

## Moisture Situation Update – September 19, 2013

### Synopsis

Overnight, cool northern air, clear skies and light winds combined to bring heavy frosts to most of the agricultural areas north of Red Deer. The hardest hit areas extended across a large part of the Northern Region, including the City of Edmonton. As cool air from the north lingers, expect to see further wide spread freezing tonight.

Southern parts of the province have been hit by recent rains with upwards of 60 mm falling in the Lethbridge area over the past several days. Additionally, storms swept across much of the Peace Region bringing upwards of 25 to 40 mm of rain to many locations.

### Forecast from ESRD's Fire Weather Section as of September 19th (special thanks to Alice Ou)

Conditions will continue to favor significant overnight cooling this evening and into the early morning of Friday September 19th, with a second wave of frost expected tonight. The weekend should see a return to warmer temperatures. Across a large area between Slave Lake and Red Deer, expect to see isolated showers moving through Saturday evening and lingering into Sunday.

### Frost areas Sept 18 to Sept 19, 2013 –see map

- Heavy frosts developed across many areas north of Red Deer with large parts of the Northern Region and Central Peace region seeing the mercury dip below -2°C for several hours.
- The coldest temperatures were recorded at the Abee AGDM station (» 100 km NW of Edmonton) with temperatures as low as -6.5°C recorded. Here temperatures dipped below 0°C By 9:00 pm last night and remained so for over 12 hrs.

### 4-day precipitation accumulations as of September 19th, 2013 approx. 0800 hrs-see map

- Over the past few days, most of the Peace Region saw at least 20 mm of rain with the central and northern areas seeing upwards of 30 mm. The greatest amounts were recorded at the Eaglesham AGCM station (40 mm), about 60 km southwest of the town of Peace River.
- Storms brought upwards of 20 mm to most areas south of the TransCanada Highway with many areas in the southwestern portions of the province reporting over 40 mm. The greatest amounts were recorded at the AG Teck AGCM station, in the Lethbridge area (71 mm).

### Interesting Facts

- At Abee AGDM it is estimated that, on average, over a 50 year period, frosts of this magnitude (-5°C or lower) would only be seen about 4 times , or stated otherwise, in any given year, have about a 12.5% chance of occurrence.
- By September 19th, on average a killing frost -2°C at Abee AGDM is seen about 5 in 10 years

### Perspective

While the recent frosts and rain have not been good for most harvesting operations, those areas that saw upwards of 25 mm or more, now have a head start on replenishing soil moisture reserves for next year's crop.

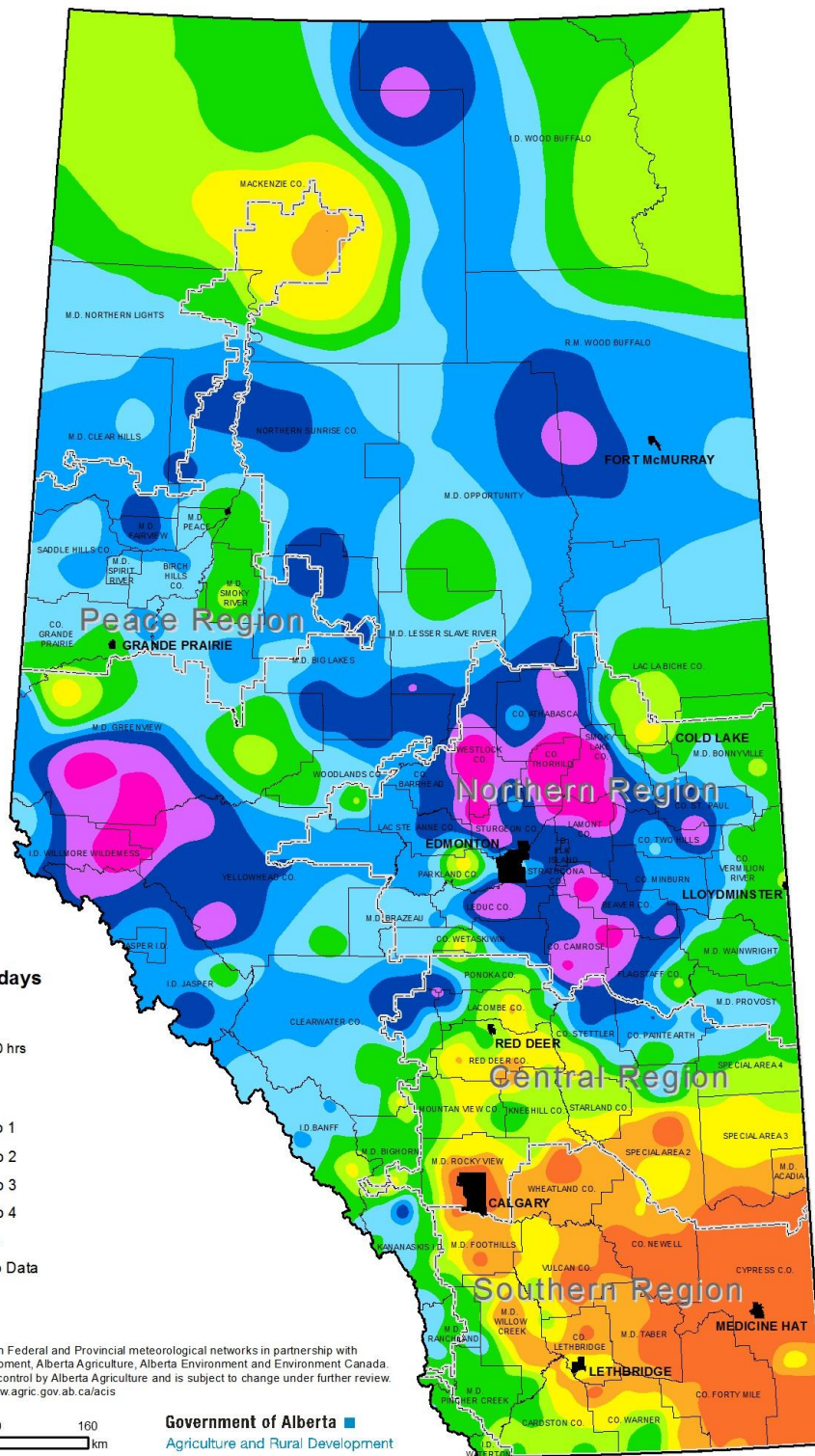
**Additional Maps** can be found at [www.agriculture.alberta.ca/maps](http://www.agriculture.alberta.ca/maps)

**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)

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