



Insect Update

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Alberta Agriculture and Forestry

Alberta Insect Pest
Monitoring Network



Alberta
Government

Acknowledgements

- Agriculture Fieldmen
- Applied Research Associations
- Company Agrologists
- Private Consultants
- Agriculture Canada
- Alberta Agriculture and Forestry technicians
- Shelley Barkley

Survey vs Forecast

- Survey
 - Count of some sort
 - Not sufficient research to use as a forecast
 - Trends/make educated guesses
- Forecast
 - Still based on a survey
 - Research to support
 - Subject to conditions in 2017

May 16,
2016

Growing Season
Precipitation to Date

April 01, 2016 to
May 16, 2016

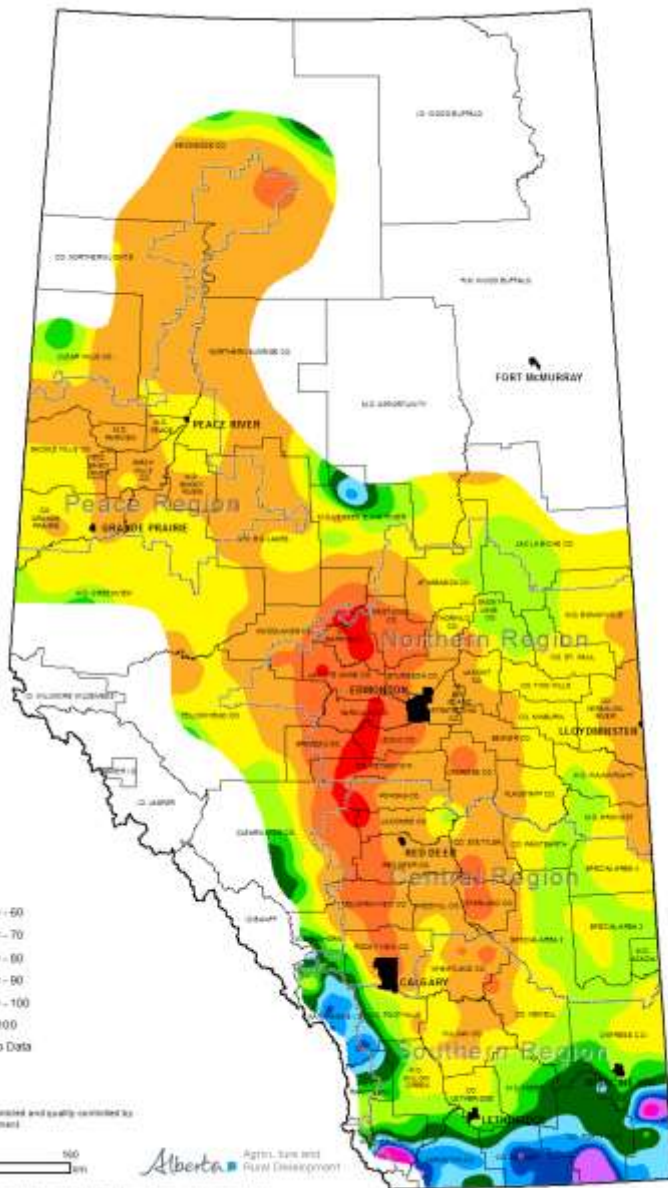
Precipitation (mm)



Non-real-time weather data was assembled and quality controlled by
Alberta Agriculture and Rural Development



Created by Alberta Agriculture and Rural Development, Environmental Data and Reporting Division, Technology and Innovation Branch
Created on May 17, 2016



Visit weatherdata.ca for additional maps and meteorological data

May 30,
2016

Growing Season
Precipitation to Date

April 01, 2016 to
May 30, 2016

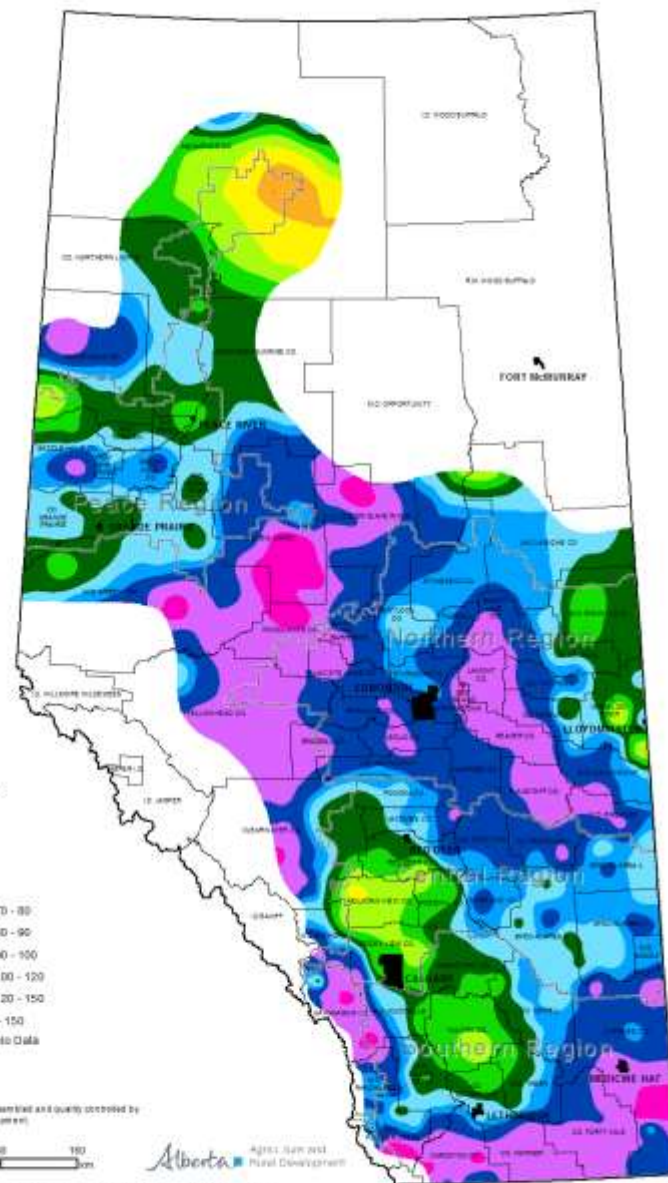
Precipitation (mm)



Non-real-time weather data was assembled and quality controlled by
Alberta Agriculture and Rural Development



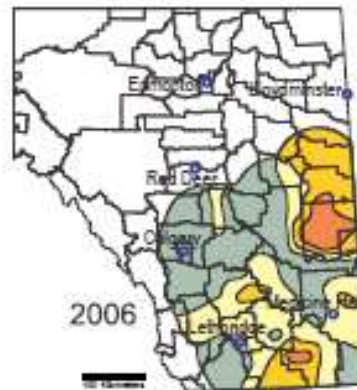
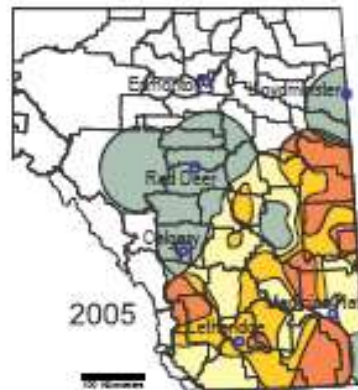
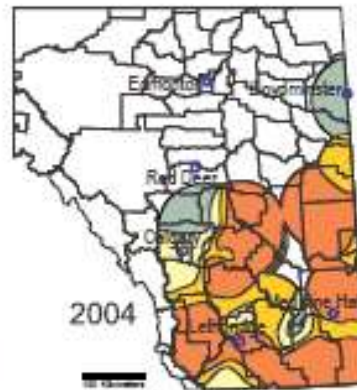
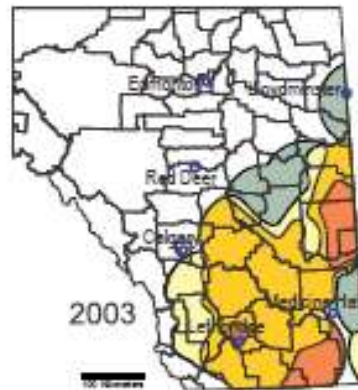
Created by Alberta Agriculture and Rural Development, Environmental Data and Reporting Division, Technology and Innovation Branch
Created on May 31, 2016



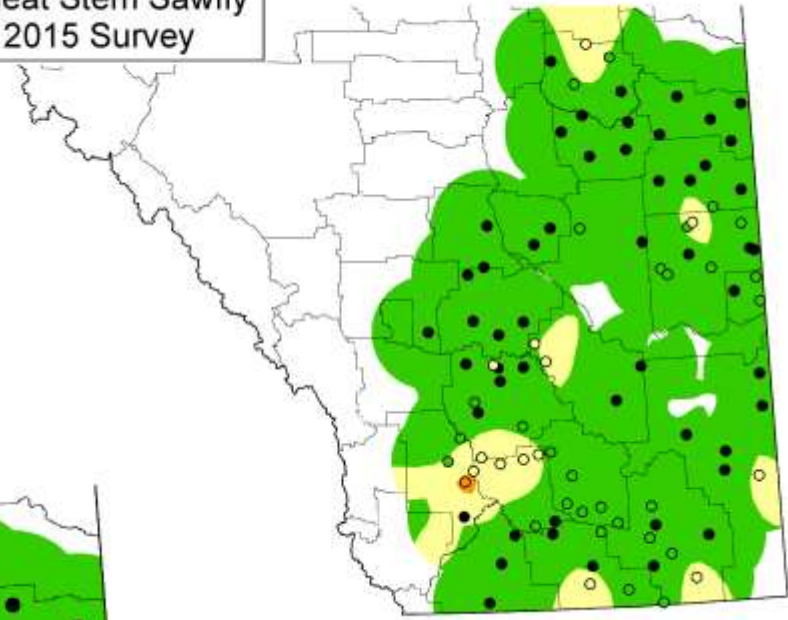
Visit weatherdata.ca for additional maps and meteorological data

Good News






Wheat Stem Sawfly
2015 Survey



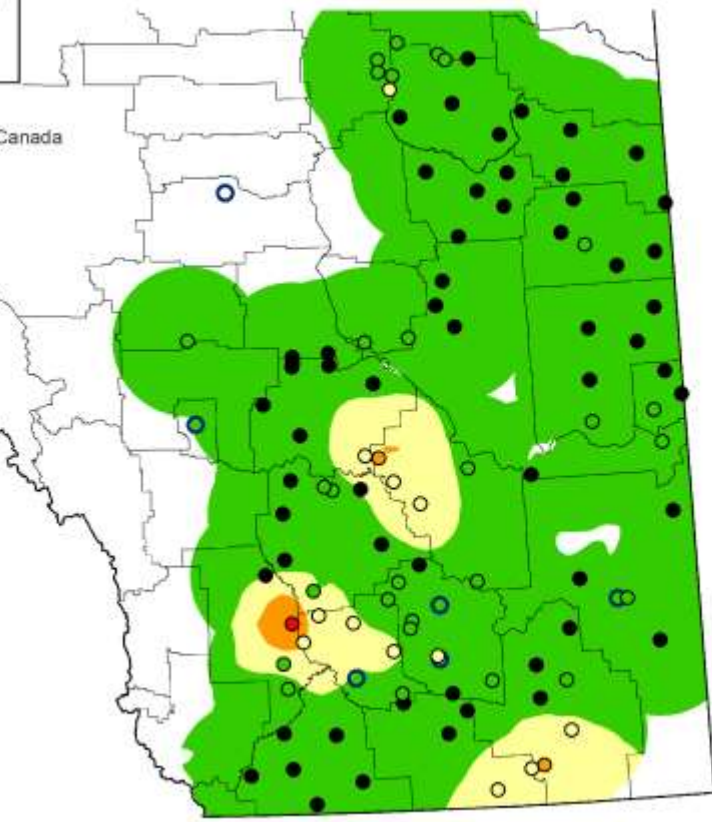
Wheat Stem Sawfly
2016 Survey

 Agriculture and Agri-Food Canada / Agriculture et Agroalimentaire Canada

Alberta
Government

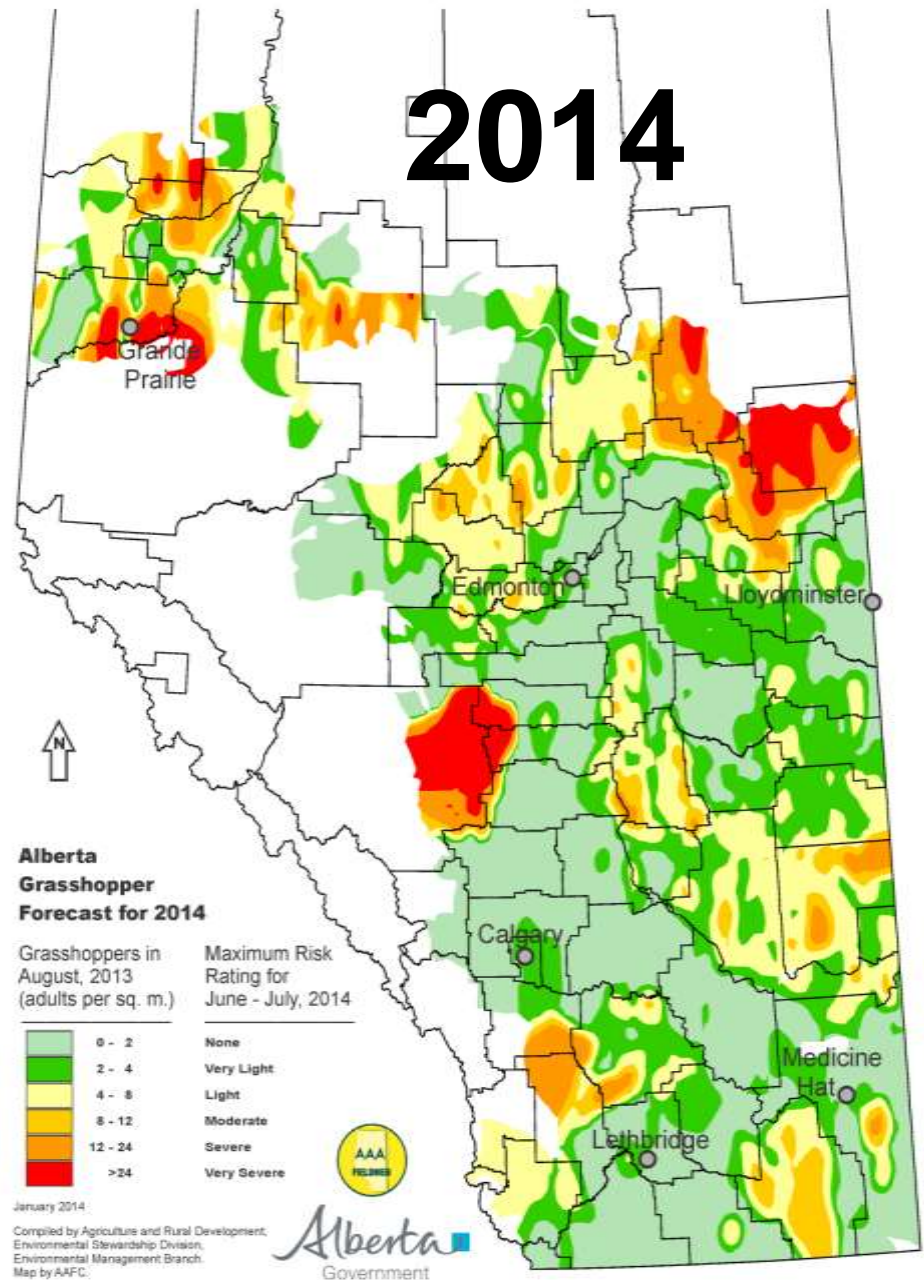
Field margin survey

Percent stems cut	Damage severity
0 - 2	Very low
2 - 10	Low
10 - 25	Moderate
> 25	High

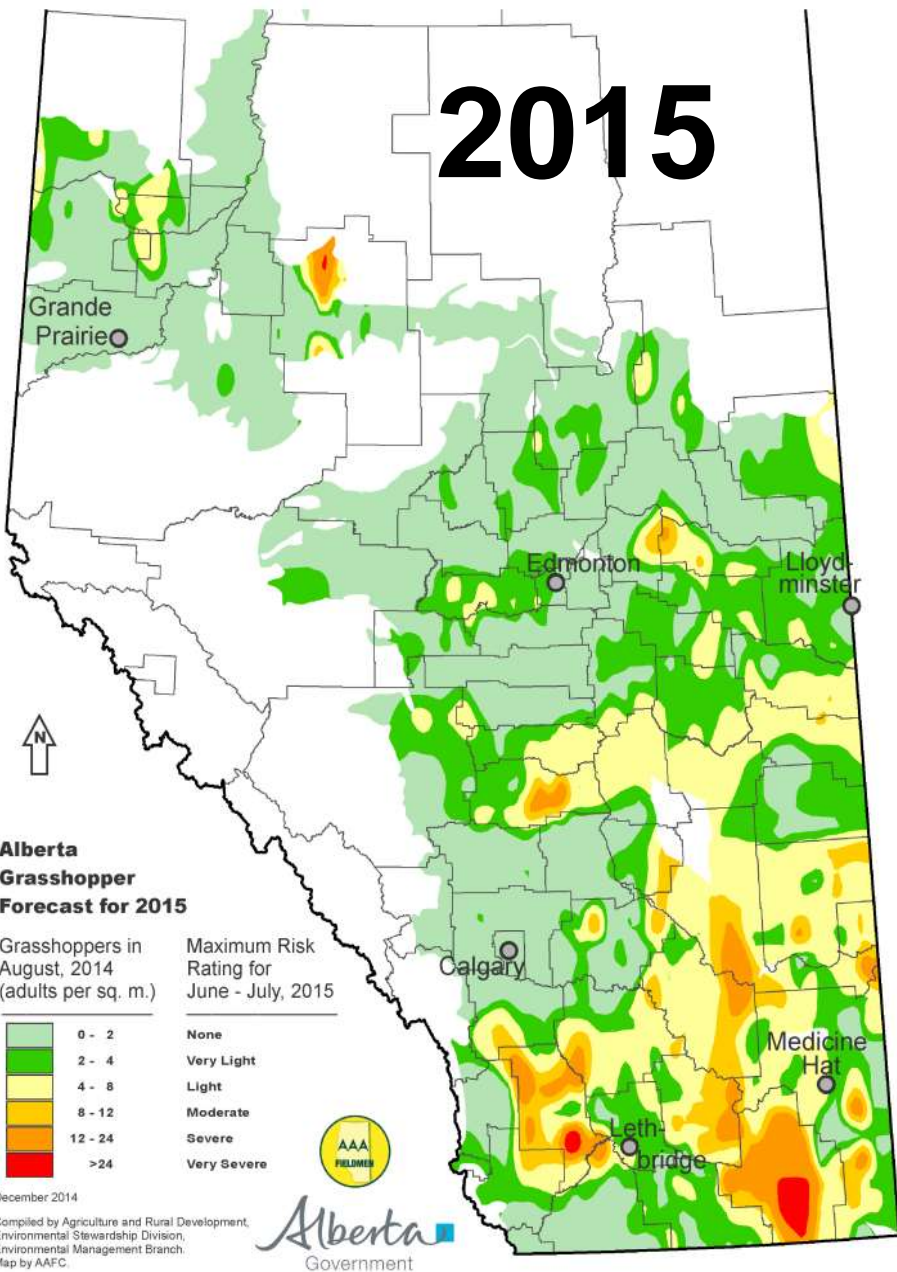




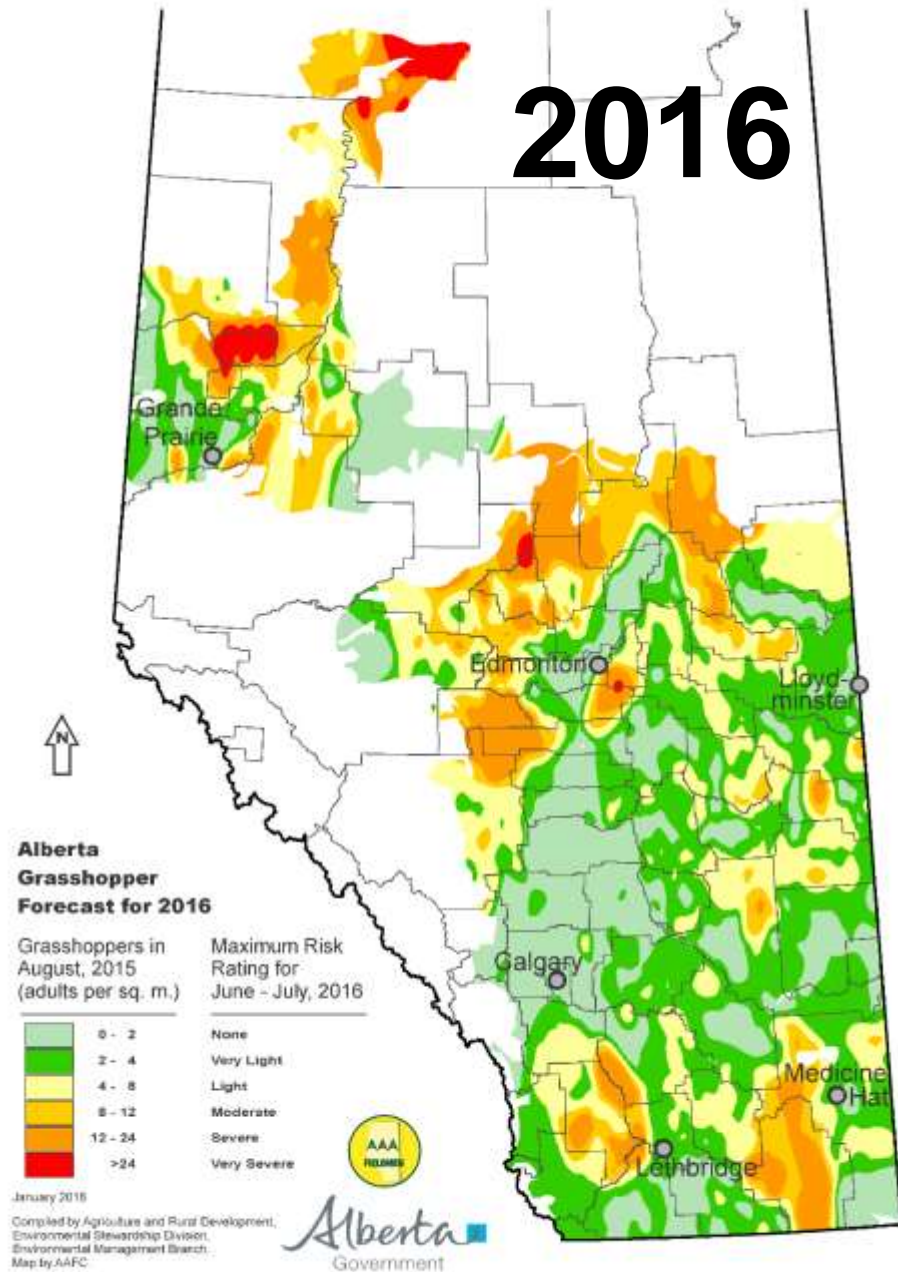
2014



2015



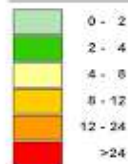
2016



2017

Alberta Grasshopper Forecast for 2017

Grasshoppers in
August, 2016
(adults per sq. m.)



Maximum Risk
Rating for
June - July, 2017

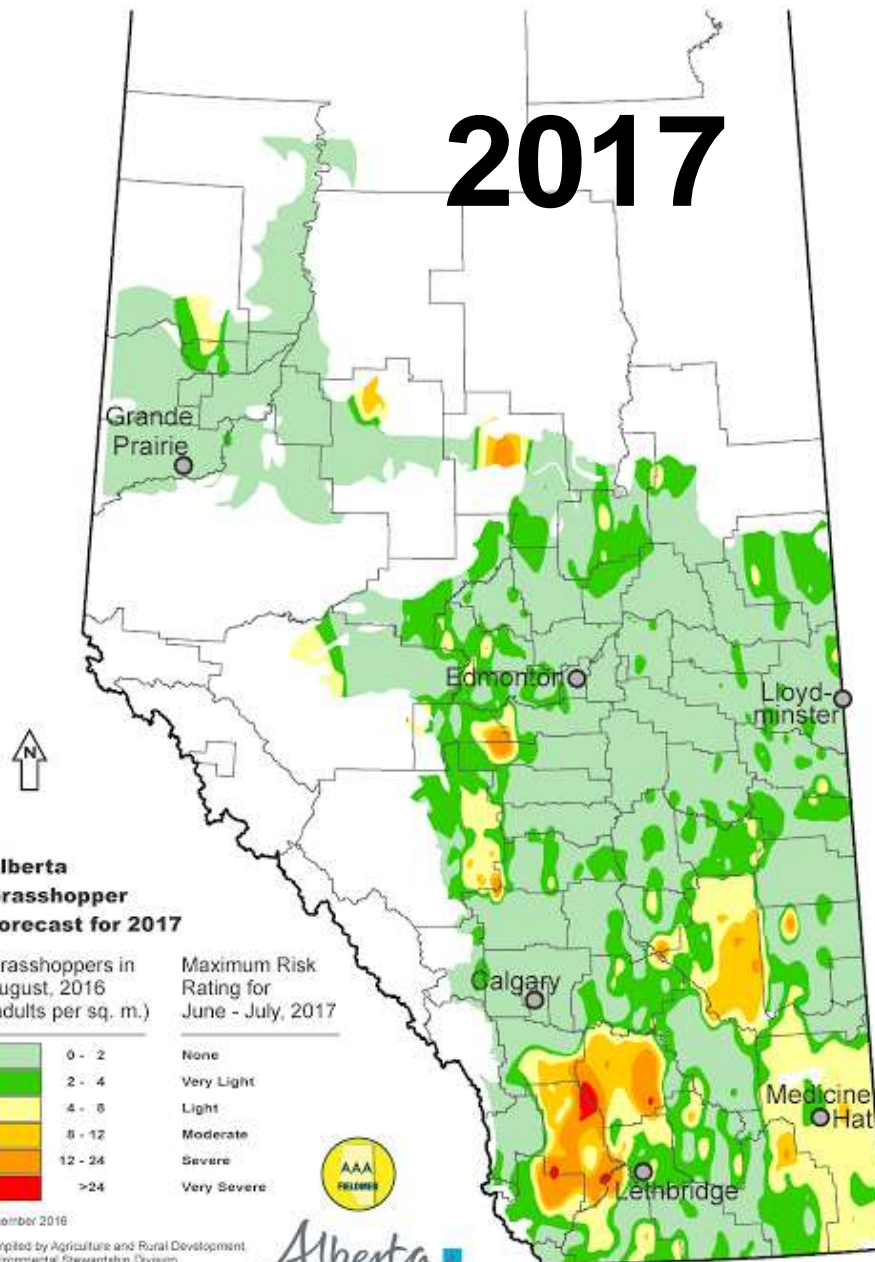
Color	Risk Rating
Light Green	None
Medium Green	Very Light
Yellow	Light
Orange	Moderate
Red-Orange	Severe
Red	Very Severe

December 2016

Compiled by Agriculture and Rural Development,
Environmental Stewardship Division,
Environmental Management Branch.
Map by AAFC.



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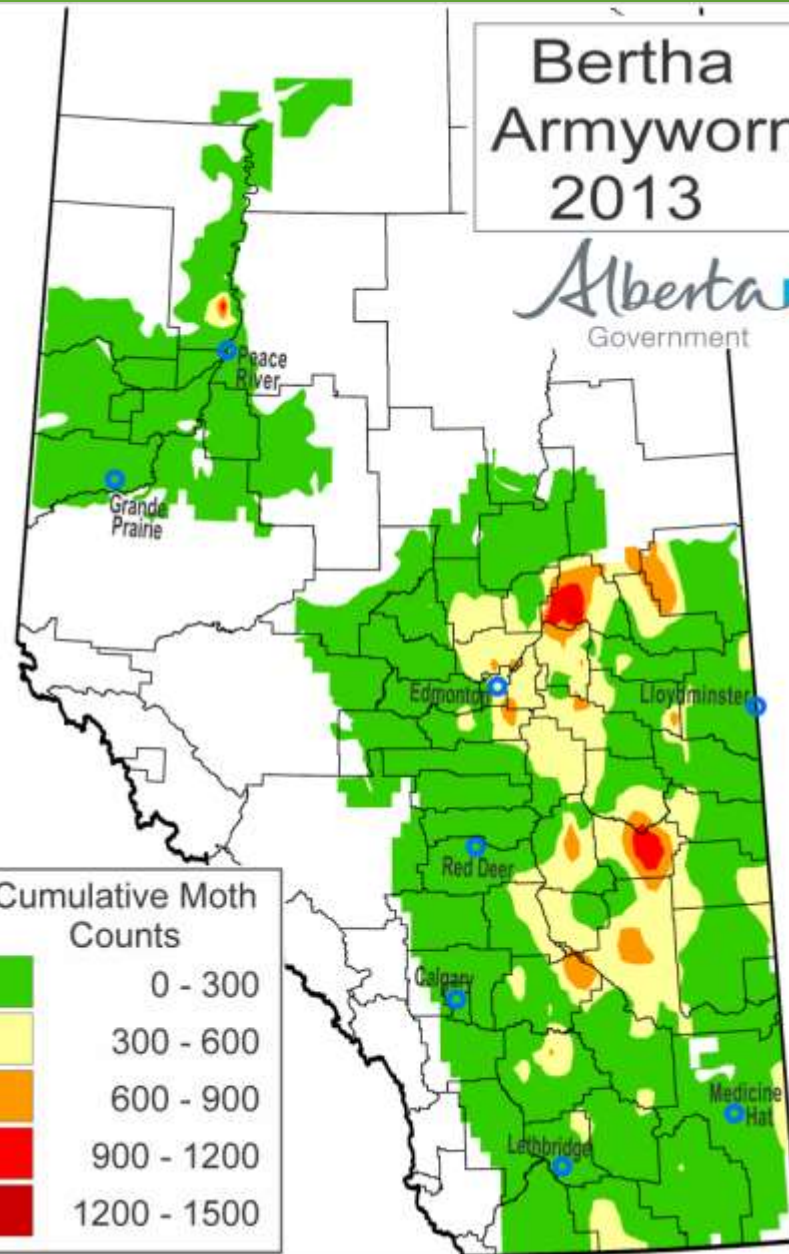
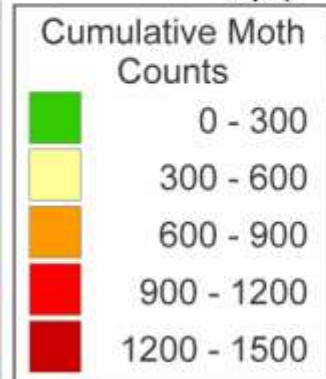


More Good News



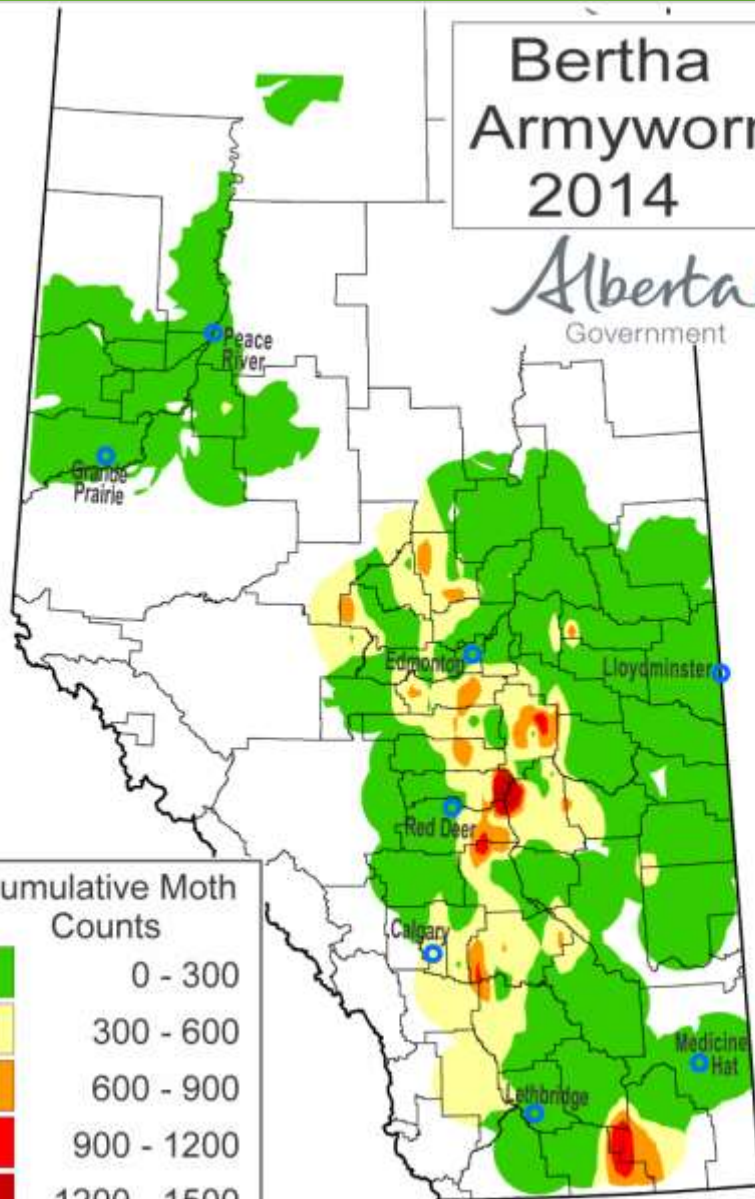
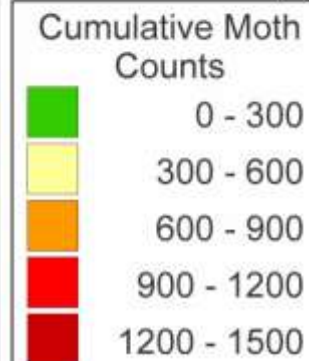
Bertha Armyworm 2013

Alberta
Government



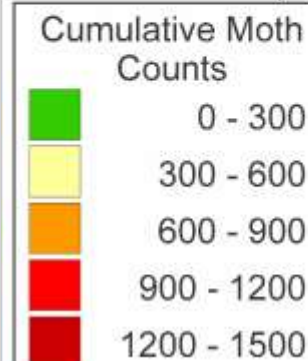
Bertha Armyworm 2014

Alberta
Government



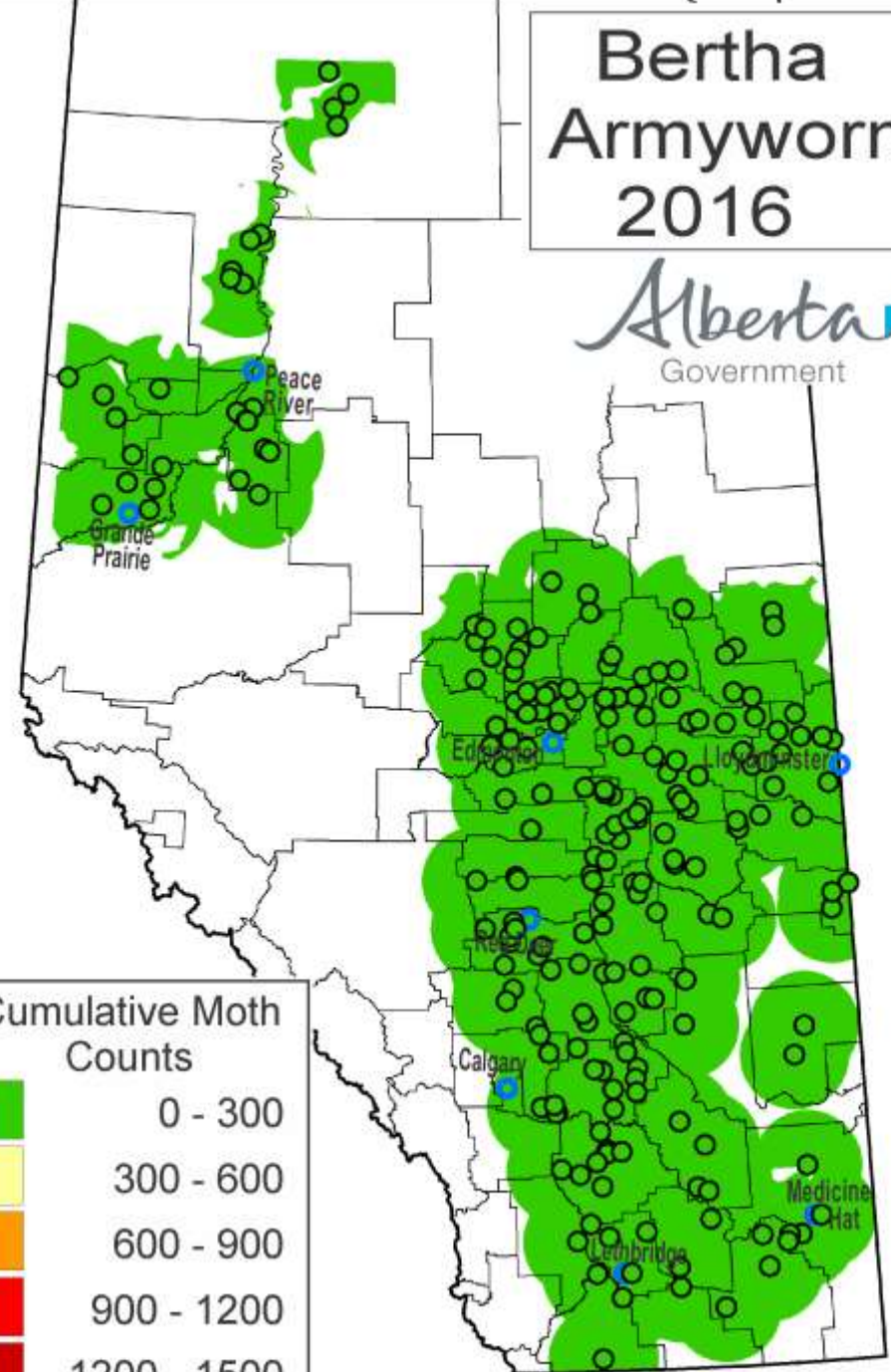
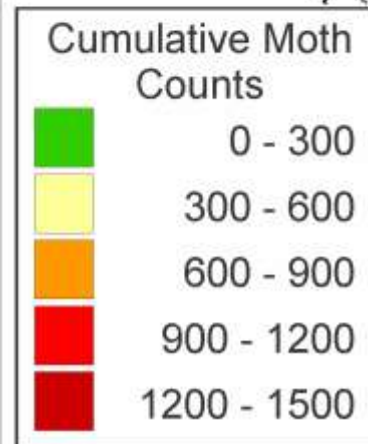
Bertha Armyworm 2015

Alberta
Government



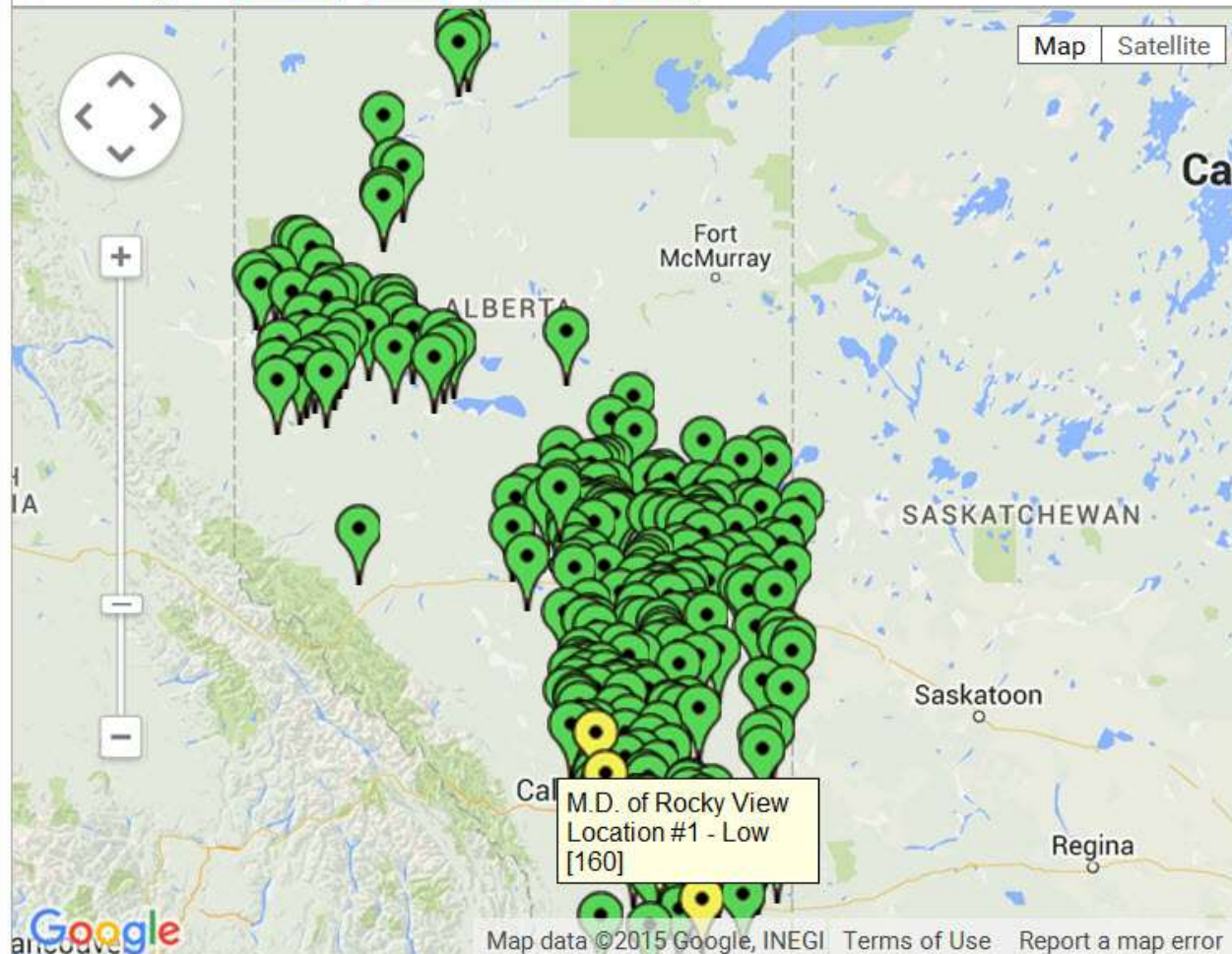
Bertha Armyworm 2016

Alberta
Government



Bertha Armyworm Survey Results [\(forecast\)](#)

Choose Region: [Alberta](#) [North](#) [Central](#) [South](#)



There are [265 Trap Locations](#) that have Any Risk

Any Risk Trap Locations

Show Locations with :

Any Risk

Print

[Athabasca Location #1](#)

Low [70]

[Athabasca Location #2](#)

Low [70]

[Athabasca Location #3](#)

Low [81]

[Barrhead Location #1](#)

Low [165]

[Barrhead Location #2](#)

Low [27]

[Barrhead Location #3](#)

Low [119]

Diamondback Moth



Now for the BAD NEWS

Wheat Midge

- INCREASED RISK !!!
- Weather related
- Seeding date
- IPM strategies, tolerant varieties, sprays





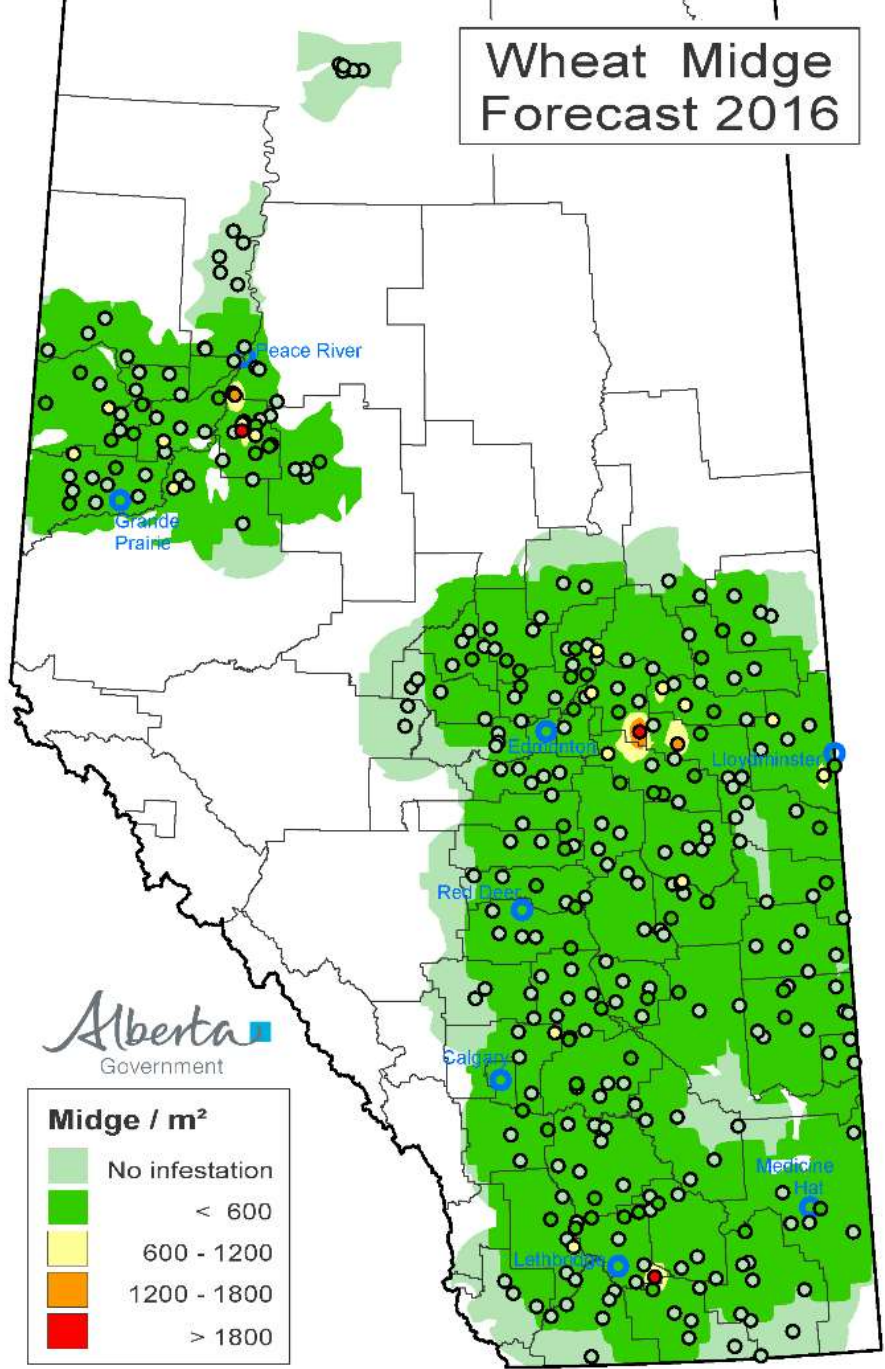




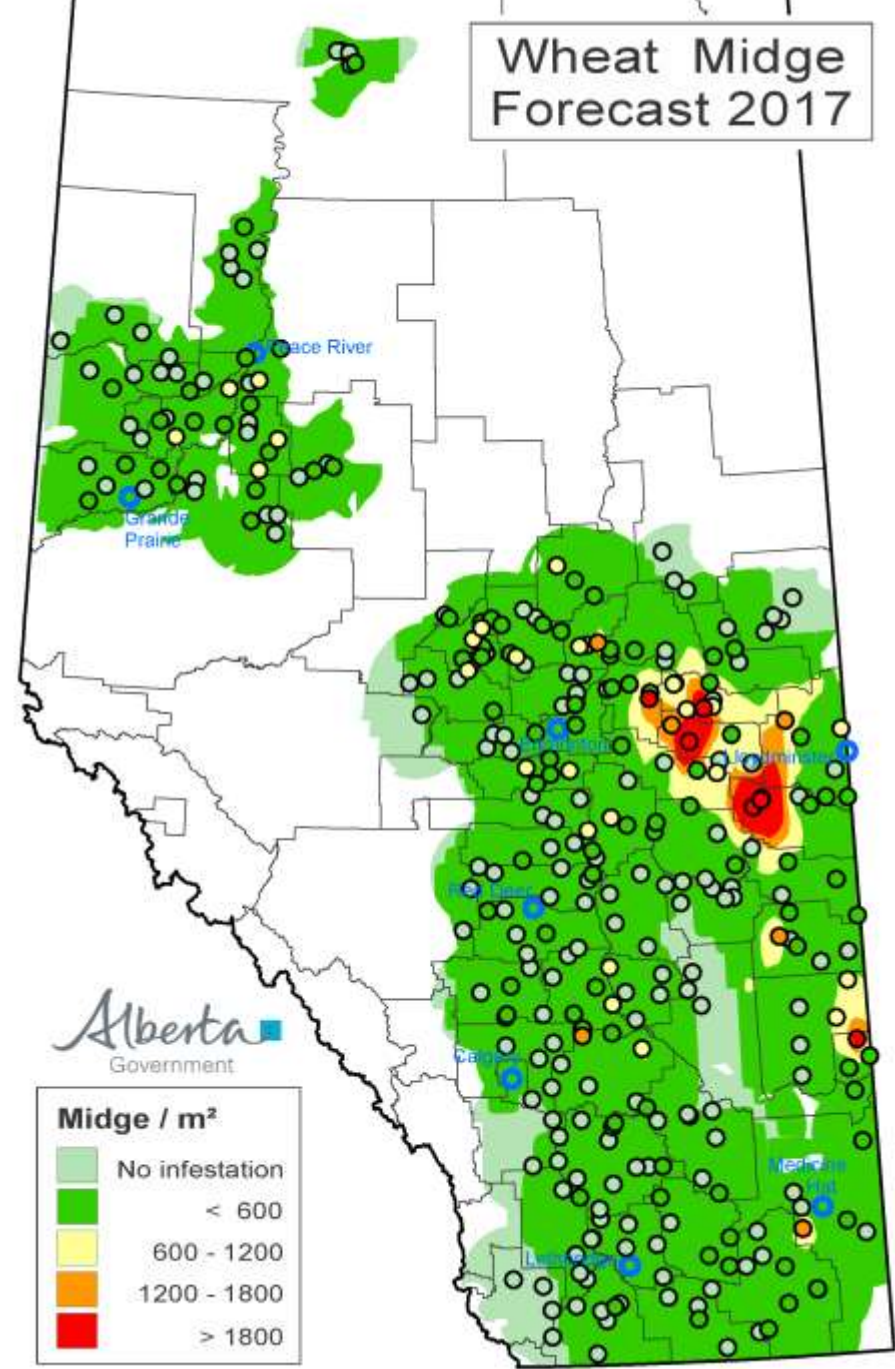


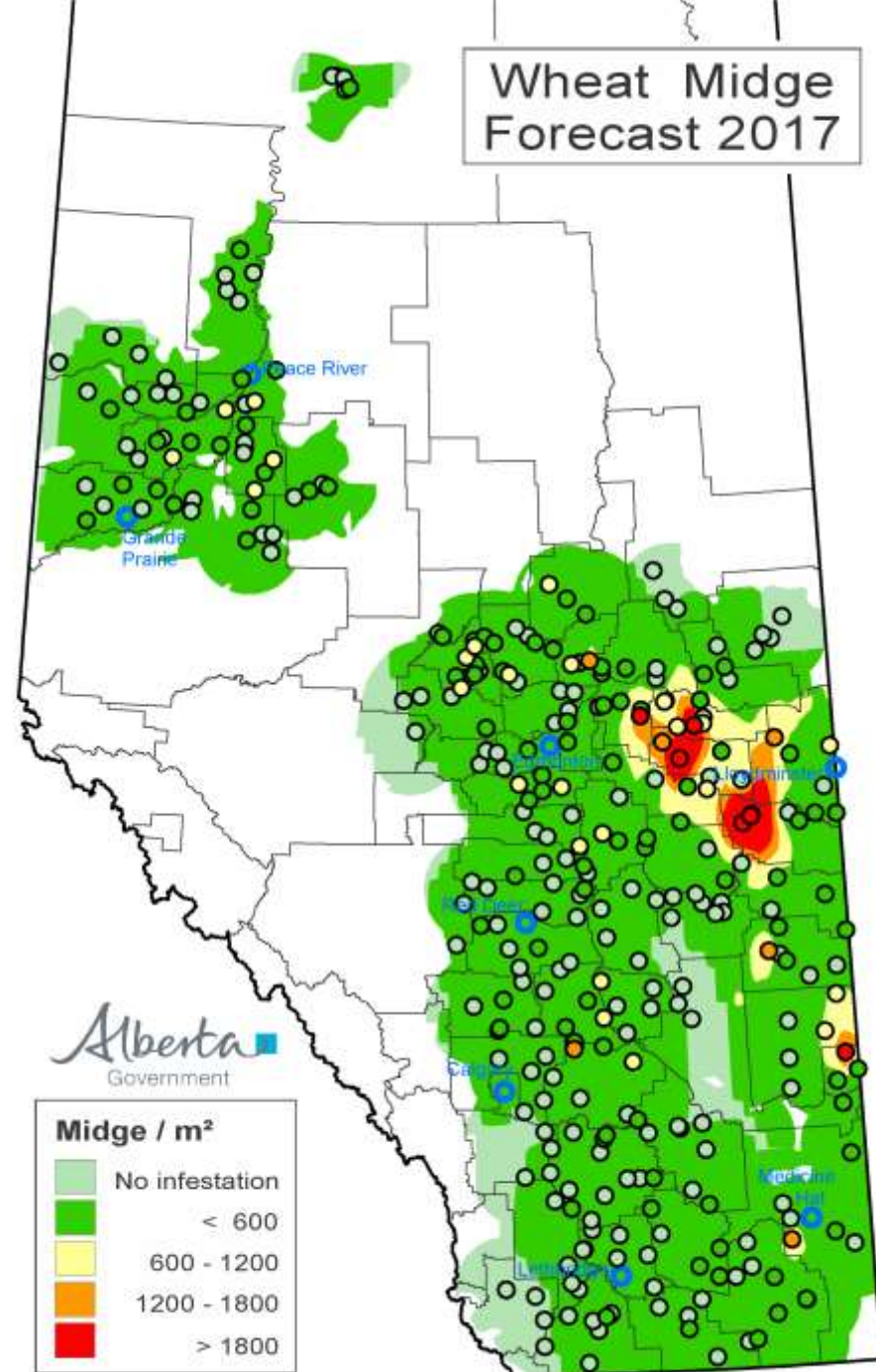
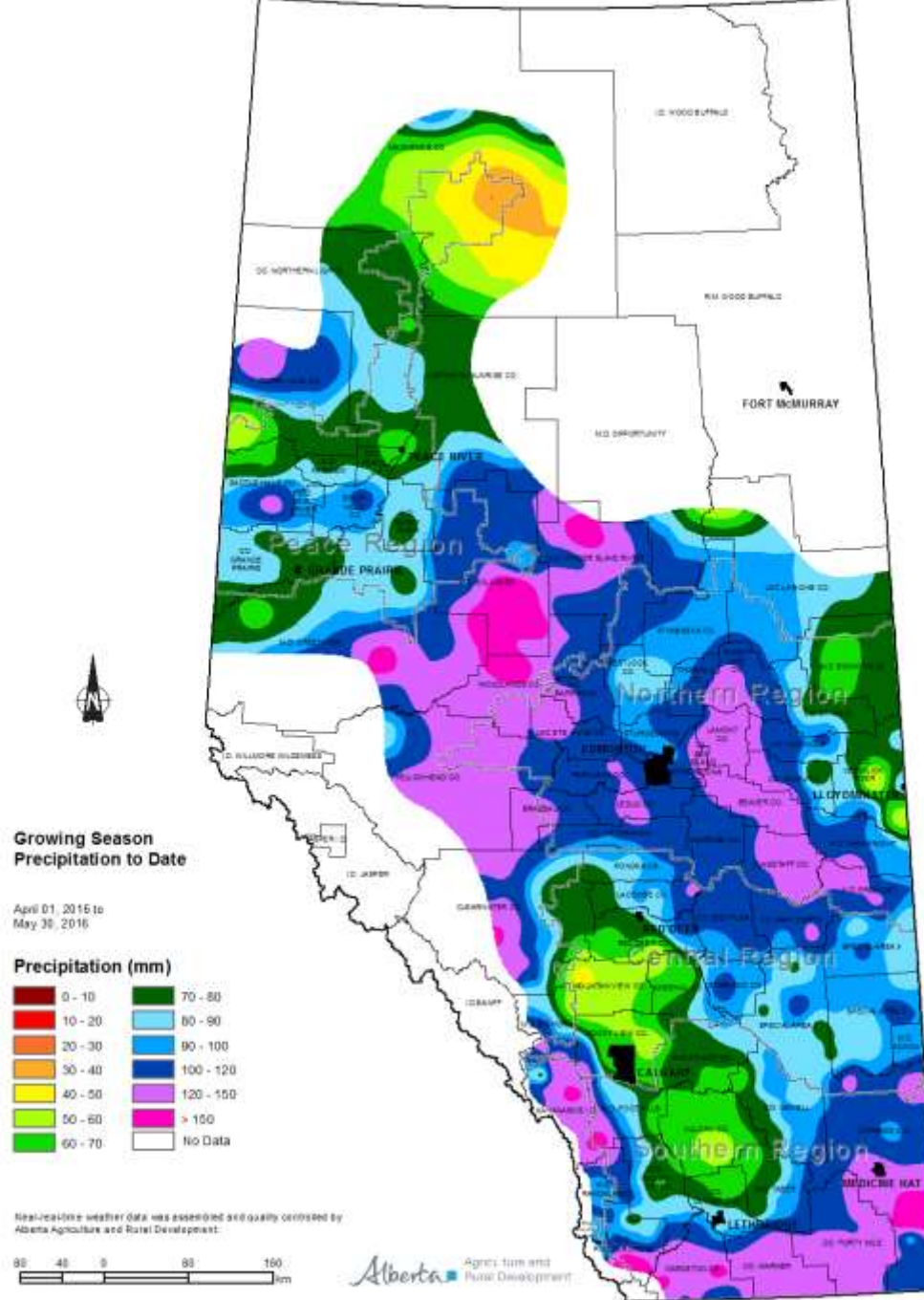


Wheat Midge Forecast 2016



Wheat Midge Forecast 2017



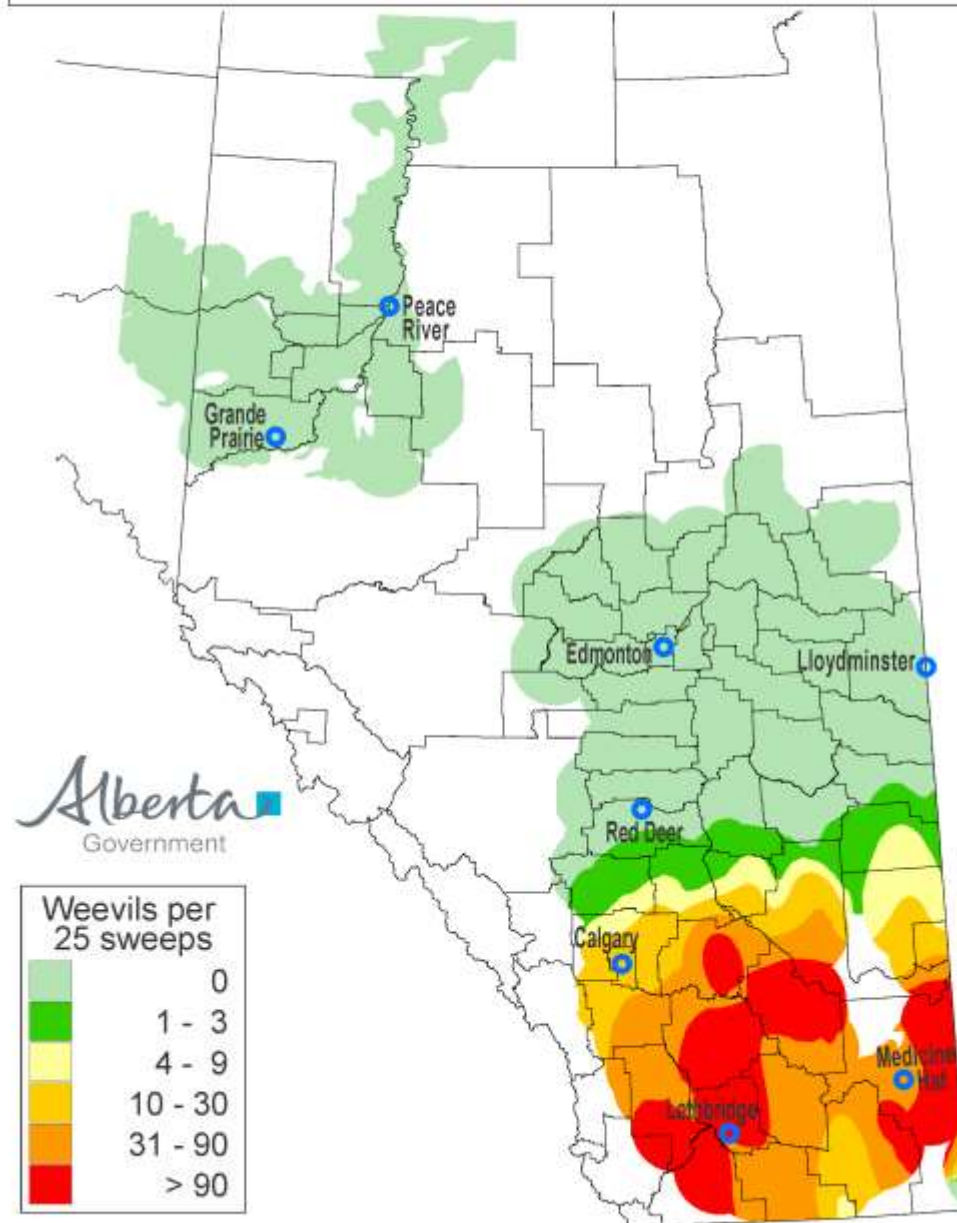


Cabbage Seedpod Weevil

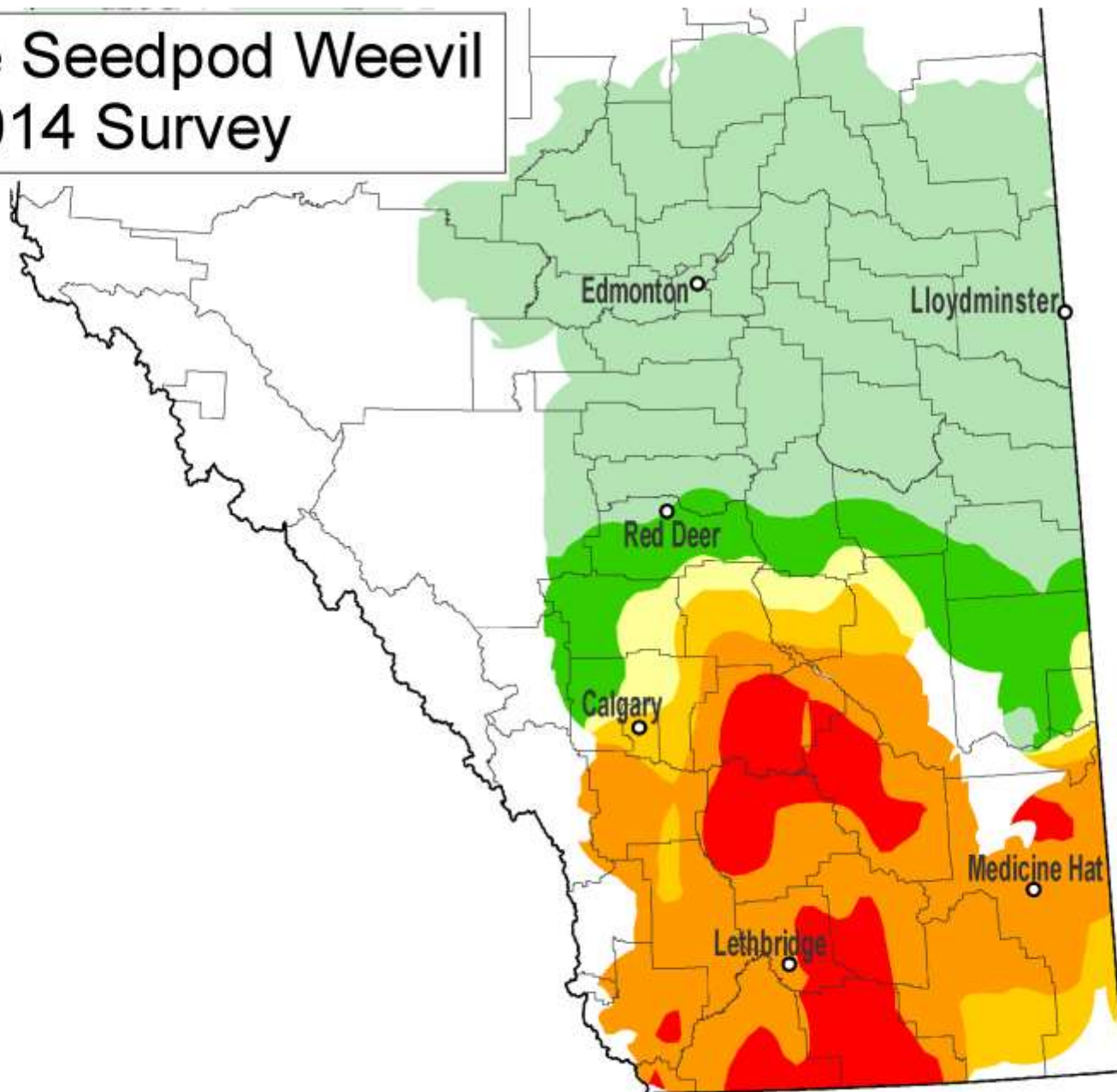
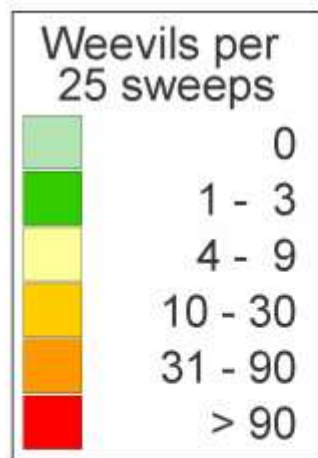
- Scout and spray at 1st flower
- Earliest fields higher risk
- Later fields lower risk
- No effective natural enemies



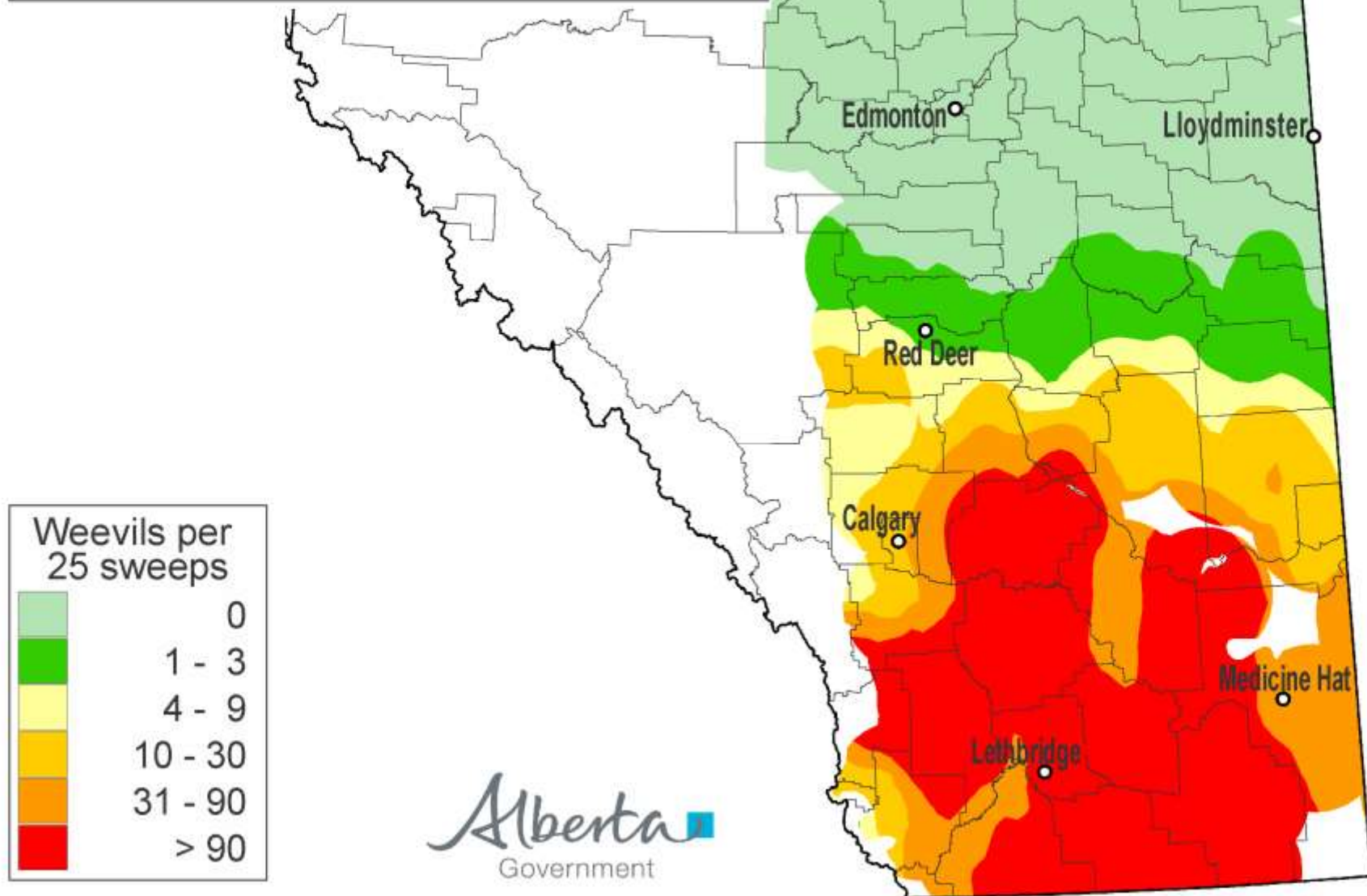
Cabbage Seedpod Weevil 2013 Survey



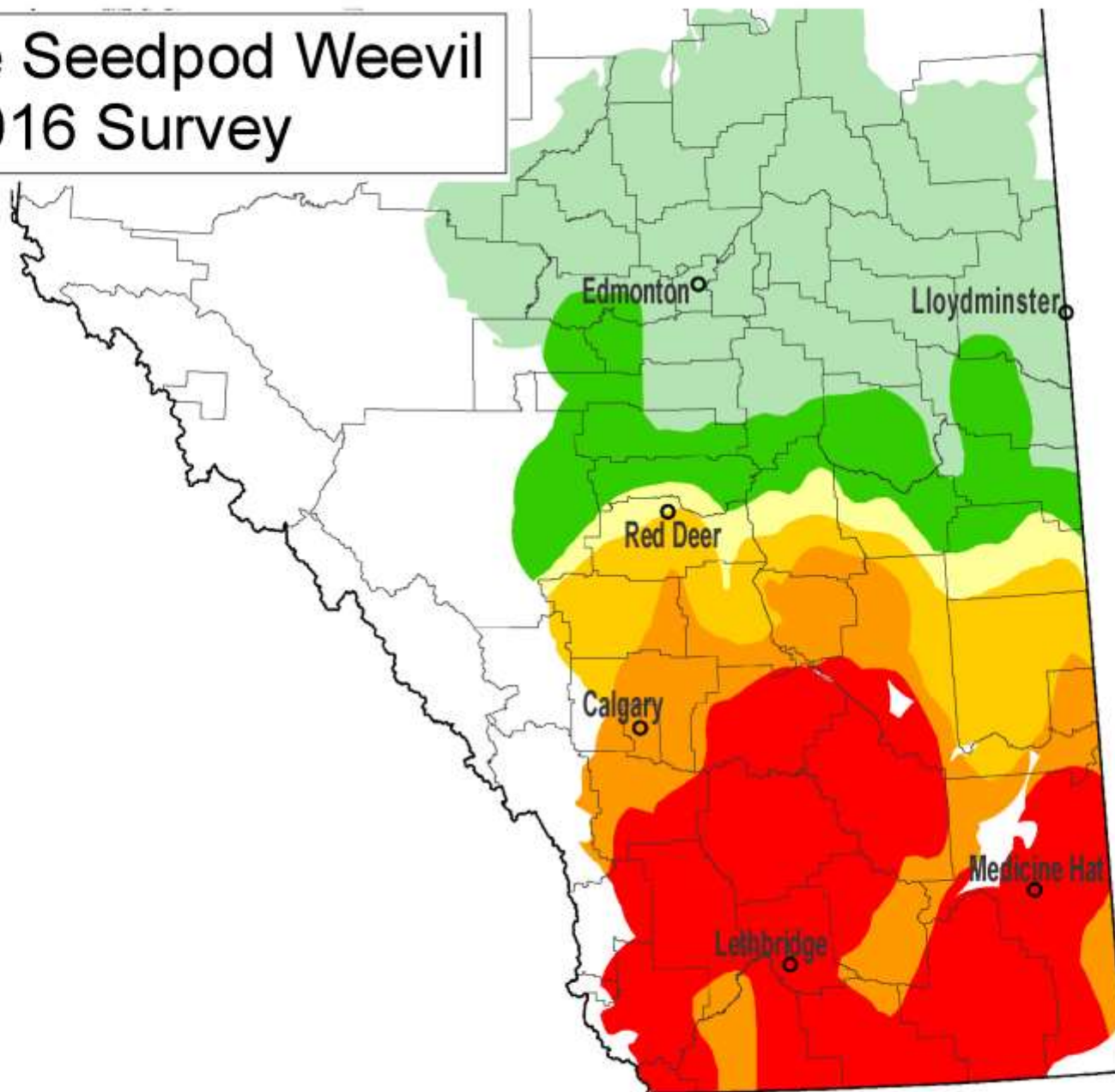
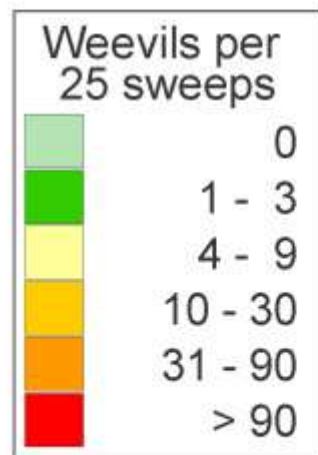
Cabbage Seedpod Weevil 2014 Survey



Cabbage Seedpod Weevil 2015 Survey



Cabbage Seedpod Weevil 2016 Survey



Pulses Bad News

- Pea Leaf Weevil
- Peas and Fababeans





Pea Leaf Weevil

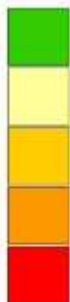
- Peas and Fababeans
- Seed Treatment
- Foliar - no yield protection



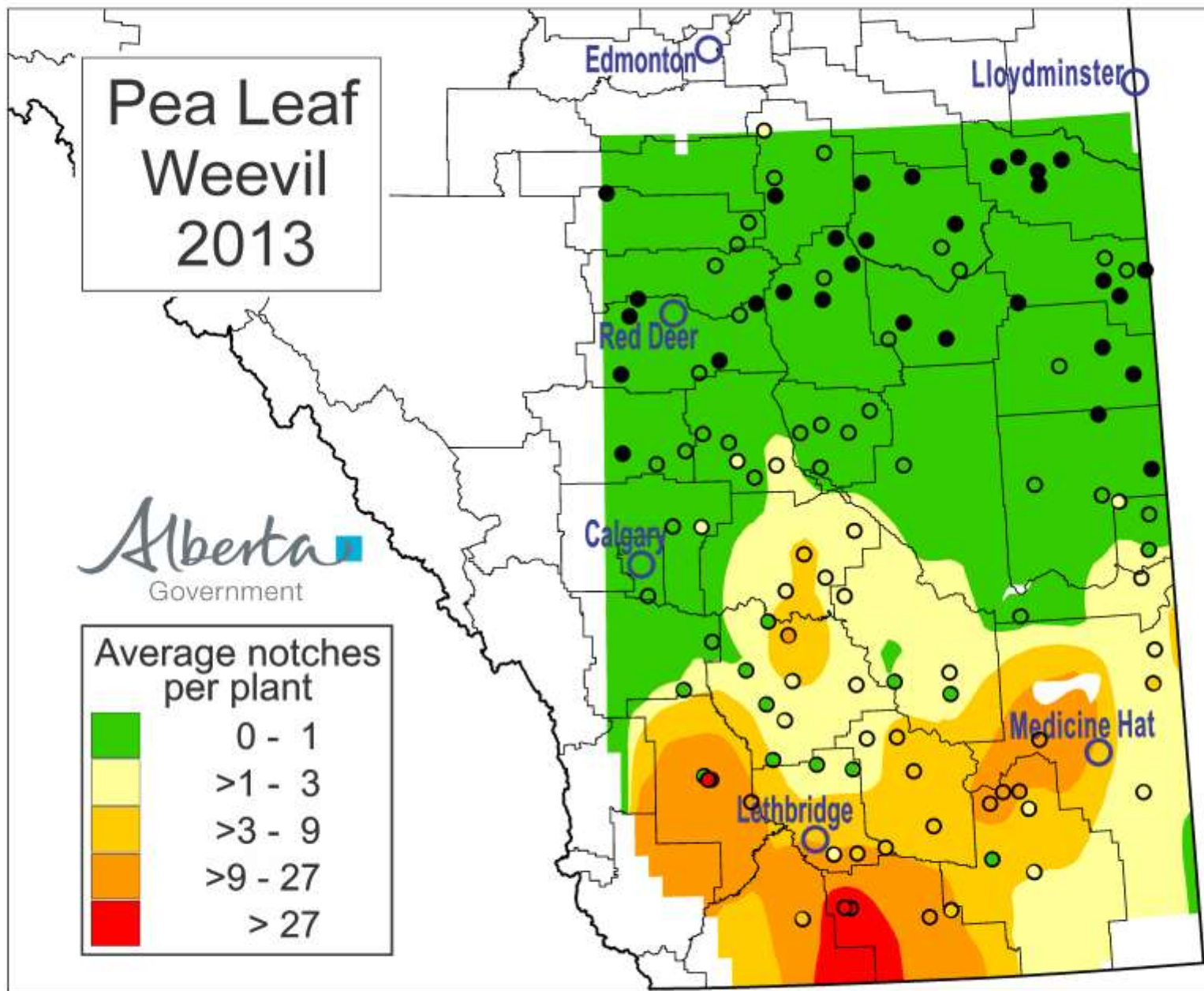
Pea Leaf Weevil 2013

Alberta
Government

Average notches
per plant



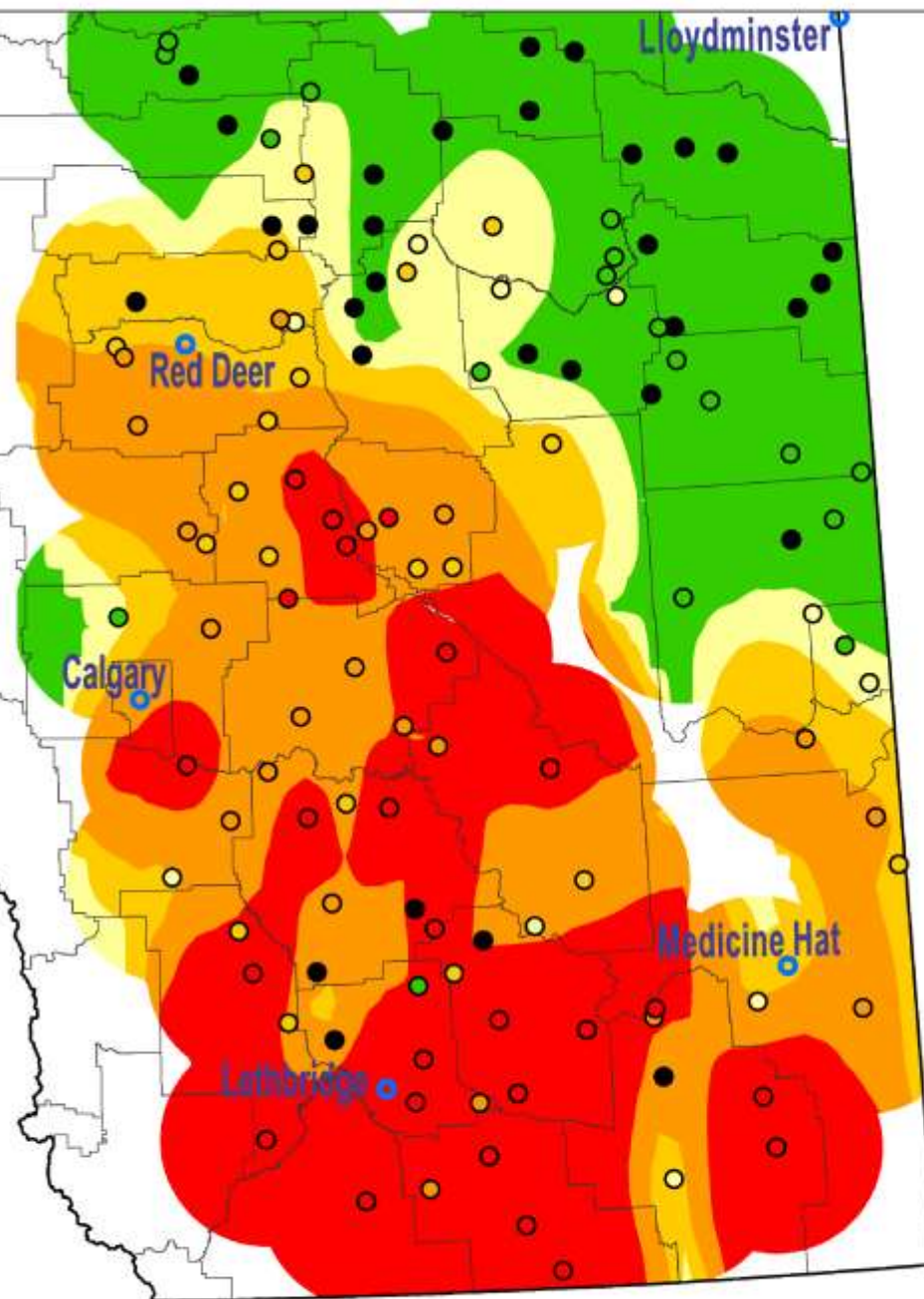
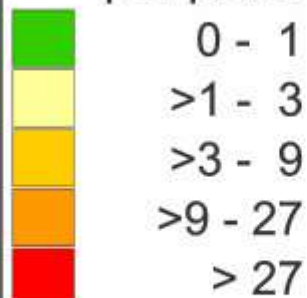
0 - 1
>1 - 3
>3 - 9
>9 - 27
> 27



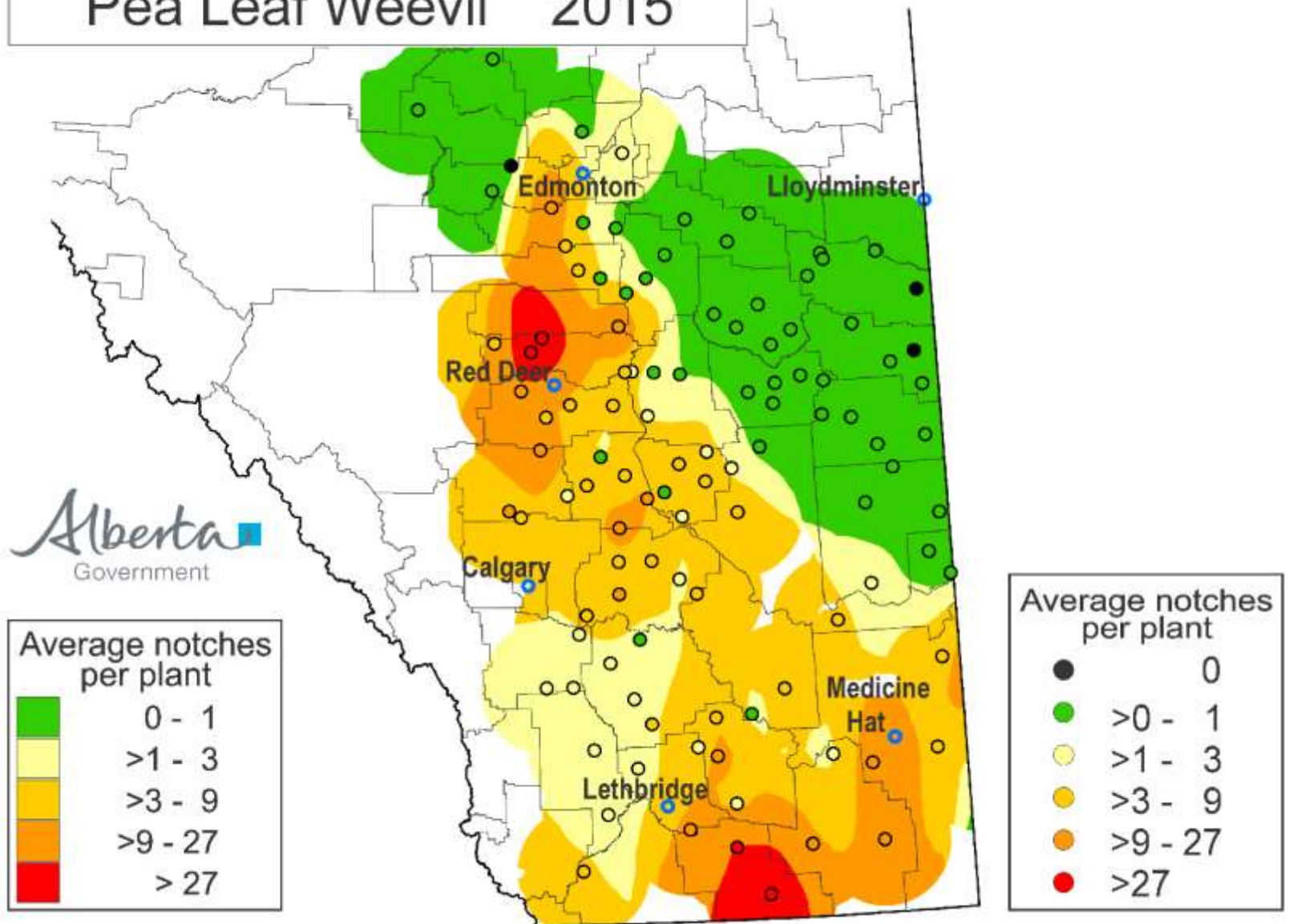
Pea Leaf Weevil 2014

Alberta
Government

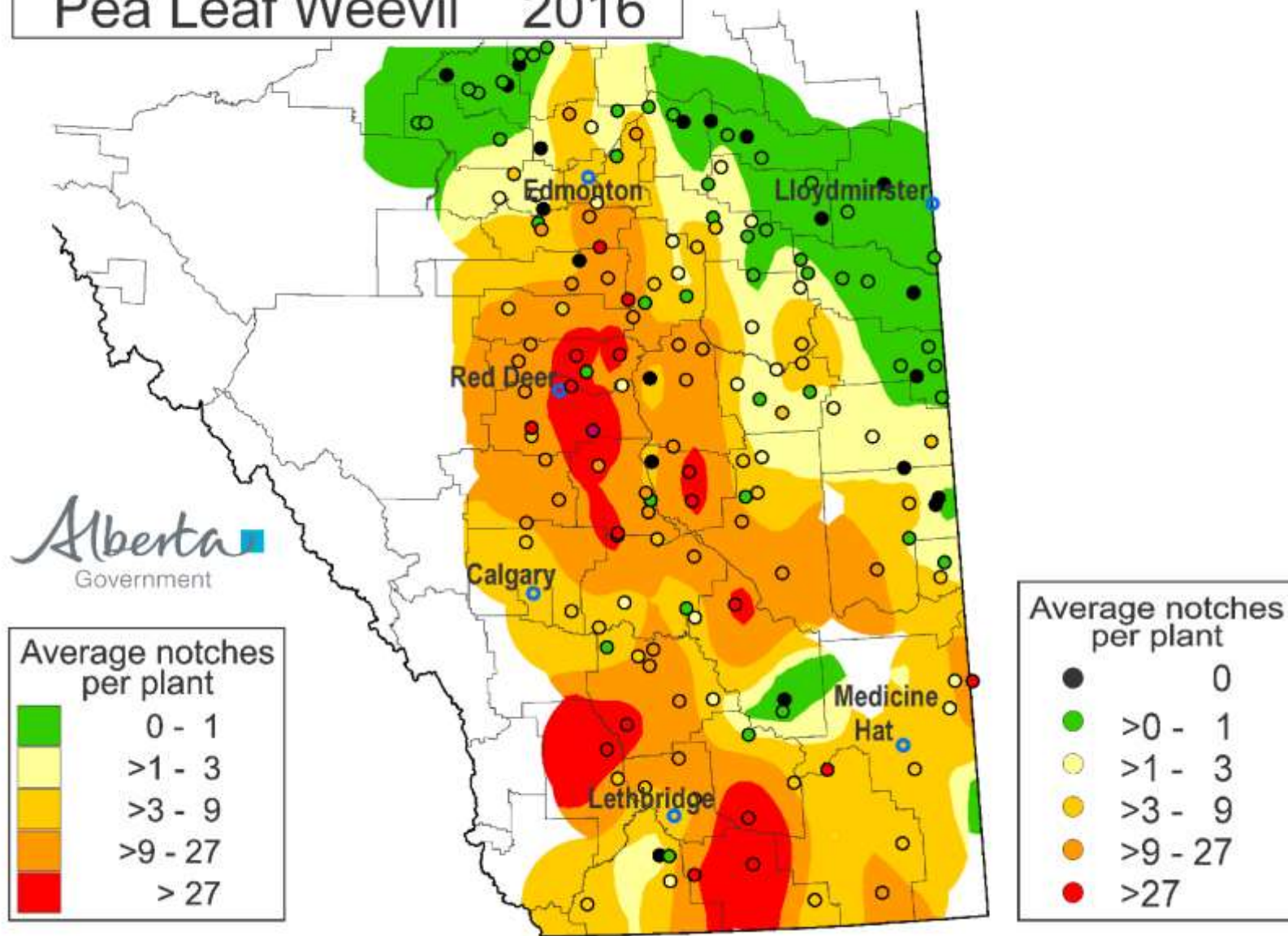
Average notches
per plant



Pea Leaf Weevil 2015



Pea Leaf Weevil 2016



Cutworm



Cutworm Tracking

- On Roping the Web
- Relies on agrologist input
- Web based (cell phone friendly) input page
- Color coded by species
- Google map
- Mapped to center of a 2x2 township area
- THE IDEA IS TO CREATE A VISUAL WARNING SYSTEM

Cutworm Survey Results [\(about\)](#)

Choose Region: [Alberta](#) [North](#) [Central](#) [South](#)



There are 47 Surveyed Locations that have Any Species

Any Species Surveyed Locations

Show:

Any Species ▼

Print

[Barrhead Location #1](#)

Peas, Red Backed

[Barrhead Location #2](#)

Peas, Dingy

[Barrhead Location #3](#)

Peas, Pale Western

[Barrhead Location #4](#)

Canola, Red Backed

[Barrhead Location #5](#)

Canola, Red Backed

[Birch Hills Location #1](#)

Other: Canola, Other: Red Backed ▼

Legend

Red Backed

Army

Dingy

Pale Western

Other

2016 Cutworm Reports

Species	Reports
Red back	46
Pale western	10
Dingy	3
Army	1
	60

2016 Cutworm Reports

Crop	Affected	Previous
Canola	38	15
Wheat	4	28
Peas	18	4
Flax	1	0
Fababean	0	2
Barley	0	10
Soybean	0	1
	61	60

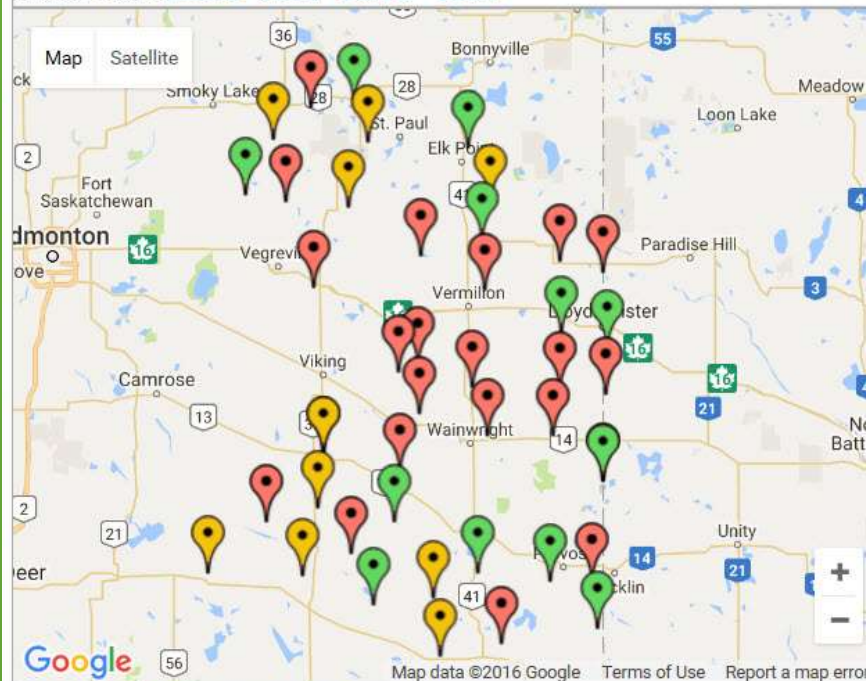
Cutworms

- Scout, scout, scout and scout
- Investigate reason for thin/bare patches
- Its all about plant stand
- Highly parasitized
- Say no to prophylactic sprays

Swede Midge – Bad News?

Swede Midge Survey Results

Choose Region: [Alberta](#) [North](#) [Central](#) [South](#)



There are 44 Locations that have All

All Locations

Show Locations with :

All

Print

[Beaver #1](#)

Suspect Damage

[Flagstaff #1](#)

Present

[Flagstaff #2](#)

Suspect Damage

[Flagstaff #3](#)

Present

[Flagstaff #4](#)

Suspect Damage

[Flagstaff #5](#)

Not Present

Legend



Low: No Swede Midge Found



Medium: Suspect Damage Due To Swede Midge



High: Swede Midge Found



New Lisgeard, ON July 25, 2013



New Lisgeard ON July 25, 2013

Bell flowers



AAFC

Swede Midge

- **BUT.....**

- Size
- Pheromone
- Damage
- Parasitism

Flea Beetles



Wireworm

- Based on previous years
- Seed treat
- Seeding date
- Seeding rate
- STAND ESTABLISHMENT



Cereal Leaf Beetle

- Seldom above threshold
- Parasitism
 - *Tetrastichus julis*
 - Releases
- 1/flag leaf



Pea Aphids

- Next Year?
 - Not hardy here
 - How far south it dies out
 - Size and timing of migration



Wheat/Barley

- English Grain Aphid
- Last 2 years
- Colonies on individual heads
- High threshold
 - 30-50 per head
- Natural enemies



European Corn Borer



Sclerotinia Maggot



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Insect Information

- <http://www.agric.gov.ab.ca>
 - Maps tab – top right hand corner
- www.agriculture.alberta.ca/bugs-pest
 - Links to related information
- In season Call of the Land with Caitlynn Reesor
 - Also available as podcasts
- Weekly email updates
- Ag Info Centre
 - 310-FARM (310-3276)
 - Harry, Mark, Neil
- Tweetchat Wednesday January 25 10:00am