

Moisture Situation Update – May 6, 2014

Synopsis:

Generally, province wide, cool wet weather has dominated the weather patterns of late. Over the past 30-days, stations south of the TransCanada highway, east of the foothills, have recorded 30-70 mm of precipitation. Typically, for this time of year, these areas receive on average about 20-40 mm. Similarly, many areas north of the Yellowhead Highway have been wet, with upwards of 50-mm recorded, well above the normal of 20-30mm, with amounts like this seen on average less than once in 25 years.

Soil moisture reserves are variable across the province, ranging from one in 25 to 50 year highs in small pockets north of Red Deer, across the Saddle Hills in the Peace Region, and through parts of the Cypress Hills, grading to less than once in 12 year lows across parts of east-central Alberta.

Precipitation accumulations over the past 30-days, as of May 6, 2014 –see map

- Most areas south of the TransCanada Highway have seen at least normal to above normal accumulations over the last 30-days, with total amounts ranging from 30-70 mm across the plains, and well over 100 mm across the mountains and foot hills.
- Cool, wet weather remains the dominant concern across the south, with much of this precipitation falling as successive mixed rain/snow events, with little chance to dry between events.
- Many areas just north of the Yellowhead highway have seen upwards of 50 mm in recent weeks, again much of it falling as snow. This has provided an opportunity to replenish soil moisture reserves in the wake of a warm, dry fall. Going forward, these areas need warm and dry weather to allow for good seeding conditions.
- Parts of east central Alberta and the south-central Peace Region, stand in stark contrast to many of the wetter areas of the province, with less than 20 mm falling over the past 30 days. However, the rainy season (mid- May to late July) still lies ahead and there is ample time to received adequate moisture.

Soil moisture reserves relative to long term normal as of May 6, 2014 –see map

- Most areas have seen soil moisture reserves rebound significantly since the fall of 2013. On October 29th (see map), most areas north of the TransCanada highway were well below normal with many large areas estimated to be at or below, one in 12 to 25 year lows. Thanks to adequate snowpacks and recent precipitation, these areas have seen a significant turnaround.
- Of interest is the area north of Red Deer where reserves are at one in 25 to 50 year highs, co-located with some of the driest areas of the province (12 to 25 year lows) lying 100 km to the east.

Perspective

- For the most part, cool weather has delayed seeding operations, particularly across the southern parts of the province. However, the effect of delayed operations is difficult to gauge at this time and will largely be dependent on what happens in the next few weeks, combined with late season moisture and the timing of the first fall frost.

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Interesting Facts

- On May 7th, some parts of southern Alberta saw overnight lows dip below -7°C . ARD's frost probability charts do not go that low, but in Lethbridge, a -5°C frost on or after May 7th occurs on average only once in 10 years
- One in 10 year (10%) hard-frost probabilities i.e. chance of -2°C on or after dates for several areas are as follows:
 - Medicine Hat May 14
 - Lethbridge May 19
 - Calgary May 21
 - Edmonton May 22
 - Red Deer May 24
 - Beaver Lodge May 24
 - Peace River May 22

Additional maps can be found at www.agriculture.alberta.ca/maps

Near-real-time hourly station data can be viewed/downloaded at www.agriculture.alberta.ca/stations

Note: Data has about a two hour lag and is displayed in MST (add one hour for daylight savings time)

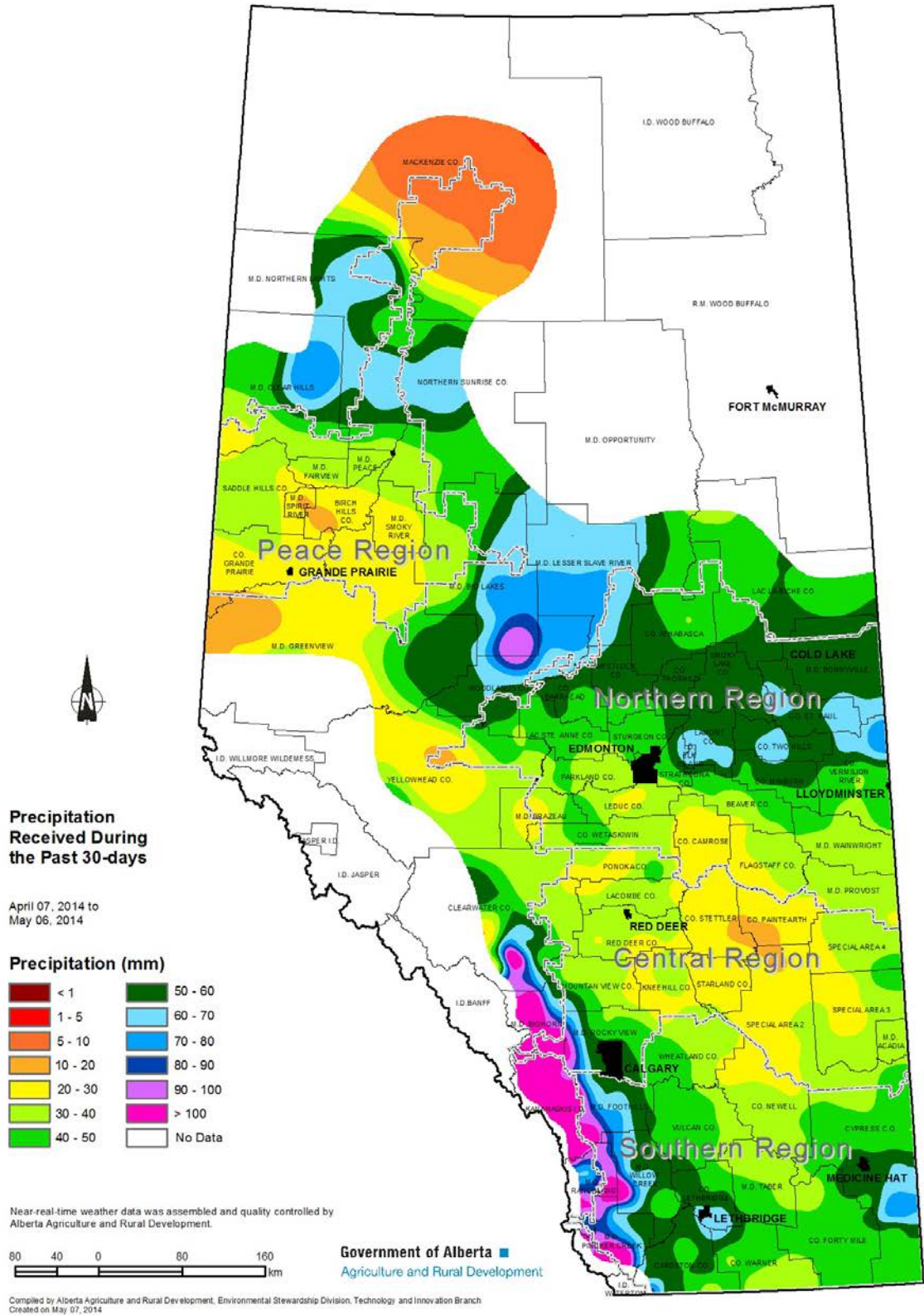
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