The Canadian Agriculture Weather Prognosticator

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<u>World</u> Weather

- Russia's southern
 wheat and barley
 region is finally get ting some moisture,
 but it comes late and
 the crops will not be
 well established this
 winter raising a win terkill potential
- Brazil and Argentina weather is looking mostly good for the next few weeks
- U.S. drought expansion in September and October is coming to an end with a wet start to November in the Plains and parts of the Midwest
- India weather has been and will continue good for summer harvesting and winter crop planting
- China is experiencing very good weather for wheat and rapeseed planting, although some rain is needed in rapeseed areas
- Southwestern Australia rainfall was a little too light this year cutting into production of wheat, barley and canola.

Harvest Finishes Well, But Dryness Remains

Another month of below normal precipitation was noted across much of the Prairies during October. Much of that was expected, although the Peace River Region and far northern Alberta ended up wetter than expected while the northeast parts of the Prairies were drier biased.

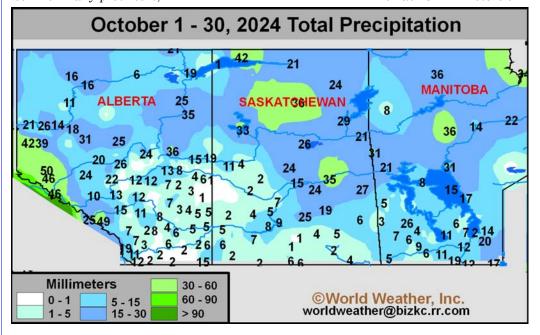
Most producers in the Prairies probably welcomed the dry bias so that harvesting could advance as well as it did. However, the persistence of below normal precipitation in the Prairies and across much of North America has been a growing concern for many producers,

traders and the average Joe. But, World Weather, Inc. still believes this is part of cycle that will come to an end eventually.

Part of the cause to dryness in October was a closed Gulf of Mexico. Normally, in the autumn moisture flows into the Prairies from the Pacific Ocean as storm systems push through the region and the moisture is often supplemented by Gulf of Mexico moisture that reaches north through the U.S. Great Plains. However, from the middle of September through most of October the Gulf of Mexico was closed off as a moisture source for the U.S.

Plains, western Midwest and areas north into the Prairies. At the same time the Gulf of Mexico was closed as a moisture source, storm systems moving across the Prairies came mostly from the northwest or west and not the southwest limiting Pacific Ocean moisture from reaching the area as well.

Rainfall east of the Alberta Highway 2 corridor was limited during October. That limited moisture situation passed through all of western and southern Saskatchewan to most of Manitoba where very few areas received as much as 13 millimeters of



Harvest Finishes Well, But Dryness Prevails (from page 1)

precipitation. Temperatures in October were also warmer than usual for most of the Prairies and the combined impact of limited moisture, limited precipitation and warm temperatures led to a very good harvest environment.

The good harvest weather was welcome by all, but the lack of rain has left drought and abnormally dry conditions in much of the Prairies from

eastern and southern Alberta through most of Saskatchewan to portions of Manitoba. Some areas still have a favorable amount of moisture in the soil for use in the spring, but many others do not.

Recently, World Weather, Inc. conducted a study of precipitation events (or lack thereof) for September and October because much of that dryness was associated with the closed Gulf of Mexico as noted previously. It turns out that North America saw similar conditions occur in September and October of 1952. The parallels were almost uncanny. The only events that deviated this year from 1952 were the two hurricanes

amounts of rain to areas south of the Ohio River and east of the Mississippi River. However, the two storms did help to trap Gulf of Mexico moisture into the southeastern United States so that no moisture could flow northward through the Great Plains to Canada. Hence our drought continues.

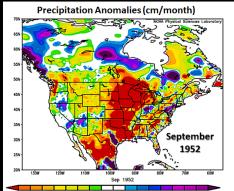
Not that 1952-53 is necessarily the best analog year to follow, we did

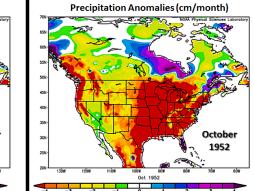
find it interesting to note that November continued drier than usual in the Prairies, although there was a boost in precipitation over that of October. December also continued a little lackluster on precipitation, but everything changed in Janu-

ary and a wet weather bias evolved and prevailed into the spring. World Weather, Inc. thinks that the parallel to 1952-53 will likely come to an end in December. A wetter bias may indeed develop in 2025, but we are not ready to make that commitment and if we do it will not be due to the parallel with 1953. The reason for that statement is that 1953 was at the beginning of the same 22-year solar cycle

year because of the difference in the solar cycle and a few other changes anticipated.

For now, the parallels with 1952 are certainly worth watching. We will closely monitor the next few weeks, but the biggest change should be cooling temperatures and a boost in snow cover, but the moisture deficits will remain until the spring thaw.



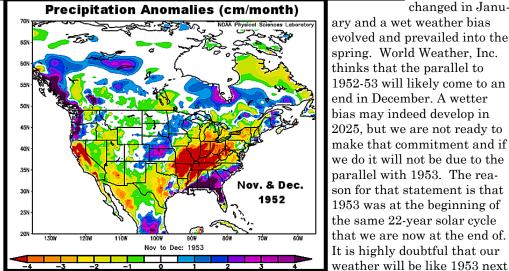


The forecast

for the next 30-60 days does suggest a gradual upswing in precipitation for the Prairies; however, that increase comes while temperatures are cooling. Frost is expected to get into the ground relatively soon and that will place a barrier against moisture from future rain and snow events from penetrating very deeply into the soil.

The colder temperatures and improved precipitation will help put some snow on top of the soil, but the moisture contained within it may end

up melting away and rolling off into rivers, streams and dugouts without fixing the moisture deficits deep into the ground. For producers in the southwest and some in south-central parts of the Prairies this is a nightmare to deal with because it has already been eight years of poor moisture profiles and the thought of going into a ninth year of this can be overwhelming.



Francine and Helene that impacted the southeastern United States.

Hurricane and tropical cyclones in general are random events. There is no cyclical weather pattern that helps to predict their occurrence. where they will go or how intense they will become. Both hurricanes Helene and Francine were significant events for the United States causing serious damage and bringing copious

Slowly Improving Precipitation Events Next Few Months

Changing weather is expected in the Prairies during November, but the change comes late enough in the season that both average temperatures and normal precipitation are in decline. That means it will be easier for "normal" precipitation to fall in the Prairies, but with colder temperatures that moisture will not likely be enough to seriously improve the moisture profile and because it will occur as snow after parts of the region start to accumulate frost in the ground the benefit may not be nearly as great as it might seem at first glance.

Precipitation will be close to normal in many areas across the Prairies during November, but normal in the heart of the region is often a light amount and a serious increase in soil moisture is not very likely. For areas to the east in Manitoba and eastern Saskatchewan, "normal" precipitation in November is greater than that in

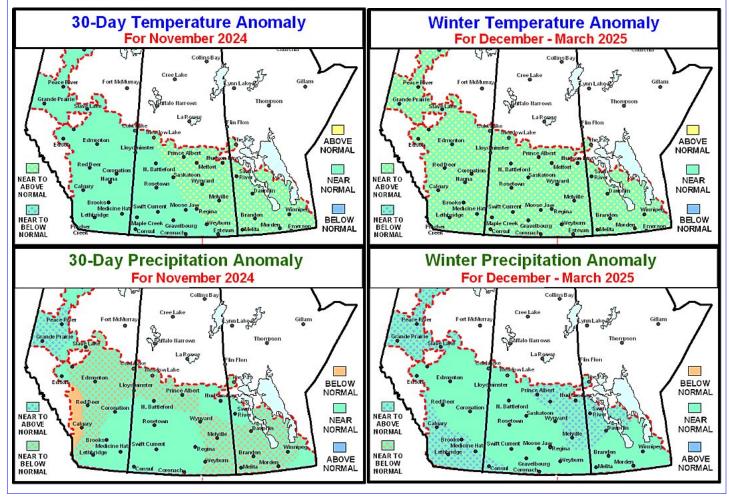
the central and western part of the Province and greater than that which usually falls in eastern and southern Alberta; however, the precipitation is expected to be a little lighter than usual at times limiting some of its benefit in the drier areas.

The one region that may have the best potential to be wetter than usual in November will be the Peace River region where precipitation may be near to above normal. Snow depths may be above average and moisture totals for the month should be sufficient to maintain the wetter bias that was noted in October.

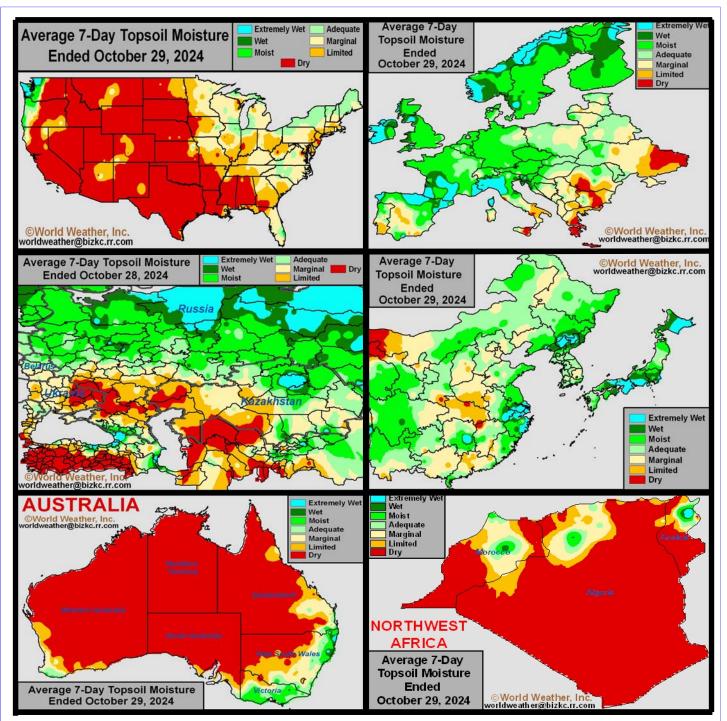
Temperatures in November should be a little warmer than usual for the eastern Prairies while close to normal in the west. The first week of the month will be notably above normal in the east and more seasonably cool in the east. The middle two weeks of November are likely to be warmer than usual in many areas and that will be followed by a return of coolerbiased conditions in he last week of the month.

Winter is expected to be near to slightly warmer than usual for most of the Prairies and precipitation will be near to above normal. A wet finish to the cold season is expected and that may lead to greater spring moisture as well.

Some of the analog years are quite wet in the spring and World Weather, Inc. is not ready to buy into that potential, but as we move out of the chronic dry pattern in North America there will be potential for greater rain events. The problem is, after eight years of drought in the southwestern Prairies it is hard to think that it will ever trend wetter than usual again, but it will.....eventually.



Selected Weather Images From Around The World



U.S. soil moisture is poor in the Plains and western states and below average in the Midwest and parts of the Delta and southeastern states. Weather in the U.S. is on the cusp of change and central parts of the nation will trend much wetter over the next few weeks. Another dry region in the world remains in southern parts of Russia, eastern Ukraine and western Kazakhstan. There is potential for greater moisture in these areas during November, but the change will come after many crops are trending semi-dormant limiting the potential for big improvements until spring. Australia's dryness in the west and south-central areas has cut into wheat, barley and canola yields, although most assessments suggest subsoil moisture supported crops long enough to reduce some of the potential production cuts. China and India weather in recent weeks has been close to ideal for the maturation and harvest of summer crops and the planting of winter crops. North Africa has begun to receive rain, though much more is needed for planting.

Central U.S. Rainfall To Reduce Drought

Moderate to severe drought has been developing across much of the central U.S., with some extreme drought occurring in Oklahoma. Through at least November 6, multiple rain events are expected to occur which will bring a general total of

2.00 to 4.00 inches of rain from Iowa southwestward into northern Texas. Heavier amounts in excess of 6.00 inches are possible in some areas. These amounts will be beneficial in improving drought conditions and allowing for improved crop development and establishment in wheat areas of the Plains and western Midwest.

As of October 24, moderate to severe drought conditions are affecting much of the central U.S. Oklahoma is experiencing scattered areas of extreme drought. Much of the central U.S. has not seen significant rainfall near or above 1.00 inch since late September. More rainfall will be needed in this region to improve drought conditions, and to support crop development and establishment in the hardred winter wheat region.

Two significant rain events are expected to occur across the central U.S. in the next 7-days. The first event will occur Wednesday into Thursday, with at least 0.30 to 1.50 inches of rain occurring from Iowa to eastern Texas. Locally heavier amounts are likely in some

areas. A break in the precipitation will occur on Friday, with the second round of rain beginning Saturday and lasting through at least November 6. In total, for the next 9-days, between 2.00 to 4.00 inches of rain is generally expected from Iowa, going

southwestward into northern Texas. Heavier amounts in excess of 4.00 inches are anticipated in southeastern Kansas, western Missouri, and portions of Oklahoma, with locally heavier amounts in excess of 6.00 inches likely in some isolated areas.

Map released: Thurs. October 24, 2024
Data valid: October 22, 2024 at 8 a.m. EDT

Intensity
None
D0 (Abnormally Dry)
D1 (Moderate Drought)
D2 (Severe Drought)
D3 (Extreme Drought)
D4 (Exceptional Drought)
No Data

Authors
United States and Puerto Rico Author(s):
Rocky Bilotta, NOAA/NCEI

> This amount of rainfall will be beneficial for improving soil moisture across the central U.S. and reducing drought conditions. With the heaviest rainfall expected in some of the driest portions of hard-red winter wheat country, this rainfall will be

additionally beneficial in supporting better crop development and establishment. Due to the expected heavy amounts in isolated areas, some flash flooding may be possible, though prolonged flooding is not expected. Western portions of hard red-winter

> wheat region will see lesser amounts between 0.50 and 1.00 inch and will need more to improve overall conditions.

The same precipitation event expected this weekend into early next week will also bring rain to West Texas cotton country. The moisture will be great for wheat and other cover crops produced in the southwestern Plains, but cotton is quite vulnerable to persistent rain of significance because of its mature state. Most bolls are open and some harvesting is under way. Cotton fiber subjected to the rainy weather will experience some decline in quality and for those areas that receive the greatest rainfall there is potential for some of the cotton fiber to be strung out of bolls. This is most likely in the Rolling Plains and not in the high Plains region of West Texas. Some significant rain is also expected in the Blacklands of northern Texas where there may also be a decline in fiber quality for any remaining crop.

Livestock grazing conditions should improve in much of the central and southern Great Plains and southwestern Midwest

where drought has been limiting new grass development. The coming moisture combined with warm soil temperatures should green up many pastures and rangeland and offer a late season burst in grass development.

Russia's Winter Wheat Not Establishing Well

Winter grain and oilseed prospects are variable across the western Commonwealth of Independent States. The main production areas for Russia and neighboring locations in eastern Ukraine and western Kazakhstan still have a shortage of moisture despite spotty rainfall in recent weeks. These areas will again

have opportunities for more rain through the middle of next week that will marginally bolster soil moisture. However, the environment will be far from ideal and winter is approaching. Soil temperatures are decreasing rapidly and will further decrease in the coming weeks. Many crops may establish unevenly or poorly before going dormant, which could increase the threat for winterkill.

The Volga River Basin and 'Southern Region', along with eastern Ukraine and western Kazakhstan, have short to critically short soil moisture despite some spotty rain in recent weeks. Other locations in the western Commonwealth of Independent States have adequate to marginally adequate moisture. Soil temperatures in the main winter grain and oilseed areas of the western CIS are approaching the threshold for causing crops to go dormant, though most locations are still warm enough for some slow establishment and growth.

Concerns are high for lower than usual winter grain and oilseed production for the upcoming season across Russia, Ukraine, and Kazakhstan. The main production areas have been too dry to support ideal establishment this autumn. Many crops established unevenly or poorly. Planted acreage may also be down due to the dryness. With soil

temperatures decreasing, the need for timely precipitation is high in the coming weeks before crops go dormant.

A series of disturbances will advance across the western CIS through the middle of next week. These disturbances will promote waves of precipitation on a frequent

with drier pockets. Western Russia and the Ural Mountains region into portions of Kazakhstan and the eastern New Lands will often see precipitation fall as snow. New accumulations will range from 2 to 8 inches and locally greater amounts. Snow will be minimal for the Volga River Basin and 'Southern Region'.

Ukraine and southern Belarus will otherwise miss out on much of the precipitation, though some light rain and snow will occur through the middle of next week. Resulting precipitation will be too light to impact longterm soil conditions.

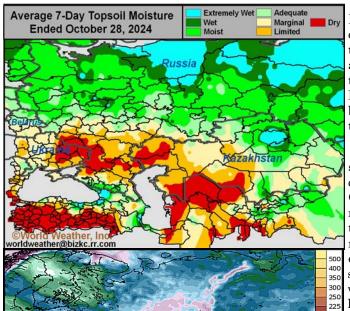
A gradual cooling trend is slated for the main winter crop areas in the western CIS through the middle of next week. Daytime highs through Saturday will often reach the 40s and 50s Fahrenheit with pockets in Russia's 'Southern Region' often warming to the 60s. Highs later this weekend into next Wednesday will drop to the 30s and 40s with pockets in the 20s. Soil temperatures will remain mostly unchanged during the next few days before gradually decreasing later in the forecast period.

The spotty precipitation that falls in the main winter crop areas in the coming days may marginally bolster soil moisture. However, the rain and snow will be too light to impact long-term soil

conditions. The cooler weather will lower soil temperatures and may cause some of the crop to go dormant. Late-season establishment conditions will remain less than favorable to poor. The potential for winterkill will likely be higher than usual heading into winter and the need for timely snow will be high.

40 35

25



10-Day GFS Forecast
Rainfall In Millimeters
Ending Nov. 10, 2024

basis for Russia, Kazakhstan, northern Belarus, and much of the Baltic States. Western Russia into the Ural Mountains Region and western Kazakhstan will receive 0.50 to 2.00 inches of moisture with locally greater amounts by next Wednesday morning. Other production areas will receive 0.25 to 1.00 inch of moisture

Argentina Outlook Still Favors Fieldwork, Crop Growth

The main Pampas farming region in Argentina received significant rain during the past week. The rain helped improve or maintain a good environment for early-season planting and establishment. Moisture shortages otherwise intensified in northern Argentina and the need for rain is increasing.

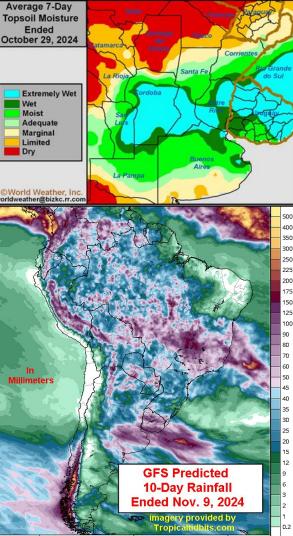
Planting advanced around the periods of rain during the past week in Argentina. As of October 24, corn planting was 24% complete, up from 20% this time last year. Sunseed planting was 35% complete, well ahead of 26% this time last year. Rice planting was otherwise behind last year's pace with 55% of the crop in the ground compared to 83%. Planting of soybeans and other grains and oilseeds will expand in coming weeks.

Early-season planting and establishment conditions remain generally good across the main production areas in central and southern Argentina. Planting may have advanced slowly during the wettest periods, though producers were able to get into the fields between rain events. Producers may try to plant aggressively in the coming weeks in order to take advantage of the ample topsoil moisture.

Argentina will see a mix of

rain and sunshine during the coming week. A high-pressure ridge will initially promote dry or mostly dry weather today and early Wednesday. A disturbance will promote the first round of erratic rainfall late Wednesday into Friday. Scattered showers and thunderstorms will also evolve late Friday and Saturday with the passage of a frontal boundary. Erratic rainfall will

likely continue for the southern half of crop country late this weekend and early next week. Moisture totals by next Tuesday morning will range from 0.75 to 3.00 inches with local amounts of 4.00 inches or more in Buenos Aires, La Pampa, and the



southern halves of Cordoba, Santa Fe, and Entre Rios. The remaining production areas will receive 0.25 to 1.50 inches of rain with local amounts of 2.00 inches or more in Santiago del Estero and Chaco. Argentina's main production areas will continue to see a mix of rain and sunshine November 6-12.

Planting and general fieldwork will advance around the periods of

rain during the next week to ten days. Minor delays will be possible in the wettest locations of southern Argentina, though no major delays are expected. The periods of rain will otherwise continue to improve or maintain a good environment for establishment and early-season development. Winter wheat maturation may otherwise be sluggish in the wettest locations of southern Argentina. Earlyseason harvesting may get underway for some of the earliest planted wheat.

November weather in Argentina is expected to be mostly near normal; however, there will be a tendency for rainfall to become lighter than usual in the easternmost parts of the nation . A small part in northwestern Argentina (mostly in Salta) will have a slight wetter bias during the month.

Temperatures in November should be near to above normal in the southeast half of Argentina and near to slightly cooler than usual in the northwest. These conditions should help to perpetuate a mostly good environment for planting and early season summer crop development. The environment should

also be good for late reproducing and filling wheat. Harvesting of winter crops will advance around periods of rain as will the planting of summer grain, oilseed and cot-

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Brazil November Weather Outlook To Favor Crops

Rain in center-west and south-central Brazil continued to improve the moisture profile during the past week. Soybean and first-season corn planting continued, though progress remains behind last year's pace due to the late onset of seasonal rainfall. These areas will receive additional rain this week that will improve or maintain a good environment for crop

establishment and earlyseason growth. Southern Brazil will trend drier than normal this week, which will be beneficial for more aggressive winter wheat maturation and harvesting while promoting additional summer crop planting.

Northeastern Brazil and portions of western and southern Mato Grosso do Sul still have a shortage of moisture despite erratic rainfall in recent weeks. Soil moisture is rated adequate to excessive in most other locations, though portions of center-west and center-south Brazil still have a shortage of moisture at subsoil levels. Seasonal rains do not usually arrive in northeastern Brazil until late November and December minimizing that concern.

Planting is advancing across Brazil. As of October 20, soybean planting was

17.6% complete, down from 28.4% this time last year. First-season corn planting was 32.3% complete, down slightly from 33% last year. Rice planting was 29.3% finished while dry bean planting was 26.5% finished.

Soybean and first-season corn establishment conditions continued to improve for center-west and centersouth Brazil due to recent rainfall. Additional rain is still needed to completely fix the moisture deficits and support ideal long-term crop conditions. Soybean acreage is expected to be greater than last season and yields will be high if timely rain falls throughout the growing season. The main concern will be getting the rest

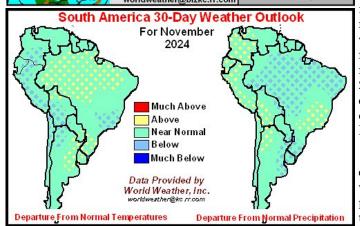
Bolivia

Mato Grosso

Goias

Minas
Goraris

Fapirito
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of the crop in the ground in a timely manner. Delayed planting could eventually impact Safrinha corn planting, although World Weather, Inc. believes planting is not late enough to present a serious threat of that.

Winter wheat harvesting continues across Brazil as well. As of October 20, 47.7% of the wheat was out of the

ground, down from 59.2% this time last year. Continued rainfall in southern Brazil further delayed harvesting at times this past week, but drier weather is now under way and will prevail long enough for fieldwork to advance more aggressively in this coming week.

Scattered showers and thunder-

storms will evolve on a near daily basis for center-west, center-south, and northeastern Brazil this week. Some of the most significant rain will fall Friday and this weekend as a disturbance tracks into the region. Moisture totals by next Monday morning will range from 0.75 to 4.00 inches with locally greater amounts in Minas Gerais and Goias. Southern Brazil will otherwise trend drier than normal this week. Periods of erratic rain will still occur, most notably late Friday and this weekend. These areas will receive 0.25 to 1.50 inches of rain with local amounts over 2.00 inches in Parana. Much of Brazil will then have several opportunities for rain November 5-11.

Soybean, first-season corn, and other crop planting will continue around the periods of rain across Brazil this week. Significant progress will likely be made as

soil moisture continued to increase. Establishment and early-season development conditions will remain favorable, even in southern Brazil due to the drier than normal weather. The lack of significant rain in southern Brazil will also support more aggressive winter wheat harvesting.

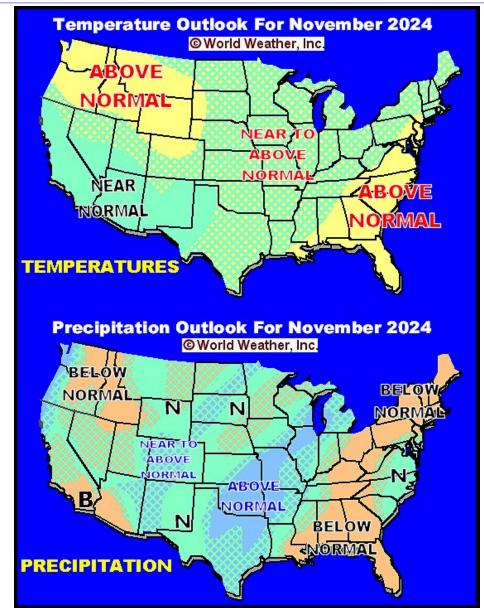
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U.S. Winter 2024-25 To Be Wettest East, NW

A change in weather is coming for North America over the next several months that will bring on some improvement in precipitation after an unusually dry and warm September and October. The only exception to the recent dry conditions has been the Delta, lowermost Midwest and southeastern states due to Hurricanes Francine and Helene. The first sign of change is coming in November and that will bring some relief to dryness from the southwestern Plains through a part of the central Plains and lower Missouri River Valley to the western Great Lakes region while the southeastern states are still drier than usual. During the winter this will change, though, with the Atlantic Coast States and many areas from the Tennessee River Basin to the northeastern states likely to be a little wetter than usual. A part of the Pacific Northwest and Great Basin will also be wetter biased. Temperatures will average near to above normal.

Computer forecast models are already strongly hinting at a change in U.S. weather for November and this will continue through the winter as more active weather pattern is expected in many areas, although the most stormy weather during winter (December through February) will be in the middle and northern Atlantic Coast States where a more significant series of winter storms is expected. The southeastern states will flip around from drier than usual weather in November to a wetter bias in the heart of winter. Similarly, the wet bias expected in November from the southern Plains to the Great Lakes region may trend a little drier during the heart of winter.

Not much cold weather is expected this winter – at least not persistent cold. Temperatures will be closer to



normal in the southwestern states, southern Great Basin and southern Rocky Mountain region. Temperatures will also be near normal in the middle and southern Atlantic Coast States and portions of the interior southeastern states and along the Gulf of Mexico coast. Most other areas are likely to see near to above normal temperatures November

through February. The warmest temperatures relative to normal are expected in the Pacific Northwest and the central and southern Great Plains, although milder than usual conditions are still expected in the northern Plains, Midwest and northeastern states. Be cautious here, a northwesterly air flow is expected into the eastern United States rela-

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U.S. Winter 2024-25 To Be Wettest East, NW (from page 9)

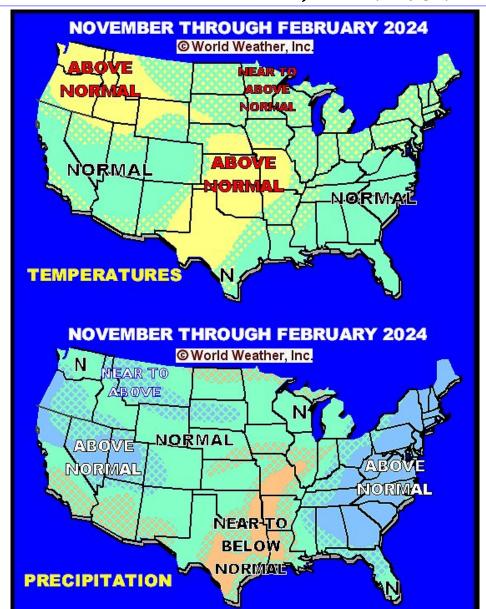
tively frequently during winter, but the intensity of the cold will be less than usual. So, it will be cool enough for some significant snow events, but not so cold that heating fuel consumption will skyrocket out of sight.

Some storminess is also expected to evolve along the upper U.S. Pacific Coast and from there into the Great Basin this winter. The moisture in the northwestern states will be very important due to drought conditions that have evolved in recent months. The precipitation should be much greater along the coast than in the valleys of Washington, Oregon or Idaho, but some improvement in the moisture profile and water reservoirs is expected.

Southern California, northern Mexico and a part of the southwestern desert region may not see much relief from drought this winter. This is a big concern for northern Mexico where water supply is well below normal and drought quite serious. Some rain is expected in the region, but it is far more likely in the mid-to late-winter than early this winter which may impact Mexico's winter crop planting.

California is not likely to see quite as much rain and snow as it has in the past two winters, but there should be a sufficient amount to replenish much of the supply lost to use in 2024. Water reservoir levels may still be slightly lower at the end of winter than they were at the end of last winter.

Livestock in the Great Plains will experience a few winter snow storms, but the most significant ones are expected during late winter and early spring. In general, the central and southwestern Plains will not see much threatening cold weather this year and the few bouts of cold that



do occur should be short lived. Moisture for hard red winter wheat will be favorable, but probably not ideal, although late winter and early spring moisture is expected to surge upward for a little while benefiting crops that might not have established well in the autumn.

An early look to spring raises the potential for a wetter bias in the

northern Plains, Canada's Prairies and across a part of the region from the southeastern Plains into the Midwest. That is a very preliminary look at the outlook, but there is support for those trends. If correct drought is not likely to be factor for Canada's Prairies or the northern U.S. Plains even though some of those areas are critically dry today.

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