Moisture Situation Update – May 15 2017

Synopsis

May started out quite warm and relatively dry, after an unusually cool and wet April prevailed across most of the province (see map 1). However, towards the end of last week another major system swept across the province bringing more moisture (10-50 mm) to many of the provinces agricultural lands (see map 2).

A very large area running from Provost in the east, all the way up to Manning in the Peace country received more than 30 mm of moisture. As a result, soil moisture reserves have increased notably, with about 70% of the agricultural lands across this wide area seeing reserves this high on average less than once in 50-years (see map 3). Fortunately areas across the northern Peace Region that have been experiencing below average precipitation for several years, received upwards of 15 mm. While this is not a significant amount of moisture, it should help to get pastures going and add some moisture to the seed bed.

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.

Ralph Wright
Manager, Agro-meteorological Applications and Modelling Unit
Alberta Agriculture and Forestry
Phone: 780-446-6831
Moisture Situation Update – May 15 2017

Map 1

April, 2017
Precipitation Accumulations Relative to Long Term Normal
April 01, 2017 to April 30, 2017

Condition
- dry
- extremely low
- very low
- low
- moderately low
- near normal
- moderately high
- high
- very high
- extremely high
- wettest
- no data

Frequency
- < once in 50-years
- once in 25 to 50 years
- once in 12 to 25 years
- once in 6 to 12 years
- once in 3 to 6 years
- once in 3 years
- once in 6 to 8 years
- once in 6 to 12 years
- once in 12 to 26 years
- once in 25 to 60 years
- < once in 50-years

Near real-time weather data was assembled and quality controlled by Alberta Agriculture and Rural Development. The frequency of occurrence was based on historical weather data from the 1961-1990 period, interpolated to township centroids using ArcMap 10.2.

Compiled by Alberta Agriculture and Forestry, Environmental Stewardship Branch, Engineering and Climate Services Section

Visit weatherdata.ca for additional maps and meteorological data
Moisture Situation Update – May 15 2017

Map 2

Precipitation Received During the Past 7-days
May 09, 2017 to May 15, 2017 approx. 2400 hrs

Precipitation (mm)
- < 0.5
- 0.5 - 1.0
- 1 - 2
- 2 - 3
- 3 - 5
- 5 - 10
- > 50
- 10 - 15
- No Data

Mean 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/weatherdata.ca for additional maps and meteorological data.
Moisture Situation Update – May 15 2017

Map 3

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

Estimated as of May 15, 2017

Condition | Frequency
---|---
dry| < once in 50-years
extremely low| once in 25 to 50 years
very low| once in 12 to 25 years
low| once in 0 to 12 years
moderately low| once in 3 to 6 years
near normal| once in 3 years
moderately high| once in 3 to 8 years
high| once in 6 to 12 years
very high| once in 12 to 25 years
extremely high| once in 25 to 50 years
wettest| < once in 50-years

Real-time weather data was assembled and quality controlled by Alberta Agriculture and Rural Development. Soil moisture was modeled for spring wheat on medium textured soils using the modified theta-Soil Moisture Budget V.4.0. The frequency of occurrence was based on model run using historical weather data from the 1981-2010 period, interpolated to township centres using ArcMap 10.3.2.

Visit weatherdata.ca for additional maps and meteorological data.