

Manitoba Crop Pest Update

Issue 5: June 19, 2019



Summary

Insects: Cutworms are currently the main insect issue of concern. There has been some field edges where insecticides have been applied for grasshoppers. Flea beetles are becoming less of a concern as the crop advances and the population of adult flea beetles dies.

Diseases: There's not a lot to report in the disease world this week. Check up on a minor disease of field peas and plug in to the Fusarium head blight risk forecast (and when the map might not tell the *whole* story).

Weeds: In areas that have received rainfall, there is likely to be a new flush of weeds coming and those that have sprayed may need to consider another herbicide application if weed pressure is significant. In drier areas, premature bolting may mean that growers have missed the window for weed control.

Entomology

Cutworms – Cutworms are still a concern in many areas. This year there have been some exceptionally large populations of cutworms, with a lot of insecticide applications and some reseeded because of cutworms. While redbanded cutworm and dingy cutworm seem to be the main species involved, there have been some surprises. In Manitoba we do not usually have a lot of pale western cutworm, as they normally are more abundant in the drier areas of the prairies. But there have been fields where they were commonly found. There are reports of wheat and barley in the northwest being sprayed because of pale western cutworm. What is tricky though is that insecticides do not work as well against this species of cutworm, as they are a belowground feeder, while redbanded and dingy cutworm will come above the ground to feed.



Pale western cutworm –
Photo by Dean McCowan
AGree Ag Services

When will the larvae come to an end!? I have been getting this question a lot over the past week. Cutworms are turning to pupae, and in many fields most will be larger larvae and pupae. The population of redbacked cutworms does seem quite variable from some fields still. As a general guideline, once most of the cutworms are an inch or more long they will be pupating soon and insecticides may not be needed, except in more extreme circumstances. The photo below was taken on June 17th in the eastern region.



Redbacked cutworms -
Photo by Daryl Toews

Plant Pathology

Let's talk about another crop for a change. **Field peas** hold a lot of excitement for Manitoba, as a ready source of plant protein. Processors are ramping up to capitalize on demand; acreage has taken a significant jump as a result. But considering our experiences with peas 20 some years ago ... it nearly vanished from the Red River Valley because of disease issues ... there is reason to be closely watching the 2019 crop as it grows. Peas are usually planted very early because they can rebound from frost, thanks to hypogeal germination (cotyledons stay in the ground). They have been up and away for a while.



So less than a week ago, an agronomist sends me the image on the left and asks, “Could it be [the dreaded] *Mycosphaerella* blight? It doesn’t look quite right. There’s some slimy stuff on the stems.” Turns out NO ... it was not the major fungal disease but the minor disease, **bacterial blight**. This infection likely came in on seed. I visited the field yesterday and found, as we’d hoped, that the symptoms are staying confined to the very bottom of the canopy. Frequent showers and continuous leaf wetness are the conditions that would favour advance of this disease.



Weeds

If the head is in the boot already, is there any point in spraying?

Growers might have to wait for a preharvest glyphosate application to manage any weed growth in their cereal crops once they are at early boot stage. Most labels for broadleaf weed control are up to the flag leaf stage, some pre-harvest intervals will be hard to meet if the crop continues to mature quickly and the economics of managing a few weeds in a low yielding crop are questionable.

Most pea growers are also reaching the point of no-return. Bentazon products are labelled for application prior to flowering, but the challenge typically is that the weeds are past growth stage where they can be controlled or the only herbicide option is not

one that has the weed of concern on the label (kochia comes to mind). Once again, economics will play a role in most of these decisions.

On the other side of the coin, there are still some crops that haven't progressed as quickly and need to wait. An agronomist was looking at bromoxynil in conventional corn for wild buckwheat control, and the corn isn't at the 4 leaf stage yet.

Herbicide issues:

- 1. Quackgrass control issues with glyphosate** - It is unlikely because of herbicide resistance to glyphosate. That being said, there has been a few challenges with quackgrass control this spring, growing conditions, air temperature and random frosts can impact glyphosate efficacy. Ideal stage is 3-4 leaf - but also should be actively growing. On top of that, air temperature actually has a huge impact on glyphosate efficacy. Here is a link to an MB Ag article about glyphosate for quackgrass control that shows how mid-teen temperatures are ideal for quackgrass control:
https://www.gov.mb.ca/agriculture/crops/weeds/print_temperature-and-quackgrass-control-with-roundup.html
- 2. Lamb's quarter's control issues with glyphosate** - Most labels have recommended growth stages for when to expect control of a particular weed with a particular rate of herbicide. Control decreases as plant size increases and as plants mature. We tend to underestimate the maturity of a weed when it looks small but the size of a plant does not always indicate growth stage. The number of leaves will be a more precise indicator of growth stage, although that isn't always the reference on a herbicide label.

Other factors that impact on herbicide performance:

- Dust – can inactivate herbicides such as glyphosate
- Hard water
- Leaf waxes – impact spray droplet retention and absorption
- Leaf orientation
- Dew

Forecasts

Entomology:

Diamondback moth. A network of pheromone-baited traps are monitored across the Canadian prairie provinces in May and June to determine how early and in what levels populations of diamondback moth arrive.

Table 1. Highest cumulative counts of diamondback moth (*Plutella xylostella*) in pheromone-baited traps for five agricultural regions in Manitoba as of June 19, 2019.

| Region | Nearest Town | Trap Count |
|-----------|--------------|------------|
| Northwest | Bowsman | 303 |
| | Bowsman | 273 |
| Southwest | Shilo | 21 |
| | Justice | 20 |
| Central | Altona | 33 |
| | Roland | 32 |
| Eastern | Steinbach | 166 |
| | Tourond | 81 |
| Interlake | Balmoral | 95 |
| | Gimli | 74 |

Some traps in the Northwest, Eastern, and Interlake regions have some higher numbers. Of particular note, 2 traps in the Bowsman area have cumulative trap counts over 200 moths. When canola in this region is being scouted make sure to look for diamondback moth larvae.

The first diamondback moth larvae of the year were noticed in June 14th while in canola near Carman. This first generation of diamondback moth larvae will be feeding on canola in the rosette and bud stages. This first generation is usually not of economical concern unless levels are extremely high. It is later generations that are feeding when canola is in the podding stages that have the greatest potential to be economical.

Plant Pathology:

Anyone who's following the [FHB risk forecast](#) might be alarmed to see so much of SW Manitoba shown to be in the "extreme risk" category. Should they be rushing out to line up a custom applicator? Hold the phone. There are a few factors that should help everyone keep calm and carry on with weed management and/or insect scouting.



#1. Very little crop in the province has reached the vulnerable stage. What has ... e.g. the pictured winter wheat in the RM of Two Borders (SW corner) is likely “ahead of schedule” due to prolonged droughty condition this spring.

#2. Cool nights! Over the last week, air temperatures overnight have consistently dipped below 10C. In such circumstances, we rarely see “modelled risk” translating into actual infection. It’s a “rule of thumb” that often sees winter wheat “escaping” FHB.

We should be more concerned for the vast acreage of spring wheat that is also rapidly advancing toward the vulnerable stage.

Identification Quiz (Double-Feature):

Question: This white larva was found in the soil. They wiggle and thrash around rapidly when disturbed. A lot of people are finding them this year. What is it?



Photo by Julie Gullett – Manitoba
Pulse and Soybean Growers

Answer: This is the larval stage of a fly called stiletto flies or Therevids. Larvae in this family of flies are quick and predaceous.

Question: What's that weed?



Answer: After describing the other nightshade members that we see in Manitoba, cut-leaf nightshade is starting to make an appearance. So here is a picture to differentiate the three nightshades I have come across this year:



*Nightshade leaves and fruit: from left, hairy, cutleaf and eastern black.
Source: University of Nebraska–Lincoln*

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To **report observations** on insects, plant pathogens, or weeds that may be of interest or importance to farmers and agronomists in Manitoba, please send messages to the above contacts.

To be placed on an **E-mail list** so you will be notified immediately when new Manitoba Crop Pest Updates are posted, please contact John Gavloski at the address or numbers listed above.