The Canadian Agriculture Weather Prognosticator

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Welcome To The 2017 Growing Season

This issue of The Canadian Agricultural Weather Prognosticator marks the beginning of our ninth year of operation in the Prairies and World Weather, Inc. wants to thank its subscribers for their support and to pray for a very successful growing season for all.

WORLD WEATHER ISSUES

- Flooding Has Evolved Again In SW Argentina Raising Worry Over Harvest Conditions
- Brazil Seasonal Rains
 Due To End This Month,
 But, Wow, Another Tremendous Crop Year
- U.S. Rain Limits Early Season Planting From Lower Mississippi Basin To Lower Ohio Valley
- U.S. Hard Red Winter Wheat Woes Are Put Down By Substantial Rain
- Europe Drying Bias May Become A Threat In East Later This Spring
- Southern China Crop Areas Deal With Too Much Rain And Delayed Planting
- Morocco and Australia Will Need Rain Soon

Manitoba Flooding Under Way

Manitoba flooding became a widespread problem during the past week as warm air moved over the region that had been deeply buried in snow for months. The majority of snow melted quickly over a four to five day period beginning last week and continuing through the past weekend.

The guick meltdown of snow across saturated soil was an obvious problem, but what wrecked havoc on the forecasting of flood water was the unexpected river ice jamming that took place in several areas causing some quick problems with flooding. The Carman area of southern Manitoba was one area that will experience some of the most extensive flooding in years because of an ice jam situation.

The complex river system and in southern Manitoba handles an average snowmelt season relatively well and this is going to be one of those years as long as no major storm system rolls around into the region in the next couple of weeks. With that said, there is one storm slated to impact much of the Prairies this weekend and early next week that has potential to aggravate

the flood situation in Manitoba. The storm will begin producing rain and snow across Alberta Friday and into Saskatchewan Friday night and Saturday. The system is not expected to be well developed initially and that will help keep moisture totals across the western two-thirds of the Prairies manageable.

The erratic nature of rain and snowfall associated with the weekend and early week storm system in Alberta and Saskatchewan is going to leave some areas with no more than 4 millimeters of moisture while others see 10 to 30 millimeters. Some of the greatest precipitation is currently advertised for southwestern parts of Saskatchewan in an area that has been drier biased recently. Another area of moderate snow will occur near the northern fringe of crop country in Saskatchewan and northern Alberta where several inches of snowfall will accumulate causing travel problems and raising concern about delays to the start of fieldwork.

Most of the precipitation in southwestern Saskatchewan will be the result of a small low pressure center that will evolve over the region Saturday night and Sunday, but that storm center will be replaced by a newer and faster developing system over northern Minnesota Sunday that will rob moisture and energy from the first storm resulting in a limit to the extent of "significant" precipitation.

The low pressure center over northern Minnesota will move to western Ontario Monday and that will result in a new region of greater precipitation that is more in Ontario rather than in Manitoba. The result of this scenario is that there is fair chance that precipitation in flooded areas of southern Manitoba will get a break from the new storm limiting moisture totals in such a manner to reduce the potential of seriously worsening flood conditions. It will not be dry, but flooding may not worsen

If the greater precipitation bullet for Sunday and Monday can be dodged in southern Manitoba the region will have another week to nearly ten days for flood water to work its way out of the region and begin a needed drying trend that might help spring fieldwork begin faster than feared.

Winter Blessings And Aggravations

Winter 2017 has officially ended and in retrospect it brought some blessings to many areas in the central and western Prairies, but some aggravation, as well, especially in southeastern parts of the region.

The most important part of the winter was the combination of warmer than usual conditions and

less than usual precipitation. Now, not all areas were treated equally, but the northwestern four-fifths of Saskatchewan ad much of Alberta received below average precipitation during the winter. The lesser than usual precipitation was needed after last summer and autumn's abundant precipitation pattern. Fear was running high that a wet winter would leave behind mountains of snow and serious

spring flood issues. But that was not the case—at least not for the majority of central and western crop areas. That does not mean surplus moisture and areas of standing water are not present because the reality is that they are commonplace across much of the Prairies. However, can you imagine what the landscape would be like right now had the winter been any more harsh?

There were exceptions in the west where snowfall was more substantial and spring runoff is an issue. The front range of the Alberta Rocky Mountains received sufficient snow to induce the usual moisture abundances and several pockets scattered in the west received locally moderate to heavy amounts of precipitation during various times over the win-

ter, but the number of areas in a critical situation is low—at least for now.

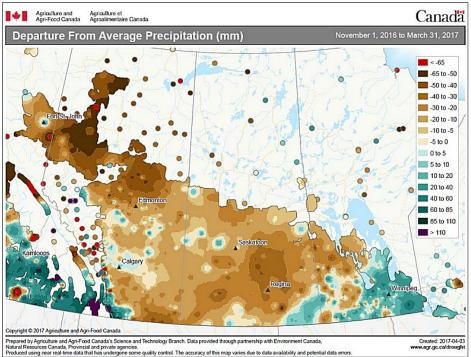
The better than feared winter weather scene gives some greater hope to those farmers who were not allowed to finish fieldwork last autumn. Snow free conditions today and a forecast that keeps the potential excessive precipitation events to a minimum for a while this spring could

Most of the Prairies will have a very low tolerance level for any well organized storm systems this spring. It will be imperative that the frequency of bigger moisture producing storms is kept as low as possible and the ideal scenario would be to keep the region absolutely dry throughout the season, but that is not likely to happen. Precipitation is expected and

it is expected occur often enough to keep ideal field working conditions at bay for a while. The biggest part of the Prairies' hope for spring fieldwork will be tied up in the expectation that temperatures will continue a little warmer biased during the spring. If that happens and the larger storms are an infrequent concern for the Prairies, there will be a good chance that the ground will firm sufficiently to get producers into the fields as quick-

get producers into the fields as quickly as possible. The spring will certainly not be ideal and moisture surpluses will still be around in many areas during the summer. The key to successful production this year is going to be in keeping it as dry as possible this spring to get all fieldwork completed in a favorable manner. Rain this summer will occur routinely and may present more wet weather disease issues and create some spraying challenges, but production could be successful if precipitation this spring is kept as low as possible.

The forecast is encouraging, but the wet pattern is not over for the coming growing season and that will present some more challenges, but hopefully not until summer.



lead to a better outlook for getting old crop harvesting finished without seriously impacting the planting of 2017 crops. As noted in the previous prognosticator, however, there will be several weeks this spring that will have to pass drier and warmer than usual to adequately dry up some of the wettest areas.

No area in the Prairies stands out with a bigger moisture surplus problem than Manitoba and far southeastern portions of Saskatchewan. These areas were wetter biased during the winter mostly due to a series of blizzards in December and another that occurred in March. Too much moisture in the region today has redefined the meaning of "Land Of Many Lakes".

Updated Spring Outlook; Wettest South

April weather is expected to continue warmer than usual, but a quick shot or two of cooling is expected during the month that will lower temperatures near to slightly below average for brief periods of time. Those cooler periods will pull down the average temperature for April so that it is more near to above average instead of notably above average as has been the trend recently.

April precipitation is expected to be greater than usual in the northwest part of the Prairies, primarily from the Peace River Region east to the Cold Lake region of northern Alberta. Another area of wetter biased conditions will occur along the front range of the Alberta Rocky Mountains from near Calgary northwest through Edson and Jasper to the Beaverlodge and Grand Prairie region.

Other pockets of near to above av-

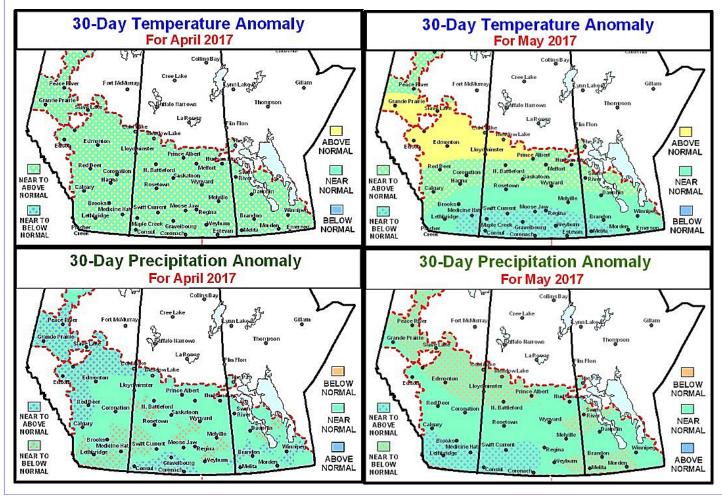
erage precipitation is expected in south-central and interior southwestern portions of Saskatchewan and in a few locations scattered around in southern Manitoba. Most other areas in Saskatchewan, Alberta and Manitoba will receive near to below average amount of precipitation during April.

May weather will trend a little wetter biased in the southwest. Both southern Alberta and southwestern and some south-central production areas in Saskatchewan will be included in the wetter biased conditions. It will not be wet all month long, but there will be some periods in which precipitation will be greater than usual.

Many other areas in the Prairies will receive a near normal amount of precipitation during May. Some areas of lighter than usual precipitation are expected from the Peace River region through northern Alberta to northwestern Saskatchewan and in random other areas from extreme eastern Saskatchewan into western and some central Manitoba locations.

There is some potential for drier and warmer weather to come along for a little while in the latter part of May and early June to provide the best timing of improved planting weather for late season crops. This window of opportunity will likely be provided as a last effort to get the remaining 2017 crop planted before optimal planting dates expire.

Not long after the early part of June is when the summer wetter biased pattern will begin to evolve and the summer outlook for near to above average rainfall has not changed from that presented previously.



Relief Occurs In U.S. Hard Red Winter Wheat Region

Plenty of rain fell on the Hard Red Winter Wheat Region during the month of March. Rainfall since the beginning of March has ranged from 2.00 to more than 4.00 inches over a broad region from Kansas southward through Oklahoma and a part of the Texas Panhandle and north-central Texas. Within this region, rainfall of 4.00 to nearly 6.00 inches occurred in several areas in the interior southwest of Kansas, the eastern fringes of

Kansas

wheat country and in a band extending from southwest to northeast across central Oklahoma. In contrast, some areas in southern Nebraska received less than 2.00 inches of rain with a few less than 1.00 inch. Another area that

received less

than 1.00 inch of rain occurred in southeastern Colorado and in a few neighboring counties in northeastern New Mexico, far westernmost parts of the Oklahoma Panhandle and portions of a few western counties in the Texas Panhandle. These drier biased areas reported rainfall of 50-80% of normal.

Before a series of storm systems began affecting the Hard Red Winter Wheat Region last week, soil moisture was quite low. A warm February led to early crop development from the Texas Panhandle east into central Oklahoma. The developing crop was in need of moisture due to the drybiased weather that had recently occurred. Crop stress was beginning for

some areas as winter wheat growth continued. A shift in the weather pattern then evolved allowing abundant rain to fall across the region rescuing crops from a stressful environment bringing new production potential the region.

Today's soil moisture is much improved over that of March 24. Many locations that were once rated with short to very short topsoil moisture were rated adequate to surplus last

to heavy rain and some snow in the drier areas of southeastern Colorado. Moisture totals will vary from 0.50 to 1.25 inches from southeastern Colorado through much of southern and some central counties in Kansas and across northern Oklahoma. The precipitation will lead to further improvements in topsoil moisture and that will lead to improved crop conditions for southeastern Colorado.

A majority of Nebraska will likely

miss meaningful moisture for at least another seven days. Crop stress may increase for developing winter wheat in portions of central Nebraska next weekend when the lack of moisture combines with a warm-up in temperatures that will lead afternoon max-

30-Day Percent of Normal Precipitation Ending Apr. 3, 2017 Percent 600 -400 300 200 150 125 110 100 -90 -75 -50 -25 -10 -

> Friday and are suspected of being quite similar today. The recent moisture, combined with closer to average temperatures, has provided great conditions for crop development. The moisture will eventually work its way down into the subsoil and provide the wheat crop with necessary moisture throughout any dry spells that might evolve during April. There are a few exceptions though, especially in southeastern Colorado and portions of Nebraska where percentage of normal rainfall in March was lacking. These drier areas were still in need of more moisture, but rain at the time of this writing was helping to fix dryness in

Tuesday's will produce moderate

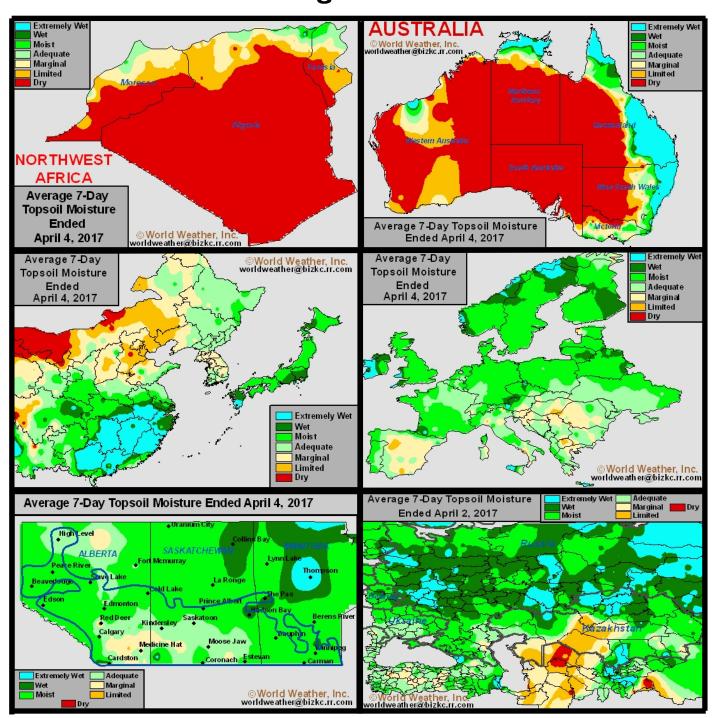
Colorado.

imum readings in the upper 70s and 80s Fahrenheit.

In the meantime, recent rain and milder temperatures may be giving crops a good environment to set new tillers to replace any crop that was seriously damaged by bitter cold, heaving or lack of moisture. The new tillers, if conditions are as good as possible, will lead to an increase in production which may surprise some after the rather stressful environment that plagued the production for several months since planting.

Small grain crops in the lower Midwest, Delta and southeastern states are in fair to good condition with little change expected.

Selected Weather Images From Around The World



Europe is still drying down and there is market chatter that the central and northeast parts of the continent will be drier than usual during the spring. Improved rainfall is expected in the Balkan Countries and timely rain should resume soon in western parts of the continent. The western CIS is favorably moist, but it, too, will dry down later this spring and early in the summer raising some concern for spring and summer crops like sunseed and spring wheat. China is still dealing with above average precipitation and wet field conditions. East-central and southeastern China will need to dry down a little later this month in order to support spring planting and to protect the quality of winter wheat and rapeseed that is produced near the Yangtze River. North Africa has been drying down recently and Morocco and northwestern Algeria will have to have better rain soon to assure the best durum wheat production potential. Southern Australia will need rain by early May to support the planting of wheat, barley, canola and pulse crops.

Staggering Rainfall in SW Argentina Past Week

Impressive rainfall occurred in southwestern Argentina over the past week. Portions of La Pampa reported more than 14.50 inches of rain during the 7-day period ending at dawn today which is 5.26 inches more than what normally falls from January 1 through April 4. The heavy rain event was just one of many that has occurred in Argentina this summer, but surprisingly not many areas in the nation have reported as much as two times the usual rainfall for all 2017. Many areas are wetter than

usual, but not by such extreme amounts as one might imagine given all of the media coverage on flooding that has occurred this year. To a certain extent that is the very reason why Argentina is producing a large crop. The adverse weather this year has impacted many areas at different times during the growing season leaving other periods dry and warm enough to spur on good plant development.

Rainfall during the seven day period ending dawn today (April 4) was greatest from central Santa Fe and east-central Cordoba southward into all of La Pampa, westernmost Buenos Aires and portions of San Luis. Amounts in these areas varied from 3.50 to more than 14.50 inches. Needless to say, flooding has occurred with La Pampa and immediate neighboring areas at the core of the wettest conditions. Rainfall elsewhere to the north and east of the heavy rainfall area was notably lighter. Easternmost parts of Argentina were left mostly dry and rainfall in Santiago del Estero varied from 0.28 to 0.79 inch.

Some of the most important rainfall noted during the past week, outside of the flooded region, was in Cordoba and southern Santiago del Estero where soil conditions were becoming too dry in March. Rain was perfectly timed to reduce developing late season crop stress and to bolster topsoil moisture for a better finish to the growing season. Rainfall in these areas was not heavy enough to do much more than restore excellent late season crop development conditions. Rain totals varied from 0.79 inch in

coming precipitation.

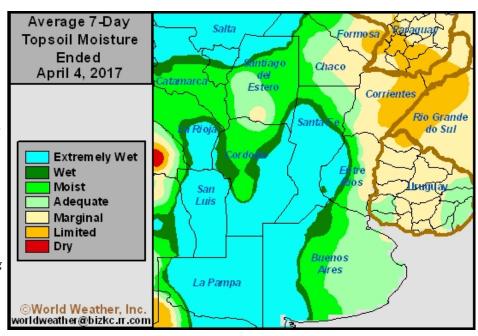
No serious decline in summer crop quality is expected because of the rain, but there will be a notable disruption in fieldwork and the need for drying will rise greatly after multiple days of disrupted fieldwork. Harvesting of corn was more than 11% done in late March. Rice harvesting was 57% done on March 30 down from 64% complete at the same time last year. Sunseed harvesting was 82% complete down from 93% a year ago.

Sunseed quality has been compromised from earlier this summer due to recent rain and drier weather is needed to protect the crop. Fieldwork is done in Santa Fe and Entre Rios, but only 70% finished in Cordoba, 71% done in Buenos Aires and 76% done in La Pampa. Each of these provinces has likely suffered a decline in sunseed quality be-

cause of the wet biased pattern of late and that which is still coming.

Soybean harvesting has just begun and the bulk of its harvest will come in April, May and early June.

Weather conditions in the coming week will bring greater rainfall to a large part of the nation with the greatest amounts expected in Buenos Aires. The precipitation will be sufficient to prolong harvest delays and maintain some crop quality concerns — mostly in sunseed production areas. Drier weather should occur next week in time to protect soybean and peanut quality and to get the harvest of all summer crops back on track after a period of drying passes.



northern Cordoba to more than 4.00 inches in the south, but the heart of peanut, soybean, sorghum and corn production in the state benefited greatly.

Additional rain is expected to evolve across most of Argentina Thursday into Sunday with some lingering rain in the south early next week. The rain is not welcome and will not allow early soybean or corn harvesting to advance very well without some period of drying occurring first. A little fieldwork may occur during mid-week this week, but progress will be slow because of previous rain and due to the significant amounts of moisture that will result from the

Rain To Replenish Southern Brazil Topsoil Moisture

The greatest rainfall shifted into northern Brazil production areas during the past week. Resulting moisture totals varied from 1.00 to 3.00 inches most often from central and eastern Mato Grosso, central and northern Goias and northern Minas Gerais into Bahia. Rain also occurred near and along the coast of eastern Brazil from northeast Rio Grande do

Sul through Sao Paulo and into Rio de Janeiro and Espirito Santos where moisture totals varied greatly from 0.25 to 1.00 inch and local totals varying from 1.00 to 2.50 inches. Otherwise, mostly dry weather and net-drying occurred in the remainder of the nation.

Temperatures during the past week

were mostly seasonable throughout Brazil, with a slightly cooler bias from the southeast into eastern Sao Paulo and southern Minas Gerais. Highest readings ranged from the middle and upper 70s into the 80s in the cooler areas while middle and upper 80s and 90s occurred elsewhere.

The recent rain has relieved dryness over northeast Brazil. Rainfall during the latter half of March raised precipitation totals to near to above normal amounts over northern Minas Gerais into southern Bahia. Rain during the first few days of April has

increased over interior Bahia further improving moisture conditions. Meanwhile, recent short term drying over Mato Grosso do Sul Parana into Sao Paulo and southern Minas Gerais as well as most of Rio Grande do Sul has firmed up the topsoil. However, subsoil moisture continues to remain rated favorable enough to support late season crops and the dryness has alrelief to prevailing long term dry-

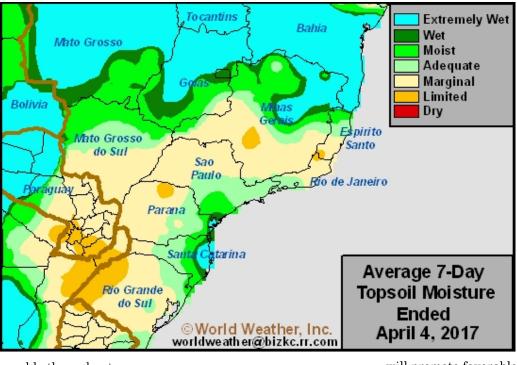
In the meantime, heavy rain will return to interior southern Brazil into Sao Paulo this week where long term dryness is certainly not an issue. The heavy rain will quickly replenish topsoil moisture after the recent short bout of dry-

> ness has firmed up soil moisture. Some local flooding will return to far southern Brazil as frequent bouts of heavy rain occur, although no serious flooding is expected to impact crops. Other areas in center west Brazil will receive a mixture of rain and sunshine which

will promote favorable soil moisture

conditions for crops while also allowing for breaks in the precipitation for fieldwork to advance.

> Many second season corn and cotton fields were planted a little later than usual this year and the return of the moisture will help boost soil moisture conditions. The more moisture that is in and on the ground when the monsoon season ends will benefit the second season crops in the long run, although some disruption to fieldwork associated with the main season crop will



lowed for fieldwork to advance swiftly and increased rain will return to the interior south into Sao Paulo ending net-drying this coming week and replenishing topsoil moisture conditions.

The recent increase in rain has benefited northeastern Brazil. However, precipitation will decline during the coming week to ten days and net drying will return to most of Minas Gerais and Bahia and some long-term dryness will prevail throughout the region. With the wet season coming to an end soon, it is likely many northeastern locations will have to wait until October or November for serious

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