



Agriculture and Agri-Food Canada

Agriculture et Agroalimentaire Canada



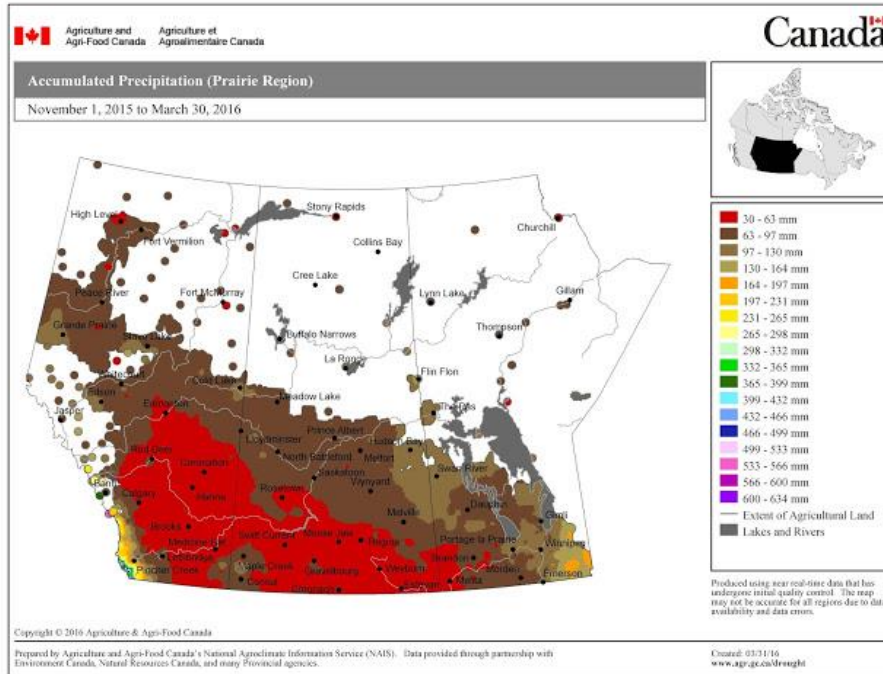
Saskatchewan Ministry of Agriculture



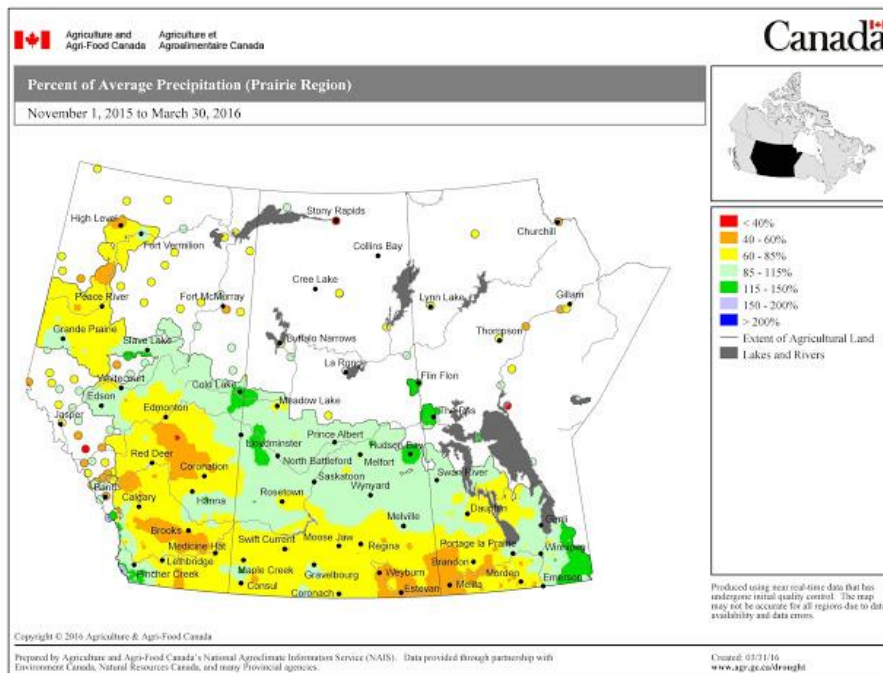
Alberta Agriculture and Rural Development

## Prairie Pest Monitoring Network Weekly Updates – May 5, 2016 Otani, Olfert

- Greetings!** The Weekly Update is back for the 2016 growing season in Blog and a downloadable PDF format!
- Weather synopsis** – We begin with a synopsis of the weather situation starting with the map below which reflects the **Accumulated Precipitation received during the winter** (Nov 1, 2015 to Mar 31, 2016) across the prairies.

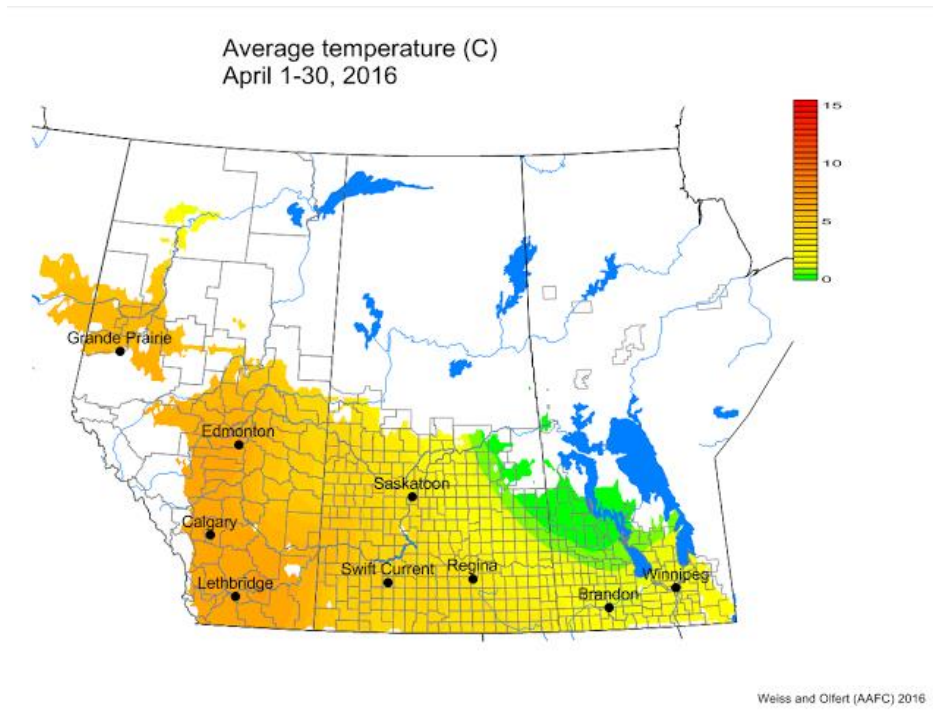


In terms of **Percent of Average Precipitation received during the winter** (Nov 1, 2015 to Mar 31, 2016), the map below confirms the lower levels of precipitation received across the prairies the past winter.

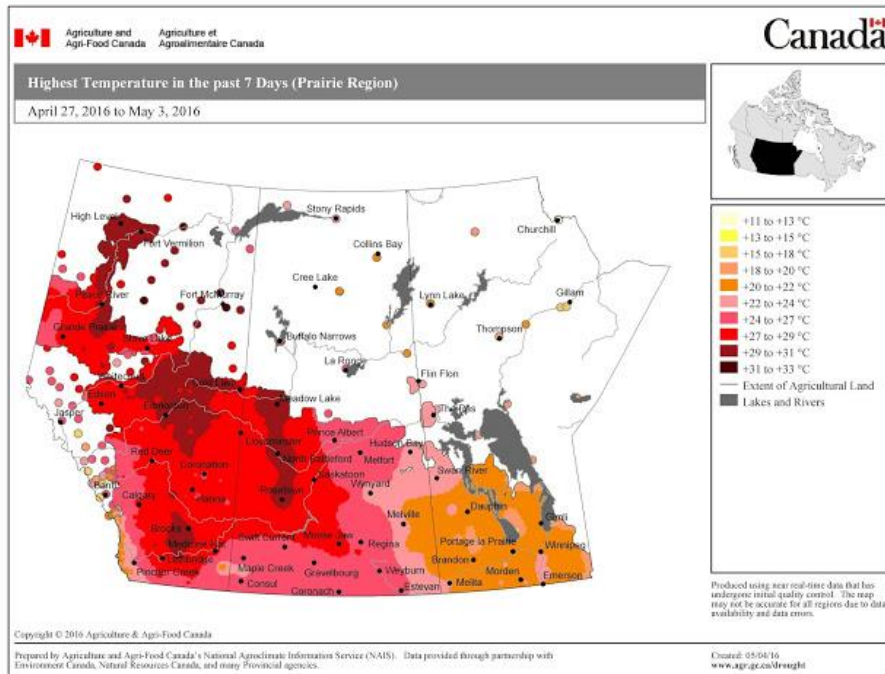




Across the prairies, meteorological conditions have been warm and dry during April. The map below indicates the **Average Temperatures across the prairies** (April 1-30, 2016).

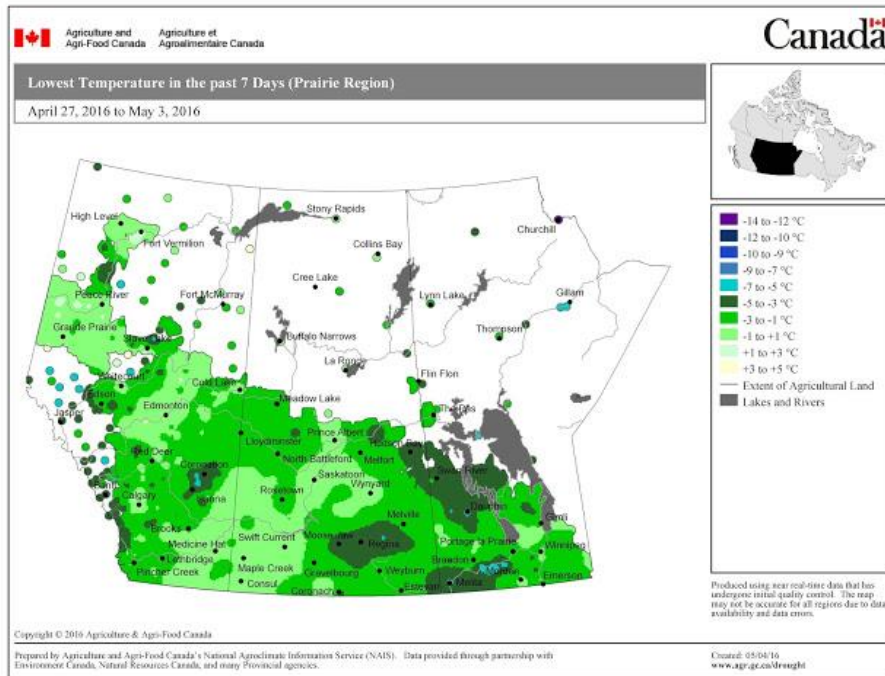


The map below reflects the **Highest Temperatures occurring over the past 7 days** across the prairies.

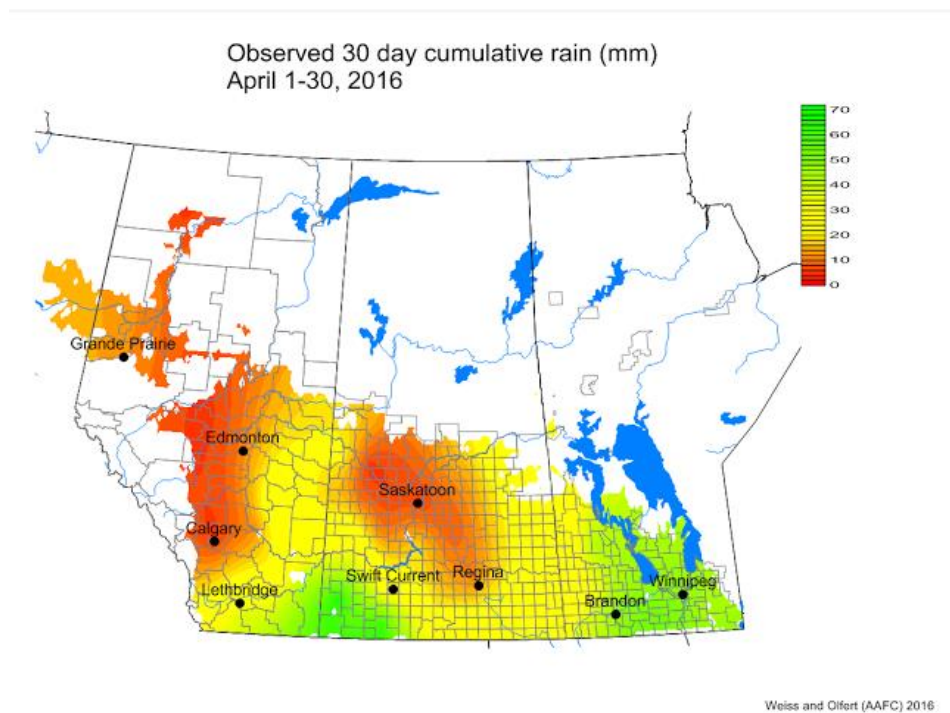




And the map below reflects the **Lowest Temperatures occurring over the past 7 days across the prairies.**

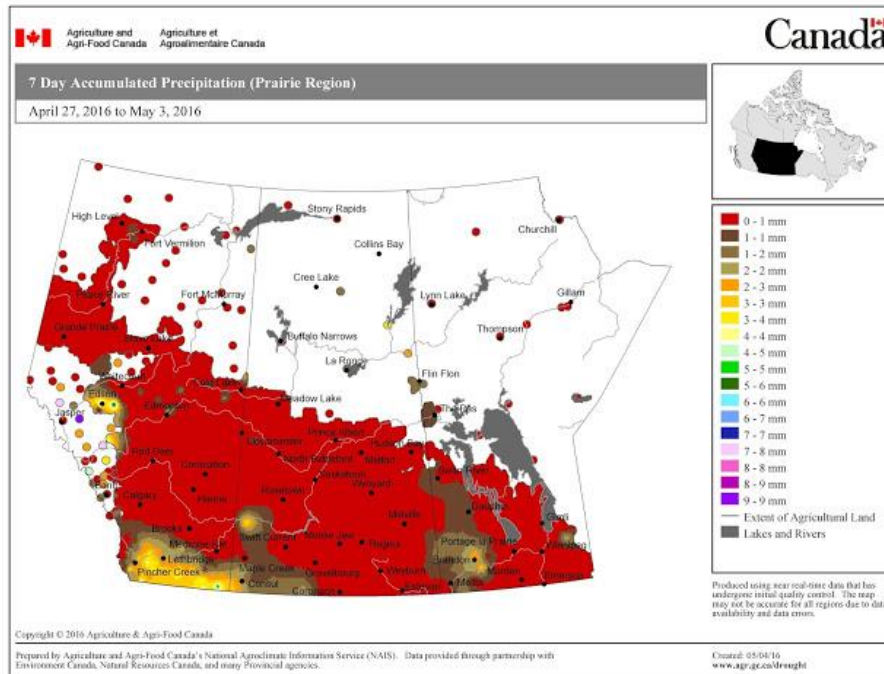


Alberta has been particularly dry in April. The map below reflects the **Accumulated Precipitation (April 1-30, 2016).**





The Accumulated Precipitation the past 7 days (i.e., April 27-May 3, 2016) is mapped below:



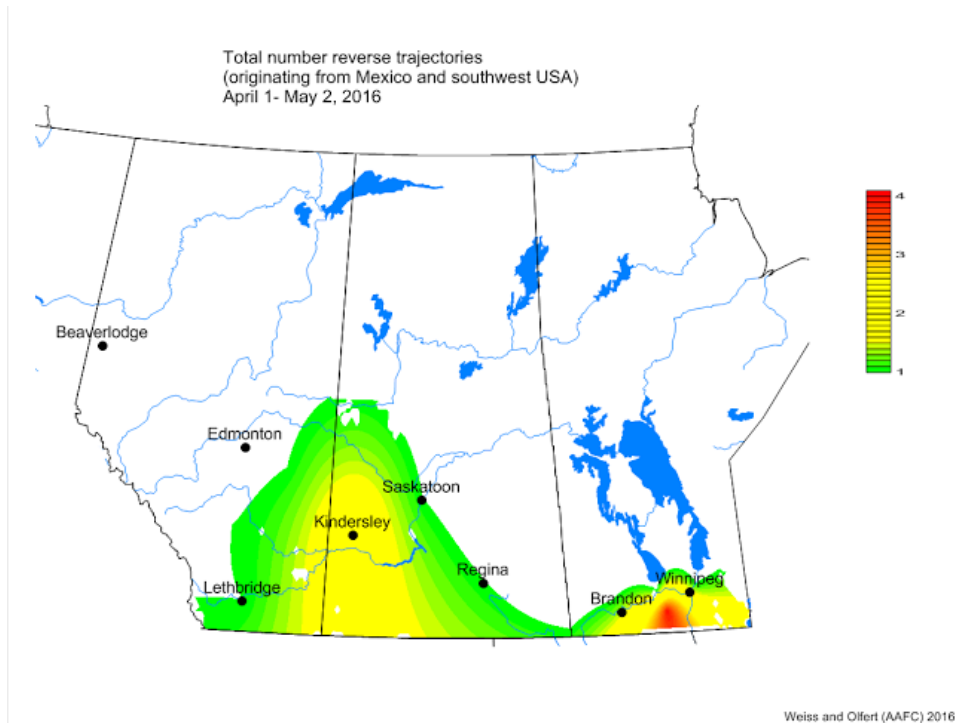
The maps above are all produced by Agriculture and Agri-Food Canada. Growers may wish to bookmark the [AAFC Drought Watch webpage](#).

**3. 2016 Wind Trajectories** - High altitude air masses originate from southern locations and continuously move northerly to Canadian destinations. Insect pest species such as Diamondback moth and Aster leafhoppers, traditionally unable to overwinter above the 49th parallel, can utilize these air masses in the spring to move north from Mexico and the United States (southern or Pacific northwest). Data acquired from Environment Canada is compiled by Olfert et al. (AAFC-Saskatoon) to track and model spring high altitude air masses with respect to potential introductions of insect pests onto the Canadian prairies.

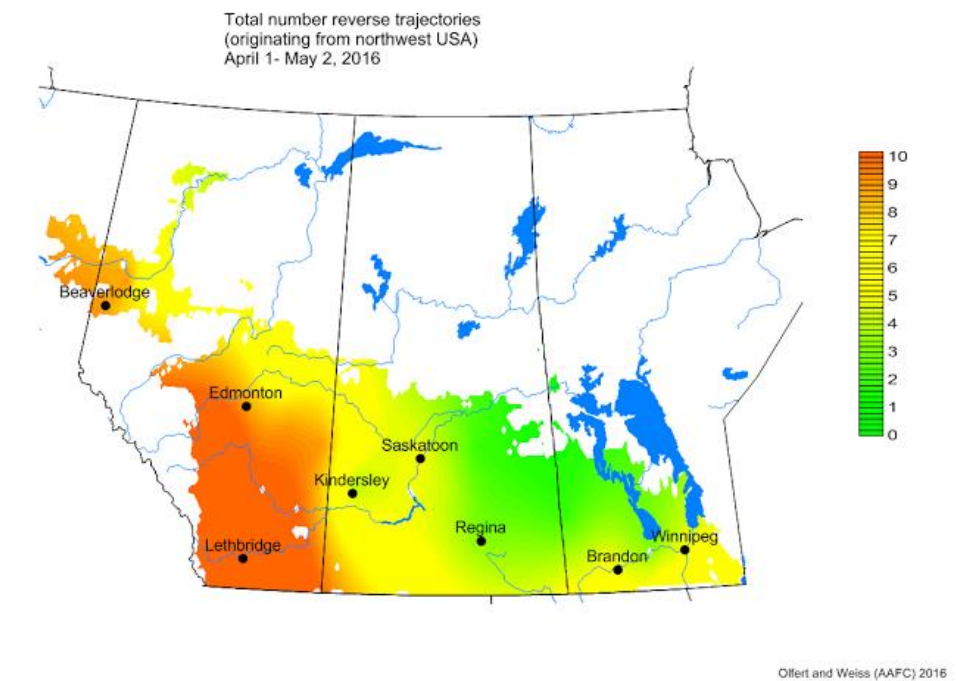
Reverse Trajectories track arriving air masses back to their point of origin while Forward Trajectories predict favourable winds expected to arrive across the Canadian Prairies.



As of May 2, 2016, Reverse Trajectories (RTs) originating from Mexico and southwest USA have been arriving across the prairies:



Whereas Reverse Trajectories (RTs) originating from northwest USA have arrived over a greater area of the prairies with more RTs arriving in Alberta and the BC Peace:



Wind trajectory data processing by AAFC-Saskatoon Staff began in April and those reports were posted for:

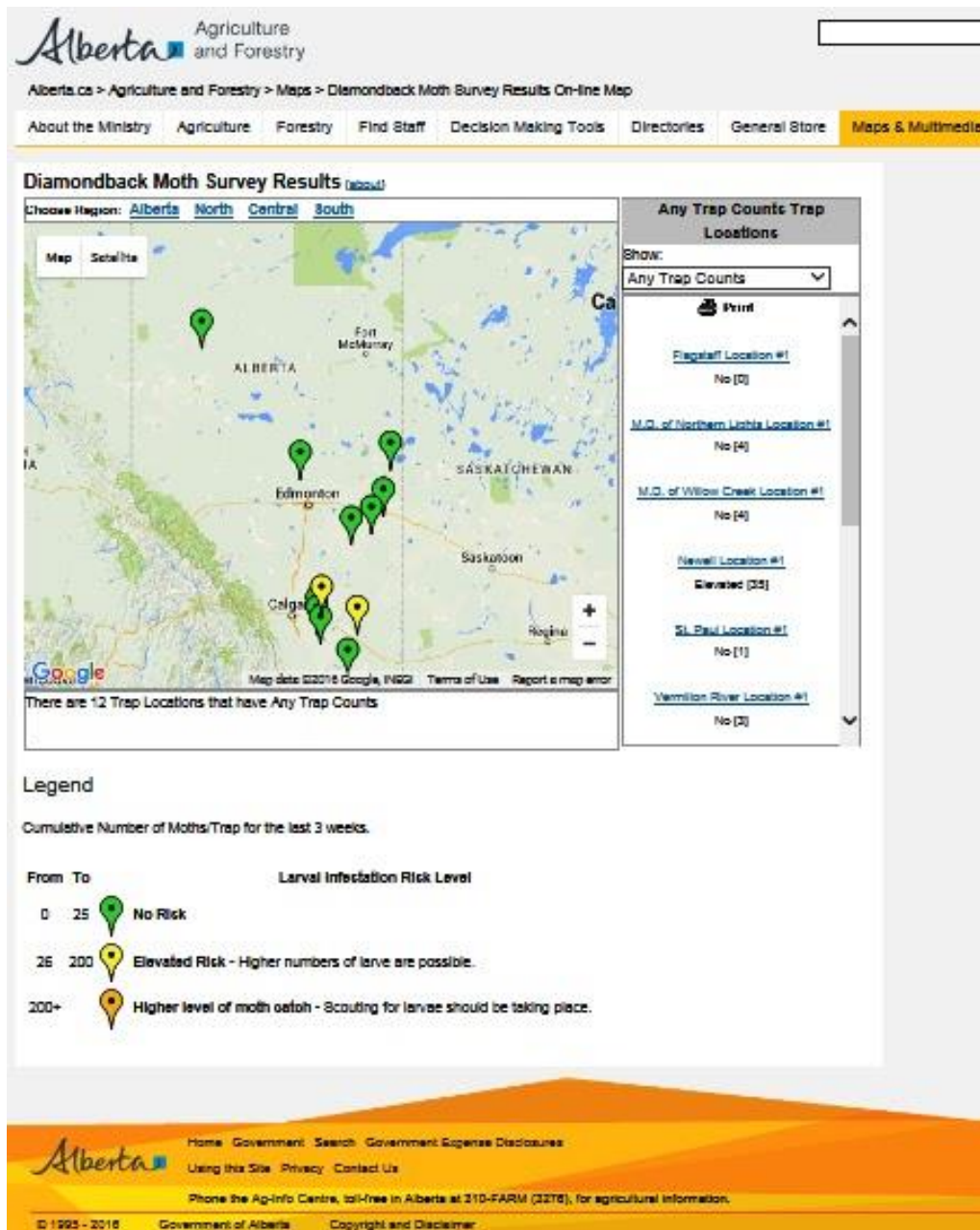
- [April 1-7, 2016](#)
- [April 7-11, 2016](#)
- [April 10-15, 2016](#)
- [April 15-20, 2016](#)
- [April 20-25, 2016](#)



**4. Diamondback moth (*Plutellidae: Plutella xylostella*)** - Pheromone traps attracting male Diamondback moths have been deployed across the prairies.



Counts will be reported by the provincial staff in Manitoba and Saskatchewan soon. Alberta Agriculture and Forestry has posted their [live 2016 map reporting Diamondback moth pheromone trap interceptions](#). A copy of the map (retrieved May 5, 2016) is below for reference.





**5. Cereal leaf beetle (*Chrysomelidae: Oulema melanopus*)** - As of May 1, 2016, the Cereal leaf beetle (CLB) model indicates that oviposition is well underway at Lethbridge AB and Maple Creek SK. Oviposition is expected to begin this week near Swan River MB. Larval populations are predicted to peak in mid-June in southern Alberta and one to two weeks later at the Saskatchewan and Manitoba locations.

Predicted dates of peak emergence of CLB eggs and larvae are as follows:

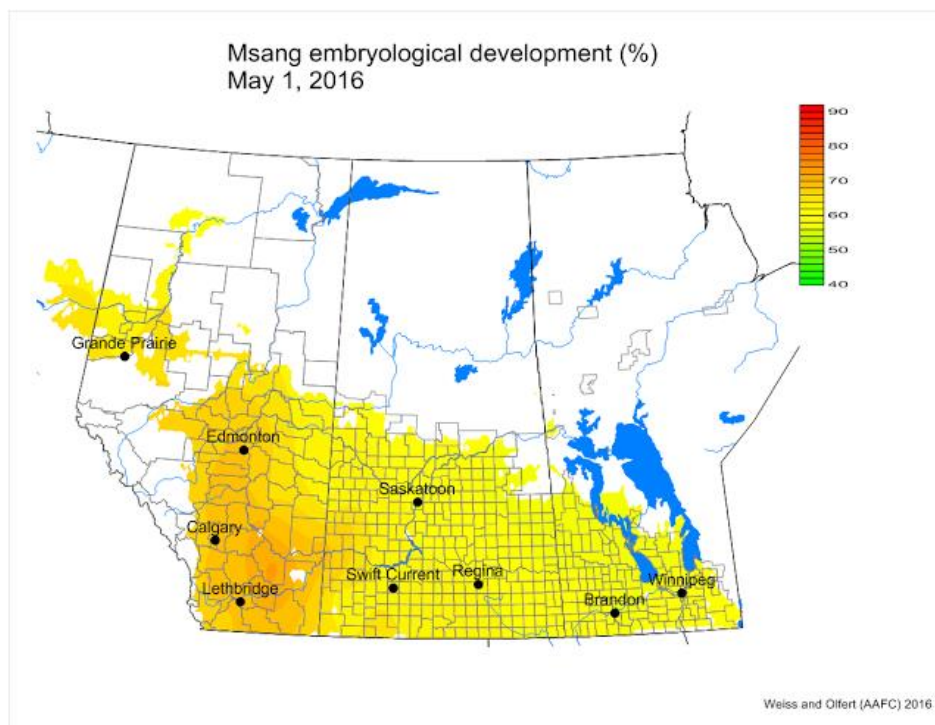
Location	Eggs	Larvae
Lethbridge	17-May-16	15-Jun-16
Maple Creek	26-May-16	21-Jun-16
Yorkton	28-May-16	21-Jun-16
Swan River	04-Jun-16	30-Jun-16

A CLB update was [posted last week](#) on the Blog.

Fact sheets for CLB are published by the province of [Alberta](#) and by the [Prairie Pest Monitoring Network](#). Also access the [Oulema melanopus page](#) from the new "**Field crop and forage pests and their natural enemies in western Canada - Identification and management field guide**".

**6. Grasshopper Simulation Model Output** – The grasshopper simulation model will be used to monitor grasshopper development across the prairies. Weekly temperature data collected across the prairies is incorporated into the simulation model which calculates estimates of grasshopper development stages based on biological parameters for *Melanoplus sanguinipes* (Migratory grasshopper).

Warm, dry conditions typically enhance grasshopper egg development. The predicted mean embryological development of the migratory grasshopper (Orthoptera: *Melanoplus sanguinipes*) was 62% this week. The greatest development was predicted to be in Alberta (note areas shaded orange).



Biological and monitoring information related to grasshoppers in field crops is posted by [Manitoba Agriculture, Food and Rural Development](#), [Saskatchewan Agriculture](#), [Alberta Agriculture and Forestry](#), the [BC Ministry of Agriculture](#) and the [Prairie Pest Monitoring Network](#). Also refer to the [grasshopper pages](#) within the new "Field Crop and Forage Pests



and their Natural Enemies in Western Canada: Identification and management field guide" as an [English-enhanced](#) or [French-enhanced](#) version.

**7. Questions or problems accessing the contents of this Weekly Update?** Please e-mail either [Dr. Owen Olfert](#) or [Jennifer Otani](#). Past and present "Weekly Updates" are very kindly posted to the Western Forum website by webmaster, Dr. Kelly Turkington. Please [click here](#) to link to that webpage.