

Moisture Situation Update – February 29, 2016

Synopsis

February was unusually warm across most of the province with many areas estimated to experience a February this warm on average only once in 25 to 50 years (**Map 1**). Warm weather is partly to blame for snow packs that are well below normal for this time of year, with areas east of Red Deer and Edmonton seeing snow packs like this on average less than once in 50-years (**Map 2**).

In addition to warm weather, below normal snow packs on the ground today are also a direct result of a late start to winter, with snows generally arriving three weeks late and below normal precipitation over the past few months. However, this fall, most areas did receive at least near normal to above normal rainfall. As a result, the total moisture received over the past 180-days is generally at least near normal for most of the province south of Edmonton (**Map 3**). In contrast over this same period, the Peace Region received below normal moisture, with the some areas of the north-central Peace Region estimated to be at one in 25 to 50 year lows.

Observations from Agriculture and Forestry's Fire Weather Section

Fire weather meteorologists are reporting that the high pressure ridge that has brought warm dry weather to most of the province over the past four to six weeks is beginning to weaken and move off to the east. By late next week they expect to see a more unstable weather pattern develop, meaning a return to cooler and wetter conditions. Early indications are that this pattern will likely persist for at least a few weeks.

Perspective

While winter snowpacks are unusually low for this time of year, the total snow water deficits across the driest areas typically range between 50 to 60 mm. This is equivalent to a good soaking spring rain and can easily be made up with above average spring rains, and/or a few late winter snow storms.

Map 4 shows typical seasonal patterns, with Alberta having a marked dry season that starts in October and persists well into February and March. Generally for southern Alberta, March tends to mark the end of the dry season while those areas north of Calgary and east of Highway #2 remain relatively dry until April.

Map 5 shows that as the wet season unfolds, more significant moisture begins to fall across southern Alberta by the beginning of May, and this trend moves northward, bringing substantial moisture to central and northern Alberta by the end of May and finally (much later) to the Peace Region, during the first half of June.

Map 4 and **Map 5** should serve to remind us that there is still ample time to receive adequate moisture ahead of this year's growing season and for most of Alberta, March and April are historically still relatively dry months.

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

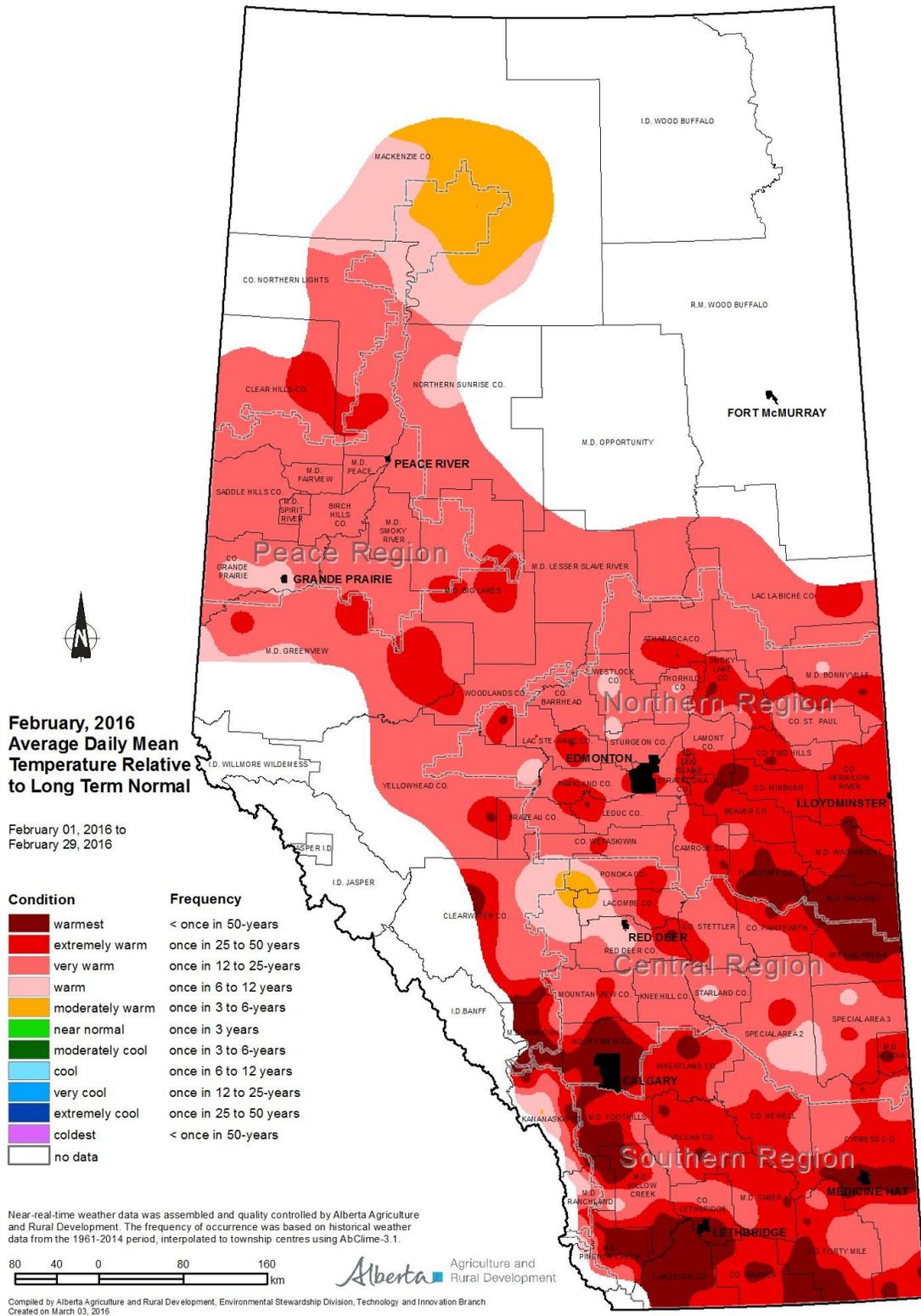
Near-real-time hourly station data can be viewed/downloaded at www.agriculture.alberta.ca/stations

Note: Data has about a two hour lag and is displayed in MST.

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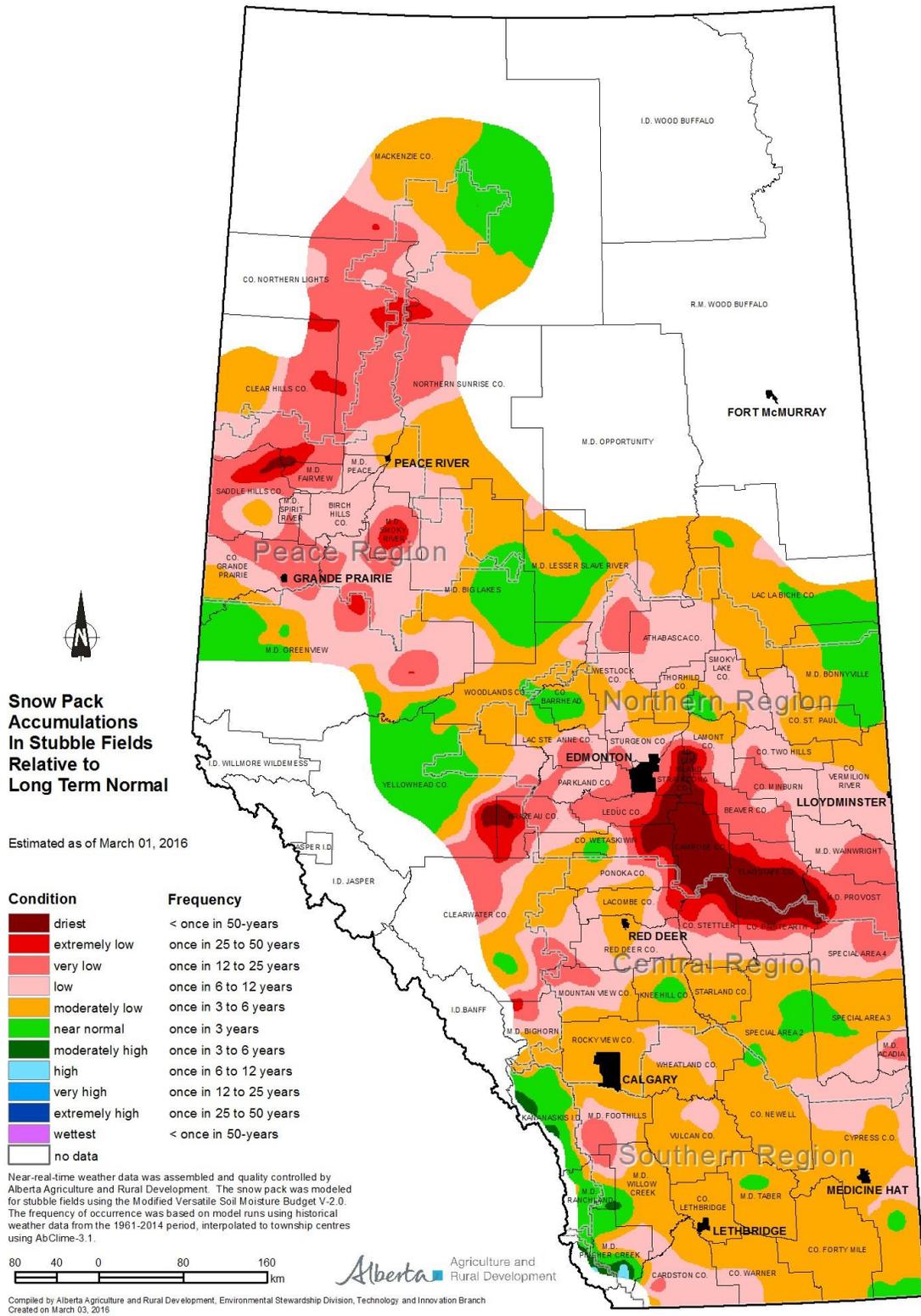
Map 1



Visit weatherdata.ca for additional maps and meteorological data

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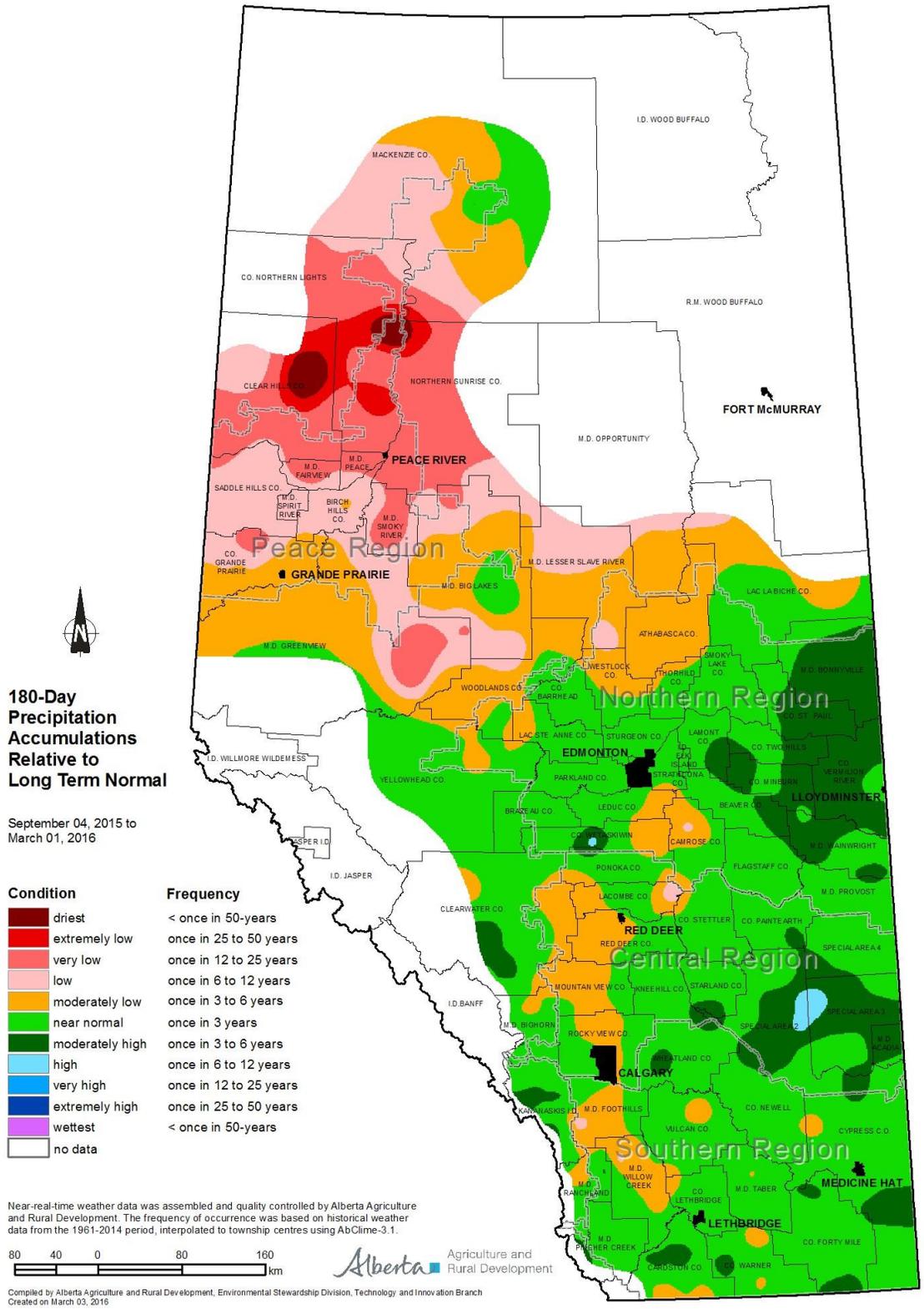
Map 2



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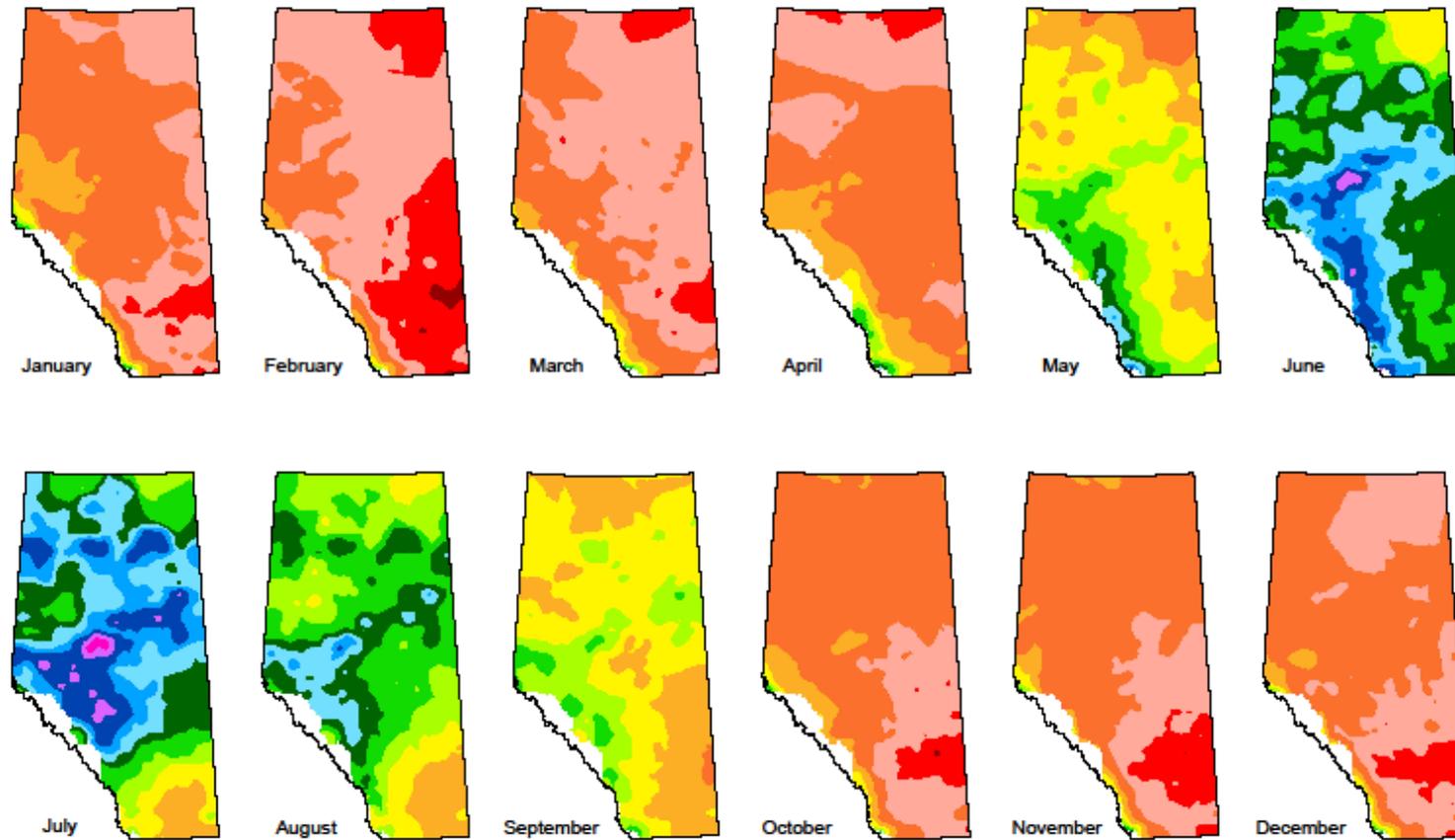
Map 3



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Map 4



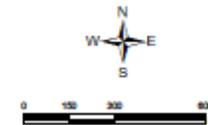
Average Monthly Precipitation in Alberta

for the period 1961-2010

Average based on historical weather data from the 1961-2010 period, interpolated to township centers using AbClim-3.1.

Compiled by Alberta Agriculture and Rural Development, Environmental Stewardship Division, Technology and Innovation Branch
Created on December 16, 2011

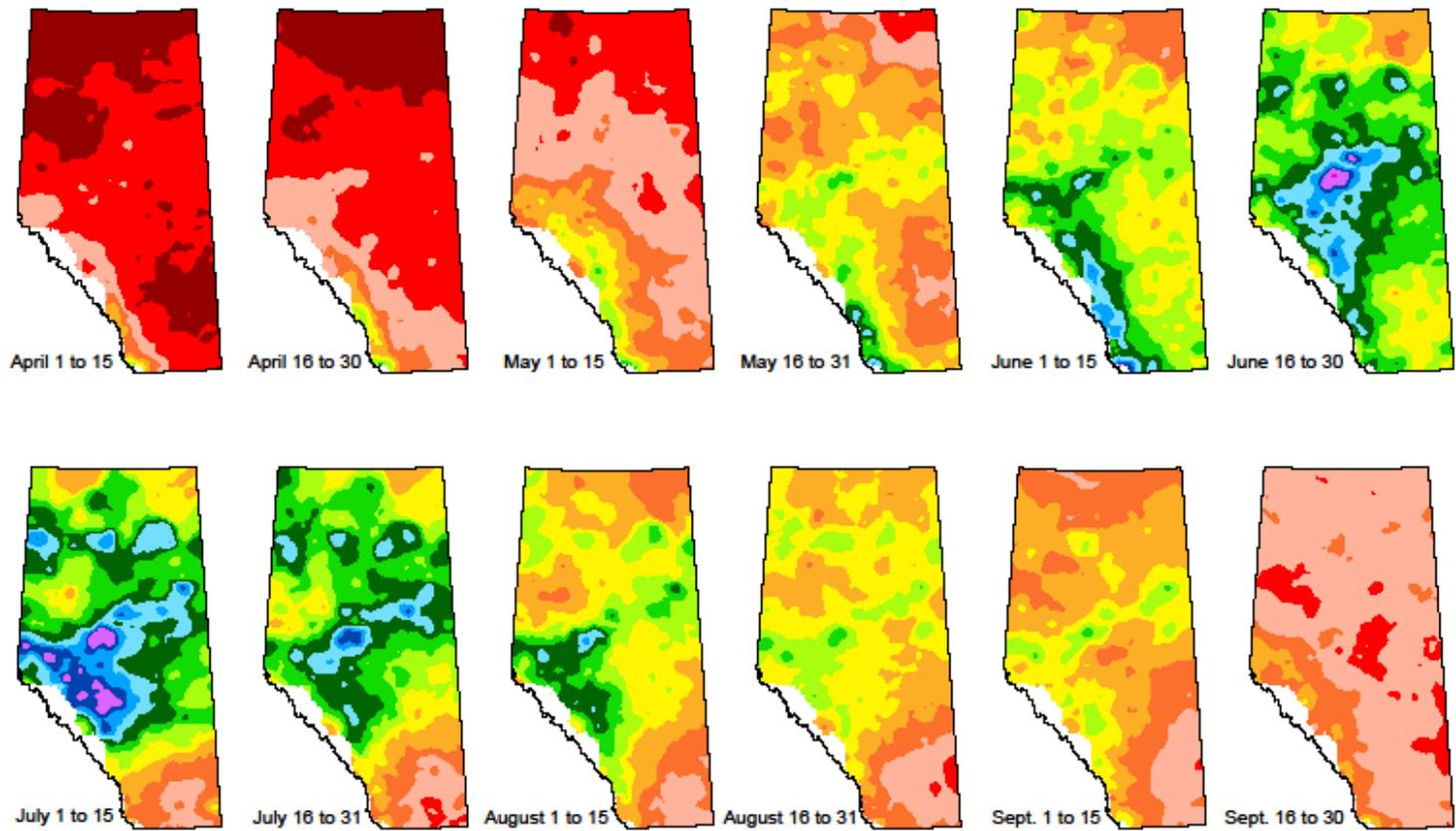
Precipitation (mm)



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Map 5



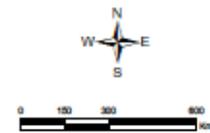
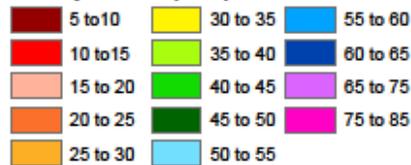
Average Semi-Monthly Growing Season Precipitation in Alberta

for the period 1961-2010

Average based on historical weather data from the 1961-2010 period, interpolated to township centers using AbClim-3.1.

Compiled by Alberta Agriculture and Rural Development, Environmental Stewardship Division, Technology and Innovation Branch
Created on December 08, 2011

Precipitation (mm)



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