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The Canadian Agriculture Weather Prognosticator

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Ontario, Quebec Wet

Excessive Rainfall During April And May Coupled With Significant Snow Depths At The End Of Winter Resulted in Serious Flooding Across Portions Of Quebec And Spring Planting Is Well Behind Schedule. Drying Is Needed Immediately.

WORLD WEATHER ISSUES

- U.S. Midwest And Hard Red Winter Wheat Areas Were Too Wet At Times This Spring, But Fieldwork Has Advanced Relatively Well
- U.S. Wheat Quality Issues Have Grown And The Same May Be Occurring In Ontario and Quebec.
- China Has Become Too Dry In Portions Of The North And Rain Will Be Needed Soon
- Europe Heated Up Recently With France Drying Out Along With Italy And Parts of Spain
- Northern Russia Is Wet And Cool With Frost And Freezes Within The Past Week
- Western Australia Needs Rain
- India's Monsoon Will Get Off To A Good Start

Southern Dryness Raises Worry

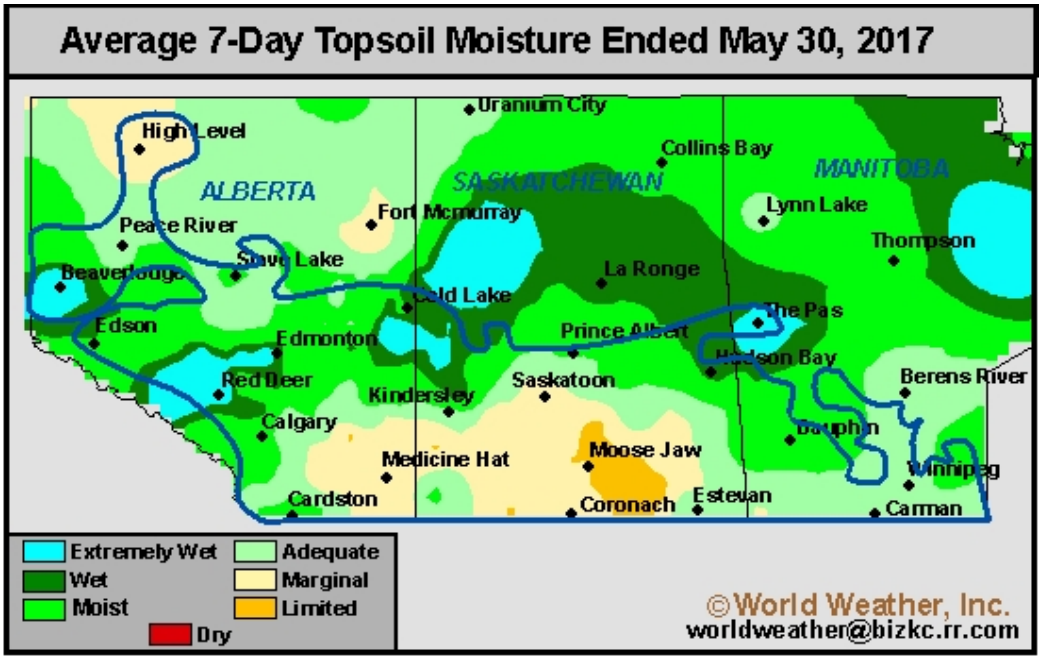
Another significant rain event pounded northern and western portions of the Prairies in the second half of May and while all of the attention was being placed on the additional precipitation event and potential abandonment, the southern Prairies were drying down.

Some locations in the southern Prairies of Saskatchewan and southern Manitoba have reported very little rain since the first of April when the official growing season began. The lack of rain was a great development for southern Manitoba producers who feared the worst spring planting conditions after tremendous amounts of snow accumulated during the winter and waited until the early spring to melt. The lack of rain in southern Manitoba saved the day and led to fast planting as the dryness continued during May.

Further to the west across southern and some central Saskatchewan crop areas net drying also dominated the first half of spring and fieldwork advanced swiftly. However, recent drying has stopped seed germination and plant emergence has been slow and uneven. Some fields are much drier than others, but most would agree that 10 to 25 millimeters of moisture would be ideal in moistening the soil again and get crops back on the right track toward a good production year.

Subsoil moisture is still plentiful and unless a huge heatwave occurs this summer once crops emerge and establish their root systems the potential for serious moisture stress will be lower since the root systems will chase the moisture as it recedes deeper into the ground.

All of that assumes that rain will not fall and



Southern Dryness Raises Worry (continued from page 1)

that is still not World Weather, Inc.'s stand on the situation across the southern and eastern Prairies. Despite, pressure from competing weather companies World Weather, Inc. is having a very difficult time buying into a drought for 2017. Drying is expected and eventually the soil will firm up in many areas, but because of the abundant subsoil moisture situation and because of some timely rainfall crops will probably perform relatively well once they are in the ground and established. That implies that the next few weeks may be the most challenging of the season.

Worry about developing dryness across the Prairies is contagious and certainly cannot be taken lightly if it is your crops that have not germinated or are looking shabby. In the meantime, there are many western and northern producers in the Prairies that would fight to the death for a drying trend of significance.

June is a month of transition and it will be during the next few weeks that patterns should change enough to bring timely precipitation to the southern Prairies and lessen the rain that has been plaguing the west and north. The shift in patterns will take nearly the full month, but by early to mid– July the southern Prairies should be notably wetter biased while the northern and western parts of the region are drying down favorably. The transition sounds great, but until change evolves there will be much worry across the Prairies because of incomplete planting in the west and north and due to building dryness in the south.

The North American jet stream has been extremely disjointed in recent weeks. Many eddies of circulation that were cutoff from the main flow of air in the high altitude wind field were responsible for creating dryness in the southern Prairies and too much rain in parts of Alberta and portions of northern Saskatchewan. The break up of the jet stream was also responsible for the U.S. Midwest wet bias recently and for Ontario and Quebec wet biased weather. The jet stream is beginning to show signs of consolidation and that should be encouragement for more normal weather a little later in June.

A consolidating jet stream will help storm movement become more normal across North America bringing back a more typical summer weather pattern before too long. That typical pattern will include net drying in the west and a boost in rainfall in south-central and southeastern parts of the Prairies. The change cannot occur too quickly for some folks, but that is the problem. The transition will take some time and patience will be needed.

The first half of June is not likely to see much change, although warmer temperatures are expected between rain events to help speed along drying rates between rain systems.

The jet stream is also expected to be shifting northward during June. That is a change that should have occurred in May, but it failed and that is part of the reason why weather became so anomalous. The northward shift in the jet stream and its consolidation should bring some of the rainfall that has plagued the U.S. hard red winter wheat region and Midwest for several weeks further to the north into the northern U.S. Plains and upper Midwest. This shift should help moisten some of the soil south of Highway One in Saskatchewan and Manitoba over time.

Later in June and July a weak ridge of high pressure will evolve in the central U.S. Plains forcing weather systems in the states to continue shifting northward and that will bring additional rain into southern and eastern Saskatchewan and southern Manitoba at times in July and August.

In the meantime, rain in the western and northern Prairies should diminish and help put an end to the wetter biased weather in Alberta and northwestern Saskatchewan. Unfortunately, for some folks the change toward drying will come much too late. The decision to abandon the unharvested 2016 crops in a part of the west was made recently and if it had not been for an extension of insurance coverage later into June there would have been a tremendous amount of abandonment in the 2017 crops, as well. There will still be some fields left unplanted in northern Alberta, northwestern Saskatchewan and a part of far northeastern and east-central Saskatchewan.

Decreasing precipitation and soil moisture during June and especially July will come too late for many crops, but for some that were successfully planted there will be potential for dryness to become more threatening later in the summer.

Late planting in some areas of the Prairies this year also raises a little concern over frost and freeze events at the end of the growing season. It is much too soon to make accurate predictions about the first autumn frost and freezes, but without a significant El Nino event in place autumn temperatures will have a chance to cool more normally and that may restrict the longevity of the growing season.

With that comment made it is interesting to note that 1963 and 1981, two analog years of interest, had a warmer bias in temperatures during the autumn and a little less than usual rainfall. That does not guarantee an extended growing season, but it does help one's psyche. World Weather, Inc. will look into the frost and freeze threat more significantly beginning in late June when signals begin to emerge for that prediction. For now, the focus of attention during the next two weeks will be on not "if", but "when" the rainfall pattern will break and relief begins. Early indications suggest that changes should be identifiable by the middle part of June, but only time will tell.

Familiar Summer Pattern Returning

It used to be that summer weather included a drier tendency in the western Prairies and a wetter bias in the east. Ask anyone from western Saskatchewan into eastern Alberta what "normal" used to be and they will tell you it used to be a struggle to get enough rain during the summer season to support the best crop development.

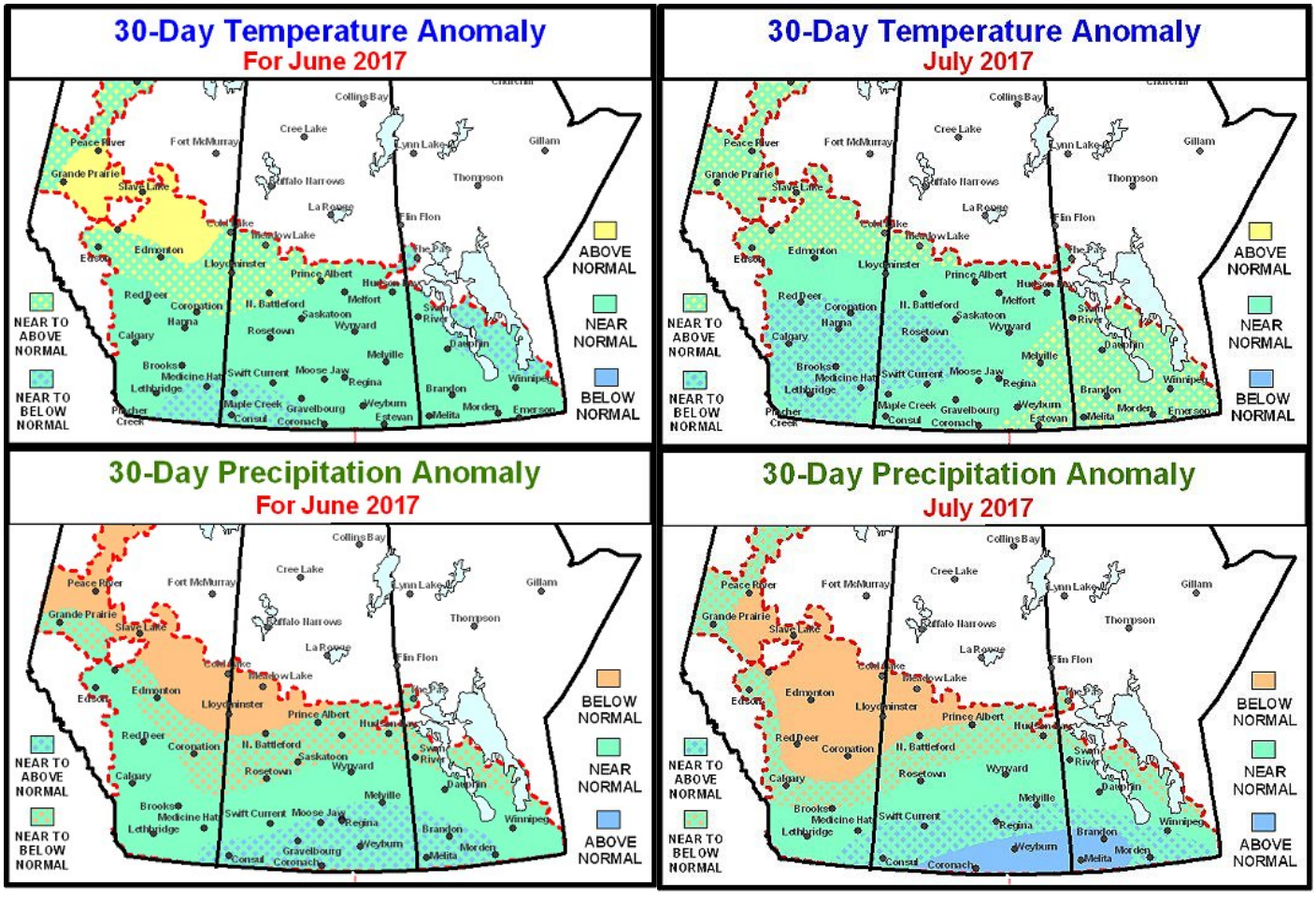
More recent summers have been phenomenally wet. Some would have you believe the wetter bias is the new normal and a byproduct of climate change, but as we move through the summer weather patterns are expected to snap back into a familiar pattern of drier biased conditions in the west (especially northwest) and wetter conditions in the southeast.

Two weak ridges of high pressure are expected in North America during the summer this year. The first ridge will be over northern Alberta and extend northward into Northwest Territories and east into northwestern Saskatchewan at times. The pattern will see to it that all of the excessively wet areas in Alberta gradually dry down. It will take a while to accomplish the change, but late summer will look much different relative to that of right now with so much land running excessively wet.

A second ridge of high pressure is expected over the U.S. central and southern Plains. This latter ridge will not be strong, but it will dry out areas from Texas to southern Kansas and east into the lower Mississippi and possible a part of the lower Ohio River Valley. The U.S. ridge of high pressure will also help to draw moisture northward from Mexico and drive it through much of the U.S. Rocky Mountain region to the northern Plains and southern parts of Canada's Prairies. The moisture feed will concentrate on the northern U.S. Plains, but portions of the southern Prairies will be involved periodically as well. The wetter bias near and south of Highway One will contrast from drier biased conditions further north in Saskatchewan and into parts of Alberts due to the previously mentioned ridge of high pressure.

As a result of the two ridge features in North America, dryness may be more of an issue in northwestern and north-central parts of the Prairies rather than in the southern Prairies where today's dryness concern is greatest. The situation will be closely monitored.

Temperatures this summer will be a little warmer biased in the north and closer to normal in the south with a few bouts of both warm and cool conditions.



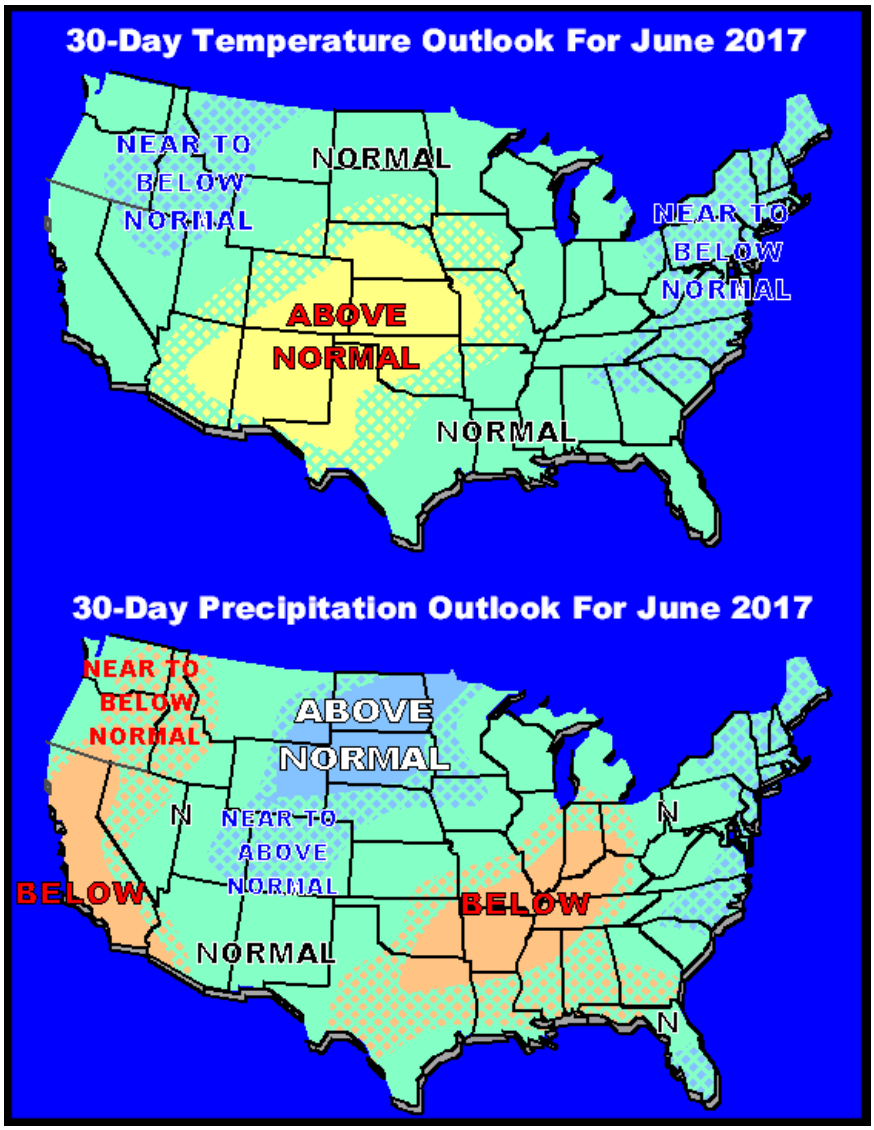
U.S. Weather Also Expected To Change This Month

Part of the same change that will bring rain to the southern Prairies and drier weather to the northwest part of the region will also impact the U.S. weather. The odds are high that rain will soon begin falling in the northern U.S. Plains while rain in the central and southern Plains and Midwest g4radually diminishes. Rainfall for the month of June may be below average in a part of the southern Plains, lower and middle Mississippi River Basin and a part of the lower and eastern Midwest.

Some of the change expected in the U.S. will come late in June and may bleed over into July. If this change is delayed the first half of June may be wet enough in the southern Plains, Midwest and Delta to sway the rain totals for the month closer to normal or possibly above average. The drier bias will then show more significantly in July.

Temperatures in the central U.S. should begin warming as time moves along during June. The warmer bias will be associated with a developing ridge of high pressure which will be responsible for many of the predicted changes across the Prairies and United States.

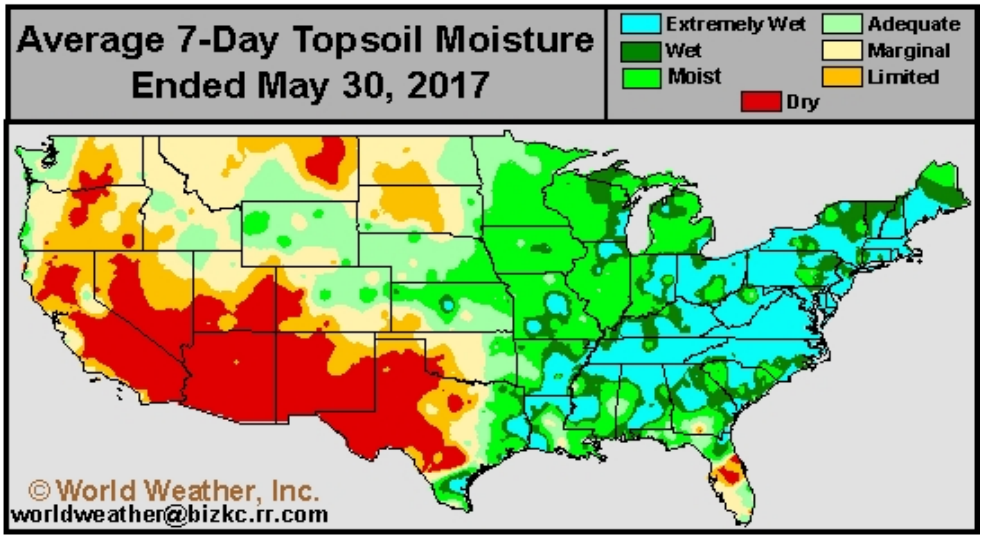
The changes in U.S. weather will be equally welcome to that in the Prairies eliminating the wet bias.



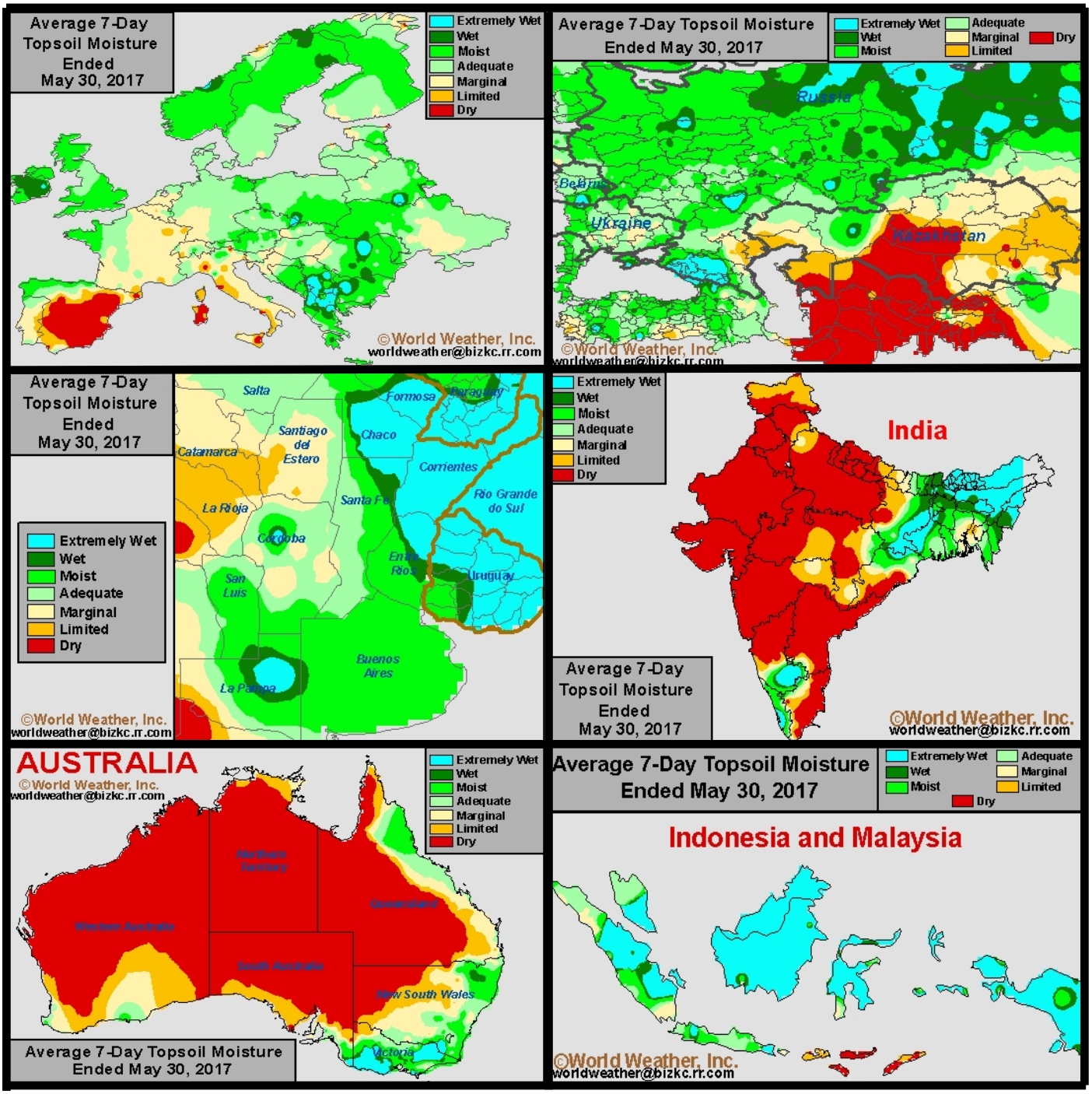
U.S. Moisture Conflicts

Soil conditions across the U.S. are changing with the wettest bias recently shifting into the eastern Midwest, Delta and southeastern states. Portions of the Central Plains were still plenty moist, but the northern Plains, like Canada's southern Prairies, was trending much drier with crop moisture stress expanding.

Dryness in the southern U.S. Plains has been more significant recently, but some rain is expected in that area over the next few days.



Selected Weather Images From Around The World



Warming in Europe and the western Commonwealth of Independent states is drying down crop areas. France, Italy and Spain were notably drier biased in this past week and there were signs of dryness emerging across central and eastern portions of Ukraine. Dryness in Ukraine is expected to expand to the east and deepen in the next couple of weeks while that in France should be eased by rain in this coming week. Southeast Asia palm oil production areas experienced a boost in rainfall recently that has restored favorable soil moisture after recent net drying. Western Australia is too dry for wheat, barley and canola establishment and rain is needed. South Australia is also a little too dry and rain prospects over this coming week are not very great. India's monsoon is expected to get started this week in a highly favorable manner. Timely rainfall and seasonable temperatures should occur to stimulate summer planting on time. Argentina's harvest has advanced relatively well in recent weeks and the Safrinha corn crop in Brazil is suspected of being in very good shape with filling and maturation under way.

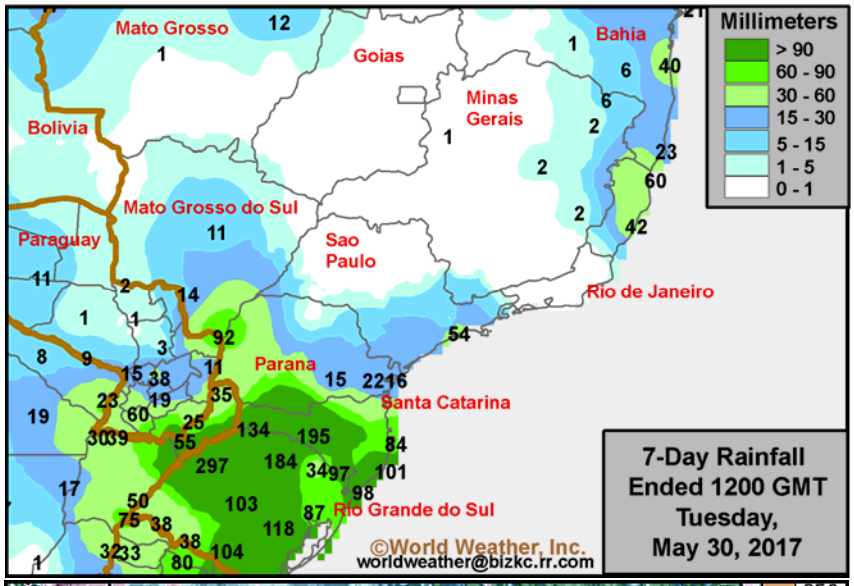
Flood Damage To Expand Into Parana, Brazil

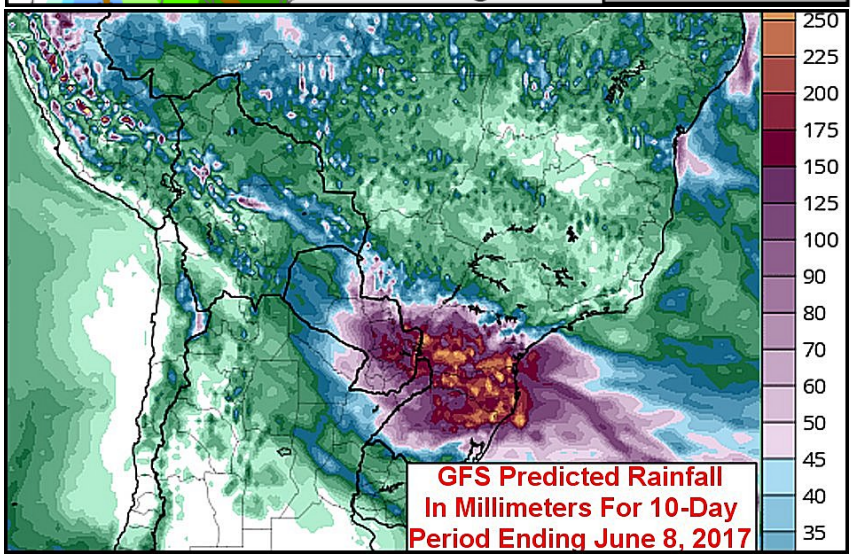
Torrential rain and flooding have already impacted a large part of Rio Grande do Sul, Brazil in the past week and the pattern will shift slightly to the north as two more waves of heavy rain evolve during the next ten days. Damage to unharvested soybeans, corn, rice and other crops is suspected along with damage to winter wheat. Some wheat replanting will be necessary and delays in planting will easily extend to mid-June.

Rainfall during the seven-day period ending at dawn Tuesday, May 30, ranged from 4.00 to 11.69 inches with the greatest rainfall in northwestern parts of the state. Flooding to some degree was occurring in much of the state, but the most serious was in the north and west. Rain continued to fall during the day Tuesday and it will finally come to an end Wednesday night or early Thursday and total amounts may vary from 5.00 to more than 15.00 inches resulting in personal property and agricultural damage.

A few days of drying will come along for late this week and early into the weekend, but a new wave of rain is expected to occur late Sunday into Thursday of next week. This latter event may not last quite as long as advertised, but if it does some areas in southern Brazil will receive another 5.00 to more than 11.00 inches of rain by Thursday, June 8. That much additional rain over already saturated soil and some flooding can only result in a disaster for some properties and crops. The situation should be viewed very seriously by residents who reside in low-lying areas.

One of the biggest differences in the rainfall expected next week relative to that of this week is that the greatest rain amounts will shift to the north impacting Santa Catarina, far northern Rio Grande do Sul and the southern half of Parana. Some wheat damage has already occurred in Rio Grande do Sul and replanting is necessary, but the situation may be more extensive if the rainfall forecast is correct for the next week to ten days. Replanting will be necessary over a much larger region. In the meantime, some of the unharvested oilseeds produced in far southern Brazil will suffer from enough additional moisture to raise crop quality issues and extend harvest delays deeply into June.



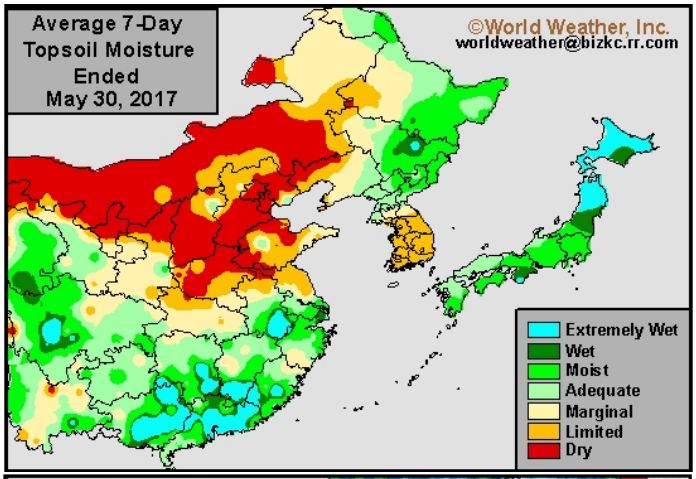


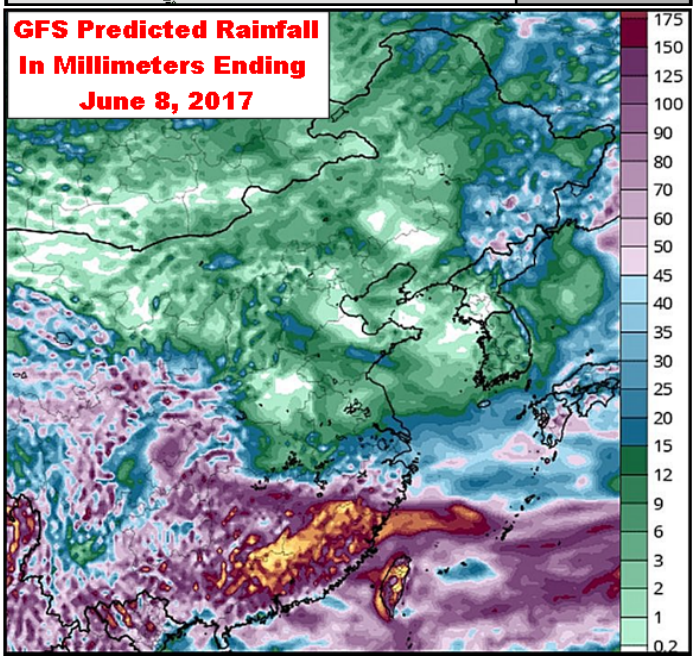
In the meantime, center west and center south crop areas of Brazil continue to dry down after unusually great rain fell early this month. The wet weather was needed to promote the best yield potentials in second season corn. Some sugarcane, citrus and coffee areas were also impacted by that rain event along with Safrinha cotton, but corn and cotton may have been the only crops that fully benefited from the moisture. Sugarcane lost sucrose values and suffered some harvest delay along with coffee and a few other late season crops.

Net drying is expected in center west and center south Brazil while heavy rain is inundating interior southern Brazil during the coming ten days. The drying bias will be great for speeding along grain and cotton filling and stimulating some faster maturation rates. Most crops have advanced far enough now to not benefit much from additional rain and the drier bias would be of use in speeding crops to maturity and supporting early harvesting. The harvest of Safrinha corn has begun in central Mato Grosso and some other areas from Goias to Minas Gerais.

Ten More Days Of Drying In China To Threaten Crops

Portions of both the North China Plain and northeastern China have been struggling with some dryness in recent weeks. Seasonal rainfall normally evolves at about this time of year, but a delay in the arriving rain will lead to ten more days of drying and potential crop and livestock stress. Waves of hot air will impact the region, although short term bouts of cooling and some showers will occur to prevent the situation from becoming a crisis. With that said, greater rainfall and cooler temperatures will soon be needed to prevent the region from becoming critically dry and vulnerable to production cuts.





Some badly needed rain impacted a part of the North China Plain and northeastern provinces during the past week raising soil moisture long enough to temporarily ease heat and moisture stress that was beginning to stress unirrigated crops and livestock. Dry and warm weather has since returned to the region inducing another period of heat and moisture stress.

Recent afternoon temperatures were in the 90s to near and slightly over 100 degrees Fahrenheit in the North China Plain. The heat came without much rain and the ground began firming relatively quickly. Topsoil moisture was rated short to very short from Inner Mongolia southward through the majority of the North China Plain Tuesday. Irrigated wheat and a few irrigated summer crops were not seriously impacted by the changing conditions. However, there is a large percentage of summer crops that not irrigated and are normally dependent upon seasonal rainfall to support planting and production.

Northern portions of the North China Plain and Inner Mongolia are nearly as dry in the subsoil as they are in the topsoil suggesting any and all unirrigated crops may be suffering from notable dryness. Relief must occur soon to protect production potentials. However, this is the start of the summer oilseed planting season leaving plenty of time for improving conditions. Corn planting is much further advanced than oilseed crops and are expected develop slowly until a more routinely occurring rainfall pattern evolves.

China has not dealt with a large-scale drought in quite a few years and the situation does need to be closely monitored. El Nino years tend to leave the north China Plain drier biased. 2017 is not considered to be an El Nino year because conditions are more neutral like than El Nino like. However, the longer seasonal rains are delayed the higher the potential impact might be on developing summer crops.

Totally dry weather is not expected in eastern China's driest region, but limited rainfall and warm temperatures will combine to negate much of the moisture as a serious improvement to spring dryness. Some computer weather forecast model runs recently have been advertising below average rainfall for most of northeastern China and the North China Plain while perpetuating warmer than usual conditions. The end result will likely be greater crop and livestock stress until greater rain evolves. The situation must be closely monitored since production potentials will likely begin falling later in June if significant rain does not evolve soon.