

# The Canadian Agriculture Weather Prognosticator

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## Canada Crop Weather Issues At A Glance

- Southeast Canada Wheat Is Beginning To Be Harvested
- Corn And Soybean Weather In SE Canada Is Rated Favorably With Little Change Likely
- Prairies Weather Has Been Varied, But Mostly Good
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## WORLD WEATHER ISSUES

- Monsoonal Rainfall In India Was Much Improved During July, But August Must Be Equally Good Or Better To Support A Better Production Outlook
- Europe Winter Grains Damaged By Too Much Rain At Harvest Time
- Australia Winter Crops Are Semi-Dormant. Recent Freezes Have Had Little Impact; Queensland And Northern New South Wales Are Still Too Dry
- Eastern South Africa Wheat Areas May Get Some Needed Rain Late This Week
- West-Central Argentina Wheat Areas Too Dry, But Not A Serious Issue For Now; Rain Needed By Sept.
- U.S. Summer Crop And Spring Grain Production Potential Still High
- Portions Of Dry Region In China To Get Rain This Week
- CIS Harvest Starts Well

## Prairies, North U.S. Plains Crop Declines

Quality small grain crops have been hard to come by recently. Too much moisture occurred in the central U.S. Plains during the hard red winter wheat harvest season and wheat quality declined greatly in parts of Europe from France to Poland in July and early August. Dryness problems reduced wheat production in the U.S. Pacific Northwest and western Argentina is having a tough time getting its 2015 crop established because of dryness. Now the biggest threat to wheat is in the northern U.S. Plains and Canada's Prairies where too much rain is evolving once again and the region is likely to

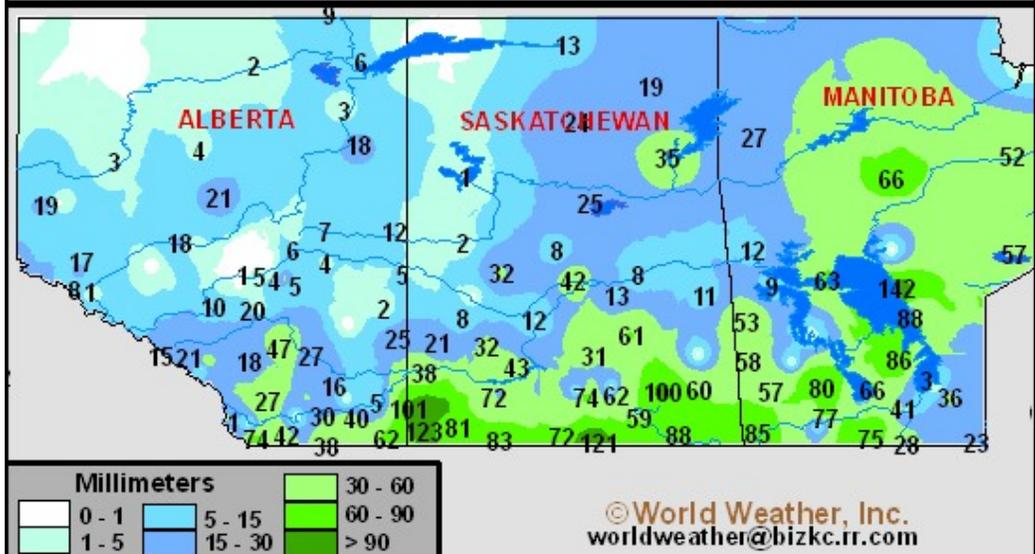
see periods of wet weather well into September. This will impact barley, lentils and other crops.

Canada and the northern U.S. Plains is the largest quality wheat production region to be harvested in the next several weeks, although portions of Russia and Ukraine will likely turn out a fair sized crop of decent quality. There is too much rain falling in northwestern Russia, the Baltic States and Belarus, but much of the 2014 wheat was likely harvested before the excesses developed. However, delays in 2015 wheat and rye planting and establishment are under way and

will continue for a while into early September.

In the past two weeks, a large portion of the wheat, barley, oats and lentils produced from Montana to South Dakota and northward into Saskatchewan and Manitoba has been subjected to some impressive rainfall. A large part of central and interior eastern Montana reported 2.00 to more than 6.00 inches of rainfall during the August 23-25 period and the weekend prior to that generated 1.50 to 4.00 inches of rain in portions of western and central North Dakota and northern South Dakota. The same weekend that

### 14-Day Rainfall Ended 0700 CT Monday, August 25, 2014



# Prairies, North U.S. Plains Crop Declines (continued from page 1)

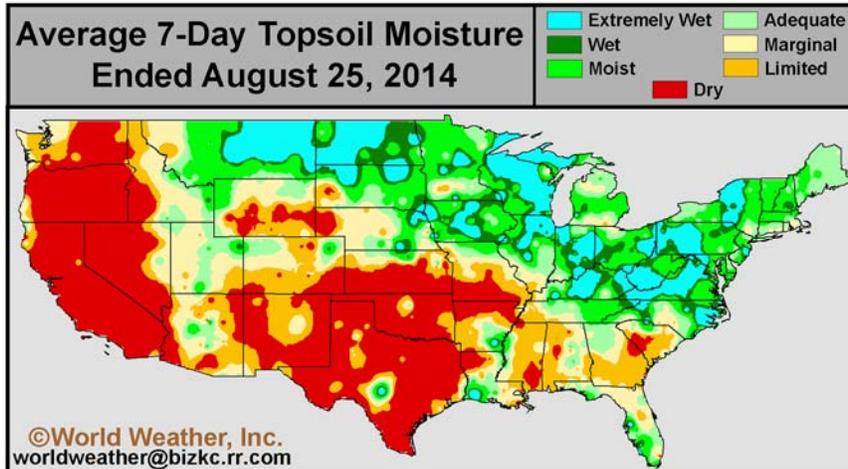
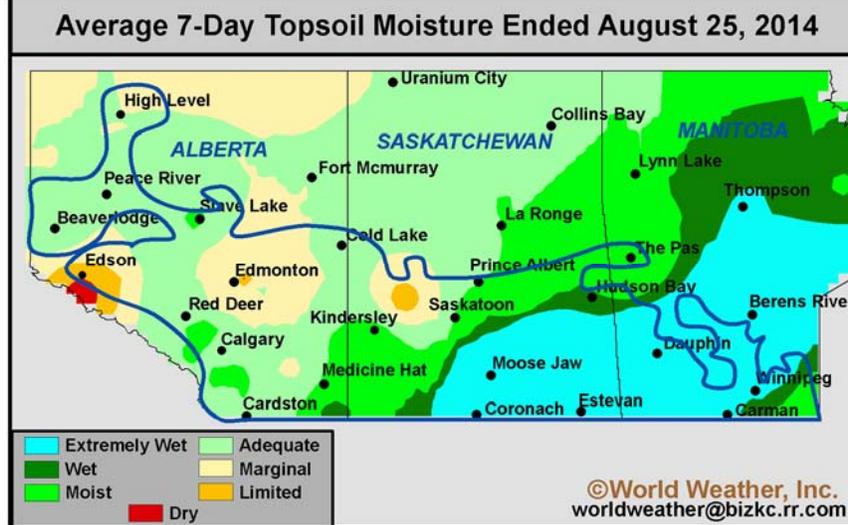
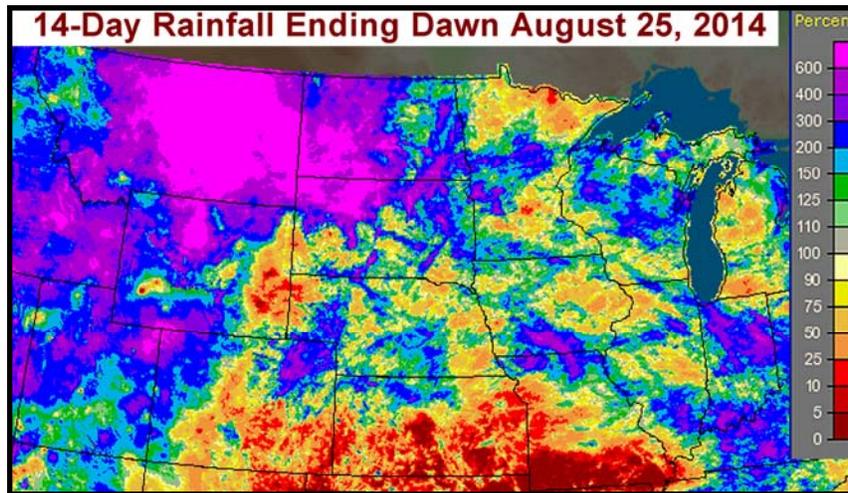
produced heavy rain in Montana also produced light to moderate rain in the Dakotas and northward into southern parts of the Canadian Prairies.

Canada's small grain crop region was already reporting up to two times normal rainfall during the week ending August 20 and then the bigger rains of August 23-25 came along. Needless to say, the small grain crop was succumbing to the moisture and temperatures were warm during much of the rainy period. Grain quality declines and some head sprouting were already reported recently and there are computer weather forecast models suggesting more rain is coming.

Weather in Canada this year has been following closely to that which occurred in 1978 and 1996. All three years had impressively cold winter and spring seasons, struggled with periods of wet weather in the spring and experienced temperatures that were not excessively warm during the summer but supportive of crop development. The most interesting part of the parallel with 1978 and 1996 is that both years were ranked among the wettest during the autumn season. Environment Canada (The Canadian National Weather Service)

suggested the two years were ranked the fourth and sixth wettest years out

Indeed most of the medium range computer forecast models are showing a very active jet stream going into September. The jet stream is the river of high altitude winds that drive storm systems across North America and around the world. The more active the jet stream becomes the more storm systems are expected and that means more frequent and possibly more significant rain events. The pattern sounds much like that which began in late August and indeed that is the forecast. Warm air in the central, southern and eastern United States will feed moisture into the northern Plains and Canada's Prairies while early season cooling takes place in the arctic, Alaska, the Northwest Territories and parts of Yukon. The conflicting air mass temperatures will fuel moisture and energy into the atmosphere turning the Prairies and Plains into a breeding ground for rain and general cloudiness. Drying rates across the region may not be very good and the quality of small grain crops may continue in decline. The situation may sound worse than it will be, but there is confidence that additional crop quality declines are going to take place.



of 66 years of data stored in their database. The implication is that there may be more moisture coming.

## Frost, Freeze Outlook Changes Little

One of the beneficial aspects to the wetter biased conditions in the northern agricultural areas of North America will be the cloudiness and humidity. Both will help hold temperatures up and perhaps above the frost and freeze threshold for a little longer giving summer grain and oilseed crops a better chance to mature a little more before the growing season ends. If the weather trends drier some of the cold in northwestern Canada and Alaska will push into the Prairies and a part of the northern U.S. Plains bringing frost and freezes a bit earlier than usual.

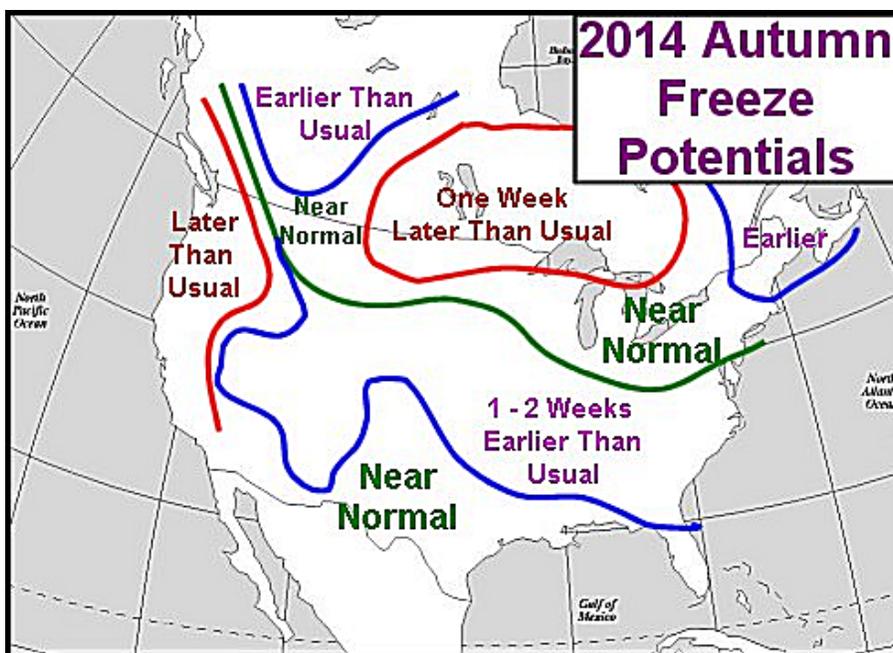
There is already potential for earlier than usual frost and freezes in Alberta this season. The same storm system that brought significant rain to northern parts of North America Aug. 23-25 also produced the season's first freeze at Edmonton damaging many crops in the vicinity. However, the cold was a very localized pocket and most of the western prairies got by with some patchy soft frost and little damage of significance.

Alberta is expected to see more cold weather like that periodically in the first half of September and if any part of the Prairies will experience a normal to earlier than normal freeze it is likely to be that region. A double whammy of damage might occur in a part of Alberta if frost and freezes occur while southern parts of the province and Prairies deal with frequent rainfall and a general crop quality decline.

The area most disfavored for ear-

lier than usual frost and freezes will be eastern parts of the Prairies, including eastern and southern Saskatchewan, Manitoba and portions of both North Dakota and northern Minnesota. Many crops in these areas are immature and need ten days to three weeks of dry and warm weather before any significant freeze occurs to protect production. It may be very difficult to avoid frost and freezes for three weeks or more, but the frequent cloud cover and precipitation will help limit the incidence of damaging cold possibly

of the U.S. Midwest were planted more on time and that will translate into a lower risk of crop damage when frost and freezes arrive. With that said, the odds are good that freezes will come earlier than usual to much of the central and lower Midwest as well as a part of the southern United States. In fact, winter is predicted to come early for many of those areas and farmers will have to move swiftly to get this year's harvest done before the wet and cold arrives.



In the meantime, the greatest adjustment we have made to the frost and freeze outlook was to Alberta where we have expanded the region that may experience early frost and freeze potentials. The province will be coolest relative to normal for a while in the next couple of weeks and over time its wetter bias will shift to the east. Once the greatest rainfall potential starts

buying the region a little more time before the growing season ends.

By the time the active weather pattern breaks down later in September the normal first frost and freeze days will have just passed by for parts of the eastern Prairies and northeastern Plains delaying a killing freeze just long enough to reduce some of the damage potential for crop in the region.

The break from early frost and freezes is badly needed in the northern U.S. Plains, upper Midwest and parts of the Prairies after late planting in the spring. Crops further to south in the central Plains and heart

impacting eastern portions of the Prairies again Alberta will be in a position to experience more frost and freezes like those Sunday morning.

One more comment needs to be made here regarding El Nino. The development of El Nino has eased up and without that as a factor temperatures may be colder later in the autumn than once predicted. There is also potential for the negative phase of Arctic Oscillation to evolve this autumn and if that occurs some areas could become notably cooler than usual in late October, November and December, that is not the official forecast, but a highly speculative comment worth thinking about.

# Early Autumn Starts Wet, Trends Drier; Warmer Bias West

The September outlook across the Prairies has become wetter relative to that of the last prognosticator. The month will be full of contrasting weather patterns. Frequent changes in temperature will help fuel more frequent precipitation and there will not be too many days in a row of stagnant weather. The environment may not bode well for crop maturation or harvesting, although some progress will be made.

The active weather pattern will continue into early to mid-October, although there will be a definite shift southward in the jet stream as time moves along. There will also be a warmer bias evolving in the western Prairies.

Worry over September harvest progress will run high and the cooler bias to temperatures during the month in western areas will raise

the potential for frost and freezes if precipitation slackens for a short period of time during the month. Alberta will be most impacted by cooler than usual conditions while Manitoba will have the warmest weather, but it may also be wettest in time.

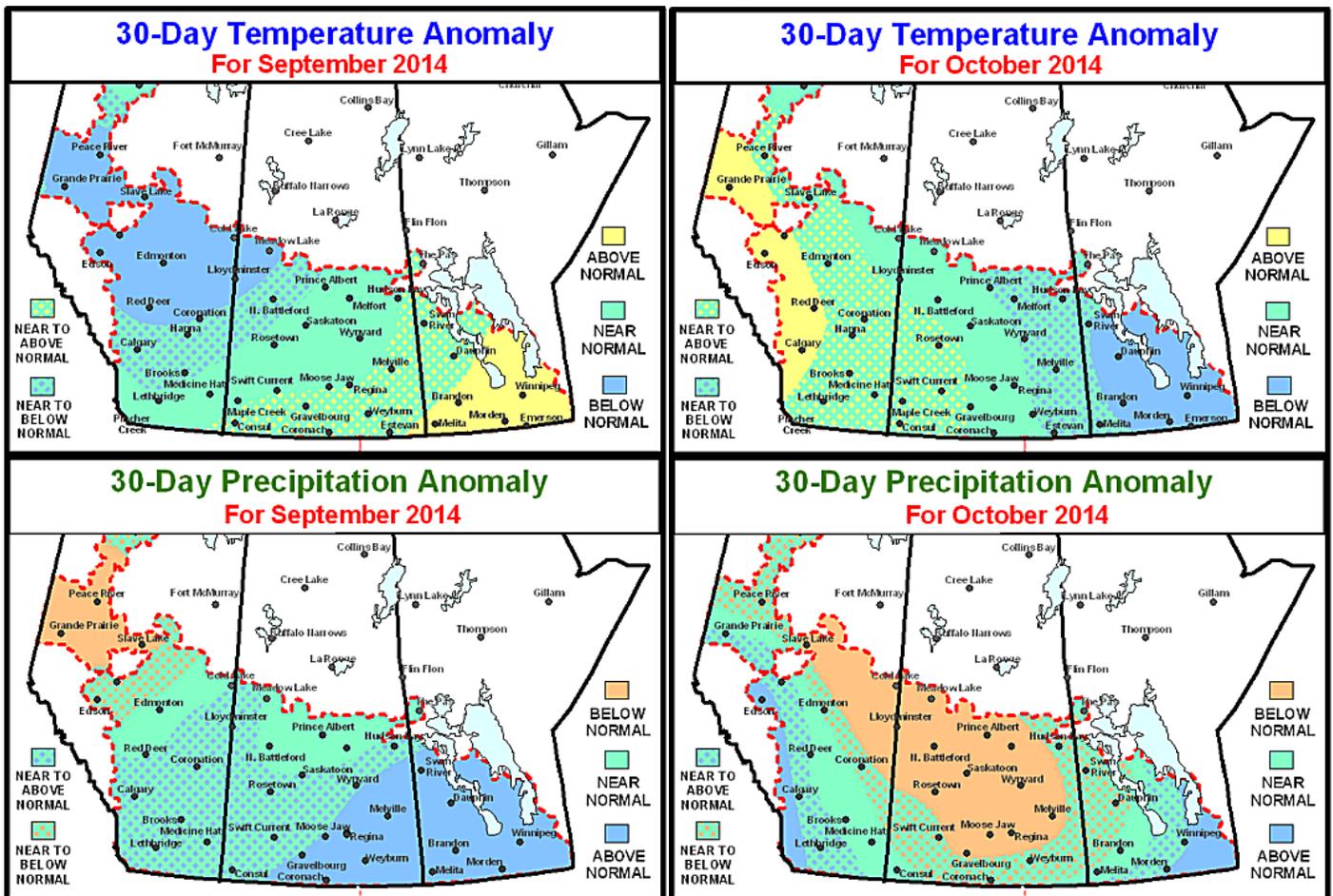
October may develop a drier and warmer bias in the western and central parts of the Prairies. Some greater than usual rainfall may occur along the front range of the Rocky Mountains and for those of you who are ski fans rest assured that the snow will come early. The early start to snowfall in the western parts of Alberta will be followed by some lighter than usual snowfall a little later in November and December.

Early indications suggest the late autumn will send the jet stream deeply into the United States giving Alberta a more stable weather pattern with

little precipitation and a warmer than usual bias. December may be similar with the western Prairies a little drier and warmer than usual.

Eastern portions of the Prairies may encounter some cooler than usual conditions especially in Manitoba and southeastern Saskatchewan with precipitation events coming frequently, but with only light accumulations of rain and snow with each system.

The big wild card for this autumn and winter remains the potential for negatively phased Arctic Oscillation and if that evolves (as we believe it may in the middle to latter part of autumn) it may produce colder than usual conditions from the central and eastern Prairies deep into the heart of the United States.



# East Australia Rainfall A Boon For Future Crop Growth

Significant rain fell across eastern Australia during mid-August. Sufficient amounts fell to greatly improve topsoil moisture for better wheat, barley and canola development ahead of the moisture sensitive reproductive phase of crop development that began in late August and early September.

Significant rain fell in most of the important agricultural areas of Queensland and northern and central New South Wales during the five day period ending August 18. Rain totals ranged from 1.00 to 2.75 inches from north-western New South Wales to south-central Queensland which included an important part of the livestock grazing region. Rain also fell to the east from north-eastern New South Wales to southeastern Queensland in key grain and oilseed production areas where rain totals of 0.40 to 1.25 inches resulted often with a couple of amounts to 1.41 inches. Greater rain was reported along the Pacific coast where 2.00 to more than 4.00 inches resulted in sugarcane production areas. One location in extreme northeastern New South Wales reported 5.66 inches of rain.

There were a few locations in northeastern New South Wales that did not do well with rainfall and amounts of 0.25 to 0.75 inch resulted. The moisture was still welcome, but for those areas it will be imperative that some follow up rain occurs to

assure that crops will be in the best possible condition prior to reproduction at the end of this month and in early September.

Some lingering rain occurred last week and during this past weekend in

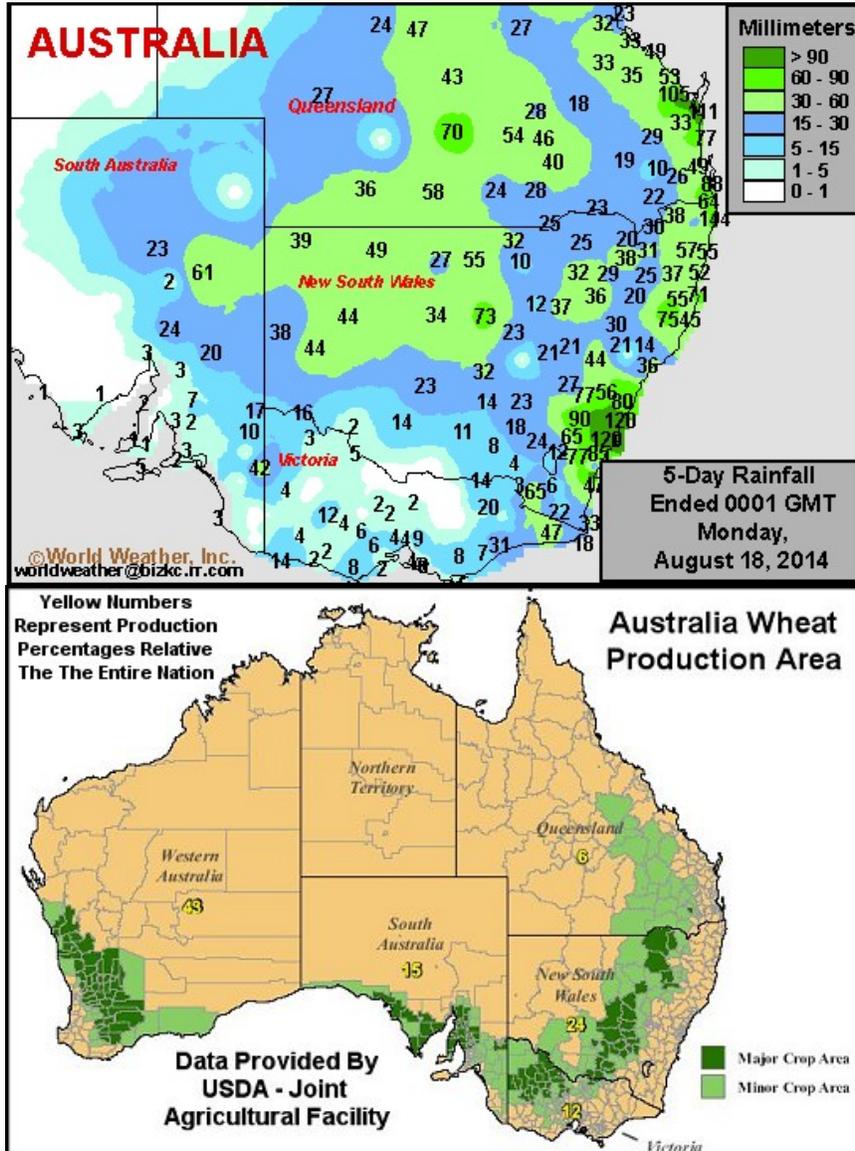
nificant rain for quite a while because of the influence of developing El Nino conditions. The El Nino evolution has been waning for the past few weeks and the reduction of that influence on atmospheric conditions allowed a weather disturbance to form in eastern Australia to generate the significant rain event noted above. Had the developing El Nino event failed to weaken the eastern crop areas of Australia would have likely missed out on the recent rain and the prospects for 2014 production would be poor. Now, there is hope of a more successful production year, but mostly if there is some follow up rainfall in the next few weeks.

Today's forecast does not offer much follow up rainfall during the next couple of weeks, but there will be some lingering showers this week and enough mild temperatures to conserve the newly fallen moisture through low evaporation rates.

In the meantime, Western Australia's winter crop region will get a couple of waves of rain over the next two weeks to help maintain favorable

soil moisture. However, northern parts of the grain and oilseed production region will need greater rainfall soon.

Temperatures will be seasonably mild to cool this week over eastern and northern parts of the nation while the southwest and south-central crop areas are warm.



southeastern Queensland and northeastern New South Wales. However, much of the rain was greatest along the coast. Interior crop areas will need significant rain soon to reinforce the improving trend and help assure the best possible production potential.

Queensland and northeastern New South Wales have struggled for sig-