

Moisture Situation Update – September 19, 2011

Forecast from SRD's Fire Weather section - Thanks to Nick Nimchuck:

- Rain currently falling across the southern portions of the province, is expected clear out later today.
- For the rest of the week, a warming trend is on the way, with a gradual increase in temperatures starting tomorrow (Tuesday).
- By Wednesday, temperatures will trend above normal, with day time highs expected to be in the 22 C to 24 C range.
- Thursday, a large frontal feature will push into the northwestern parts of the province, resulting in cooler, but still generally dry conditions across most of the Peace Region, with some scattered showers possible. Elsewhere across most of the province Thursday's daytime highs are expected to be in the 24 to 26 range, persisting into Friday.
- During the week, winds should be relatively strong province wide, resulting in good drying conditions.

Frost areas Sept 12 to Sept 19 0700 hrs -see map

- Heavy frost was seen across parts of the eastern-half of the province last Wednesday morning (Sept 14th). Hardest hit areas saw temperatures of -7C or lower, recorded at several stations, with temperatures of -5 C or colder persisting for several hours –see graph.

Precipitation since Sept 12 as of Sept 19 2011 1000 hrs -see map

- Over the past week, the greatest amounts of precipitation have been recorded across the central parts of the Peace Region, with upwards of 30 mm being measured at some stations.
- Over the past few hours, precipitation continues to fall across parts of southern Alberta, and as such the map shown here (as of 1000 hrs this morning) is likely showing up to upwards of 10 mm less, than what has fallen so far.

Soil Moisture Reserves Relative to Normal as of Sept 13 2011 –see map

- Relatively dry conditions have generally continued the depletion of soil moisture reserves across many parts of the province, with some large areas, east of Hwy 2, being classified as having 1 in 12 year lows. Also soil moisture reserves remain very low to extremely low across much of the northern Peace Region.

Additional Maps can be found at <http://www.agric.gov.ab.ca/app116/quick.jsp>.

Near-real-time hourly station data can be viewed/downloaded at

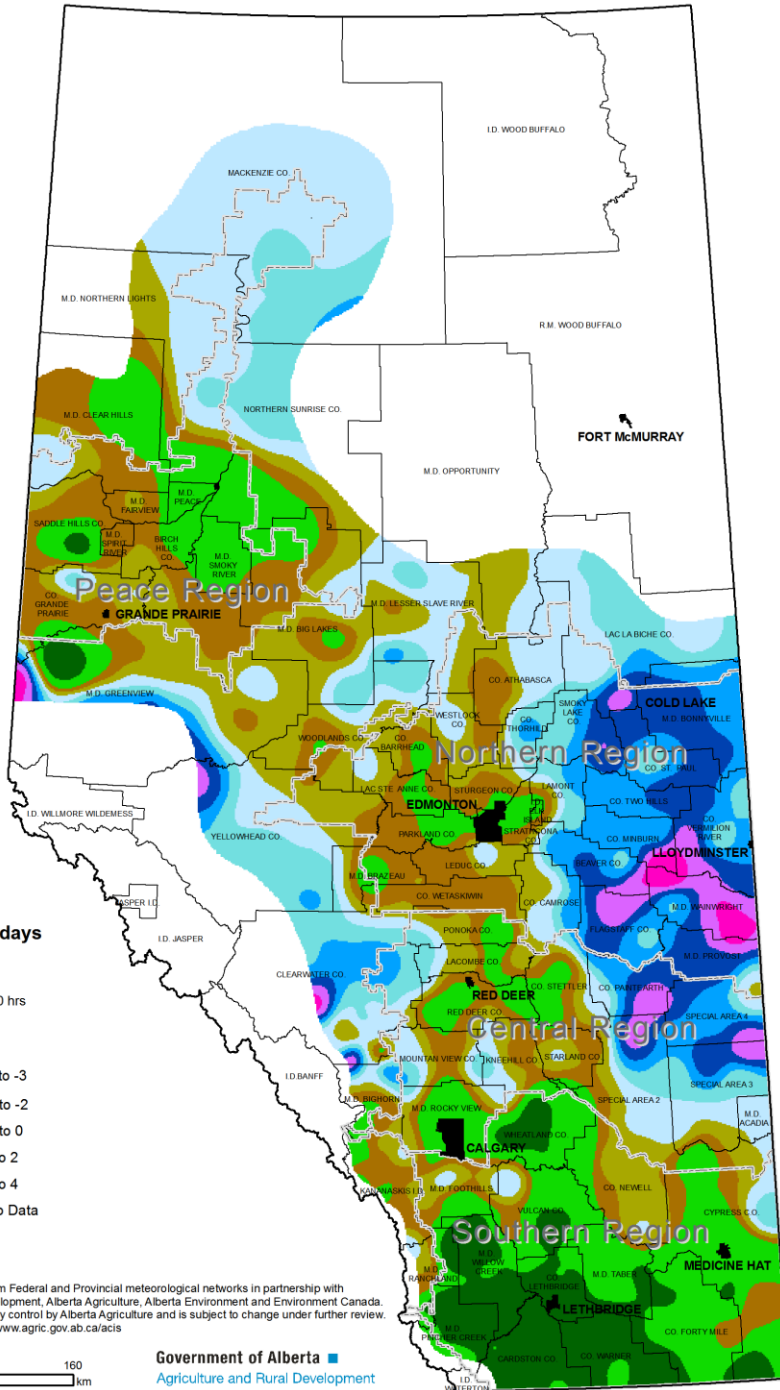
<http://www.agric.gov.ab.ca/app116/stationview.jsp>.

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

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Lowest Recorded Temperature During the Past 7.33-days

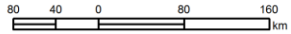
September 12, 2011 to September 19, 2011 approx. 0800 hrs

Degree Celsius

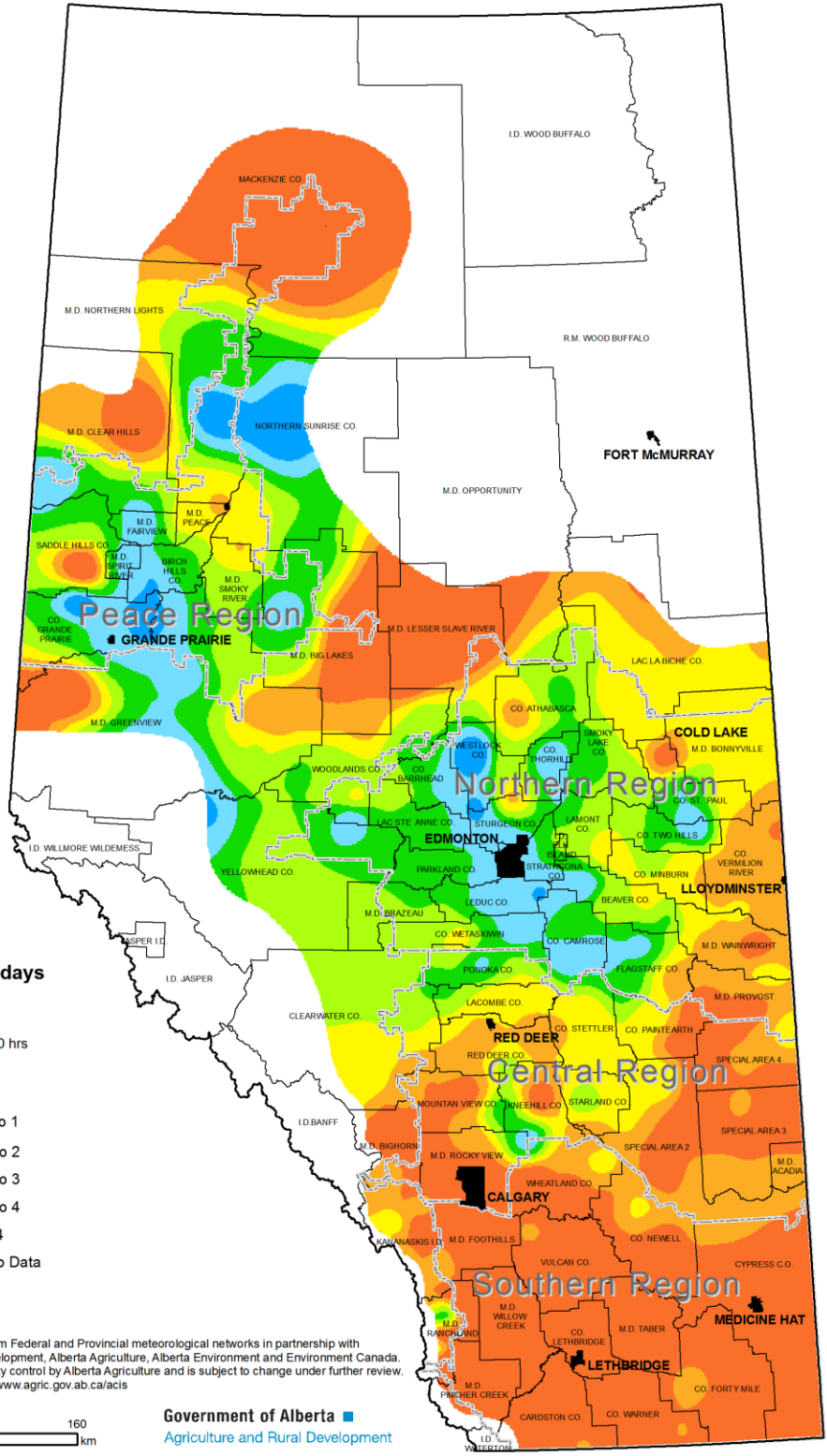
■ <math>< -7</math>	■ -2 to -3
■ -6 to -7	■ -1 to -2
■ -5 to -6	■ -1 to 0
■ -4 to -5	■ 0 to 2
■ -3 to -4	■ 2 to 4
■ No Data	

Near-real-time data was collected from Federal and Provincial meteorological networks in partnership with Alberta Sustainable Resource Development, Alberta Agriculture, Alberta Environment and Environment Canada. Data has passed preliminary quality control by Alberta Agriculture and is subject to change under further review. Live station data can be viewed at www.agric.gov.ab.ca/acs

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Compiled by Alberta Agriculture and Rural Development, Environmental Stewardship Division, Technology and Innovation Branch
Map created on September 19, 2011



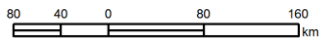
Lowest Recorded Temperature During the Past 1.29-days

September 11, 2011 to September 12, 2011 approx. 0700 hrs

Degree Celsius

	< -4		0 to 1
	-4 to -3		1 to 2
	-3 to -2		2 to 3
	-2 to -1		3 to 4
	-1 to 0		> 4
	No Data		

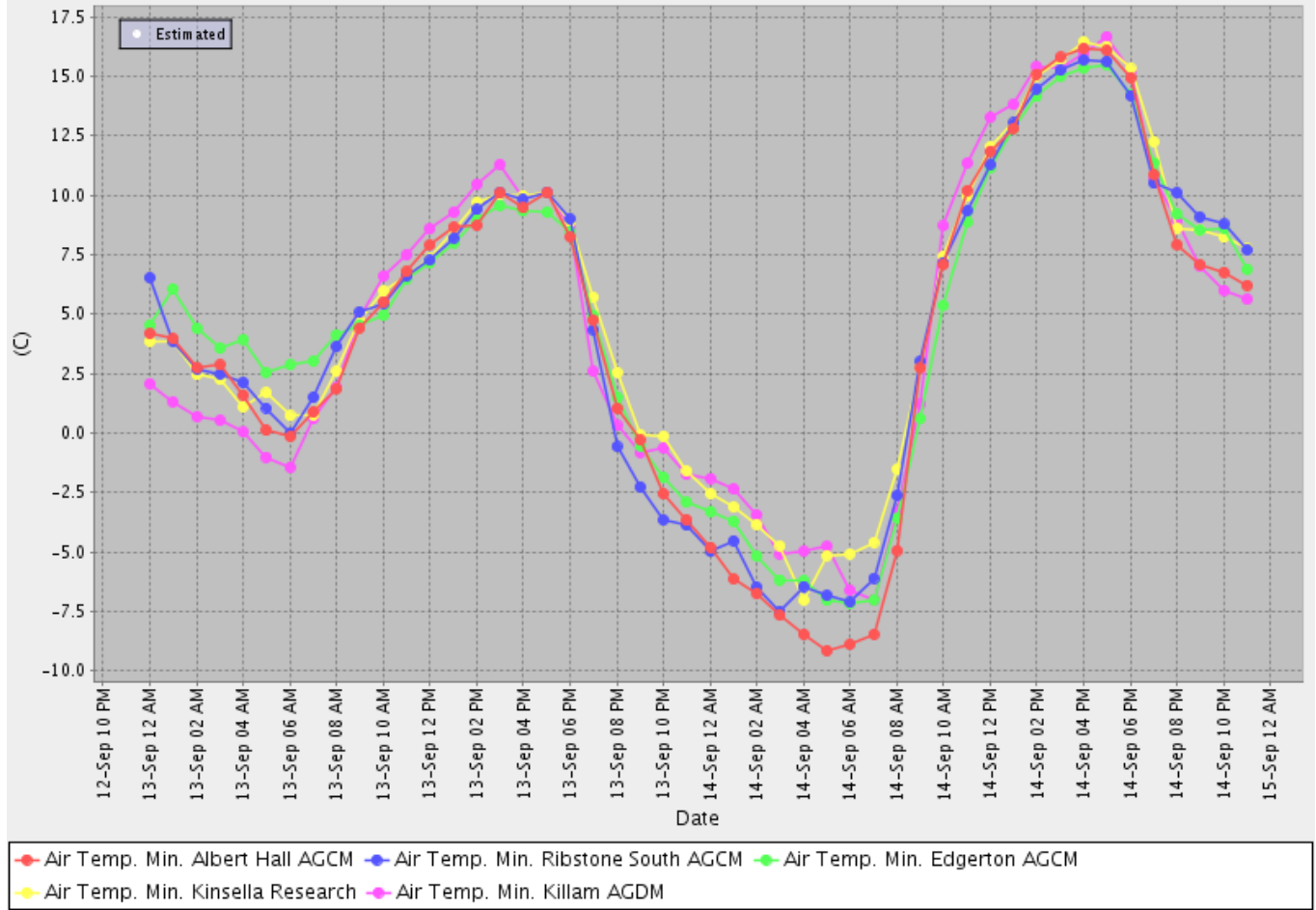
Near-real-time data was collected from Federal and Provincial meteorological networks in partnership with Alberta Sustainable Resource Development, Alberta Agriculture, Alberta Environment and Environment Canada. Data has passed preliminary quality control by Alberta Agriculture and is subject to change under further review. Live station data can be viewed at www.agric.gov.ab.ca/acis

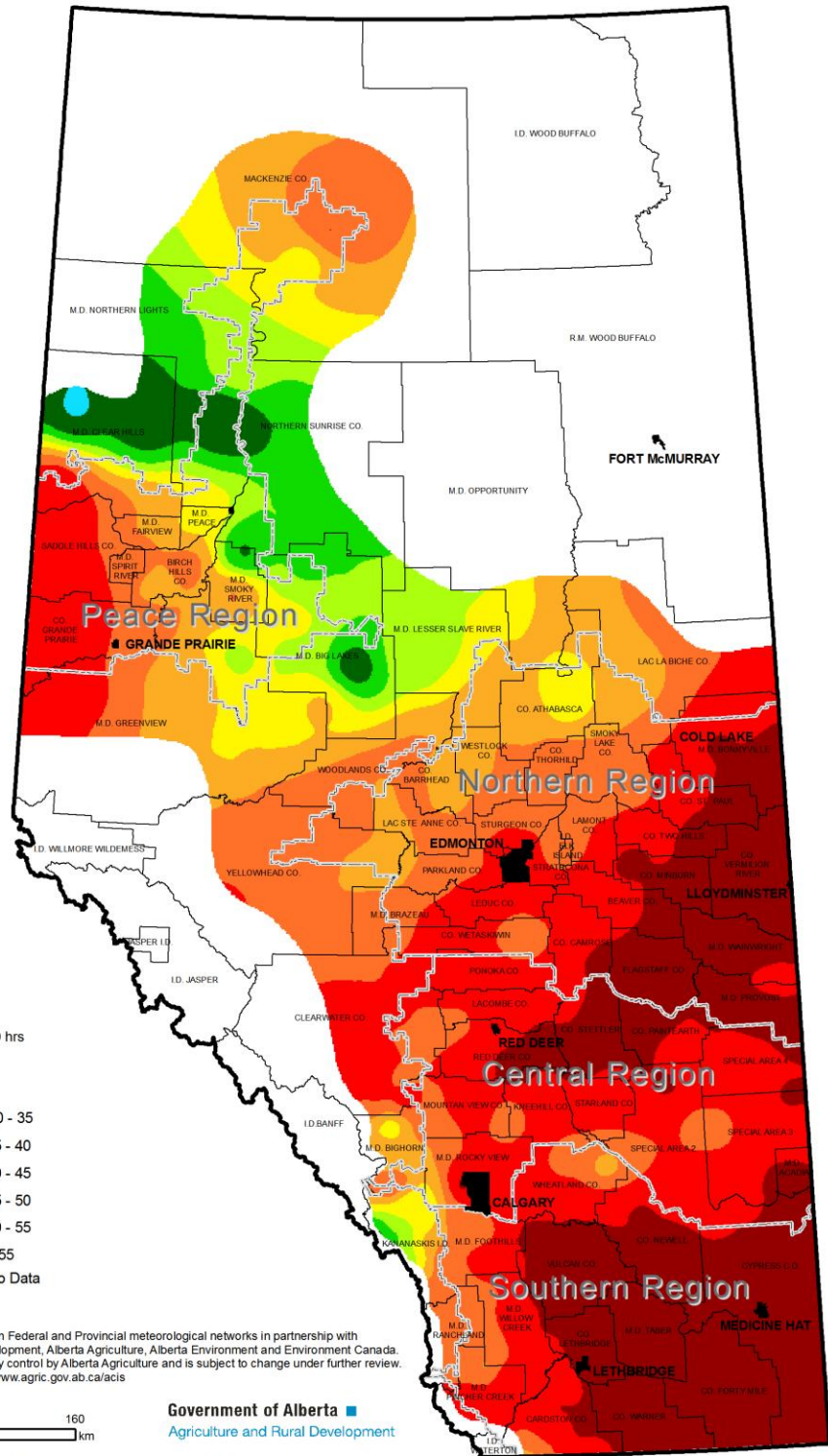


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Compiled by Alberta Agriculture and Rural Development, Environmental Stewardship Division, Technology and Innovation Branch
Map created on September 12, 2011

Hourly Station Observations in MST: Created September 19, 2011





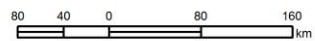
Precipitation Received During the Past 7.42-days

September 12, 2011 to September 19, 2011 approx. 1000 hrs

Precipitation (mm)

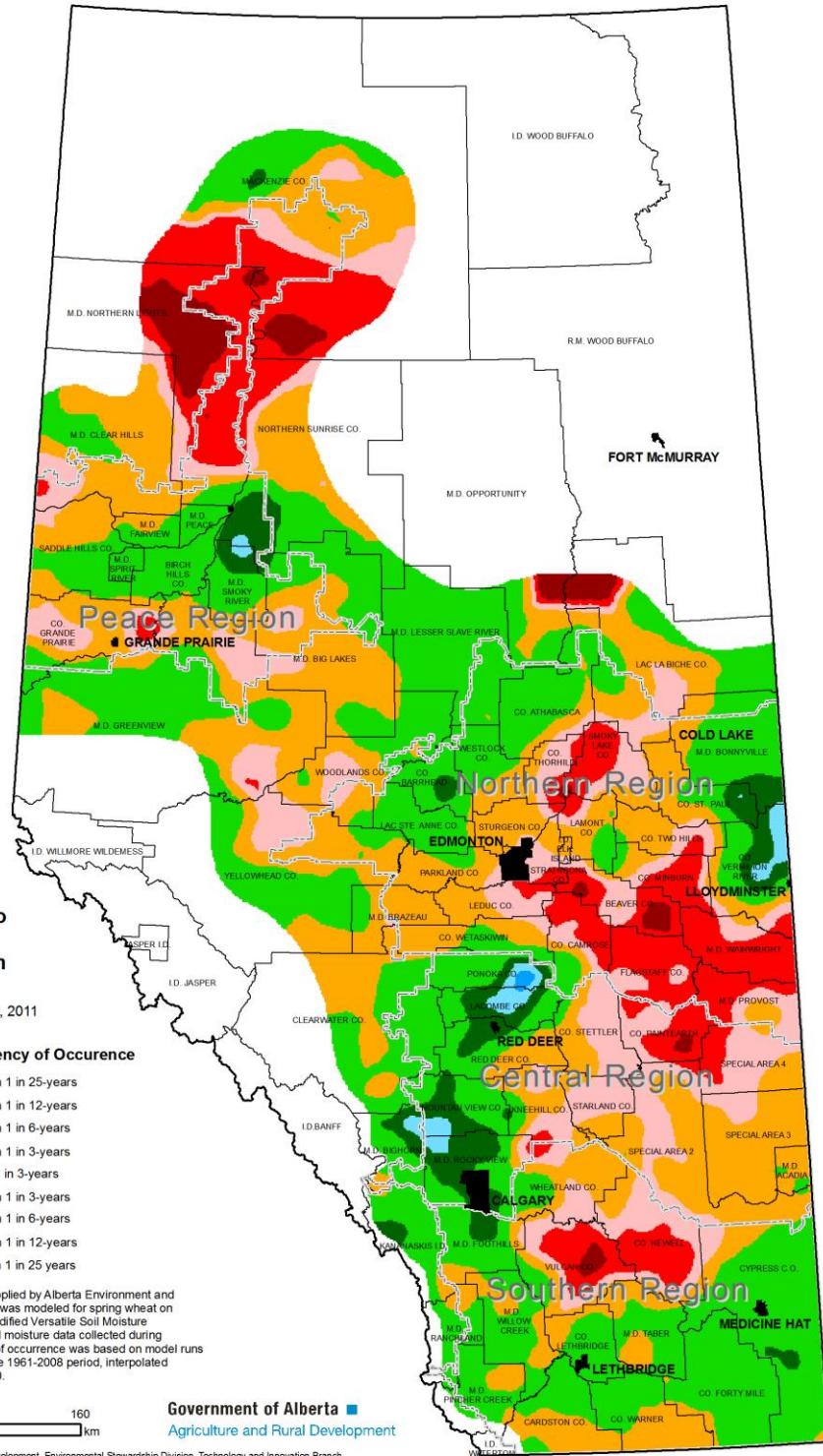
	< 1		30 - 35
	1 - 5		35 - 40
	5 - 10		40 - 45
	10 - 15		45 - 50
	15 - 20		50 - 55
	20 - 25		> 55
	25 - 30		No Data

Near-real-time data was collected from Federal and Provincial meteorological networks in partnership with Alberta Sustainable Resource Development, Alberta Agriculture, Alberta Environment and Environment Canada. Data has passed preliminary quality control by Alberta Agriculture and is subject to change under further review. Live station data can be viewed at www.agric.gov.ab.ca/acis



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Map created on September 19, 2011



**Spring Wheat
Soil Moisture
Reserves Relative to
Long Term Normal
to a Depth of 120 cm**

Estimated as of September 13, 2011

Condition	Frequency of Occurrence
extremely low	less than 1 in 25-years
very low	less than 1 in 12-years
low	less than 1 in 6-years
moderately low	less than 1 in 3-years
near normal	at least 1 in 3-years
moderately high	less than 1 in 3-years
high	less than 1 in 6-years
very high	less than 1 in 12-years
extremely high	less than 1 in 25 years

Near-real-time weather data was supplied by Alberta Environment and Environment Canada. Soil moisture was modeled for spring wheat on medium textured soils using AF's Modified Versatile Soil Moisture Budget V-2.0, initialized with field soil moisture data collected during April and May 2008. The frequency of occurrence was based on model runs using historical weather data from the 1961-2008 period, interpolated to township centres using AbClim-1.0.



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Compiled by Alberta Agriculture and Rural Development, Environmental Stewardship Division, Technology and Innovation Branch
Created on September 15, 2011