



The Prairie Pest Monitoring Network and Canola Pest Update

Meghan Vankosky, Jennifer Otani, John Gavloski,
Scott Hartley, Scott Meers, and Owen Olfert,

meghan.vankosky@canada.ca



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada

Canada

Prairie Pest Monitoring Network:

- A coordinated insect surveillance program across the Prairie Provinces
 - Developed in 1990s
- Supported by:



PPMN Objectives

1. To develop and utilize standardized monitoring protocols

Monitoring Protocols

Here you can find more information about economic pests on the Canadian prairies. Note that some protocols are tailored to in-field monitoring whereas others are research protocols. All protocols include biological information, suggested monitoring methods for the pest, descriptions of the damage it causes and, whenever possible, economic or nominal thresholds to enable informed pest management decisions.

Insect Forecasting Protocols:

Bertha Armyworm (*Mamestra configurata*)

Diamondback moth (*Plutella xylostella*)

Grasshoppers (*Melanoplus sanguinipes*, *M. bivittatus*, *M. packardii*, *Camnula pelucida*)

Wheat Midge (*Sitodiplosis mosellana*)

Insect Distribution and Abundance Protocols:

Alfalfa Weevil (*Hypera postica*)

Cabbage Seedpod Weevil (*Ceutorhynchus obstrictus*)

Cereal Leaf Beetle (*Oulema melanopus*)

Lygus Bug (multiple *Lygus* species)

Pea Leaf Weevil (*Sitona lineatus*)

Swede Midge (*Contarinia nasturtii*)

Wheat Stem Sawfly (*Cephus cinctus*)

PPMN Objectives

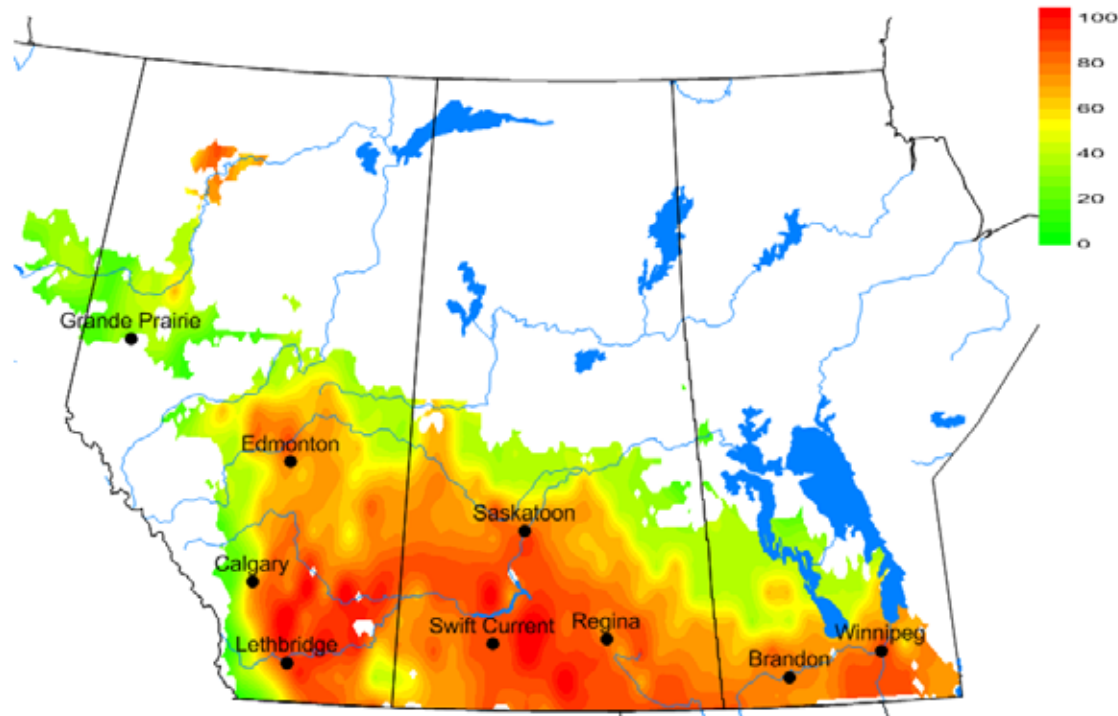
2. To monitor existing and emerging insect pest populations
 - Indigenous insect pests
 - **Grasshoppers, bertha armyworm, wheat stem sawfly**
 - Invasive alien species
 - **Cabbage seedpod weevil, pea leaf weevil, wheat midge, swede midge**
 - Migratory pest species
 - **Diamondback moth**

PPMN Objectives

3. Timely production of distribution and forecast maps
 - Weekly Updates
 - Blog Posts
 - Regional maps posted annually in early January

PPMN Objectives

4. Use modeling tools to understand interactions between the crop, insect, and abiotic factors



Percent hatch of migratory grasshopper, June 11, 2017

PPMN Objectives

5. Highlight importance of natural enemies
 - “Insect of the Week” feature on blog
 - 2017 paired pests with their natural enemies
 - Linkages with new WGRF-funded ***Field Heroes*** campaign: @FieldHeroes



PPMN Blog

Prairie Pest Monitoring Network Blog



[Home](#) [About Us](#) [Risk Maps](#) [Weekly Updates](#) [Monitoring Protocols](#) [Pest Insects](#) [Research](#) [Cutworm Field Guide](#)
[Insect of the Week](#) [Beneficials](#)

Wednesday, 22 November 2017

Update (Nov 22, 2017)

Greetings!

We've updated a few items on the Blog this week! Please take a moment to review the short series of Blog Posts put up today.

Insert e-mail then click
Submit to follow our Blog

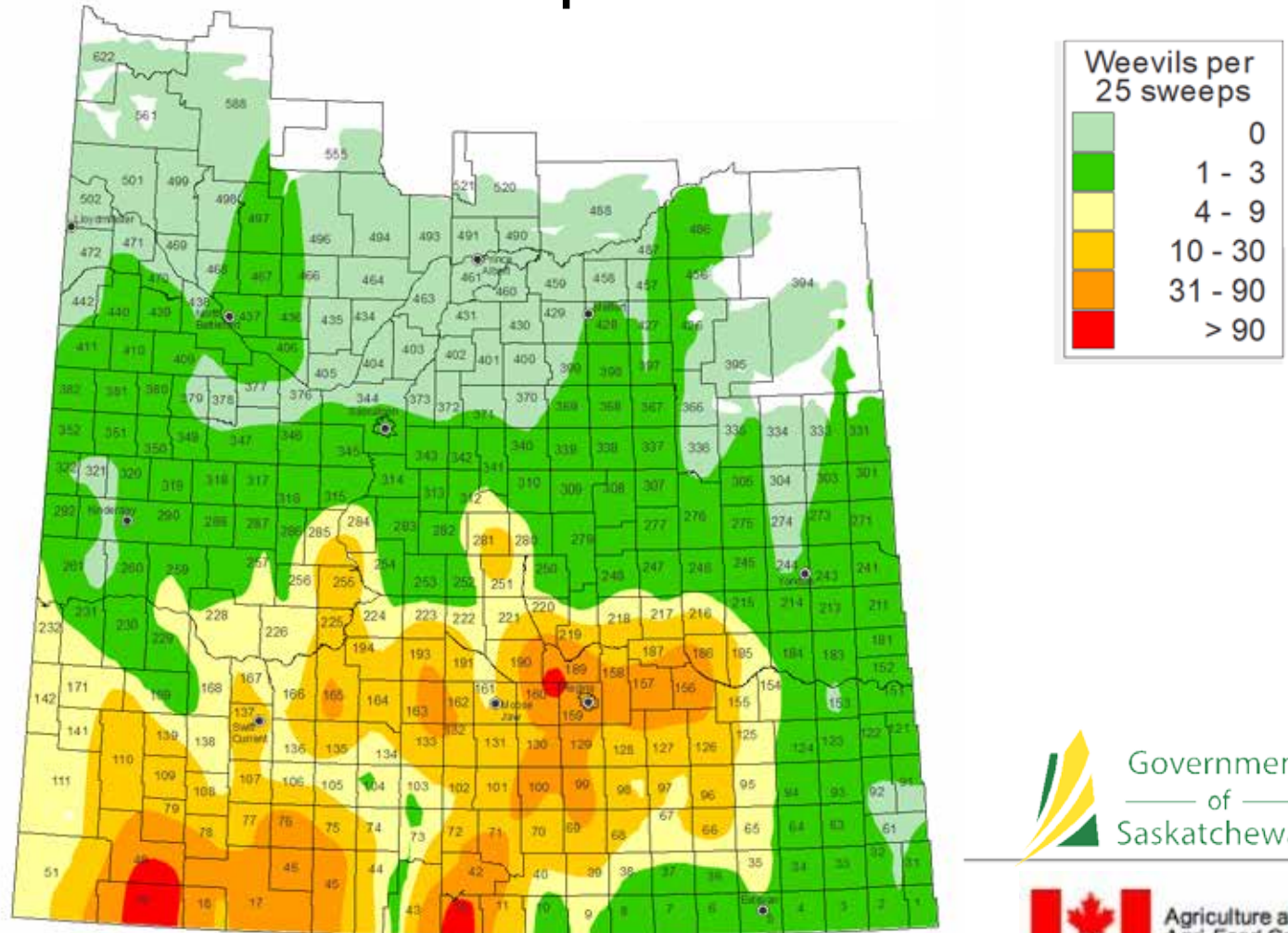
Email address

 [Subscribe in a reader](#)

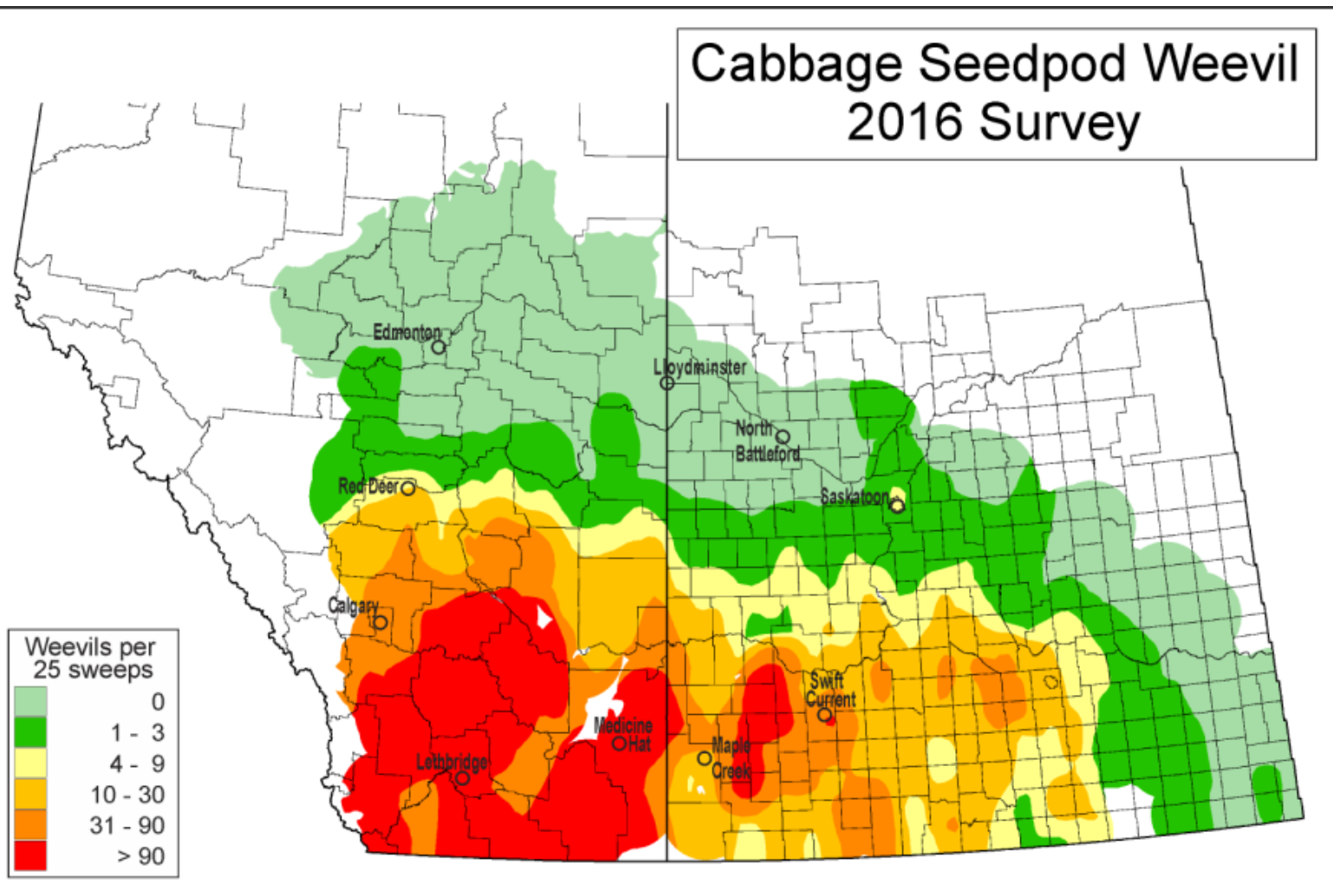
prairiepestmonitoring.blogspot.ca
[#PPMNBlog](#)

Cabbage Seedpod Weevil

- Range continues to expand north and east

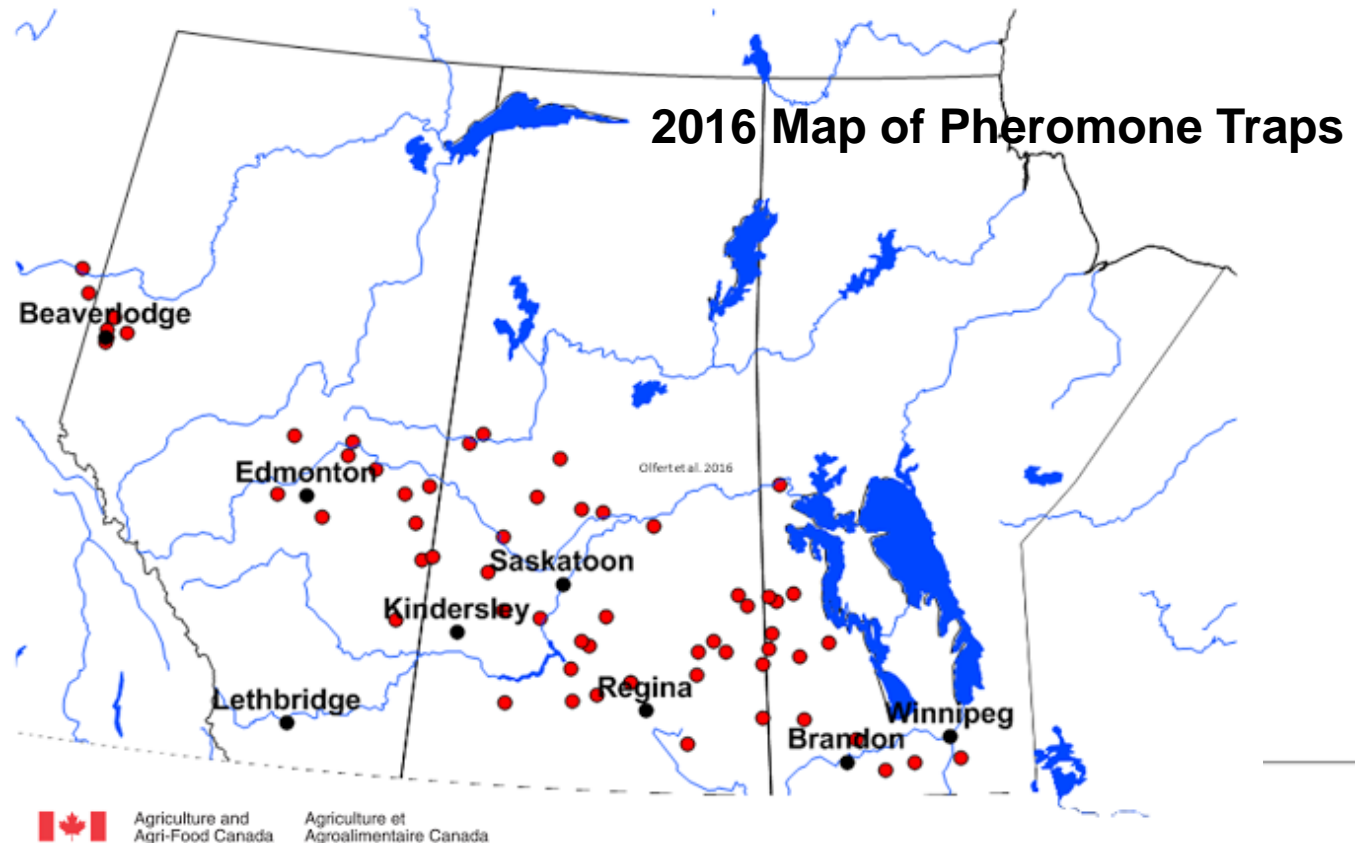


Cabbage Seedpod Weevil



Swede Midge

- No traps positive for swede midge in 2016
- 2017: trap processing underway

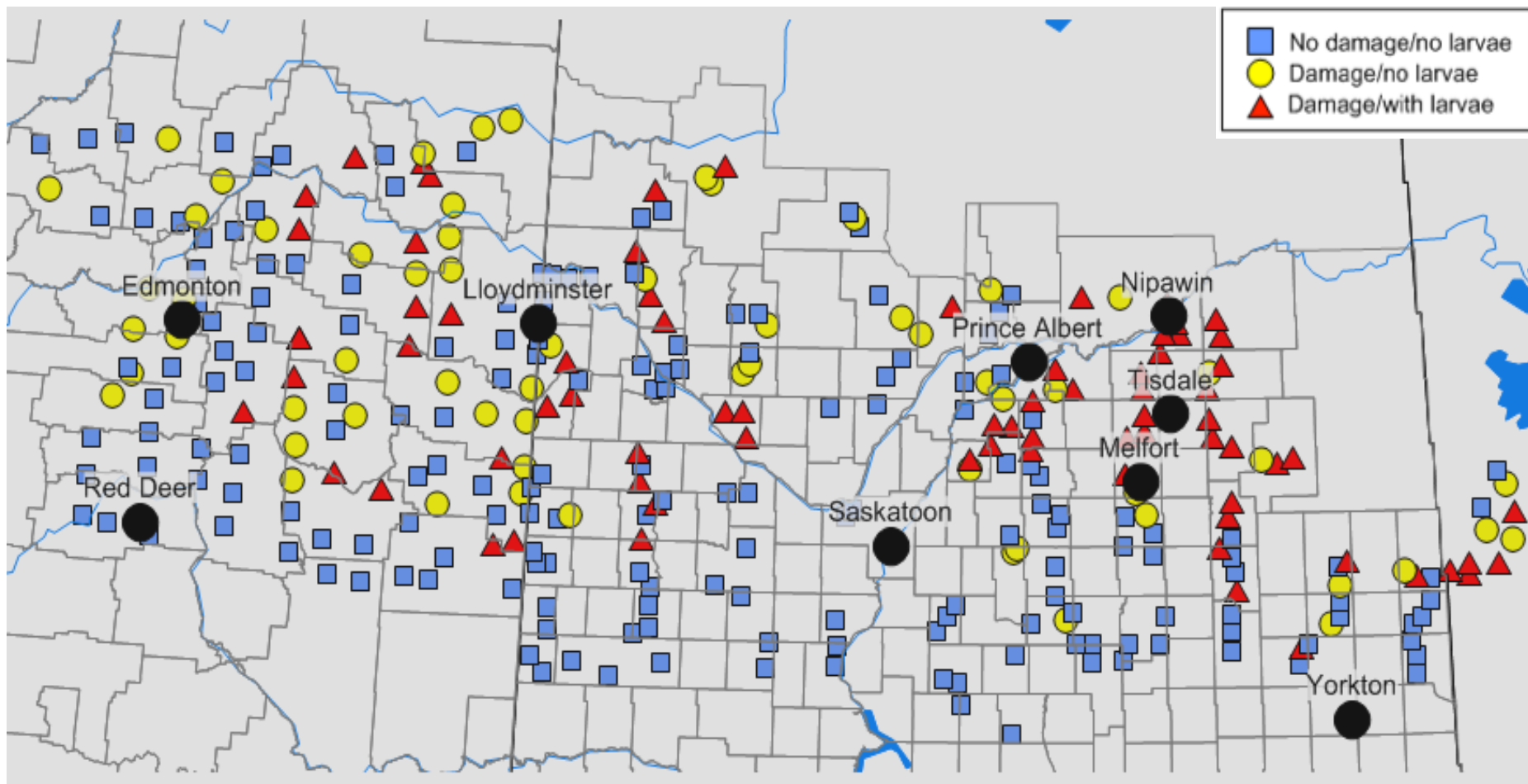




New Midge Species

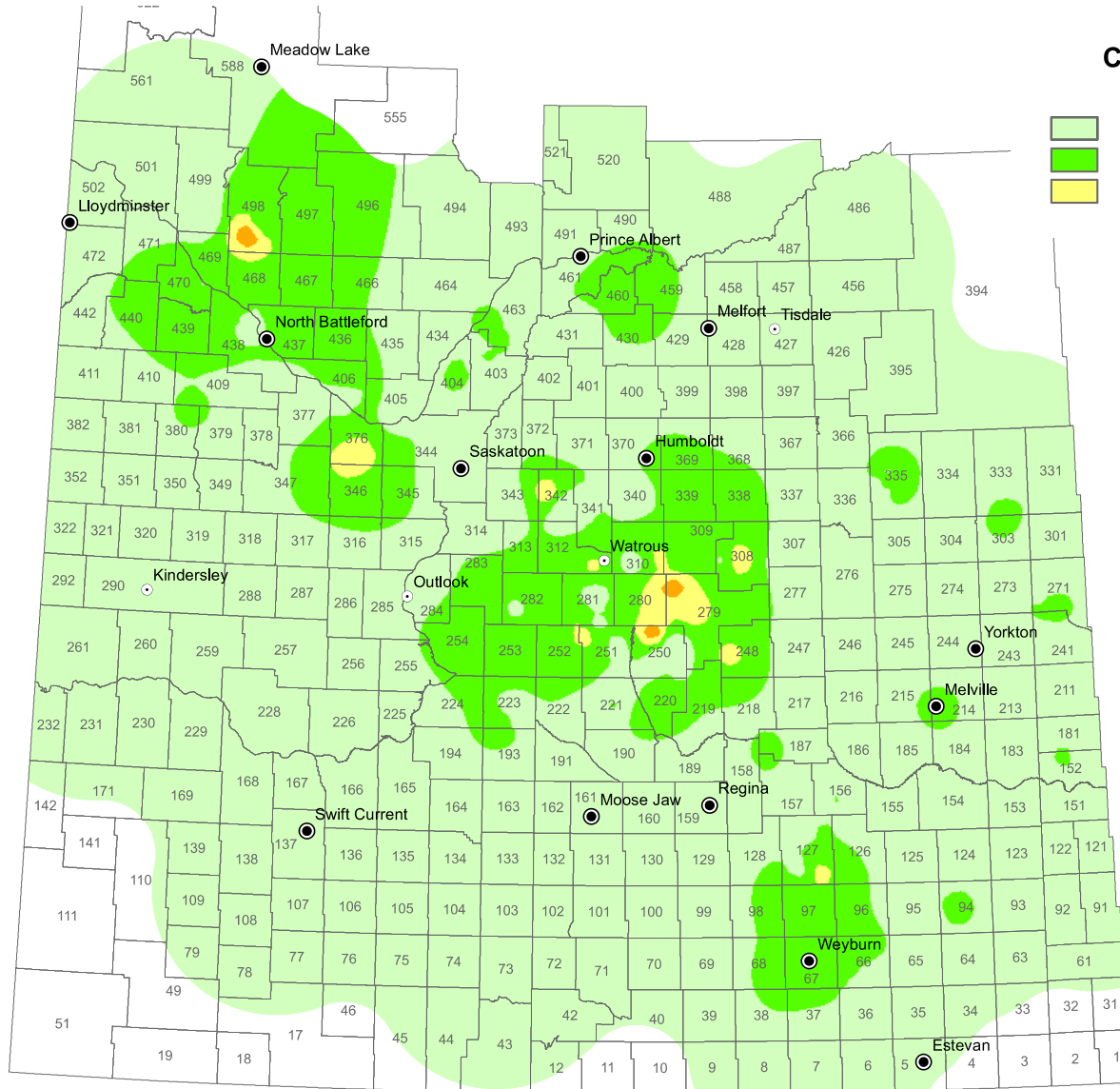


Photos: Boyd Mori, AAFC

New Midge Species



	0 - 300		901 - 1200
	301 - 600		1201 - 1500
	601 - 900		1501 +



Diamondback Moth

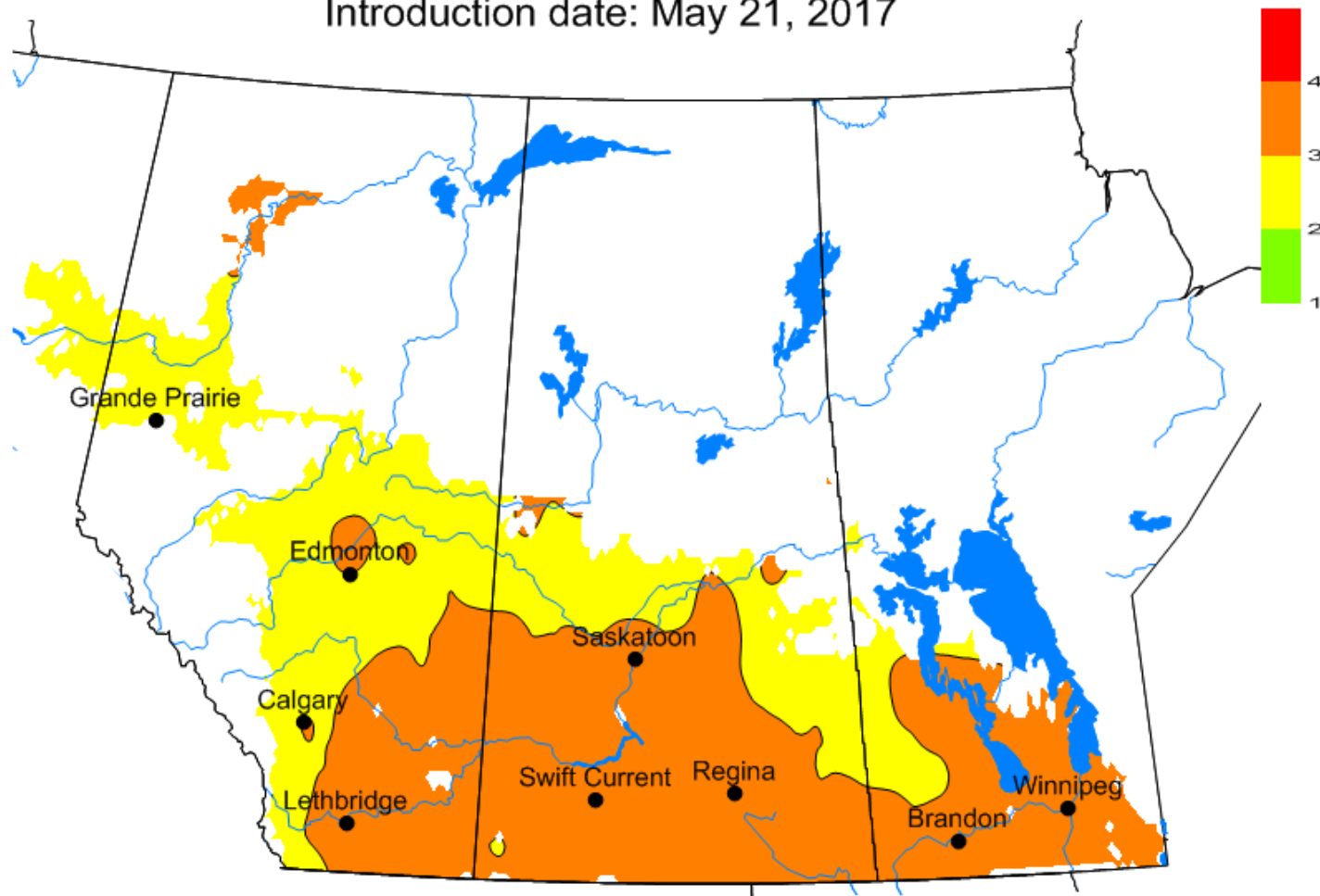
- Low pheromone trap catches in MB and SK in May and June, some areas of concern in AB
- Rather high populations observed in July and August across the Prairies

Diamondback Moth

DBM number of generations

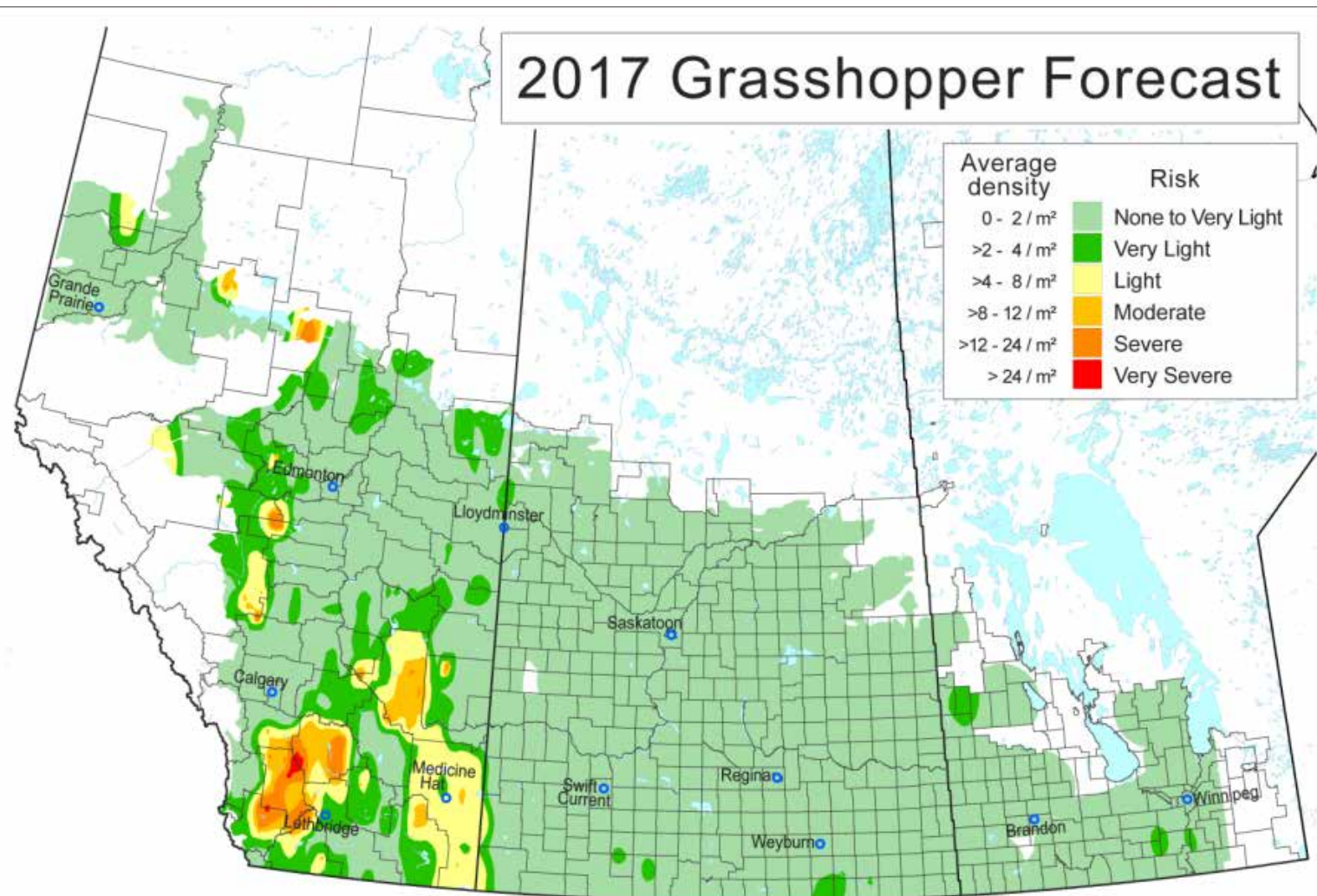
Aug 14, 2017

Introduction date: May 21, 2017



Olfert and Weiss 2017

Grasshoppers



Grasshoppers

- Low population densities in southern prairies
- High densities in **wetter northern regions** caused significant damage in 2017
 - ***Melanoplus bruneri*** (Bruner's spur throated grasshopper)

Thank you!

Acknowledgements:

AAFC staff: Ross Weiss, Nancy Melnychuk, Jon Williams, Shane Hladun, Stephanie Harris, David Giffen

Danielle Stephens, Shelley Barkely

All of our cooperators that participate in insect surveys

Funding and Support:





The Prairie Pest Monitoring Network and Canola Pest Update

Meghan Vankosky, Jennifer Otani, John Gavloski,
Scott Hartley, Scott Meers, and Owen Olfert,

meghan.vankosky@canada.ca



Agriculture and
Agri-Food Canada

Agriculture et
Agroalimentaire Canada

Canada