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The Canadian Agriculture Weather Prognosticator

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Ontario And Quebec

Southeastern Ontario and Quebec are still seeing some significant precipitation events. Adding significant snow accumulations and the potential for some rain on top of very wet fields could lead to spring flooding.

WORLD WEATHER ISSUES

- Argentina Drought Remains Very Serious And Has Cut Into Production Of All Grains And Most Oilseeds
- Brazil Crop Weather Remains Mostly Good, Despite Routinely Occurring Rainfall Slowing Some Soybean And Corn Harvesting and the Planting Of Second Season Crops
- India's Pulse Crops Received Significant Rain in February—At Least In A Very Important Part Of the Production Region Boosting Yields
- U.S. SW Plains Remain In Drought With Little Change Likely For A While
- Spain Dryness Will Be Greatly Eased In The Coming Week
- Russia Is Still Buried In Significant Snow

Snowstorm To Miss South-Central Areas

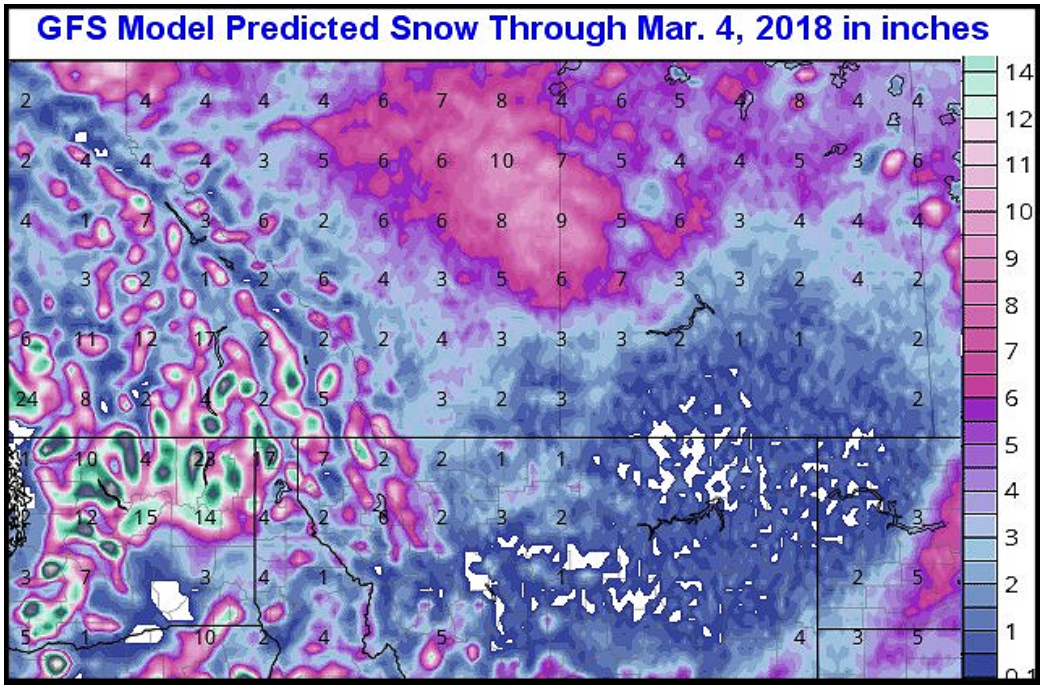
The greatest single snow event in months will impact a large part of the prairies in the first days of March, but the most severely drought-stricken areas in Saskatchewan will be missed again by the most significant moisture. Drought in southern Saskatchewan is almost one year old and the outlook is going to be frustrating and worrisome.

In the meantime, snow will impact most other areas in the Prairies over this first week of March with the greatest accumulations expected in northeastern Alberta, northwestern and some north-central Saskatchewan areas and across a large part of Manitoba—away from the Saskatchewan Border.

Moisture totals in the snow may vary from 5 to 20 millimeters with local totals over 25. East-central and southeastern Manitoba may be most impacted with moisture totals of 20 to 33 millimeters. When that much moisture is translated to snow it becomes a little more frightening.

Snow depths with this event could easily range from 4 to 20 centimeters in northeastern Alberta and northwestern Saskatchewan with a few areas to get upwards to 25cm. Snowfall in central and eastern Manitoba will vary from 15 to 30cm with locally greater amounts "possible". The greatest snow in Manitoba occurs early next week and that leaves plenty of time for the storm to weaken, but travel is still going to be inhibited and stress to livestock should be expected.

The moisture in the snow will be welcome for quite a few areas, but it is



Snowstorm To Miss South-Central Areas (from page 1)

very interesting to note that the advertised areas of heavy precipitation include some areas that were wetter biased last year and very little precipitation of significance occurs in the areas that need it most.

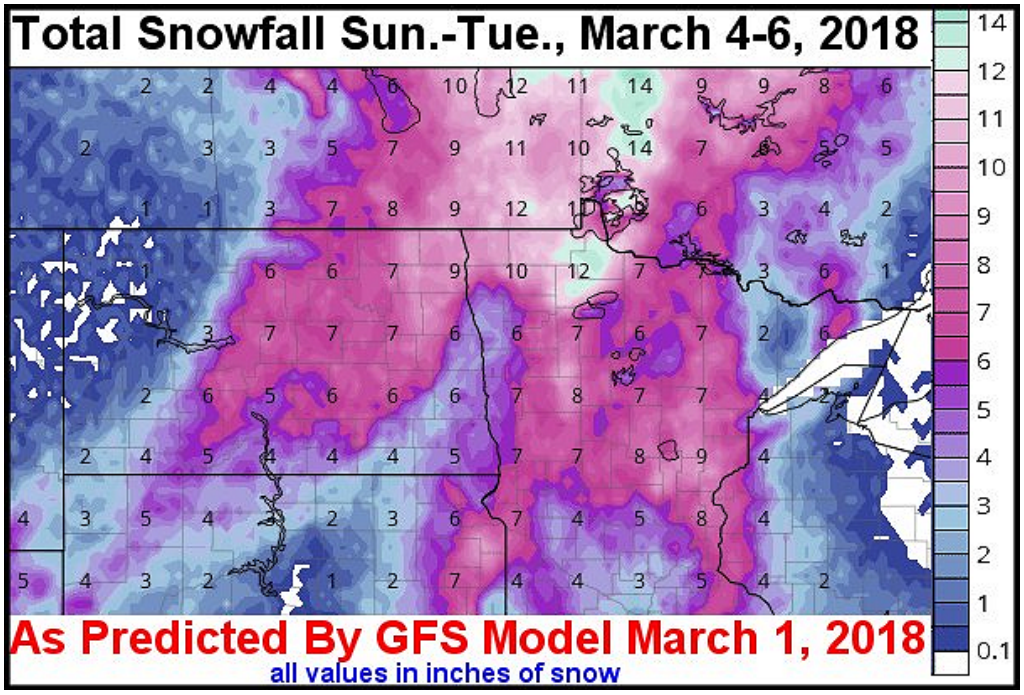
Drought is most serious in southern and central Saskatchewan, although there are portions of both southern Alberta and southern Manitoba that are also quite dry. The coming storm will bring some additional moisture relief to southern Alberta where there have been many other bouts of precipitation in recent weeks. Southern Manitoba will probably be the one area that needs the moisture most and will possibly get some benefit from it.

With that said, it is always difficult for major winter storms to have a big long term impact on the region's deep soil moisture because of the inability for the melted snow to soak very far into the ground because of frost. The melting snow will eventually boost runoff and help a few areas with better dugout moisture. But, as noted above, many of the areas facing the greatest snow do not need the moisture outside of southern Manitoba.

Western Alberta will also get some additional snow. Parts of the Peace River Region has had plenty of precipitation this winter along with some of the front range agricultural areas in Alberta where some drier weather would be welcome.

Despite the significance of this week's snow event the most important aspect of the storm is the fact that it does not bring any huge amounts of moisture to the heart of central or southern Saskatchewan leaving that region in the grasp of a very serious drought that obviously has not let go of the region.

Areas near and south of Highway One in Saskatchewan will not likely receive more than 3 millimeters of moisture and some of the region will only get a trace of snow. Accumulations in most areas will vary from a trace to the range of 3-5cm. What a disappointment!



There is still potential for the storm to weaken in these other areas mentioned here that will get the greatest snowfall, but the storm will not be a complete bust.

The pattern of weather that brings this more significant snow event to the region is not a trend change. Weather conditions have been relatively quiet for an unusually long period of time. The Prairies were dominated by a strong north to northwesterly flow of air for a large part of the winter season. The jet stream is now going to split and the northern branch of the jet will go through short term bouts of a southwesterly flow, but most often the next few weeks will still be influenced by a northwesterly flow aloft.

The weakening La Nina event will help tremendously in giving the upper air flow more variety and enabling it to provide at least a few short term bouts of precipitation. Late winter and early spring will not be totally dry, but relief from dryness deep in the subsoil is highly unlikely. That places tremendous pressure on late spring and early summer weather patterns to generate enough timely rainfall to support crops across the Prairies while not making it wet enough to disrupt farming activity.

March weather, although not as dry as February, it may continue to restrict precipitation enough to maintain some worry about the pattern. With that said, March weather may be better than April because the wetter bias will favor crop areas from the U.S. central Plains to the western Great Lakes region leaving a fair amount of the drought stricken region in Saskatchewan and east-central Alberta still looking for meaningful rain.

Another period of hopeful change will come in May when the weather is expected to become more favorably mixed across the Prairies.

Drought Will Continue Into April

March will do little to nothing to drought conditions in Saskatchewan. The month of weather may be similar to those of recent past with many areas drier biased in the central and southern parts of Saskatchewan while a couple of pockets of wetter biased conditions emerge.

The first wetter biased area in March will be in northeastern Alberta and northwestern most portions of Saskatchewan. Another area that will be wetter biased will be in southeastern Manitoba. Both of these wetter biased areas will be highly influenced by this first week of the month and the significant snow event that is advertised to evolve.

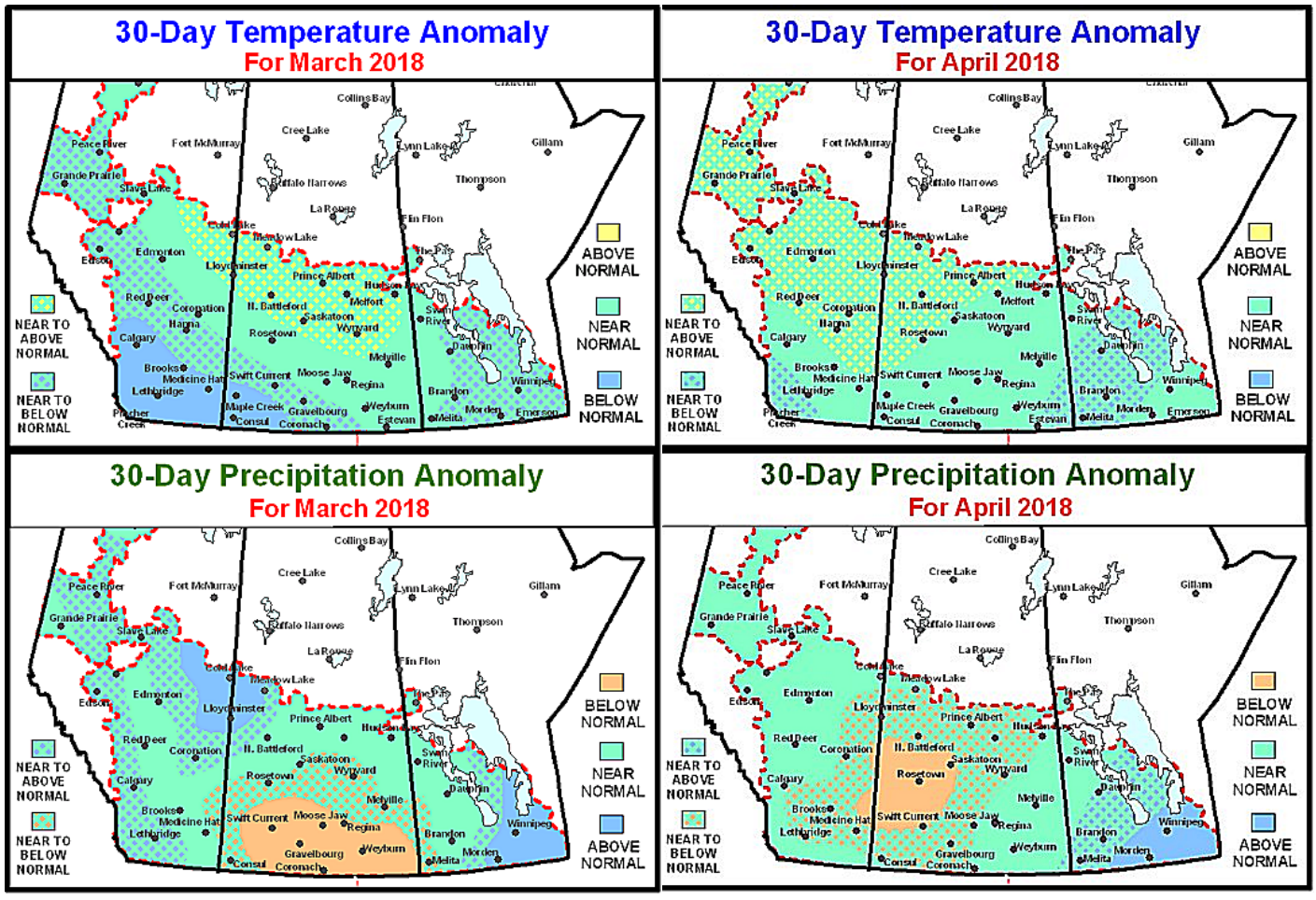
After the early month snow event passes the Prairies will fall back to an all-to-familiar pattern in which precipitation will occur in the Peace River Region and down the front range of the Alberta Rocky Mountains.

Temperatures in the Prairies during March will be mixed with a warmer tendency in north-central parts of the region while a near to below average temperature bias occurs in other areas. Southern Alberta and the far southwestern most corner of Saskatchewan will be impacted by the greatest cool temperature anomaly, although confidence is not very high on that part of the outlook.

April weather will provide a mixed weather bag with the strongest anomalous precipitation bias being in the southeastern and central Prairies. These areas will experience above average and below average precipitation respectively. Some of the Trend Model data has suggested that precipitation in the drier biased areas of the Prairies might be a little greater than that shown because of one or two smaller sized storms that may pass through the region. Near normal precipitation is expected in the remainder of the Prairies during April.

Temperatures in April will be warmer than usual in the northwest and north-central parts of the Prairies while the interior southeast and far southwest have a slight cooler bias.

May weather is still expected to be the best month of potential precipitation in the Prairies. A more active month of rain may occur raising some worry over disrupted fieldwork, but the rain in most cases will be welcome. A general soaking is still not likely, but gradual improvements in topsoil moisture should occur, including the driest areas in the heart of the Prairies.



May Outlook Improves; Summer Still Favorable

Weather conditions in May should trend a little more favorable. A more routine occurrence of showers and thunderstorms should occur at that time. The bigger soakings of rain are not very likely during the month, but there should be sufficient timeliness in the rainfall to promote a relatively good environment for crops.

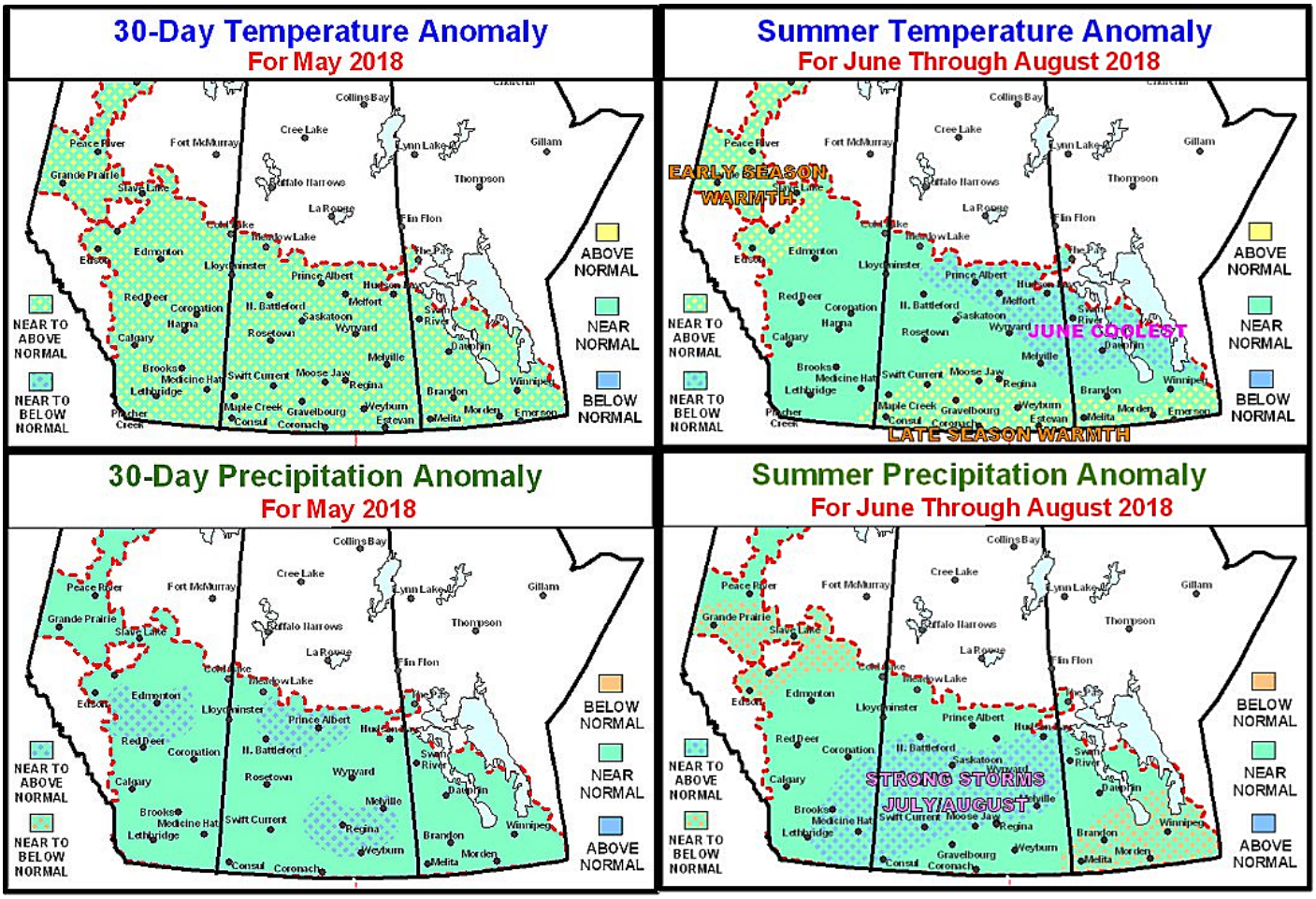
Confidence in the late spring weather is still low because of three possible changing weather conditions. The first is cool water in the Gulf of Alaska. The second is lingering La Nina conditions and the third will be the possible development of the negative phase of Pacific Decadal Oscillation which may have a greater role to play in the U.S. rather than in Canada, but an indirect response will be possible here. Details about these three potential issues are covered on page six.

Our best expectation for the summer is still tilted toward improvement. The rain advertised for May and June could easily be erratic with more pockets of dry and wet. However, by the time summer roles around there is likely to be a little more support for precipitation more routinely in in the heart of the Prairies.

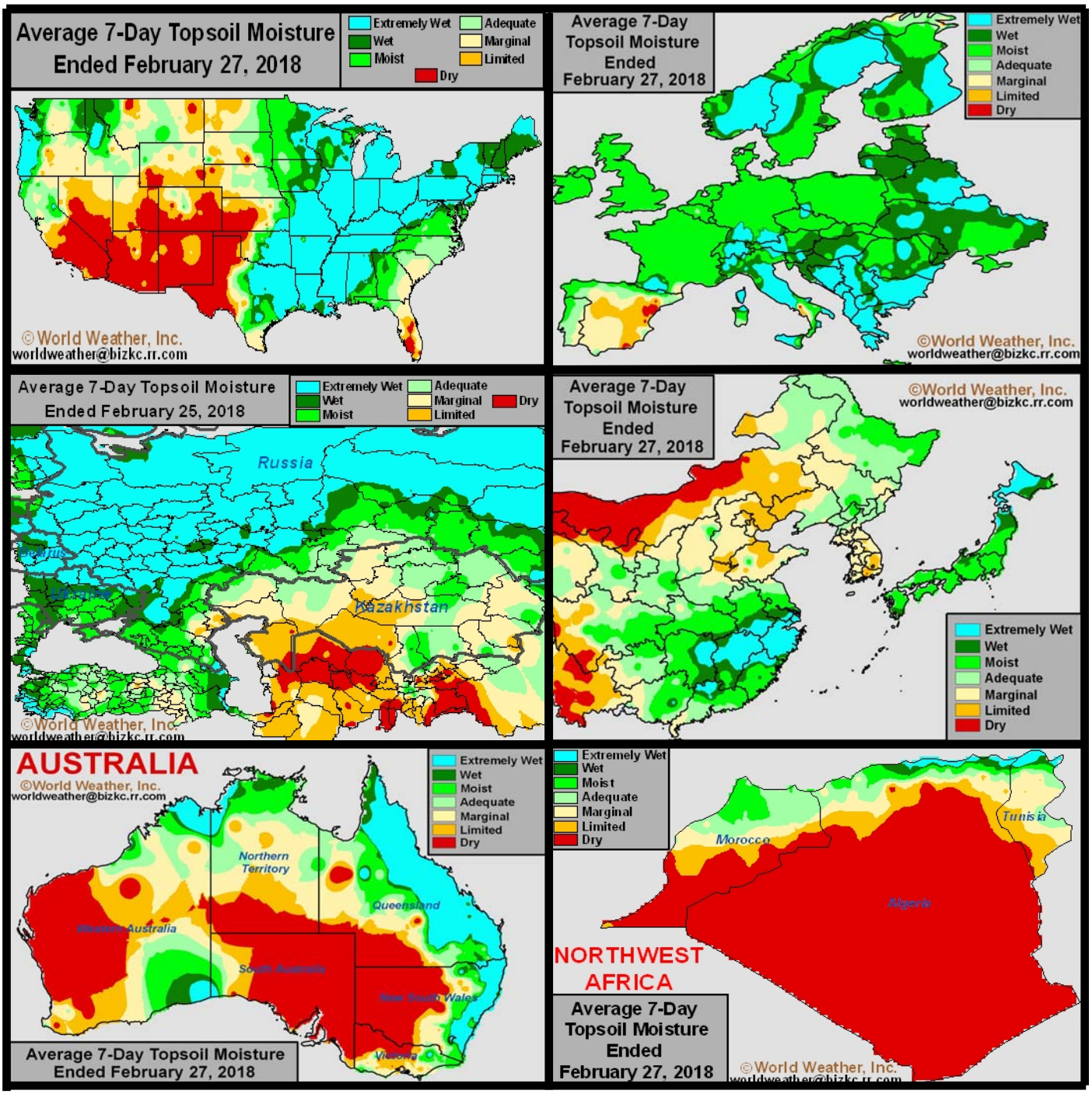
July and August may bring stronger storms to the heart of the Prairies and it is at that time that more significant rain may impact the region. Some of the storms in Saskatchewan could be severe and the environment will be closely monitored. Some of the late summer weather will be controlled by changes in the U.S. weather pattern, but indications are strong right now that a drier bias will impact the western U.S. Corn Belt and a part of the Great Plains. That should open the door of opportunity for improved rainfall in the central Prairies and allow some of the U.S. drier bias to spread into the southeastern Prairies

Western Alberta, meanwhile, may shift toward a drier and warmer bias that may impact the Peace River region most significantly, but some areas southeast toward the Slave Lake, Edmonton and Edson areas may trend a little drier, as well.

Temperatures during the summer are expected to cooler biased in eastern parts of North America and especially in the eastern U.S. crop areas. A small part of that cooling trend will impact eastern Canada and an even smaller portion may impact a part of northeastern Saskatchewan and northern Manitoba for a little while early in the summer. The cooler biased areas in the northeastern Prairies should trend a little warmer later in the summer.



Selected Weather Images From Around The World



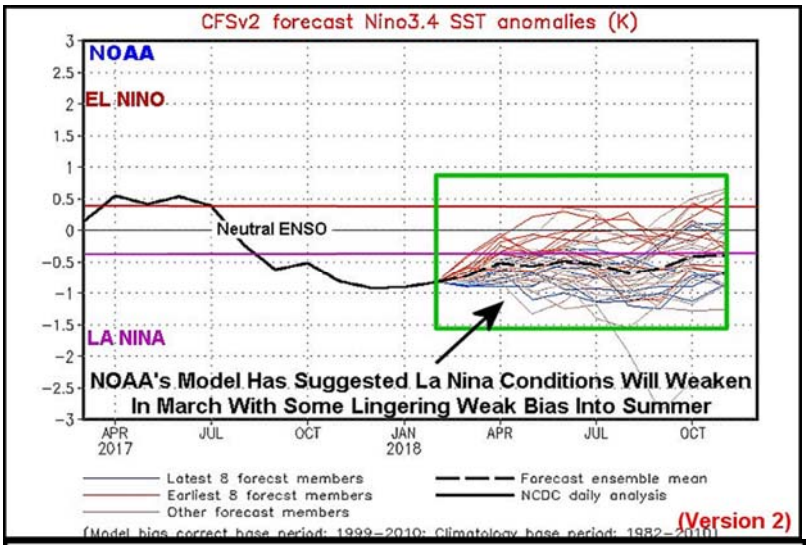
Recent rain in the United States has proven to be excessive in the Midwest and lower Mississippi River Basin. Flooding has evolved and some damage to wheat in low-lying areas may result. Improving weather conditions should occur gradually in the next couple of weeks, but wet fields will likely prevail until the region warms up. Europe is plenty moist for spring crop development and fieldwork except in Spain where the need for significant rain remains. Rain will fall abundantly in Portugal and central and western Spain over the next ten days leaving only eastern parts of the Iberian Peninsula too dry. North Africa winter crops are in mostly good condition, but moisture is still needed in southwestern Morocco, northeastern Algeria (away from the coast) and in Tunisia. Morocco will be wettest in this coming week. Eastern Australia's sorghum and cotton areas have recently trended wetter and more rain is coming in the first week of March that will slow down crop maturation. In Russia and Ukraine, moisture is abundant in the soil and plenty of snow is on the ground suggesting a wet start to the spring season is possible. Drying would be welcome.

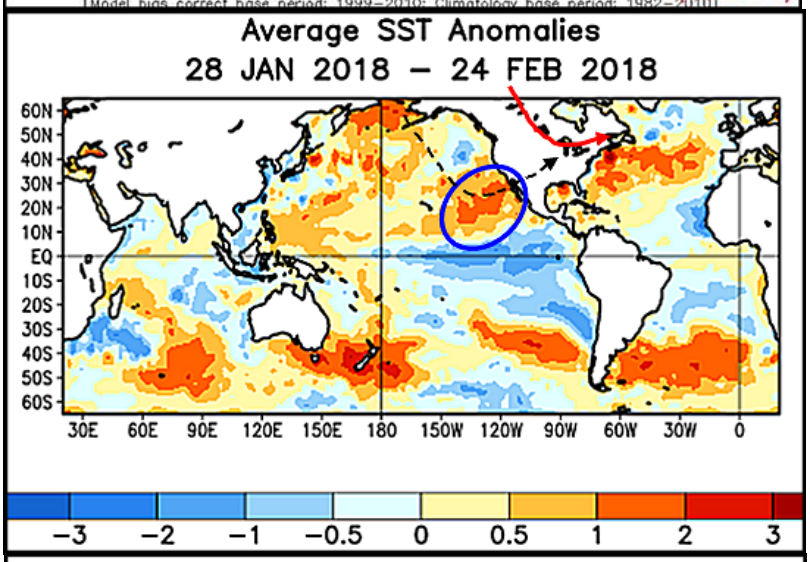
Trends That Must Be Watched For Summer Weather

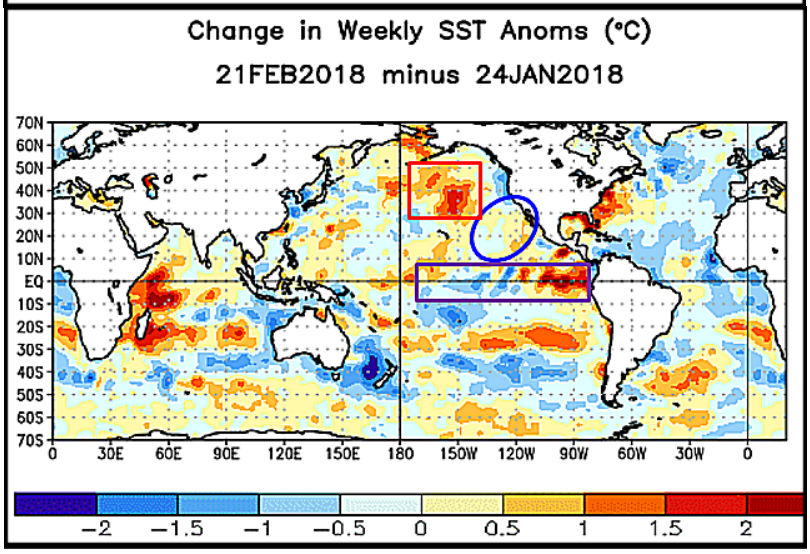
Nothing is ever set in stone when it comes to weather. The atmosphere is a very complex place and it is influenced by many things. This year's weather besides being influenced by last year's drought is also being impacted by the approaching solar minimum in sunspot activity—which favors a cooler bias in eastern North America and especially the eastern United States in years preceding the minimum.

The Prairies weather is also still being influence by Gulf of Alaska Water temperatures. Just this week some new data evidencing a trend change was made available. The ocean water had been cooling in January and early February, but the latest data suggests a warming trend has begun in at least a part of the region. That provides much encouragement for better rainfall later this year, but the situation could change and a close monitoring is warranted.

Recently, World Weather, Inc. conducted a study of North America years in which La Nina events abate in the first calendar quarter—as is expected this year. The results of that study was a drier and warmer biased pattern in the western Corn Belt and parts of the U.S. Plains. The trend occurs in late spring and summer and if this association verifies this year the heart of the prairies will get the wetter biased pattern suggested on page four. If, however, changes occur in the U.S. all bets will be off. The U.S. dryness associated with abating La Nina events should also provide some warmer and drier tendencies in the southeastern Prairies this summer.







If La Nina does not completely go away it will reinforce the drier bias in the western U.S. Corn Belt and add more reason for southern Manitoba and southeastern Saskatchewan to turn warmer and drier. This is not very likely to evolve, but it needs to be watched.

Another change that needs to be monitored is ocean temperatures off the U.S. Pacific Coast. There has been some tendency for cooling of ocean water in that region recently and if the trend continues a stronger ridge of high pressure may evolve in the heart of North America. That could reduce rainfall in a part of the Prairies and heat things up a bit. This scenario is also unlikely to verify, but it will be closely monitored. Make sure to continue reading your prognosticators.

In the meantime, there is reason to be optimistic for this year, but the spring will be a definite challenge. Some of the drought stricken areas will have to wait quite a while before "meaningful" rain falls to bolster subsoil moisture. .

South America Weather; Argentina's Drought Prevails

Argentina has had a very tough time getting moisture to fall across key grain and oilseed production areas. The month of February was one of the driest in 38 years with the heart of the nation's summer crop production region reporting less than 20% of normal precipitation. The remainder of the nation reported less than half of normal rain with a few exceptions.

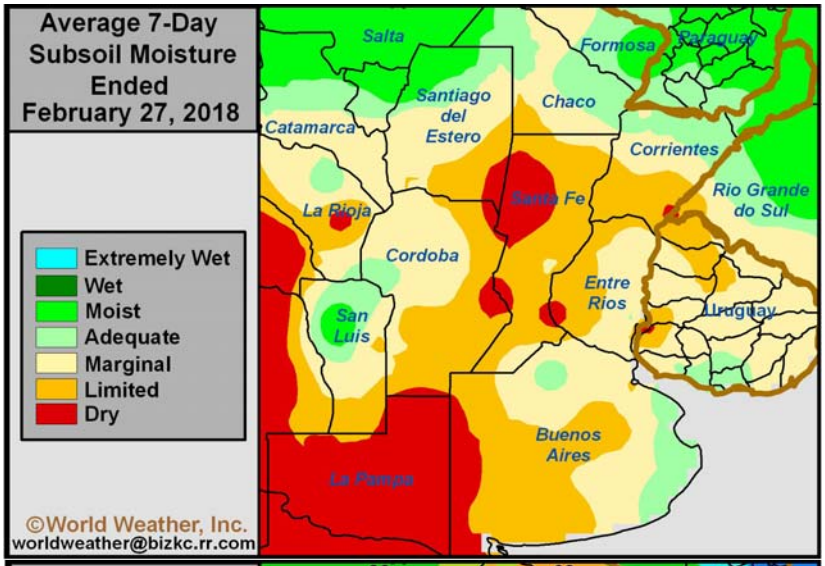
Temperatures in Argentina were also a little warmer than usual during February resulting in some serious stress to crops because of minimal soil moisture. Topsoil conditions were void of moisture during much of the month and subsoil moisture was rated short to very short in much of the nation, too. The lack of moisture in the ground, warm temperatures and a minimal precipitation outlook for the next two weeks suggests additional production cuts are likely.

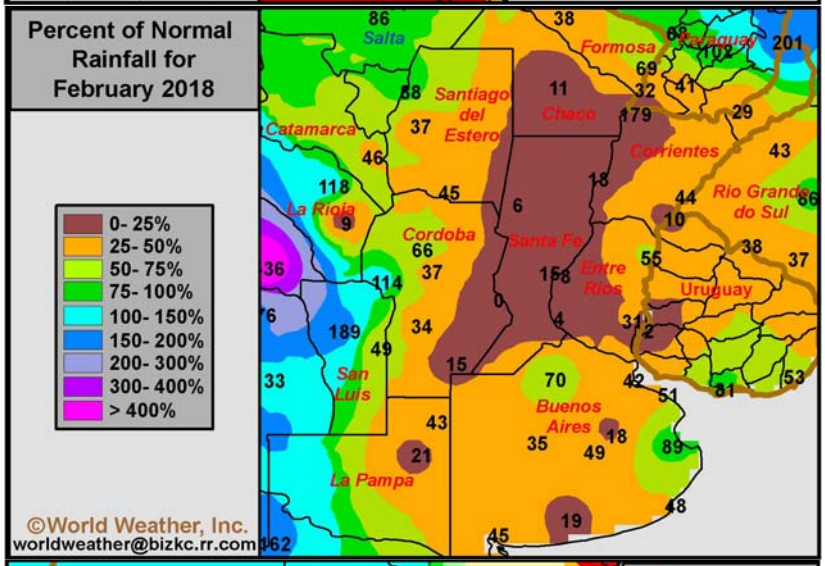
Corn and sunseed production in La Nina years is nearly always reduced in Argentina, but soybeans usually do better. This year's most significant dryness came late in the growing season impacting soybeans and late planted corn more severely than usual. Production numbers are falling nearly every day that rain fails to evolve in late season corn, soybean and sorghum production areas. Peanuts are probably in the best condition along with cotton.

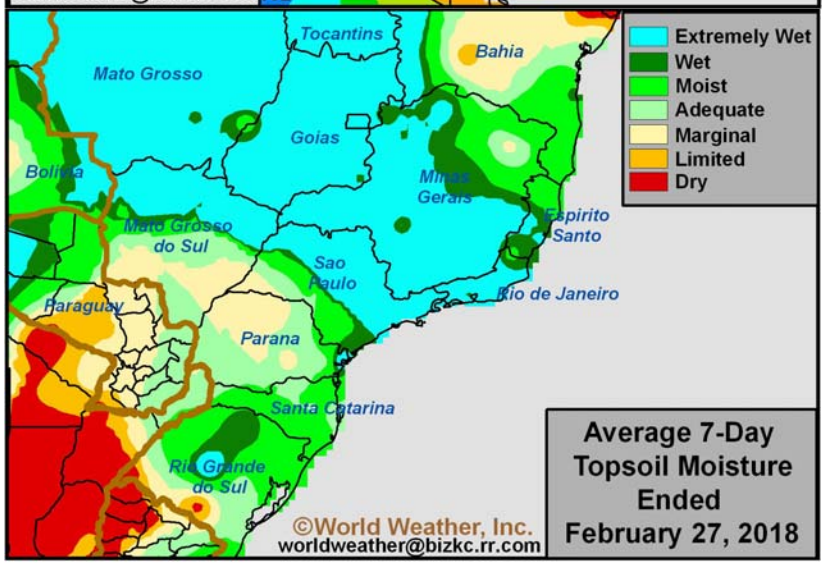
Peanuts in Argentina have done relatively well due to timely rainfall in Cordoba earlier in the growing season. Peanut production is mostly confined to Cordoba. Even though Cordoba had poor weather in February weather earlier in the season was better than in other areas of the nation. Peanut conditions are declining

In the meantime, Brazil weather has been plenty wet. Some areas from Mato Grosso and Tocantins to northeastern Sao Paulo and southern Minas Gerais are too wet today while the south is beginning to dry down. Earlier this summer it was the south that was too wet and the north that was dry. The recent changing pattern should bode well for crop development.

The biggest concern in Brazil right now is the need to get soybeans fully harvested so that second season corn and cotton can be planted. Fieldwork is already behind normal because of a delay in the planting of soybeans earlier in the growing season. The later corn and cotton get planted the higher the risk is that they will be reproducing after monsoonal rainfall ends raising the potential for some production cut.



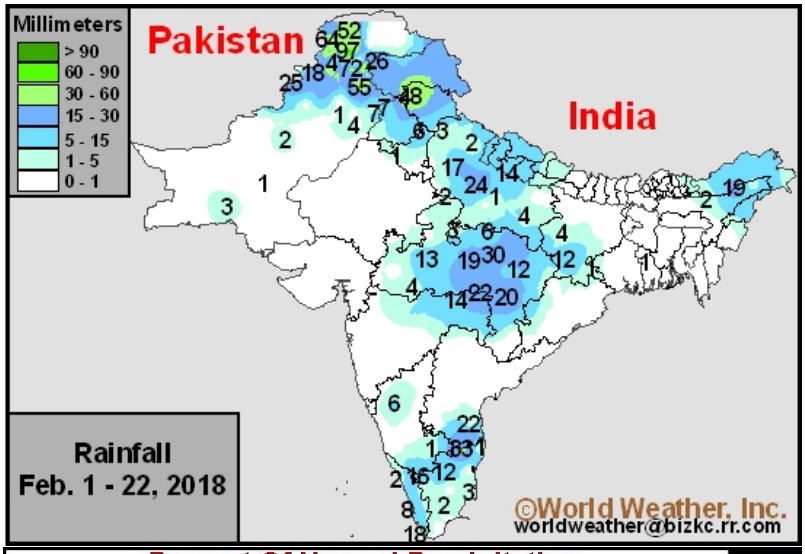


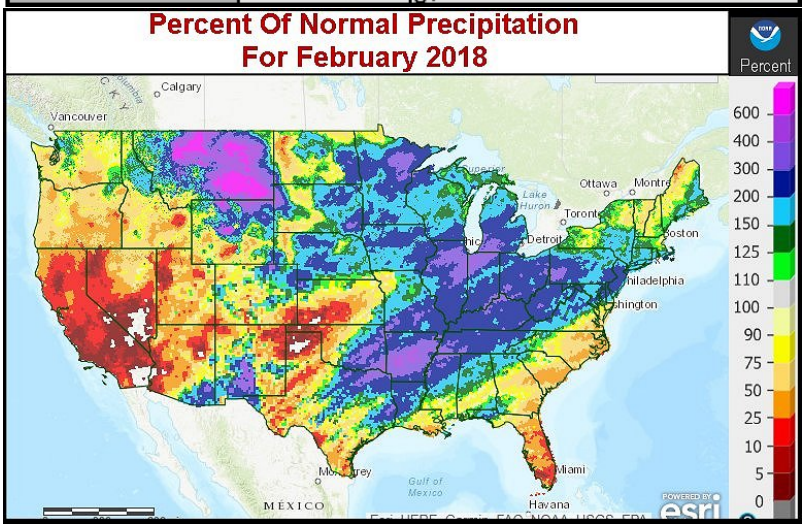


Quick Looks At India, U.S. And South Africa

INDIA: Concern about dryness in India during February was eased for a short period of time when Madhya Pradesh and immediate neighboring areas reported some significant rain. The precipitation was welcome and since it fell in one of the most important lentil/pulse production areas it might have helped lift the production potential for some of the crop.

The rain in India was not widespread or substantial enough to seriously improve production, but it likely helped to advert a crisis in their production. That, of course, is not good news for Canadian pulse producers who were hoping the India tariffs on imported crops would be reduced or removed. The harvest season is quickly approaching and a smaller crop than usual is possible because of dryness outside of Madhya Pradesh and because some of the rain was a little light. There were a few locations that reported more than 1.00 inch of rain and for those areas a more significant improvement in crop conditions likely resulted.





UNITED STATES: Huge changes occurred in February across areas from eastern Texas to the Great Lakes region, including the lower Mississippi, Tennessee and lower Ohio River Basins. Many areas reported below and well below average precipitation during the November through January period, but February moisture was substantial and brought flood conditions to many areas.

The wet bias in the U.S. comes prior to planting for many areas, although early season planting delays have occurred in the central Gulf of Mexico Coast States. Drier weather will be needed for a little while in March to get field conditions in better shape ahead of the more aggressive planting weeks that begin in late March and April.

In contrast, the west—central and southwestern Great Plains are much too dry. Only one precipitation event occurred in February and it was relatively small impacting a few areas in the southern Texas Panhandle most significantly. Southwestern Kansas, the Oklahoma and northern two-thirds of the Texas Panhandles were dry or mostly dry and temperatures warmed up enough to induce some wheat greening in the last days of February.

The outlook for these areas is not good for significant precipitation during the spring season, but especially not good in the first half of March. Late March and April will be the best weeks for improved soil moisture, but the outlook is not ideal for areas from southwestern Kansas to western Texas.

Montana, like southern and western Alberta received frequent precipitation in February and that has raised the potential for improvements in spring runoff. Some soil moisture improvement is also expected, but the region is still considered to be in a drought.

The remainder of the Northern Plains, like Canada's Prairies are dry and will need significant moisture soon to support a good start to spring planting.

SOUTH AFRICA: Western summer crop areas in South Africa received some rain in the past month, but it was not enough to counter the significantly dry weather of earlier in the growing season. Yield potentials for cotton, corn, sorghum and especially peanuts will be down.

Eastern South Africa, however, has had very good conditions and production is expected to be high from that region.