The Canadian Agriculture Weather Prognosticator

Volume IX, Issue XIIII http://www.worldweather.cc October 31, 2017

Ontario And Quebec

Southeast Canada Summer Crop Harvesting Has Recently Been Disrupted By Rain. Drier Weather Is Needed To Finish The Harvest Without Additional Delays. Winter Crops Are Establishing Favorably.

WORLD WEATHER ISSUES

- Rain Eased Dryness In Eastern Ukraine And Areas East Into Kazakhstan This Month; More Is Needed
- Spain, Portugal, Italy And France Need Rain Along With North Africa
- Australia Winter Crops Are Filling, Maturing and Being Harvested Without Weather Issues
- Brazil Seasonal Rains Are Finally Arriving
- Argentina Weather Is Well Mixed
- U.S. Freezes Impact West Texas Cotton
- U.S. Wheat Establishing Well
- China And India Weather Good For Harvesting And Winter Crop Establishment
- South Africa Needs Rain

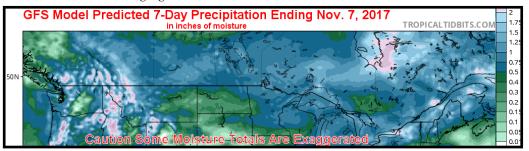
Snow To Pile Up In Early November

Snow has fallen periodically in the Prairies recently, but as of the time of this writing snow was mostly scattered across Manitoba and northeastern and north-central agricultural areas in Saskatchewan. The snow cover is much greater than that of last year at this time and if you recall snowfall in 2016-17 tended to be a bit limited bringing

and the limited snow cover that dominated last winter is not likely to be repeated.

November will start off with a succession of snow events that promises to bury much of the Prairies in snow relatively quickly. The snow will be followed by some colder air that will help to preserve the snow cover for a while. a moderately high amount of moisture content. That is quite important for possibly supporting better topsoil moisture when the spring melt arrives in 2018.

The first week of November will be wetter than usual, but the second week is expected to be drier biased. Weeks three and four will produce near to



us to the spring of 2017 with some concern for dryness

Last year's limited snowfall was welcome after a horrendously wet year that adversely impacted many areas and left crops in the fields. This year the feeling is a bit different with much of the soil moisture depleted from a long summer of drought snow is desired in nearly all areas except for the unharvested areas of the far north-central and northwestern Prairies. Snow will be more abundant for a while this year

Precipitation in the second week of November is not likely to be nearly as great as that of this first week and that will be welcome from a transportation perspective and from a livestock stress and feed demand perspective.

The snow may not melt very well in early November. Precipitation in mid to late-November is not likely to be as aggressive as that of this first week, but there will be more snow periodically and temperatures will be mild enough at times to support slightly greater precipitation and that is how the month of November will likely end up wetter than usual. Temperatures during the month will also be a little cooler biased and that will conserve the snow cover limiting fieldwork at times in northern and western Alberta where the most harvesting remains to be completed.

Even though November is advertised to be wetter biased, it will get that way largely as a result of this first week of the month.

October Precipitation Improves Some Field Moisture

Fixing months of below average precipitation is no easy task and with winter breathing down the Canadian Prairies' neck, time is run-

ning very short. Moisture totals remain significant across the majority of the Prairies, but some areas did get enough moisture in October to improve topsoil conditions.

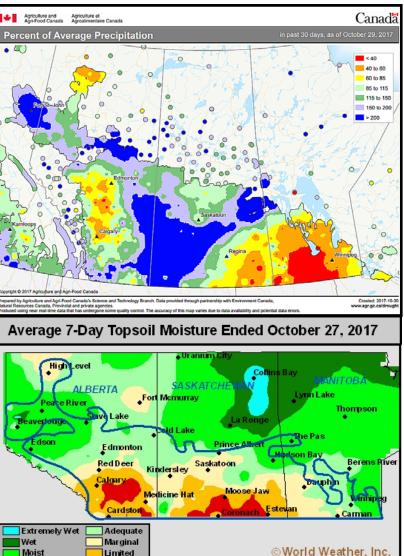
Precipitation during October was greater than usual in western, central and some northeastern portions of Saskatchewan and in extreme eastern Alberta. Much of the moisture boost in this region occurred early in October while the ground was frost free. The moisture soaked deep into the top layers of the ground where it will soon be locked in place and available for spring planting. However, subsoil moisture is so low in parts of the Prairies that the moisture gained will likely be drawn down deeply into the soil during

the winter making it more difficult for farmers to use it for spring planting and general fieldwork.

As significant as the early month rainfall was, a very large part of the Prairies is still suffering from very short subsoil moisture and limited topsoil moisture. The driest areas are still in southern Alberta and in most of southern Saskatchewan. Topsoil moisture was improved across central Saskatchewan, but subsoil moisture in the region is still

rated very short and unlikely to change prior to spring 2018.

No one will complain about the



moisture that fell early this month and very few will complain that it was not enough without quickly following up that statement with "any moisture is better than none". Winter weather this year will place a fair amount of snow on the ground over the driest areas in the Prairies. However, much of the snow melt will run off before it has a chance to get deeply into the soil, especially if winter temperatures are notably cold.

Timely early spring precipitation will be required to support the best planting, germination and emergence conditions. Spring 2018 could be sim-

ilar to that of spring 2002 and spring 1989 which were two other years in which the Prairies were attempting to come out of a serious drought. In both cases spring was a tough time, but rain did improve later in the year. Forecasters are postulating that the developing La Nina under way today might linger into the summer next year and if it does it should bring increased rain potentials for the Prairies leaving hope of recovery from dryness, but rarely does La Nina rainfall start in the early spring. It is normally a mid- to late-summer phenomenon.

In the meantime, parts of the Prairies are much too wet. Western and northern Alberta is likely to have crops left in the fields again this year as winter settles into the region. Snow is expected to fall significantly across the region in this coming week and it will be followed by some very cold temperatures. That should prevent the snow from melting and additional weather events

coming up in November may add to the snow cover instead of diminish it. That will make late season harvesting very difficult to complete if not impossible leaving some of the region's crops to be harvested in the spring.

Alberta was much wetter than expected in the summer of 2017 and with it being a second year in a row of such conditions the odds are relatively good that 2018 will be a little drier.

November Starts Cold; December Warms

The first half of November is likely to be snowy and cold enough to thwart the averages for the entire month. Significant precipitation is expected to fall across the Prairies from two distinctive storm systems in this first week of the month resulting in above average precipitation and significant snow accumulations. Enough precipitation may fall by the middle part of next week to sway the average precipitation totals for the month above normal regardless of precipitation through the end of November. The same might occur to temperatures with a notable period of cold weather expected next week.

The remainder of November is not expected to be nearly as harsh as the beginning of the month. Sufficient warming should occur to melt some of the region's snow and to induce some brief bouts of warmer than usual weather. The changes will be welcome,

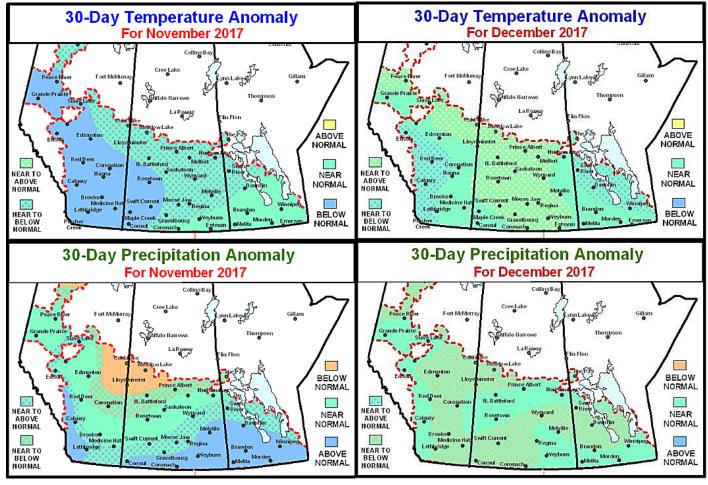
but not very likely to prevail quite long enough to counter the cold and snowy start to the month.

Not all of the Prairies will be wetter biased in November. Northwestern Saskatchewan and northeastern Alberta will receive near to below average amounts of moisture. The drier bias in those areas will be welcome after a wetter than usual bias that has prevailed for the past year.

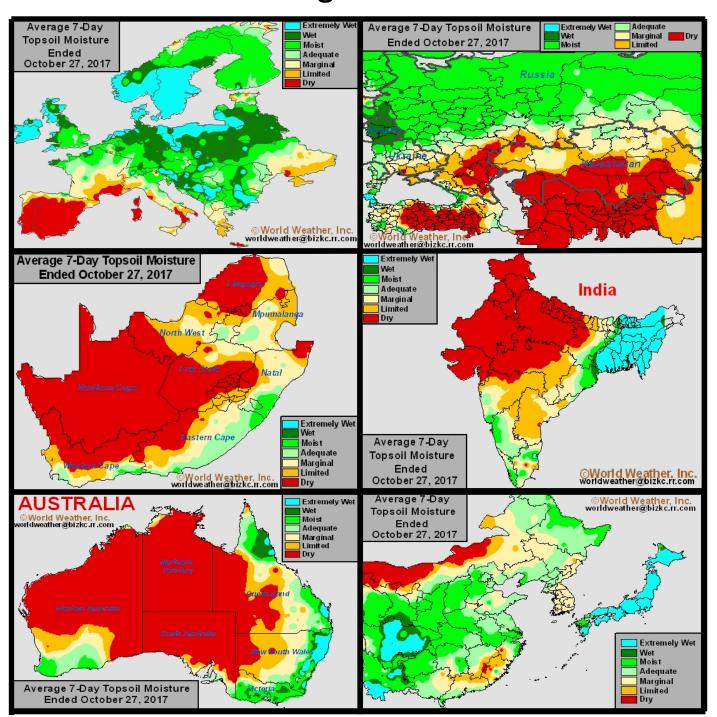
December weather will be a little warmer than usual in the heart of the Prairies while the eastern and western most portions of the region are near to slightly cooler than usual. December normal temperatures, however, are low enough that a near to above average temperature regime will not likely melt much snow or thaw the ground significantly enough to change the outlook for soil moisture in the spring.

Precipitation in December is expected to be near to below average, as well, and that will likely leave moisture deficits in place across the drier biased areas in the Prairies. That does suggest that most of the precipitation will fall as snow and every little bit of snow that accumulates will be available for the spring thaw.

La Nina conditions are expected to prevail during November and December. A full blown La Nina is not currently under way, but the phenomenon is evolving and should continue doing so through the end of the year. That should translate into additional support that winter temperatures will be near to below average. Precipitation in La Nina winters tend to be above average in SW Alberta and from far southern Alberta through southern Saskatchewan.



Selected Weather Images From Around The World



The European continent and western Asia have some areas of dryness that need to be dealt with to assure the best possible winter crop establishment prior to dormancy. Spain, Portugal, Italy, France, eastern Ukraine and areas east into Kazakhstan and south into Russia's Southern Region are all drier than usual and need moisture immediately to assure the best possible crop establishment prior to dormancy. Poorly established winter crops will be vulnerable to winterkill during times of extreme weather without adequate snow cover. In the meantime, China's weather has been drying out recently, but soil moisture was adequately bolstered prior to the drying trend to support winter wheat and rapeseed as they become better established. Dry weather expected in China during the next two weeks will favor harvest progress. South Africa is still too dry for summer crops and there is need for widespread, significant, rain and the sooner it falls the better off crops will be. Eastern Australia summer crop areas will get some timely rainfall in early November to support summer crop emergence and establishment. In the meantime, southeastern China is drying out.

Some U.S. Wheat Areas Still Need Rain

Portions of the U.S. wheat production region still need rain. Precipitation during October was lighter than usual in a number of areas and the need for more moisture is still high in some locations. Late month relief from dryness occurred in the lower Mississippi River Valley and portions of the Pacific Northwest will get some additional rain soon to bolster topsoil moisture. After that precipitation

evolves, dryness will be left mostly to the north-western and a few west-central Great Plains locations. The dryness is far from a critical issue, but with La Nina expected this winter a little more moisture would be welcome in some hard red winter wheat production areas.

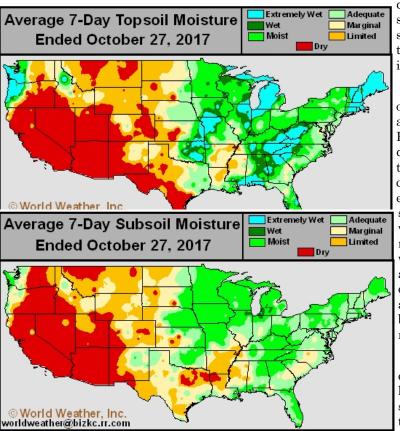
Rainfall in October was more than sufficient to support soft wheat planting and establishment across the Midwest, but some dryness in the U.S. Delta and several locations in the central Plains is straining crop establishment. Portions of the Pacific Northwest have also reported limited rainfall, although there has been some improvement recently. Among the driest

areas and those that need more moisture are eastern Colorado, portions far western and especially southwestern Kansas, the Delta and portions of the northern Plains. Idaho and eastern Oregon also need more moisture.

Out of the driest areas just mentioned rain is expected to fall in the coming week in the Delta and Pacific Northwest. Most of the Delta moisture will be significant and will go a long way in improving topsoil moisture for better wheat establishment. The Pacific Northwest rainfall is expected to be more limited and follow

up rain will be needed. Wheat planting in the northwestern U.S. has advanced well, but greater rainfall is needed to assure good establishment before winter dormancy sets in. Anywhere from half to three fourths of the wheat crop had emerged in the northwestern states as of last weekend and more is likely up today.

Most of the central Plains had



plenty of moisture fall in late September, but recent weeks have brought much less precipitation to the region and that may be slowing emergence and establishment. However, a very light rain of less than 0.50 inch would be sufficient to induce better establishment since subsoil moisture is likely still favorable.

Rain in the central Plains will be restricted in the next couple of weeks, but a little moisture is possible across parts of the region this week. Moisture totals will be greatest in Oklahoma leaving some dryness concerns in

the drier areas.

The bulk of the central Plains wheat is likely in favorable condition and will remain that way, but there is need for moisture and a close monitoring for it will continue through November. In the meantime, more than 80% of the central and southwestern Plains wheat will be well enough established prior to the colder

days of winter to give it some strength to withstand the harshest conditions that can evolve during the cold season.

Montana and portions of the northern Plains and southern Canada's Prairies are still fighting drought. A blizzard early this month in northcentral Montana, southern Alberta and far southwestern Saskatchewan brought significant moisture for some of the winter crops to use, but areas to the south and east are still rather dry and need moisture for better plant establishment.

Dryness in the northern and west-central high Plains is not widespread or serious enough to raise production issues for the nation, but

these areas will be closely monitored over the next few weeks. Typically, the northern Plains do well with winter precipitation in La Nina years. However, the central and southwestern Plains usually experience below average precipitation during La Nina winters and that makes some of the dryness a little more of interest. However, many important production areas have sufficient moisture to move into plant dormancy with favorable root and tiller establishment to minimize some of the dryness concern for a while.

Favorable Crop Conditions To Continue In Argentina

Timely rain earlier this week was welcome in much of Argentina. Western production areas were running a little dry earlier this month and the precipitation brought a little relief. Other production areas reported a good mix of rain and sunshine in recent weeks that was beneficial for aggressive growth. Much of Argentina's production areas will again see a good mix of rain and sunshine through the end of next week. The only concern is for a few locations that will be a little too dry in Cordoba and Santiago del Estero.

Rain was scattered across Argenti-

na during the past week. Moisture totals for the seven-day period ending this morning ranged from 0.50 to 1.50 inches with pockets in central Cordoba receiving up to 2.55 inches. Areas near Paraguay in Formosa also received up to 4.00 inches of rain. Soil moisture from La Pampa and Buenos Aires into Chaco, Corrientes and immediate neighboring areas was generally rated adequate. Portions of Formosa are abundantly wet

while a few pockets in northern Santa Fe and La Pampa have a minor shortage of topsoil moisture.

Santiago del Estero and much of Cordoba have a shortage of moisture despite recent rainfall. These areas received near to below normal rainfall so far this month, along with La Pampa, northern Santa Fe, and Chaco. Although the ground is not critically dry, a boost in precipitation would be welcome for better crop development and additional planting. Rainfall elsewhere October 1-27 was near to slightly above average.

Summer crop planting and establishment advanced swiftly earlier this month despite periods of dryness.

Most crops had enough moisture to establish favorably, but the drier areas in Cordoba and Santiago del Estero were in need of rain that finally fell this past week. Corn, soybean, sunseed, groundnut, and most other crops are planted well into December. Cotton planting normally concludes toward the latter part of November in northern Argentina. Timely rain is still needed in most locations to promote the best environment for establishment and development.

Winter wheat development has been mostly good in recent weeks. Flooding may have damaged some of

Average 7-Day **Topsoil Moisture** Ended antiago Chaco October, 30, 2017 Estero Santa Fe **Extremely Wet** Wet Moist Adequate Marginal Limited Dry La Pampa ©World Weather, Inc vorldweather@bizkc.rr.com

> the crop earlier this season, although no widespread significant damage was suspected. Early season harvesting also advanced swiftly around the recent rainfall. Harvesting normally begins in November and continues through January.

Alternating periods of rain and sunshine will evolve across Argentina through the end of next week. Rainfall through the first part of next week will be generally light. More significant precipitation is slated for most locations toward the middle and latter part of the week. Moisture totals through next Friday morning will range from 0.50 to 2.00 inches with portions of La Pampa and Buenos

Aires receiving more than 3.00 inches of rain. Formosa and neighboring areas in Chaco will also receive 2.00 to 5.00 inches of rain with locally greater amounts while pockets in Corrientes receive little to no rain. A drier weather bias will potentially evolve for much of the main production areas November 4-10.

Rainfall in southern Argentina will be enough to bolster topsoil moisture to adequate level, but subsoil conditions will remain a little dry, especially in northern Cordoba and Santiago del Estero. Crop establishment and development will advance

under generally favorable conditions. Cotton planting and establishment will also remain favorable in Formosa and northern Chaco. A few locations may trend a little too wet and may see fieldwork delayed at times.

Crop establishment will briefly improve toward the end of next week in Cordoba, Santiago del Estero, and immediate neighboring areas due to the periods of rain. However, rainfall will be too

light to completely fix moisture deficits. The lack of rain during the second week of the outlook will also lead to decreasing soil moisture. Timely rain will be needed later in November to keep the ground from becoming critically dry and stressing crops.

Portions of eastern Argentina may also dry enough to slow establishment and development during the next two weeks. Most areas will not receive enough rain to counter evaporation through the end of next week and very little rain is slated during the second week of the two-week outlook. Fieldwork will advance swiftly, though the ground will likely dry significantly.

Brazil Seasonal Rains Finally Begin

Seasonal rainfall increased in Brazil's primary agricultural region during the past week ending prolonged dryness in some areas, but the precipitation was still a little dissatisfying for some producers in Mato Grosso where the distribution of rain has continued to be a little light and

erratic. The coming week of weather will perpetuate the same theme ensuring that areas from southern Mato Grosso do Sul and western Parana to eastern Goias and parts of Minas Gerais stay wet while rainfall elsewhere is a little erratic. Net drying is expected in Rio Grande do Sul which may be welcome for a while.

Rainfall during the week ending today was most significant from southern Paraguay into southwestern Sao Paulo and southern Mato Grosso do Sul including most of western, central and northern Parana. Rainfall in this described region varied from a little less than 5.00 inches to 9.72 inches. Some flooding was suspected, but the precipitation was spread out over multiple days which helped to minimize the impact on some of the region. Nevertheless, the region is too wet and needs to dry down.

Rainfall further to the northeast through northern Sao Paulo and southern Goias to the heart of Minas Gerais varied from 1.00 to 3.00 inches. Rain totals in central Mato Grosso do Sul reached 1.50 inches while that in Mato Grosso was more erratic and light. Some areas in Mato Grosso reported less than 1.00 inch of rain while others received 1.00 to more than 3.00 inches. Daily high temperatures frequently in the 90s to slightly over 100 degrees Fahrenheit were too warm for the 1.00-inch amounts of rain to stay in the soil for any great.

rain to stay in the soil for any great Millimeters Mato Grosso 3 30 - 60 15 - 30 25 34 5 - 15 Bolivia 37 86 49 41 7-Day Rainfall Santa Catarina Ended 1200 GMT Tuesday, October 31, 2017 To canting **Extremely Wet** Wet Moist Adequate Marginal Limited Rolivia pirito Rio de Janeiro Average 7-Day

length of time resulting in net drying.

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The latest topsoil moisture assessment clearly reflects the big increase in rainfall in southern Brazil with the ground completely saturated. The excessive topsoil moisture rating implies that flooding likely occurred in at

least a part of the region during the past week. A little farther to the north the topsoil assessment shows much improved moisture conditions in west-central, central and southern parts of Minas Gerais and northeastern Sao Paulo.

Rainfall was minimal during the past week in Bahia, northeastern Minas Gerais and Espirito Santo where dryness remains very significant. Northeastern parts of Brazil will get some needed rain in this coming week, along with northeastern and central Goias all of which are still trending too dry.

Concern about Mato Grosso will be ongoing in this coming week. An erratic rainfall pattern is expected to continue across the state. Some localized areas of moderate to heavy rain will occur, but many other areas will receive only light amounts. Even though some showers will occur daily in Mato Grosso, the lack of intensity will result in some net drying. Daily high temperatures will be in the 90s most days and that will easily evaporate the lighter amounts of rain out of the region within a

short period of time. A more generalized rain event is needed and until that time arrives there may be continued pressure on some soybeans and corn in the state to develop poorly possibly raising a yield concern if conditions do not improve

Topsoil Moisture

Ended

October 31, 2017

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