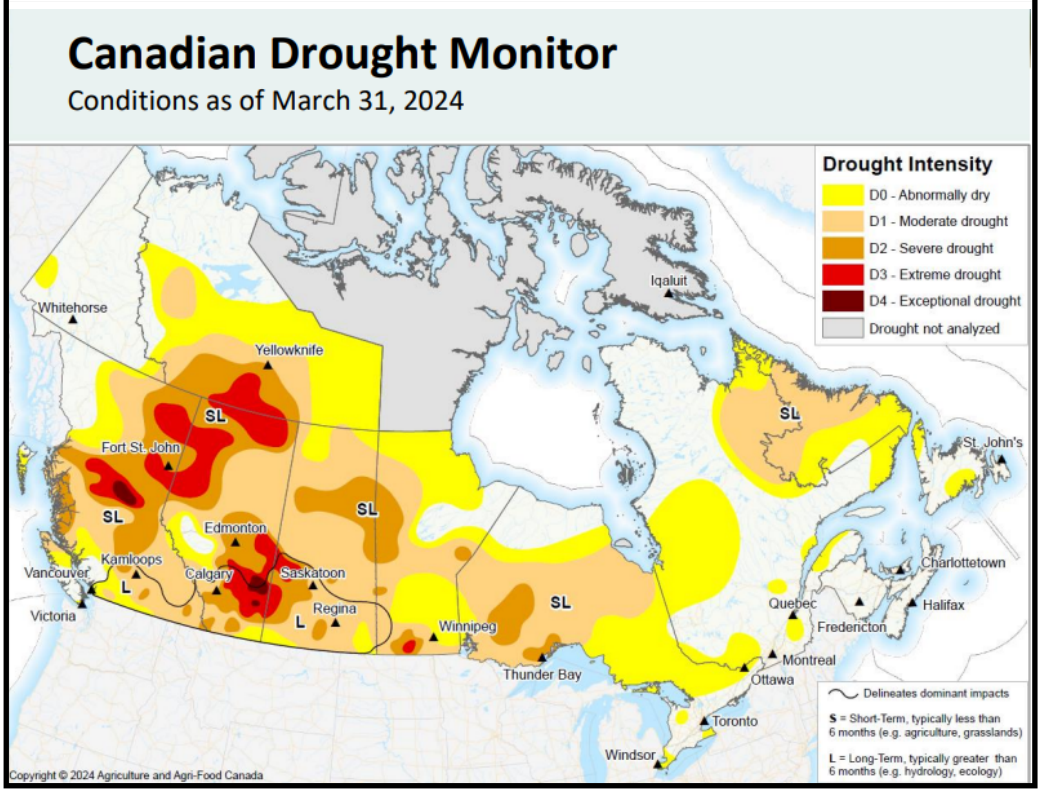
Moisture totals were most significant in Manitoba and northeastern and north-central Saskatchewan into the Lake Diefenbaker area. Moisture totals of 0.50 to 1.50 inches occurred most often with several areas getting up to 2.00 inches. Snowfall was significant in a part of the region, as well. Some impressive snow accumulations were noted from northwestern Manitoba into northern Saskatchewan. If you recall the early March storm produced the greatest snowfall in and around Saskatoon and North Battleford.

The saddest part of the return of this early March storm system is that it reinforced the dryness that has been prevailing in central and northern Alberta as well as the Peace River region and south-central through southeastern Saskatchewan. Relief from dryness did occur in parts of west-central Saskatchewan, but it was limited for many areas and there is an ongoing need for more moisture.

No major drought in the past was ended from a single weather event and that will certainly be the case in 2024. Relief from dryness has occurred in many areas across Saskatchewan and Manitoba and the spring planting outlook has improved greatly in the effected areas. However, there are still many parts of Alberta and Saskatchewan that are still drought stricken and in need of significant precipitation.

As noted in the previous prognosticator, the western Prairies are not favored for much recovery from the multi-year drought—at least not during the spring. Even though southern Alberta has seen some significant moisture recently, drought will remain a concern along with other areas in the western and south-central Prairies. These areas are more favored for relief during the summer rather than this spring.



# May Trends A Little Wetter; Still Low Confidence

The balance of April should bring some warming back to the Prairies, although it will be a slow process. Eastern parts of the region may be slowest in warming, but by the end of the month it, too, should be warmer biased. Alberta will have the warmest bias during the balance of April especially in the northwest half of the province.

Precipitation in the last ten days of April will be quite variable. The majority of the Prairies will get at least some rain, though the distribution of greater than usual amounts should be low. A Pacific storm coming inland through British Columbia will attempt to bring a boost in precipitation to the Peace country. That precipitation will be very important for planting after the restricted precipitation pattern of winter and the warmer than usual conditions that have dominated the past few months.

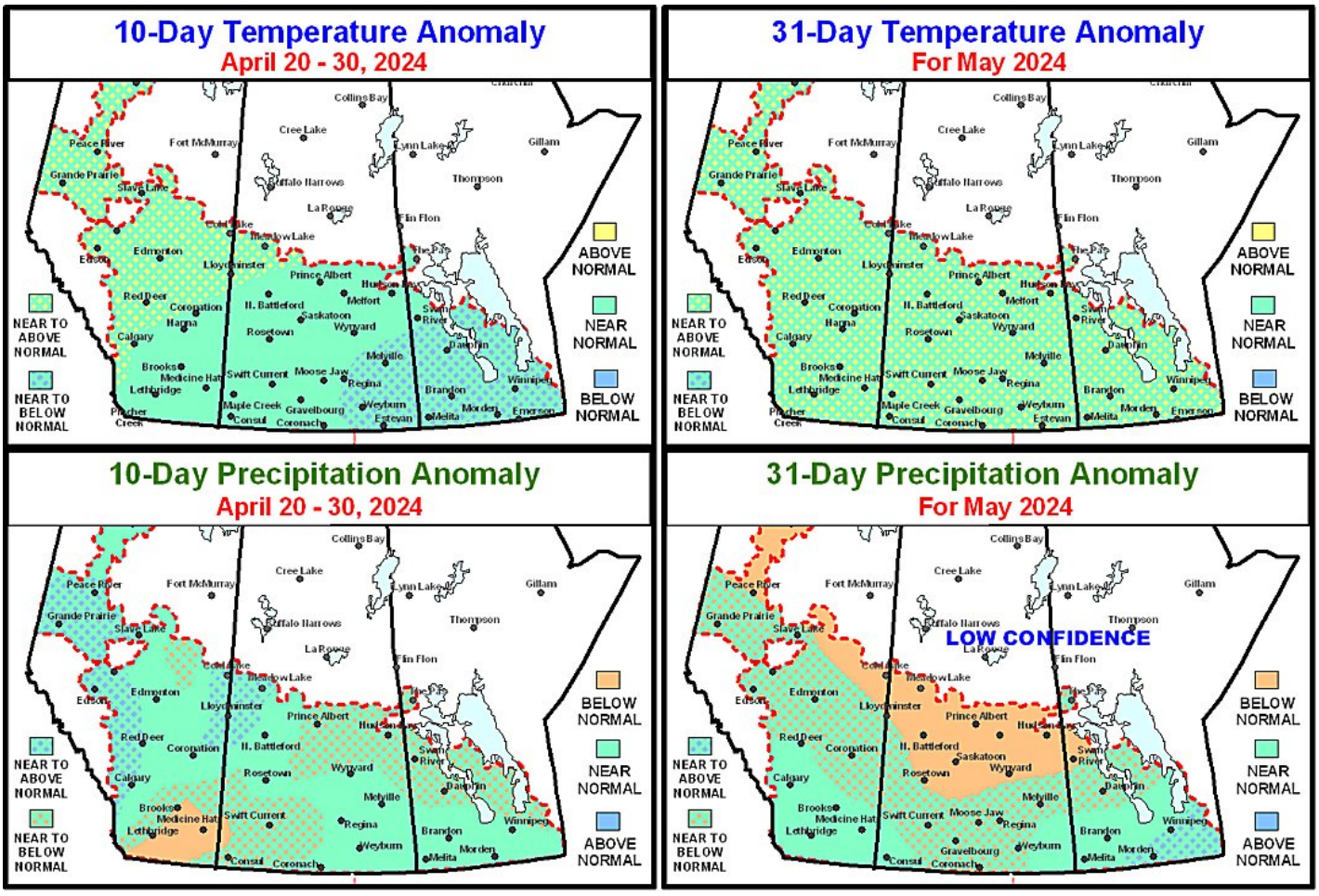
Southwestern parts of the Prairies should fall back to a below average precipitation bias during the next ten days and lighter and less frequent precipitation is also expected in northeastern Saskatchewan and northern and east-central Manitoba.

A couple of weather systems moving across the Prairies in the balance of this month will bring some brief bouts of precipitation, although very few areas will get "normal" amounts and much of it will be a little lighter than usual.

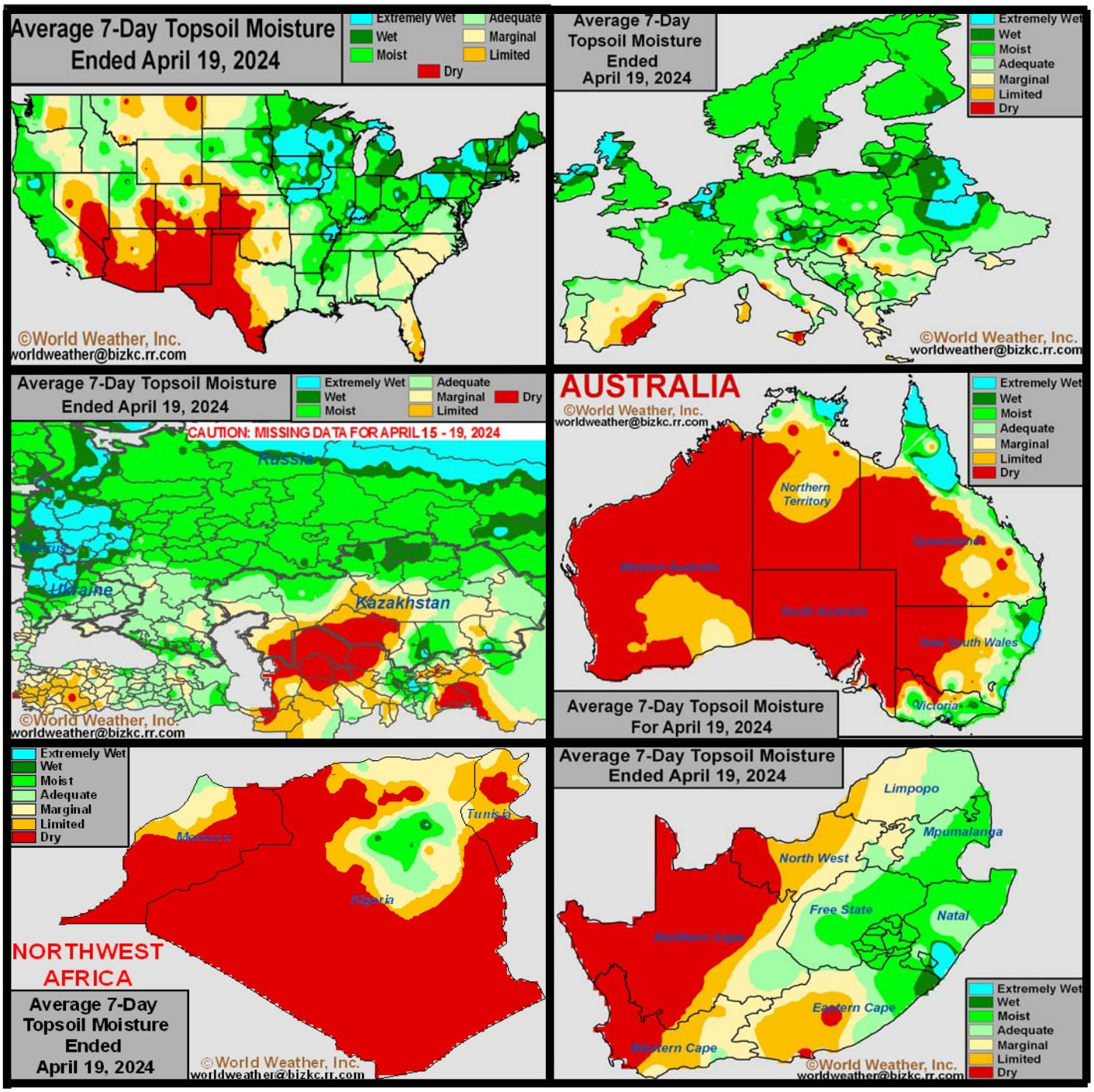
May continues to be advertised as a month of transition due to expected changes in weather patterns that will take place during the month. The forecast remains of low confidence because of the changes that are expected. This updated outlook for May is wetter than that shown in the previous prognosticator and confidence in that part of the outlook is higher. However, the details of the precipitation distribution continue to elude the most savvy of forecasters. Conditions at the end of May should be trending warmer and drier in the southeastern Prairies while those in the west may be trending a little wetter. Areas in central parts of the Prairies will likely get cheated from significant rain and may dry down a little more.

Confidence is high for warming temperatures in May with much of the Prairies experiencing a warmer than usual bias by the end of the month. Early month temperatures will be warmest in the west while late month temperatures may be warmest in the east.

Relief from dryness in the southwestern Prairies is not likely to be substantial, but any rain would be welcome.



# Selected Weather Images From Around The World




Durum wheat production from North Africa may be a little below average this year, but it will still be a better year than 2023. Northern Morocco production should be better and some improvement is expected from northeastern Algeria and Tunisia, although greater rain is needed in these latter two areas soon to protect production. Southern Australia needs rain to improve planting conditions for wheat, barley and canola. Some drying has occurred recently from eastern Ukraine into Russia's Southern Region, although it is not too dry yet. A ridge of high pressure is expected to dominate the growing season in parts of Russia this year which could have a negative impact on production for some spring wheat and sunseed crops, although planting has not advanced much yet. U.S. weather recently brought relief to the dry areas of the western Corn and Soybean Belt, but deep subsoil moisture is still low. Most of Europe is in good shape for spring crop development and South Africa is experiencing good summer harvest weather.

# Summer Outlook Unchanged

Recent weather across North America has looked somewhat like a melding of our three most recent 18-year cycle years. 2006, 1988 and 1970 each had a different signature in the Prairies, although the bias in April of those years tended to be wetter than usual in at least a part of the eastern Prairies. There was also some tendency (two out of the three years) for greater than usual April precipitation in southern Alberta. That adds confidence that enough similarity exists among the three years to continue using them as a proxy for the balance of spring and summer.

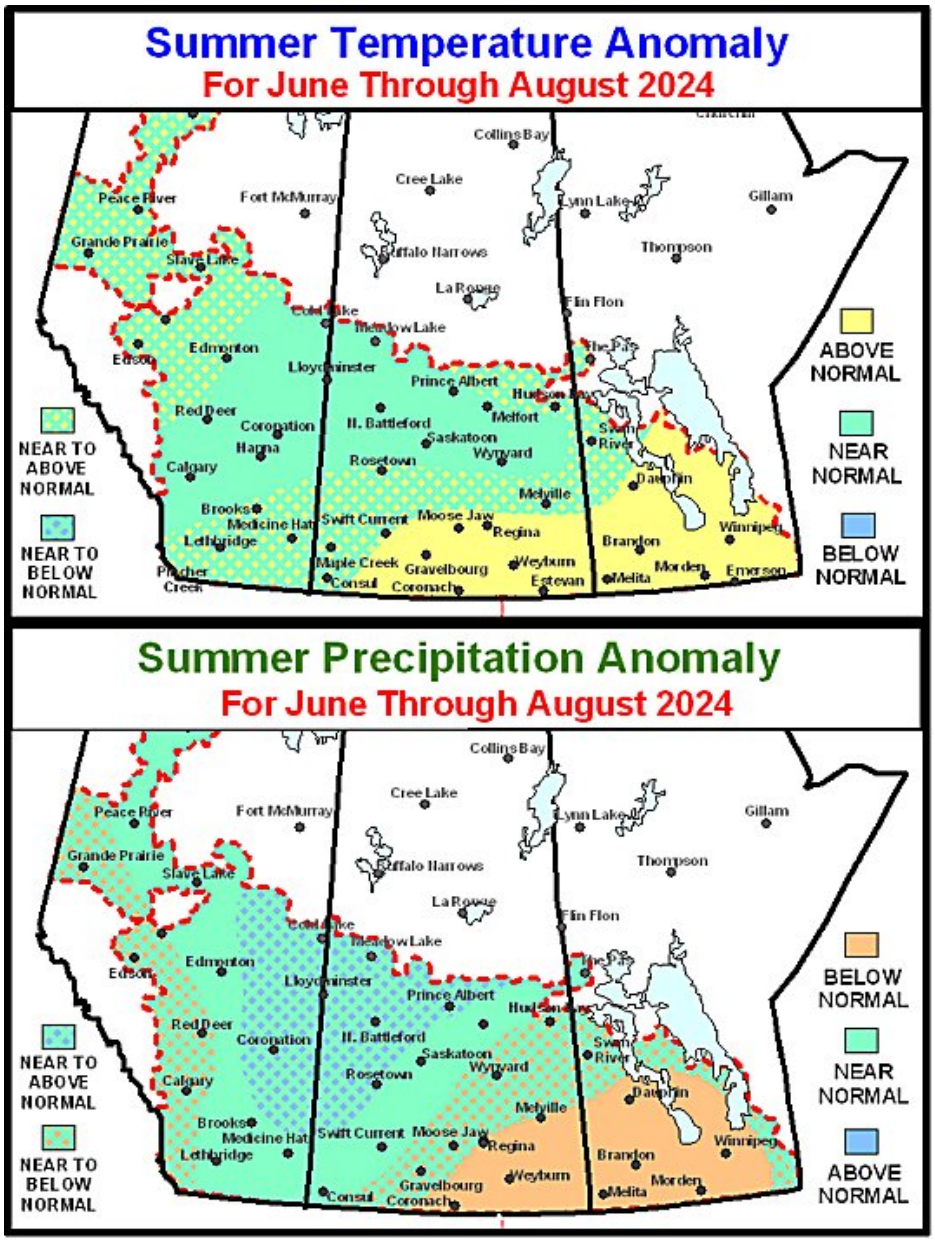
2006 was the wettest of the three years in May and if that year gets its way across the Prairies it will be wetter for most areas. Confidence in that solution is low, though. Both 1988 and 1970 offered a mix of weather during May that was supportive of fieldwork, but there was an ongoing below normal precipitation bias in the central and western production areas while the east tended to do a little better.

Summer during the three analog years provided a definite trend toward drying in the southeastern Prairies and a wetter bias in parts of the west. Each of the three years had a drier than usual bias in Manitoba and southeastern Saskatchewan and all three years supported better rain in north-central and eastern Alberta and west-central into northwestern Saskatchewan. Confidence in this summer snapshot increased when we added three more analog years to the mix . All six years favor this same scenario and that does not happen very often.

The development of La Nina is still expected this summer and that should provide a little more rainfall for the Prairies. Given the dominating pattern of dryness in the east and rain in the interior west from our first three analog years and the persistence of that trend with the three additional years (1934, 1952 and 1916, production potentials should be improved. La Nina could mellow out some of the dryness in the eastern Prairies, but much of that will be determined by the intensity of La Nina and how quickly it might begin to have influence on the Prairies.

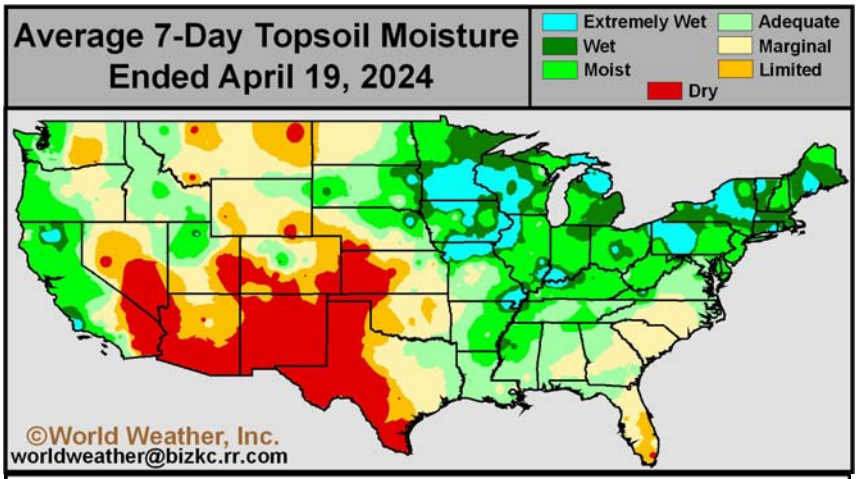
Early indications suggest La Nina may be a little slower in evolving relative to previous forecasts from NOAA, but consistent from the Australia Bureau of Meteorology. That implies more confidence of improving rainfall in the western Prairies and some potential for less intensive dryness in the eastern Prairies. Only time will tell if this trend is correct, but confidence remains high that the Prairies (in general) will see enough improved rainfall in 2024 to produce larger crops and that includes some of the most drought stricken areas in Palliser's Triangle.

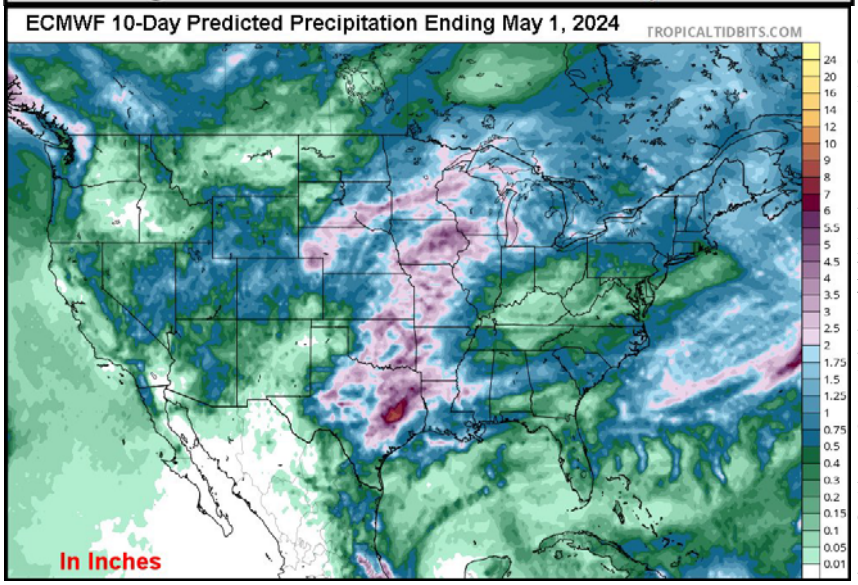
Drought may remain in the subsoil for much of today's driest areas in the Prairies, but enough timely rainfall should occur in many areas to stave off another year of seriously poor production.



# U.S. Midwest Planting To Be Disrupted By More Rain

Early-season corn and soybean planting has begun slowly this month across the U.S. Midwest. Waves of rain combined with periods of cool weather limited drying between rain events. A period of drier weather will evolve through midday Monday that may allow for some planting, although erratic precipitation will then advance over the region later Monday and Tuesday. A more active weather pattern will be possible late this month and in early May that may promote more planting delays, although some progress is expected




The eastern half of the Corn and Soybean Belt remains excessively wet due to the additional rain and periods of cooler weather during the past week. The moisture profile also improved in the western Corn Belt. The moisture boost was welcome; though, it also brought some delay in the start of spring planting.

Corn and soybean planting began slowly. The bulk of the planting normally occurs later in April into June and some drying may be needed before that process can begin aggressively. The abundant moisture anticipated in the next couple of weeks will eventually be welcome to support long-term crop development, but for now, the most important prerogative is to get this year's crop planted and off to a good start especially in the west where there is potential for heat and dryness late this spring and summer. Many areas in the western Corn Belt still need additional rain to completely fix the moisture deficits and promote ideal long-term crop prospects, despite some welcome rain recently.

The Midwest will initially experience a mixture of precipitation and sunshine through the end of next week. Light rain will be scattered across eastern fringes of the Corn and Soybean Belt today as a frontal boundary advances over the region. However, much of the Midwest will be dry through the end of the weekend. A disturbance and trailing frontal boundary will bring rain from west to east across the Midwest Monday and Tuesday. Drier weather will return Wednesday and early Thursday before an approaching disturbance potentially generates more precipitation for the western Corn Belt later in the day Thursday.

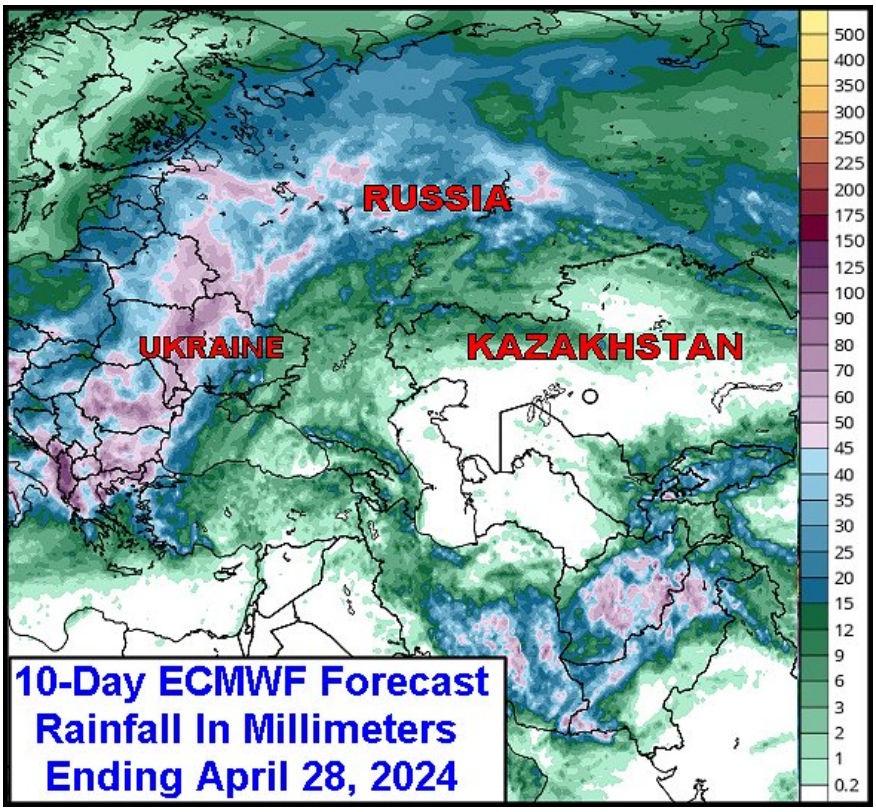
Moisture totals by next Friday morning will range from 0.25 to 1.50 inches in Nebraska, Iowa, Illinois, Indiana, and southern Michigan with local amounts of 2.00 inches or more possible. Other locations will receive 0.25 to 1.00 inch of moisture with pockets that do not receive enough rain to counter evaporation.

Temperatures will be cooler than normal through the end of the weekend as a trough advances over eastern North America. Highs will only peak to the 40s and 50s Fahrenheit in much of crop country. Highs will climb to the 50s and 60s with pockets in the 40s Monday and Tuesday before dropping back to the 40s and 50s later next week. Nighttime lows will often drop to the 30s and 40s with pockets in the Upper Midwest cooling to the upper 20s this weekend and toward the middle and latter part of next week.

An active jet stream will evolve over North America April 27 – May 3. A series of disturbances will generate rain frequently and temperatures will be mild. Wet field conditions will prevail and that will lead to an increasing need for dry weather to get crops planted in a more timely manner before the heat of late spring and summer arrives.

# East Ukraine, Southern Russia Face More Drying

Drying in eastern Ukraine, Russia's Southern Region and Kazakhstan has begun to grab more attention in the commodity trade and these areas are likely to see at least ten more days of dry and warm biased conditions. In the meantime, western Russia, Belarus, and the Baltic States have seen a better mix of rain and sunseed. The weather pattern supporting these trends is stagnating and that will lead to greater rain frequency and amounts in the western Commonwealth of Independent States (CIS) while dryness festers in eastern Ukraine and Russia's Southern Region.




Periods of warmer than normal weather were noted in the western CIS during the past week. Highest readings peaked to the 70s and 80s Fahrenheit for Ukraine, Russia's 'Southern Region', and the Volga River Basin. Western Russia, the Ural Mountains region, and western Kazakhstan saw highest readings reach the 60s and 70s. Highest temperatures in northern Kazakhstan and the eastern New Lands were in the 50s and 60s.

Soil moisture remains at adequate levels for much of crop country in the western CIS. However, pockets in the 'Southern Region', eastern Ukraine, western Kazakhstan, and immediate neighboring areas are beginning to experience slightly short moisture conditions.

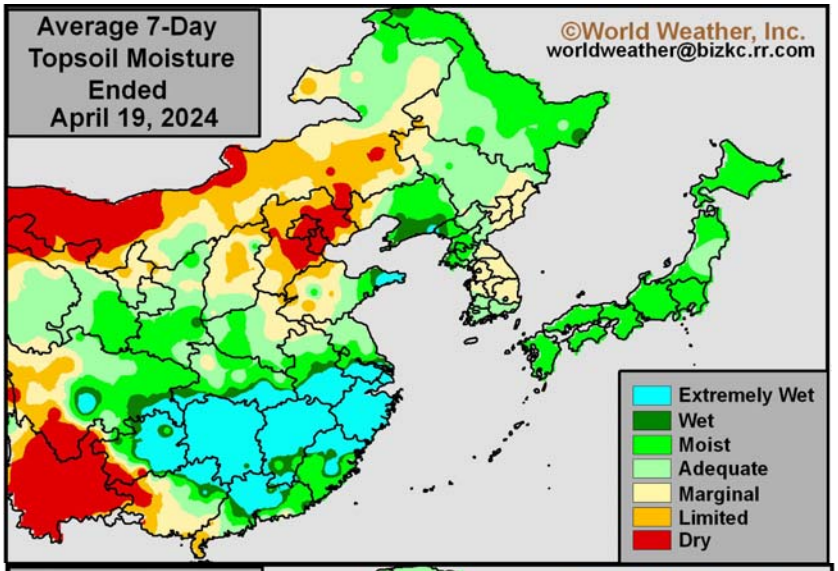
Planting of the spring grains is underway in portions of the western CIS. Russia has reported 9% of its totals spring crop planting has already been completed. Flooding and standing water likely limited early-season planting and general fieldwork. However, net drying in recent days likely supported a better environment for aggressive planting. Dryness is not yet a concern in the 'Southern Region' and neighboring locations. Timely rain will still be needed in the coming weeks to maintain favorable establishment and early-season development before root systems are able to draw moisture from the subsoil.

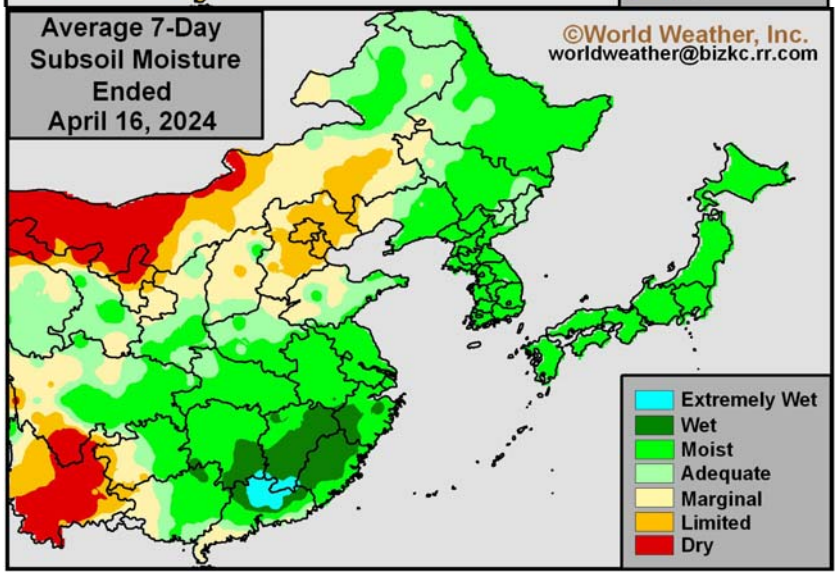
Weather will vary significantly for the western CIS through the middle of next week. A high-pressure ridge will build over western Kazakhstan and neighboring areas that will promote drier than normal weather from eastern Ukraine through Russia's Southern Region', Ural Mountains region, and Volga River Basin into much of Kazakhstan. Brief periods of light rain will still occur, though resulting rainfall will be too light to counter evaporation or impact long-term soil conditions.

The lack of rain and warmer than normal weather will promote aggressive drying from eastern Ukraine through the 'Southern Region', Volga River Basin, and Ural Mountains region into much of Kazakhstan through the end of April. Winter grain and oilseed development conditions will remain generally good during the next few days. However, development rates may start to slow later in the month, mostly notably for the shorter-rooted crops. Planting of the summer crops and general fieldwork will advance swiftly as well. However, the gradual reduction in topsoil moisture will eventually lead to slower establishment and early-season development. The need for timely rain will increase significantly early in May to reverse the drying trend and improve long-term crop conditions for both the winter and summer crops.

# Southern China Flood Potential Threatens Rice, Rapeseed

Flood potentials will increase with anticipated waves of heavy rain through the coming week to ten days in portions of southern China. The provinces most impacted will be Hunan and northern Guangxi into Jiangxi, Fujian and Zhejiang. Northern Guangdong may also be impacted. Flooding may damage a few of the southernmost rapeseed crops, but it may also have an impact on rice production in the region. Some planting delay and need for replanting of rice is a possibility because of the wet weather. In the meantime, the North China Plain will trend drier biased through the middle of next week and dryness will intensify for Hebei, Shandong, and neighboring locations. Rain will soon be needed in the North China Plain to support wheat development and the planting of spring and summer crops.




Moisture deficits persist for Yunnan and immediate neighboring areas in Sichuan, Guizhou, and Guangxi due to the lack of rain and warm weather in recent weeks. Many areas in Inner Mongolia and Hebei also have a shortage of moisture due to drier weather. The remaining locations in the North China Plain have adequate to marginally adequate moisture. Other production areas in China have adequate to excessive soil moisture.

Winter rapeseed conditions remain generally favorable near and south of the Yangtze River Basin. Recent rainfall was too light to promote serious flooding outside a few pockets in Zhejiang and northern Jiangxi. Early season double-cropped rice was developing well and the same was true for early corn planted in southern China outside of Yunnan. Dryness in Yunnan remains a concern for many crops. Sugarcane has been developing favorably as well.

Outside of Yunnan, there are very few areas in southern China that need a serious increase in precipitation or soil moisture. However, rain is expected and it will be heavy at times which will saturate the ground quickly and induce some flooding which will raise some risk to early season crops.

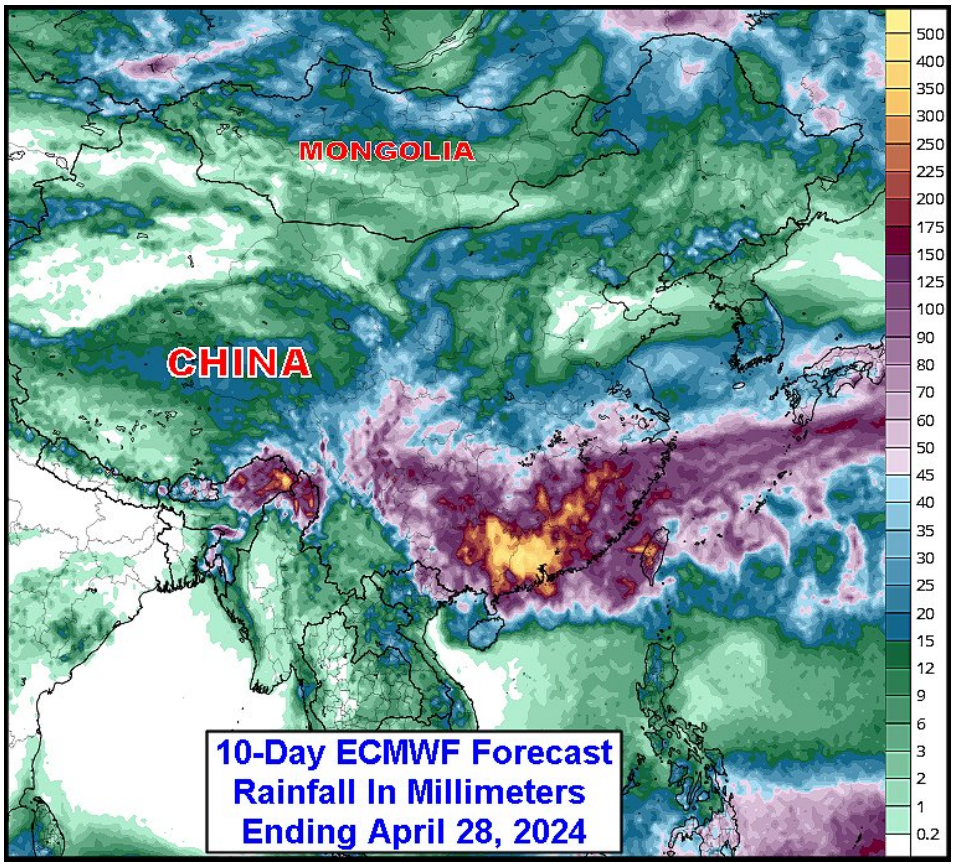
## FLOOD POTENTIAL RISES IN SOUTH

Waves of rain are slated for areas near and south of the Yangtze River through the middle of next week. The most widespread and significant rain will occur through the end of the weekend as disturbances pass over the region. Light and spotty rain will persist in a few locations at the beginning of next week. Moisture totals by next Wednesday morning will range from 4.00 to 8.00 inches with local amounts of 12.00 inches or more from Hunan and northern Guangxi into Jiangxi, Fujian, Zhejiang, northern fringes of Guangdong, and immediate neighboring locations. Flooding is likely. If the rain is as significant as advertised rice damage should be expected with some need for replant-

# South China Flood Potential Threatens Rapeseed (from page 8)

ing. Southern Rapeseed is likely maturing and being harvested, but this rain will stall that process and could seriously threaten the quality of unharvested crops. Drought in Yunnan will not be impacted by this rain event and crop stress will continue.

The remaining locations in the Yangtze River Basin and southern China will receive 0.75 to 4.00 inches of rain, though many areas in Yunnan will only receive 0.10 to 0.75 inch of moisture. These areas will again have several opportunities for rain April 25 – May 1, though overall rain amounts will likely be lower compared to the first week of the outlook. None of the crops in this region are facing a damage threat, although drier weather will be needed to protect rapeseed quality and to expedite fieldwork of all kinds.




## NORTH CHINA PLAIN TOO DRY

The need for rain is also increasing in the North China Plain. Hebei and neighboring locations have become too dry to support ideal winter wheat growth and rain will soon be needed to support summer grain, oilseed, and minor cotton planting. Other locations have some moisture to support good crop prospects, though most locations would welcome rain. Crop conditions are otherwise generally favorable in the central Yellow River Basin as most locations received some rain in recent weeks. Planting in northern China normally begins in May.

m Hebei and Shandong will trend drier and warmer than normal through the middle of next week. The lack of rain and warm weather will continue to dry the soil and may impact winter wheat development rates. Planting of the summer grains, oilseeds, and cotton may also advance slowly until rain evolves.

The remaining locations in the North China Plain and much of the central Yellow River Basin will have a few opportunities for rain through the middle of next week. Much of the precipitation will occur overnight tonight into Friday as a disturbance passes over the region. Southern Shaanxi and neighboring locations will have a few opportunities for light rain later this weekend into early next week as well. Moisture totals by next Wednesday morning will range from 0.25 to 1.00 inch and locally greater amounts. A similar weather pattern is expected April 25 – May 1. Winter wheat prospects will remain generally favorable, even in areas that only receive light rain. Early-season planting and general fieldwork will advance swiftly around the rain.

Northeast China and central Inner Mongolia will have a few opportunities for precipitation through the middle of next week as well. Precipitation totals will range from 0.25 to 1.00 inch with local amounts of 1.50 inches or more in northern Heilongjiang and pockets of Inner Mongolia. Soil moisture will remain mostly unchanged with some deficits continuing in central Inner Mongolia. Early-season planting prospects will otherwise remain favorable for Northeast China.