

## Moisture Situation Update – September 15, 2013

### Synopsis:

Early widespread frosts have thankfully been all but absent from most of the agricultural areas of the province. Early on Saturday morning (Sept 14th), light frosts were seen across the agricultural parts of the northern Peace Region, with a few stations recording temperatures just dipping below the 0 degree mark for only an hour or two.

Towards the end of the first week in September, significant rains were recorded across the extreme southeast portions of the province; with some areas reporting in excess of 80 mm, additionally along the foothills, west and southwest of Calgary some stations reported in excess of 60 mm.

### Forecast from ESRD's Fire Weather Section as of September 16th (special thanks to Alice Ou)

Over the next few days (Monday–Tuesday) cooler air will begin to move into the province, bringing upwards of 10 to 20 mm to parts of the Peace Region. Province wide, this cool air is not expected to bring widespread frosts to the agricultural areas. Starting next Thursday (Sept. 19) cooler air will again return, possibly bringing frost to agricultural areas, north of the town of Peace River.

### Frost areas Sept 1 to Sept 15, 2013 –see map

- So far this year, most agricultural areas have been virtually free of frosts.
- Over the weekend, Sept 14th, very light frosts were recorded across the northern parts of the Peace Region.
- Heavier frosts have been recorded at higher elevations and across some areas of the mountains and foothills.

### 12-day precipitation accumulations relative to long term normal as of September 15, 2013 -see map

- Over the weekend of September 6th to 8th, a large system brought significant amounts of precipitation to the southwestern and the southeastern parts of the province. Most areas south of Edmonton saw at least 5 mm of rain, with the greatest amounts (81 mm) being recorded at the Foremost AGCM station (75 km southwest of Medicine Hat). During the early evening of September 6th, this station recorded, nearly 65 mm falling in a single hour!

### Interesting Facts:

- On or before September 15th, historically killing frosts (-2C or lower) are less common than not, with the town of Peace River and Calgary seeing these conditions develop on average about once in 4 years, Edmonton on average about once in 5 years and Medicine Hat and Lethbridge on average only once in about 10 years.
- Province wide, the beginning of the second week in September, generally marks a visible shift in frost probabilities, with the frost risk accelerating dramatically from that point forward. For example, for Stettler a frost of -2°C has a 2% chance of occurring prior to September 4th, a week later it is only 7%, one more week later (Sept 18th) its 28%. On a more positive note, half of the time (5 out of 10 years), Stettler will not see a frost of -2°C until on or after September 26th.

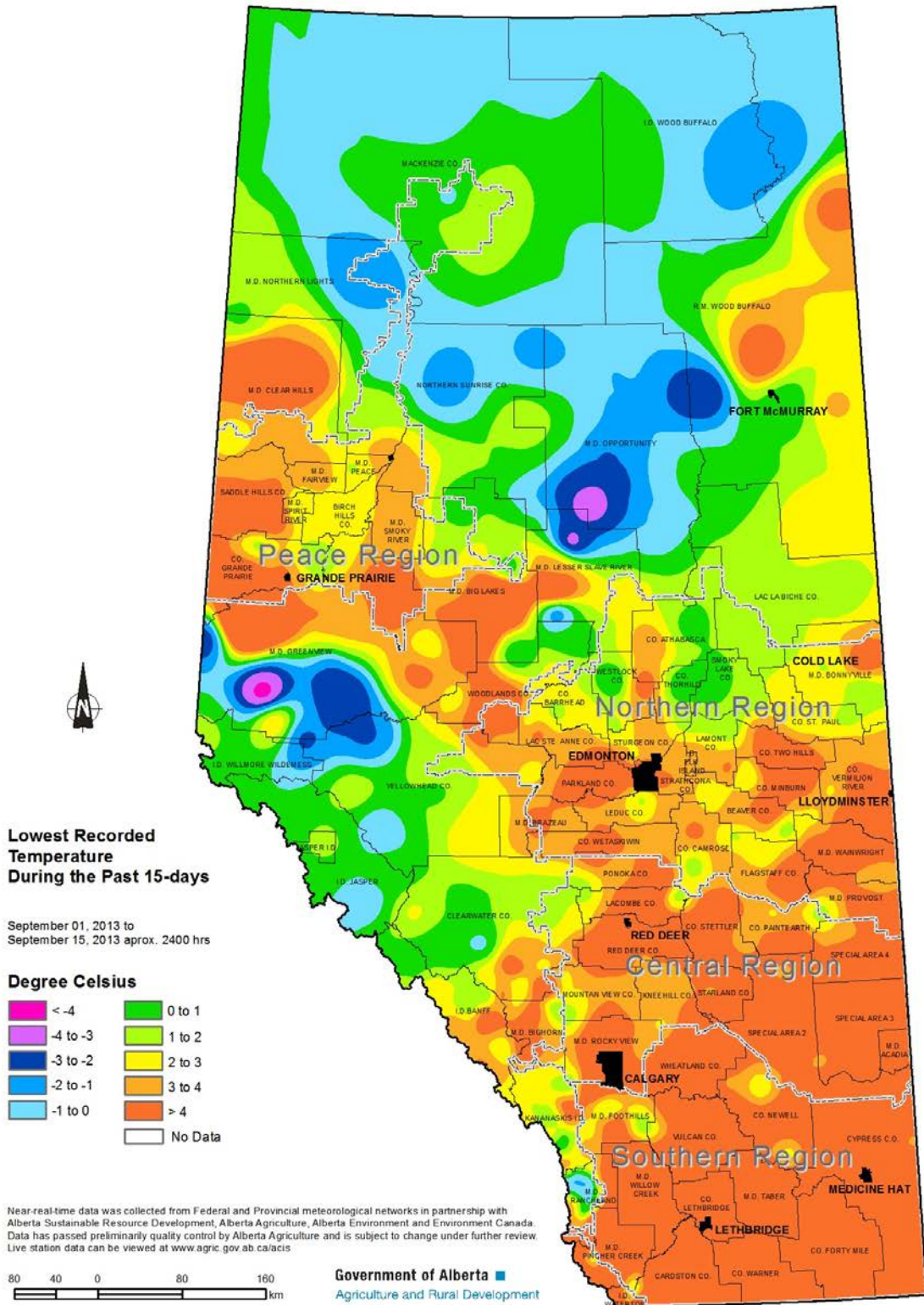
**Additional Maps** can be found at [www.agriculture.alberta.ca/maps](http://www.agriculture.alberta.ca/maps)

**Near-real-time hourly station data** can be viewed/downloaded at [www.agriculture.alberta.ca/stations](http://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)

Ralph Wright  
Soil Moisture Specialist  
Agro-meteorological Applications and Modelling Section

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Compiled by Alberta Agriculture and Rural Development, Environmental Stewardship Division, Technology and Innovation Branch  
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