The Canadian Agriculture Weather Prognosticator

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June 10, 2020

<u>WORLD</u> <u>WEATHER</u> <u>ISSUES</u>

- Europe rainfall has been improving in the U.K., northern France, Belgium, Netherlands and Germany recently and more rain is expected
- SE Europe into the western parts of Russia and Europe are favorably moist with little change for a while
- Eastern Ukraine into Kazakhstan is drying out again; Kazakhstan never received significant moisture and is much too dry
- Brazil's Safrinha corn crop is maturing, but dryness in recent weeks may have shaved a little yield from eastern production areas
- Western and some southern Argentina crop areas are still too dry for wheat emergence and the drier bias will prevail for a while
- Southern Australia rainfall is expected to begin increasing over the next ten days
- East-central China dryness will be eased over the next few days
- Some U.S. Great Plains crop areas are becoming too dry

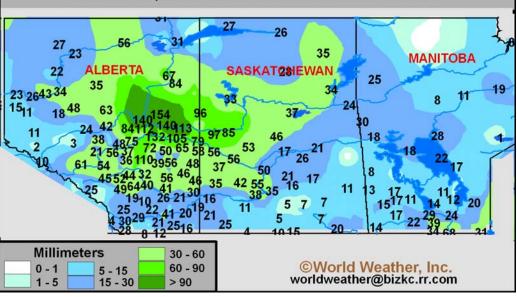
Northern Alberta To Abandon Fields

A wild start to June weather has sent parts of Alberta floating downstream while other areas in Saskatchewan and Manitoba have been literally blown away. 2020 will be just another year for the record books. It seems history gets re-written a little bit each year as weather becomes more volatile and extreme.

June started out with a series of storm systems that were supposed to move from southwest to northeast across the Prairies, but instead a ridge of high pressure that turned out to be stronger than expected resisted the storm movement and sent the "Montana Lows" north northwest into the westernmost Prairies. As a result, too much rain fell in parts of northern Alberta where rainfall was excessive last autumn leaving some crops unharvested.

Enough improving weather and field conditions occurred this spring to get last year's crops harvested and some of the new crop planted before excessive rainfall resumed. However, the rainy weather did return and for some areas with a vengeance. Rainfall in the first nine days of this month ranged from 1.00 to 2.25

inches in many areas in central and northern Alberta while amounts in the south varied from 0.30 to 1.00 inch with a few totals of 1.00 to 1.65 inches. But that extreme was nothing compared to the extremes noted in northern Alberta that were in the 3.00 to more than 5.00-inch range. Lac la Biche reported slightly more than 6.00 inches of rain with Atmore, Rich Lake and Andrew each reporting more than 5.00 inches. Needless to say, the ground is excessively wet today and runoff has been great enough to cause some significant flooding.



June 1 - 9, 2020 Total Rainfall In Millimeters

Northern Alberta To Abandon Fields (continued from page 1)

The excessive moisture in Alberta followed from a total of three very large sized storm systems that impacted the province since mid-May. The first event produced significant rain in

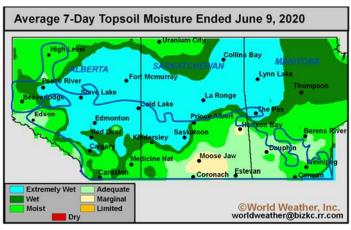
the third week of May and when that moisture was added to that of the past nine days there is no reason to question why flooding occurred.

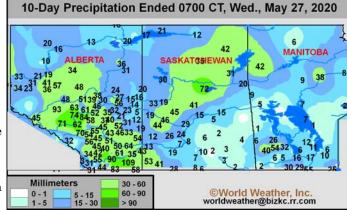
Not all of this year's planting was completed because of the rain reported during the past few weeks. Field abandonment will be high for portions of northern Alberta this spring because by the time some of these areas dry out enough to support planting it will be too late. Much of the fieldwork that is incomplete at the time of the this writing in the north will not likely get completed because there is one more large storm system coming and that is expected this weekend into the early part of next week.

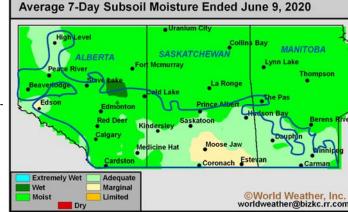
Another 0.75 to 2.00 inches of rain will come with the new storm system and local totals may come close to 3.00 inches once again. That much new moisture on top of that which has already occurred will return flooding to some areas and expand it in other areas. Some structural and agricultural damage will result because of the flooding and some of the land that is being eroded away will drift a long way down stream to other parts of the nation.

Being a land of contrast

in the Prairies always leaves room for both excessive rain and moisture shortages to occur at the same time with a moderate distance between the two. The high pressure ridge responsible for pushing the Montana low pressure centers northward instead of northeastward was also responsible for squelching rainfall across south-central, southeastern and east-







central Saskatchewan and portions of western and central Manitoba during the past few weeks. Rainfall in some of these driest areas has been less than 0.50 inch and some areas have only reported a few hundredths of an inch.

Net drying has occurred in all of the region where rainfall has been less than 0.50 inch and that has de-

pleted soil moisture that was marginally acceptable for late season crop planting. However, strong wind speeds and warmer than usual temperatures along with the minimal rainfall has left the soil drier than usual and that has been delaying some canola and other late season germination and emergence.

Recent rainfall has been great enough to moisten the topsoil sufficiently to germinated some of the recently planted crops, but a little more rain is needed to help get root systems down to the moisture which varies over a few inches below the surface from one area to another.

Frequent strong wind speeds have blown some soil out of Saskatchewan and Manitoba in recent weeks. Reports of blowing dust and flying canola have been received. Wind speeds were so great on some occasions that the wind lifted young canola plants right out of the ground sending them downwind to whither and die.

Replanting of canola has been occurring aggressively in eastern and south-central parts of the Prairies recently. Rain over this past weekend helped to support some of the newly sown crop, but a more generalized rain is needed to germinate, emerge

and establish this year's crops. Getting that extra amount of rain soon enough to support crops may be a little hard to come by, although the coming weekend and next week will offer a chance for at least some rain.

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Next Ten Days Critical For Dry Areas Eastern Prairies

Rainfall, as projected by the European model for the Prairies during the ten-day period ending June 19, would be a dream come true for most of the Prairies. The model suggests the drier areas in much of Saskatchewan would receive some needed

rain along with a few of the drier areas in Manitoba. Some of the advertised rain might not fully restore soil moisture to normal, but it would be sufficient to seriously aid the struggling canola, wheat, corn, soybeans, flax of other crops in the region that have been missed by significant rain recently.

The European forecast model also suggested net drying for eastern Al-

berta and western Saskatchewan. This drier bias would also be welcome after some significant rain recently. Not all areas in the region need to dry down, though. There are still some fields that would greatly benefit from additional moisture.

The saddest part of the ten-day forecast map by the European forecast model from mid-day Tuesday, June 9, is the additional rain slated for the western and northern portions of Alberta. All of the recent model runs bust and that will likely translate into some additional concern about flooding and poor crop conditions because of the additional rain. The only saving grace will be the favorable drying conditions that may occur in the few days that precede the

greater rain event.

Temperatures in across the Prairies over the next ten days will be mostly seasonable. Some cooling will occur for a brief period in the balance of this workweek followed by a quick and significant warmup and then some additional cooling.

Accumulated Total Precipitation (in)
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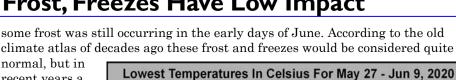
have continued to show confidence that more rain is coming to Alberta crop areas. The additional moisture comes during the approaching weekend and early part of next week (June 13-15). There is not much reason to expect this part of the forecast to be a <u>World Weather.</u> <u>Inc. is not convinced</u> <u>that this forecast for</u> <u>rain distribution</u> <u>over the coming ten</u> <u>days is just right.</u>

The weather pattern in North America remains very active there is concern for many more changes in the forecast over the next several days and a close monitoring of the daily forecast will be warranted to look for significant potential changes.

Late Season Frost, Freezes Have Low Impact

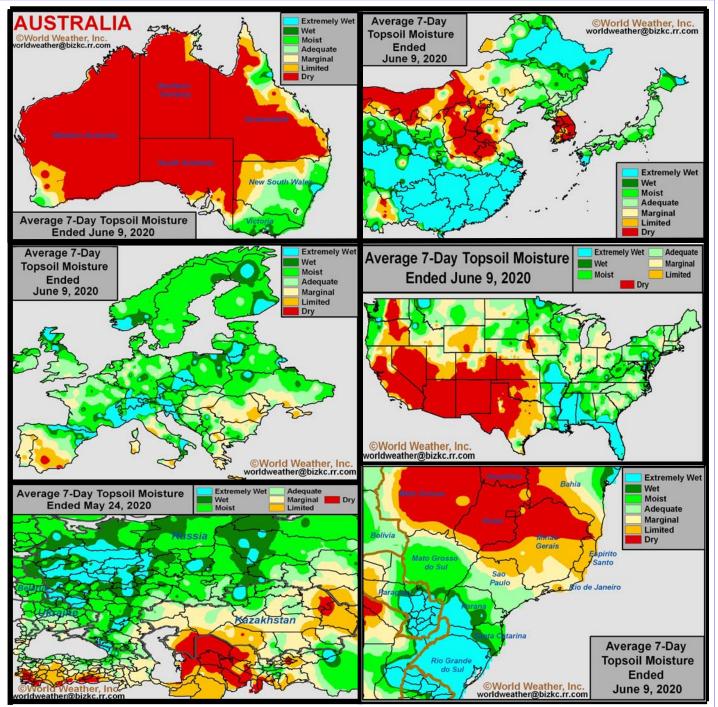
Frost and freeze conditions were noted across much of Canada's Prairies during the last days of May and early June. The cold weather was expected, although it did occur a little more broadly than predicted. The good news is that the cold did not have much of a negative impact on crops and that is a huge victory since warm weather earlier in the spring could have brought more farmers into the canola fields where damage might have occurred had the crop been more advanced.

The coldest temperatures occurred in the last days of May, but normal, but in recent years a warmer climate has brought the last frost and freezes earlier allowing fieldwork to start quicker, but sufficient warning about this year's cooling helped to prevent a more significant impact by the cold.





Selected Weather Images From Around The World



Australia rainfall over the coming ten days is expected to begin occurring more often and that will translate into better wheat, barley and canola establishment. Some late season planting will also occur once significant rain falls. China is much too wet in the south and drier than usual from portions of east-central through northern parts of the nation's crop areas. Relief is expected in a part of the driest area in China later this week and that will restore a more favorable outlook for summer coarse grain, oilseed and cotton. Drying has occurred over the past week in portions of the U.S. Midwest, but rain from Tropical Storm Cristobal was moving northward from the Delta into Iowa, Minnesota and Wisconsin at the time of this writing which will restore wet field conditions in the western Corn Belt. Eastern Corn Belt crop areas will need rain soon. Dryness is still a problem in the southern Plains and in the Pacific Northwest. In Brazil wheat areas in the south are still plenty wet while Safrinha corn and cotton areas in Mato Grosso and Goias are quite dry. CIS drying is expected to become more significant again from eastern Ukraine to Kazakhstan.

India Monsoon Starts Favorably

Two tropical cyclones and some early monsoonal precipitation helped to push early June rainfall above average in much of India's grain, oilseed and cotton production areas. The precipitation was greatest in the far Eastern States and along the central west coast as well as in western and northern Maharashtra, Gujarat and western Madhya Pradesh.

Pre-monsoonal rainfall was greater and more frequent than usual in the far Eastern States and in neigh-

boring areas of Bangladesh during the first part of June and that occurred only after Tropical Cyclone Amphan moved through a part of that same region in late May. All of the rain reported since May 20 has the ground saturated and there have been some periods of flooding during the period as well. Crop

soil moisture for early season planting.

Some of the rain totals over the first nine days of June were impressive with 19.68 inches of rain falling in Goa and amounts of 4.00 to more than 10.00 inches occurred along much of the west coast from Kerala to Gujarat.

Rain fell at much lighter intensities in the remainder of India, although for the first week of the monsoon it was a

along the west coast impacting cotton, rice and sugarcane production areas. Most of the nation's oilseeds (peanuts and soybeans) will yield well while cotton may be vulnerable to some yield and quality reductions due to the wetter biased conditions.

Sugarcane and rice production should be very good along with this year's pulse crops and coffee.

Some of the year's greater than usual rainfall will be attributed to

Millimeters Pakistar > 90 60 - 90 30 - 60 India 15 - 30 5 - 15 1 - 5 0 - 1 9-Day Rainfall Ended 0300 GMT Tuesday, ©World Weather, Inc. worldweather@bizkc.rr.com June 9, 2020

warm ocean temperatures in both the Bay of Bengal and the Arabian Sea as well as neutral India Ocean Dipole conditions and slowly developing La Nina like conditions. Each of these factors will help support a favorable rainfall year.

India has experienced greater than usual rainfall frequently since the second half of last

damage in far Eastern India was mostly limited to rice and sugarcane when Tropical Cyclone Amphan moved through the region.

A second tropical cyclone moved inland through west-central India during the first week of June. The storm passed through a part of the Mumbai metropolitan area before cutting across west-central and interior northern Maharashtra to western Madhya Pradesh over a few days. The storm produced some very heavy rain and flooding, but no crop was in the ground and damage to agriculture was minimal. The moisture should have been more beneficial than detrimental since it raised

very good period of moisture. Reports from the nation have suggested early season planting of grain, oilseeds, rice and cotton has begun and progress may be advancing faster than usual for those areas reporting rain recently.

World Weather, Inc. is still expecting seasonal rainfall to be near to above average this year. Rain totals from June 1 to September will be 107% of normal and there is potential for some areas to be more significantly wetter biased. Flooding will be more of a threat than drought, although a few areas in the far north and along the lower east coast will have some tendency for below average rainfall. Some of the wettest conditions are expected

year's monsoon season. Greater than usual autumn and winter rainfall supported high yields of most winter crops and the wetter biased conditions in May and early June are expected to ensure a very good start to the 2020 planting season.

Weather in the next two weeks will be greater than usual except in the far north and in interior western parts of the nation where rainfall will be a little lighter than usual. However, these areas do not normally get much significant rain in the early part of June and the lighter moisture will be considered mostly near normal.

June's Active Weather Will Ease In Second Half

As noted in the last prognosticator, June weather has begun with a very active weather pattern. Rainfall was much greater than expected in some western areas and lighter than usual in the east, but the pattern was still active and it will remain active for one more week. The additional storminess expected this weekend into the middle part of next week will result in greater rainfall than usual in western and northern parts of Alberta, but not including the Peace Ricer region. Rainfall will also be near to above average from eastern Saskatchewan into much of Manitoba, but not the southeast part of Manitoba.

Near to below average rainfall is expected to return in east-central and far southeastern parts of Alberta and in western and north-central parts of Saskatchewan. Most of these areas already received significant rain earlier this month making the lighter rainfall tendency of little significance. Some producers will welcome the drier bias for a little while, but will be looking for the next rain event in a few weeks.

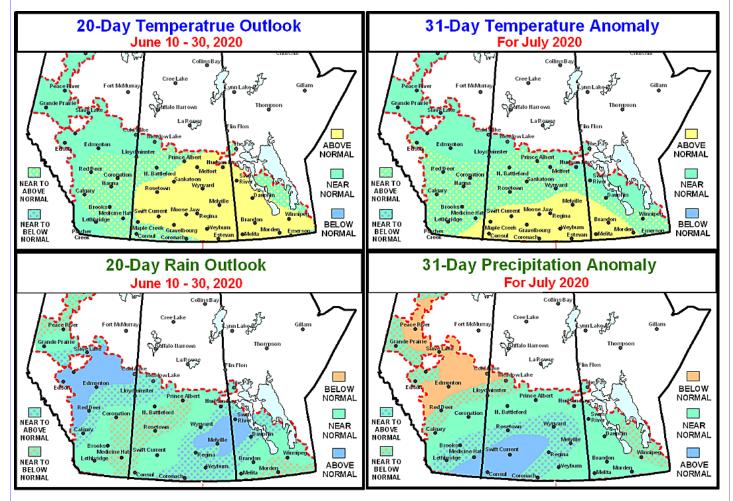
Temperatures in the balance of June will be warmer than usual in the many areas, but far western and northern parts of Alberta will experience a more normal temperature regime.

If the June outlook verifies most areas that were missed by early June rainfall will have an opportunity for needed rain while those that have been wettest will likely experience some improving conditions with less frequent and less significant rain especially in the second half of the month.

World Weather, Inc. has not

changed its July outlook from that of the last prognosticator. However, some adjustment will likely be needed. The changes will be made later this month after the current active weather pattern abates and it becomes clearer how the atmosphere will adjust to a less active period of weather.

For now, the outlook for July will be warmer than usual in the central and eastern parts of the Prairies and a little milder than usual in the far northwest, including the Peace River Region. Rainfall will be lighter than usual in July across the Peace River region and most other far western parts of Alberta. Rainfall will be near to above average in the remainder of the Prairies, but confidence in the region of greatest rainfall will remain low until it becomes clearer where the high pressure ridge will be centered.



Southern China Flooding Rises To Serious Level Again

Watching southern China's weather this spring has been quite reminiscent of the copious rain that impacted the U.S. Midwest during 2019. The difference is that very little reporting on the rain and flood events have left China's border and the world has no idea how severe the flooding has been this year. Rain over the past week has been quite significant in parts of far southern China overlapping some of the area that was inundated with copious amounts of rain from March 1 through April 5. Damage to rice, sugarcane and other crops produced in

the far south is strongly suspected, but not yet confirmed.

Rainfall over the first seven days of June ranged from 8.00 to more than 16.00 inches across much of the interior far south of China. Most of this excessive rain has occurred south of the Yangtze River. Local totals have reached up to

ported, but most of northern Guangxi reported 8.00 to 16.00 inches with local totals to 25.49 inches. Rainfall of 8.00 to 16.00 inches also occurred in southern Guizhou and in a broad region from central Guangdong through southern and eastern Jiangxi to southwestern Zhejiang and northern and western Fujian.

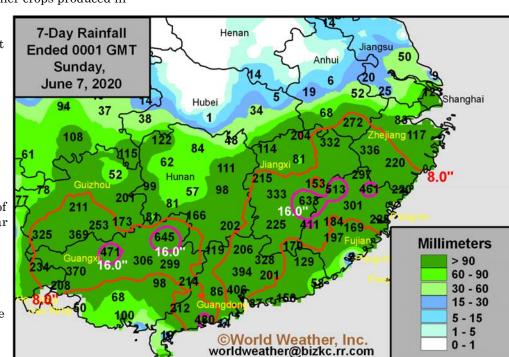
The area impacted by flooding rainfall over this past week was very similar to that which occurred in the first few days of April. Some meteorologist suggest that this is associated with a 60-day repeating weather pat-

However, rainfall over the period from mid-April through May was frequently wet. Flood water receded, but the region never completely dried out and the recent return of excessive rain has likely brought more damage to some of that same early rice crop which is now maturing and being harvested. Flooding may also be damaging some of the intermediate rice produced in southern China and more concern about sugarcane has occurred as well.

A little farther north in crop areas closer to the Yangtze River there has

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been some damage to rapeseed this vear because of frequent rain. The losses are strongly suspected, but the extent of the damage is not known since there has not been a tremendous amount of communication out of China regarding the situation. Most of the rapeseed produced north of the Yangtze River and



25.49 inches in the seven-day period ending at dawn Sunday in northeastern Guangxi and east-central Jiangxi. The only confirmation of the severity of flooding is coming from social media and a YouTube video.

Soil conditions at the end of May were nearly saturated in much of the area subjected to torrential rain over the past seven days. That implies that most of the rain reported was runoff. Flooding has been very serious in the Guilin, Guangxi area which is very close to the region where the greatest rainfall was re-

tern. However, the rain event that occurred in early April occurred after a more prolonged period of frequent excessive rain.

The first round of flooding in March and early April caused delays to early rice and corn planting as well as raising concern over sugarcane conditions and a few other early season crops that are normally planted at that time. The early rice crop was likely reduced and planting of other summer crops was delayed, but they did get planted and some replanted because of flood damage.

some of the wheat produced in that same region has experienced less threatening weather and production has not likely been as seriously impacted.

More rain is expected in southern China over the balance of June and some of it will be excessively great causing more flooding and additional crop damage. In the meantime, it is very important to note that key corn, soybean, groundnut, sugarbeet, cotton and sorghum areas have not been impacted by flooding, but a part of east-central China is too dry.

Argentina Winter Wheat In Need Of Rain

Argentina summer crop harvesting is ahead of this time last year due to a lack of rain and warm weather in recent weeks. Dry weather is still needed to the get the rest of the crop out of the ground and maintain favorable quality. Winter wheat planting was 98% complete. Sorghum harvesting was 77% finished. The cotton harvest was 86% done, up from 57% this time last year. Corn harvesting was 66% complete, compared to 58% in 2019. Peanut harvesting was otherwise 75%, up from 56% last year. for aggressive harvesting in recent weeks. Yields are expected to be generally favorable this year, despite some late season dryness that evolved.

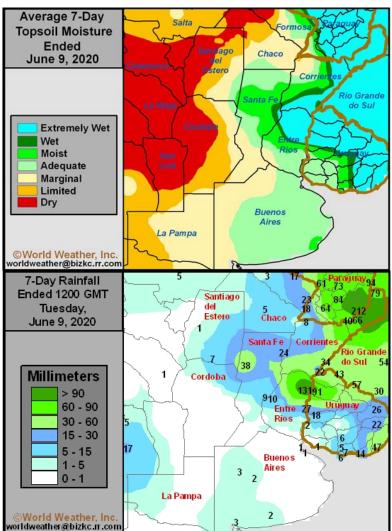
Early season winter wheat and barley planting conditions have

is also more advanced than last year, but many areas are trending too dry to support quick germination, emergence and establishment. Crop development delays are most significant in the west and parts of the far south and significant rain must fall soon to prevent crops from being poorly established when the colder days of winter arrive.

Soil moisture is excessively great in the areas reporting the greatest rainfall during the past week. Many areas from northern Santa Fe and much of Entre Rios into southern and eastern Corrientes have nearly ideal soil moisture. Most other areas have topsoil moisture that varies from marginally adequate to slightly short in the southeastern two-thirds of Buenos Aires to very short from Cordoba into Santiago del Estero and northwestern Chaco.

Subsoil moisture is still rated favorably from La Pampa to eastern and southern Santa Fe and areas farther east to the Uruguay, Paraguay and Brazil borders.

As of June 4, rice harvesting was complete and the soybean harvest



In the meantime, winter wheat planting was 30% compete, up from 16% this time last year. Barley planting was also 16% finished, up from 10% in 2019.

Dry weather has been beneficial

been mostly favorable in portions of Entre Rios and northern Santa Fe. Adequate topsoil moisture has helped support aggressive germination and establishment in most locations. The bulk of winter crop country in Buenos Aires, southern Santa Fe, Cordoba and neighboring areas is otherwise too dry to support the best establishment and early growth. There is still plenty of time for better rainfall to evolve, though some of the driest areas in Cordoba need significant rain to completely fix the moisture deficits. Wheat planting usually lasts through June and concludes in early July.

Harvesting will continue with only a few disruptions in a large portion of Argentina during the next week to ten days. Minor fieldwork impacts will be possible in Entre Rios and neighboring areas, though no significant

harvest delays are expected. The main winter wheat and barley areas will also dry down further during this time. Planting will advance swiftly while establishment and growth prospects further deteriorate.

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