

Moisture Situation Update – September 10, 2017

Synopsis:

For several weeks, warm dry conditions have prevailed across most the province with only a few scattered areas experiencing frost. Only one notable frost event occurred on September 4th, but it was limited in extend and severity. During this time, the coldest temperatures were recorded near Manning, where overnight lows dipped to -2.8°C (**see map 1**), staying below zero for about 4 hours. In addition, light frosts were recorded at several central Peace Region stations, with temperatures just dipping below zero for a few hours. Frost was also reported near Dapp, with temperatures almost reaching -2°C, with a total of 4 hours of freezing temperatures recorded. Several other isolated areas saw light frosts, just below the freezing mark, generally for no more than two hours.

On average once in four years a frost of -2°C will be experienced by September 12th across the northern Peace Region and by Sept 15th across the southern Peace Region. Moving south to areas like Edmonton, Lloydminster and Red Deer its Sept 17th, and through the Lethbridge area September 20th and near Medicine Hat September 24th. Generally, as one moves closer the foot hills and near areas of higher elevation, these dates tend to be a few days earlier, with Calgary as an example being September 18th.

The historical probability of having a -2°C frost from September 15th on rises by about 20% per week, or almost 3% per day. Watch your local forecasts carefully, and remember that beyond 3-5 days forecast reliability can drop of significantly.

Historically, local frost occurrence does not always follow what one might expect, like the earlier frosts found the farther north and west (**see map 2**). The meteorological record indicates areas that tend to see later frosts include most of south-central Alberta and in and around the Edmonton area, as well as through parts of the south-eastern Peace Region. Areas that tend to see earlier frosts, include the north and north central Peace Region, as well as some lands through Cold Lake, St Paul, and Vermillion river, and of course, all along the foothills.

Discussions with AF's Fire Weather Meteorologists.

Currently, there is an upper cold low that will sweep through the south-half of the province Wednesday night and into Thursday, with the greatest accumulations (20 to 25 mm) of precipitation forecast to be along the foothills between Edson and the US border. There is a risk that some of this may fall as snow, in the higher elevations. South of the Trans-Canada Highway rain will begin on Wednesday night with 10 to 15 mm expected to fall into at least Thursday. As skies clear behind this system on Friday night into Saturday, there may be a risk of frost, possibly affecting lands from Red Deer north, all the way through to the Peace Region.

Current indications are that the pattern setting up over the next few weeks will bring an end to the long spell of hot and dry weather that much of the province has been experiencing in recent weeks.

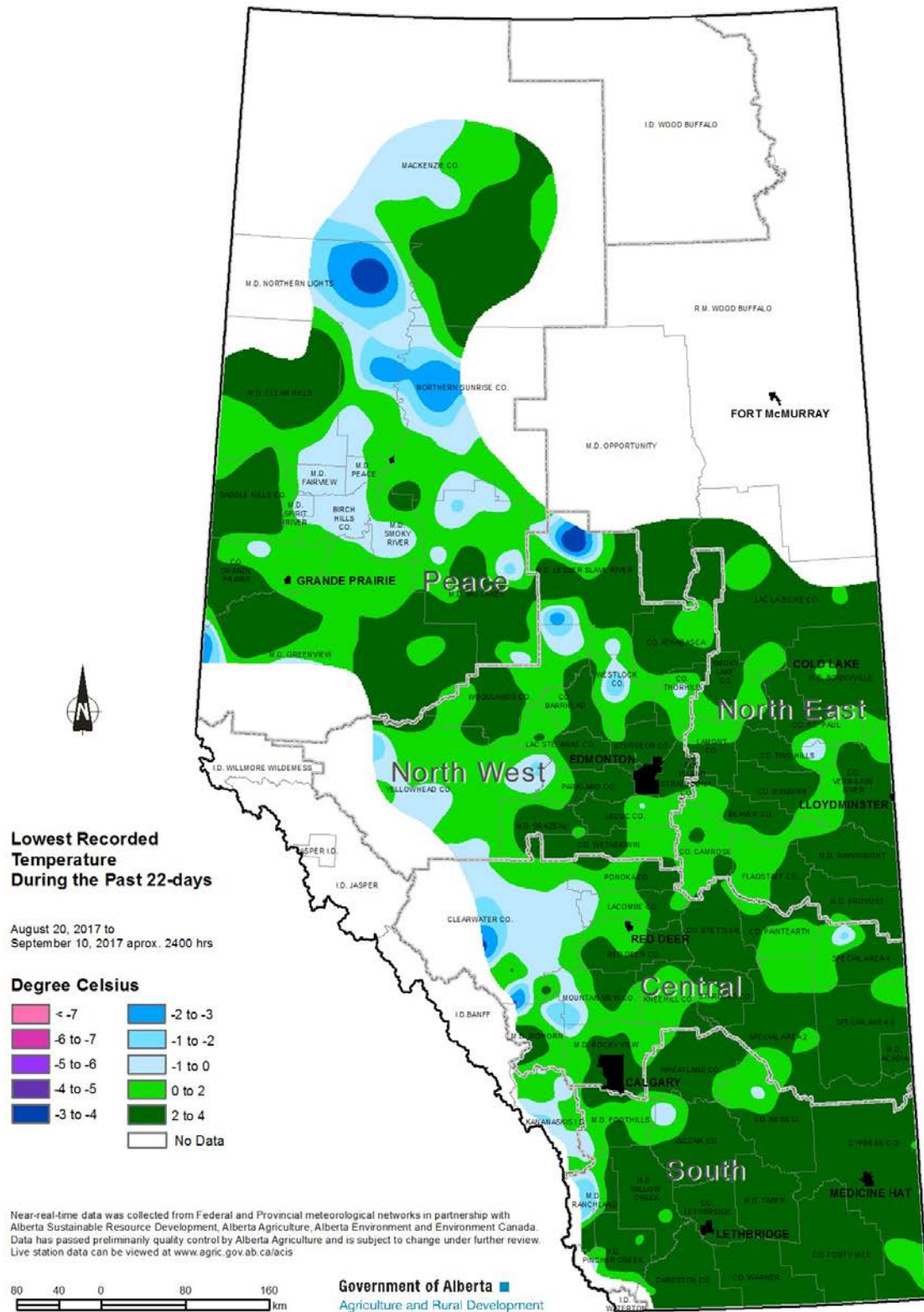
Near-real-time hourly station data can be viewed/downloaded at www.agriculture.alberta.ca/stations

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

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Map 1



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Map 2

