

# Manitoba Crop Pest Update

## Issue 3: May 26, 2021

### Summary

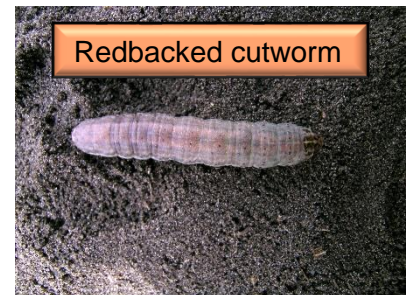
**Insects:** Some cutworm and flea beetle populations are being monitored carefully to decide if control is necessary.

**Diseases:** Be on the lookout for seedling diseases. They are beginning to appear.

**Weeds:** A lot of crop has emerged putting an end to our burnoff sprays. Recent rains have spurred both crop and weed growth, keep scouting to get an idea of what's in your field as in-crop spraying is soon starting. Watch staging for peas, in-crop products need to be on by the six node stage for crop safety. Send in weed pics if you come across something you're unsure of!

### Entomology

**Temperature and Cutworm and Flea Beetle Control.** With the recent cool temperatures, some have been wondering how this may impact cutworm and flea beetle control. When making management decisions regarding cutworms, note that although they are adapted for feeding under cool evening conditions, they will not likely be very active when temperatures get close to 0°C, and management under such conditions would not be ideal.



Flea beetles feed most aggressively on warm, calm and dry days. As a general guideline, when the daytime high temperature is below about 15°C, or it is very windy, flea beetles will likely be less active. If you do need to apply foliar insecticides for flea beetles, and are using a pyrethroid insecticide (where there are high temperature restrictions), the ideal day for control would be when it is between about 15 and 25°C, and not too windy or humid.

**Re-gift your cutworms:** Roughly 200 cutworms are required for a research trial on controlling cutworms. If you come across a field with a lot of cutworms, and don't mind some of them being taken from the field, please contact John Gavloski (see bottom of report for contact information) so a sample can hopefully be collected for the project.

**Sending Photos for Identification:** When submitting photos of insects, plant pathogens, weeds, crop damage, etc. for specialists to identify, please remember to attach information to help with the diagnosis. The minimum that should be provided is the following four items:

- where was it found (what crop, in soil, etc.),
- location (nearest town),
- date found or photo taken,
- your name (sometimes this is not obvious from an Email address).

The more information to help with the identification the better. If you submit something with no information, other than asking “what is this”, you are likely to get a reply back asking for more information. Photos from different angles can help with identification (ex – for insect photos details from the back, side and head, if possible, can help with the identification).

Emails of photos and requests for identification are much easier to process than texts. It is easier to work with the photos and to reply to the request. If you do send a photo as a text, you still need to include the required information. We need this for the forms that need to be completed for diagnostic requests. Your cooperation with these guidelines is appreciated, and will help us process the requests.

## Plant Pathology

### Crops are Jumping – Any Diseases Yet?

Last week we discussed disease potential in crops experiencing prolonged dry conditions. Thankfully, that situation has changed in most locations throughout Manitoba. One day of real heat last week (upper 20s C) and significant rainfall over the May long weekend led to many crops emerging and/or growing rapidly.

This picture illustrates the stages of crops that I am growing at MB ARD’s site at the U of M Research Farm here in Carman:

Peas were seeded first on April 30th and they are between one and two leaf nodes. Canola, wheat and flax went in next on May 5th. Oats, barley and two type of edible beans were seeded May 11th. And finally, soybeans and oilseed sunflowers went in the ground a week ago. They have just imbibed and cracked their seed coats.



Any disease observed yet? So far only one – net blotch on

untreated Harrington barley. This was an old favourite variety among maltsters, but notoriously susceptible to that disease. This is a good reminder that many disease can be seed borne, especially if untreated. We shall see if any loose smut appears later in the season.

From the field today, I received some intriguing pictures from an agronomist who was seeing wheat that was looking limp and weakened. It had been in the ground since April 28th; seeded at proper depth but emergence delayed by dry surface soil. This seed, too, was untreated.

When inspecting the roots of wheat or barley at the seedling stage, always rub away the coleoptilar sheath from the sub-crown internode. Once it has done its job, to get the first leaves out of the ground, that sheath browns and breaks down naturally. If there is brown discoloration on the s/c internode though, you may have a disease such as common root rot setting in.



Photo credit: Amber Knaggs,  
Croptimistic Technologies

## Weeds

### What is this weed? Horsetail? Scouring rush?

Both of those weeds are members of the Horsetail (Equisetaceae) family. These are ancient perennial plants that reproduce by spores and deep creeping rootstocks, with tiny leaves in a ring around the nodes. Manitoba is home to 13 different species, many of which are in the north, but field horsetail (*Equisetum arvense*) and scouring rush (*Equisetum hyemale*) are two that we see in our fields. Field horsetail has two forms, either unbranched reproductive stems with a spore-producing cone at the top or sterile stems that have many branches in whorls at the nodes (they look like little Christmas trees). Scouring rush has only a single unbranched stem ending in a spore-producing cone. Scouring rush has dark bands at the nodes, and the spore-producing cone has a pointy tip. Field horsetail is well adapted to wet areas, while scouring rush tends to be found in drier areas. These plants have high silica content, and field horsetail is considered poisonous especially to horses and sheep.



The left and central pictures are the reproductive and sterile forms of field horsetail, while the picture on the right shows the pointy tip and black bands of scouring rush.

Regardless whether its field horsetail or scouring rush, these plants are hard to kill (see page 78 of the 2021 GCP under Special Weed Problems). The leaves are very small with most herbicide absorption through the stem, and the extensive root system makes it difficult to eradicate. In-crop options are limited to MCPA, other herbicides may turn plants black for a while but they bounce back and keep growing. Anecdotally the Arylex active (halauxifen) has been reported to work well on these plants. I would suggest trying a product with both Arylex and MCPA in wheat and barley, but in-crop options in other crops may only set these *Equisetum* species back temporarily and won't control them.

## Forecasts

**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. In spite of some strong south winds, diamondback moth counts have been quite low so far. Most traps have not caught any moths. Sixteen out of 88 traps have caught moths, but the highest count so far is eight. As we approach the end of May, no traps have reached double digit counts yet.

Table 1. Highest cumulative counts of diamondback moth (*Plutella xylostella*) in pheromone-baited traps for five agricultural regions in Manitoba as of May 26, 2021.

Region	Nearest Town	Trap Count
Northwest	The Pas	8
	Dropmore	2
	Shell Valley	2
	Russell, Merridale, Grandview	1
Southwest	Douglas	1
	Douglas	1
Central	Austin	1
Eastern	Beausejour	6
	River Hills	5
	Hadashville	4
	Stead	3
Interlake	Selkirk	5
	Arborg	2
	Clandeboye	1

← Highest cumulative count

Only 2 moths in total out of 19 traps reporting in Southwest.

1 moth out of 30 traps reporting in the Central region

Highest counts in each region and a monitoring summary are updated twice weekly (Fridays and Tuesdays) on the Insect Page of the Manitoba Agriculture and Resource Development website at: <https://www.gov.mb.ca/agriculture/crops/insects/diamondback-moth-forecast.html>

## Identification Quiz:

**Question:** These tiny little beetles can often be seen running around on the soil surface early in the season. If we looked carefully at the soil we would often see them when out doing ratings for flea beetle damage. What are these beetles? And what are they feeding on?



Photo from H. Goulet  
– AAFC (retired)

**Answer:** These are a species of ground beetle called *Bembidion quadrimaculatum*. They are often found quickly crawling along the soil surface. Ground beetles are highly diverse, 983 species in Canada, and generally beneficial. This species of ground beetle is known to feed on a variety of potential crop pests including soybean aphid, aphids in cereals, black cutworm, wheat midge larvae, pea leaf weevil eggs, onion maggot (eggs and larvae), millipedes, and even weed seeds.

Given the many beneficial attributes of this species, having a lot in the field is good. Another reason to monitor fields, use economic thresholds where provided, and minimize unnecessary or “insurance applications” of insecticides.

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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.