Issue 11 – July 31, 2024

Manitoba Crop Pest Update

Seasonal Reports Weekly Weather Maps Insects

Summary

Insects: **Twospotted spider mites** have become noticeable along the edges of some soybean fields in the Eastern, Interlake and Central regions. Some spot spraying along the outside rounds has occurred in the Eastern region. Some high levels of larvae of **bertha armyworm** have been found in some canola fields near Sidney and south of Gladstone in the Central region. There have been reports of spraying for **Lygus bugs** in confection sunflowers in the Eastern region. **Aphids** have been noticed in some of the small grain cereals, but so have natural enemies such as lady beetles, and aphid mummies (evidence of parasitized aphids) are noticeable in some fields. There have been no reports of spraying for aphids in cereals,

Weeds: Dry conditions have made it possible to access low-lying hay and pasture areas that are typically too wet. Keep an eye out for poisonous plants such as water hemlock in hayfields. Cattle are more at risk of consuming harmful plants when they are dried and mixed in with hay. For more information go to: StockTalk April 11 or https://www.gov.mb.ca/agriculture/crops/seasonal-reports/pubs/water-hemlock-vs-water-parsnip.pdf. Herbicide resistant weeds are noticeable now particularly kochia and waterhemp escapes.

Entomology

Bertha Armyworm

While scouting canola, have a look on the ground to see what populations of bertha armyworm may be like, particularly if you are seeing either defoliation to the leaves or pods with holes chewed in them. Counting larvae on the ground is the technique that is used to assess whether levels of bertha armyworm may be economical in canola.

One of the tricky things when scouting for bertha armyworm is that the larvae can have several colour forms. Note the various colour forms in the photo to the right.

Bertha armyworm larvae

For accurate larval estimates in a crop, sample at least five locations a minimum of 50 metres apart, although sampling more locations will result in more accurate estimates. Do not sample headlands (20 metres wide) and areas within the crop that are not representative of the field. At each location:

- Mark out an area of one quarter of a metre square (50cm X 50cm). A 3-sided frame can be used to define the area to be sampled.
- Shake the plants growing within that area to dislodge any larvae remaining on the plants.

Report compiled by John Gavloski, David Kaminski, Kim Brown
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• Then count the number of larvae in the 1/4 square metre area. It is important to take your time while counting larvae. Carefully search the soil and leaf litter. The larvae are difficult to see and may be hidden underneath clumps of soil, in cracks in the soil, or within curled leaves. Multiply the number counted by 4 to get the number per square metre. Use the average number of larvae at the sites surveyed within each field to determine if the economic threshold has been exceeded and an insecticide is necessary.

It is important to monitor larval numbers in each field. Adjacent fields may have very different larval densities, depending upon how attractive the crop was when the moths were laying their eggs

More information in the biology, scouting technique, a table with economic thresholds, and management options for bertha armyworm can be found in the following factsheet: https://www.gov.mb.ca/agriculture/crops/insects/pubs/bertha-armyworm-factsheet.pdf

Spider Mites on Soybeans

Spider mite populations are often higher when conditions have been hot and dry for a sustained period of time, and are often first noticed near field edges. Frequent rain and cool weather can reduce mite populations in soybeans by facilitating the development of fungi that infect the spider mites.

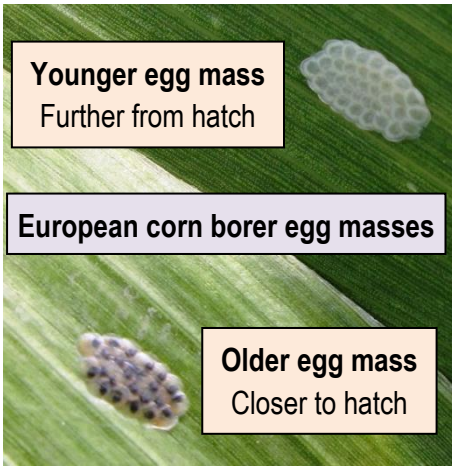

Spider mites on soybean

Spider mites are small (about 0.4 mm), so tapping the leaves over something that the mites can easily be seen on may help in determining their presence and levels.

The **stages** of soybeans that are most susceptible to spider mites are the R4 (full pod) through R5 (beginning seed – when seeds are filling) stages. Once the soybeans reach R6 (full seed or green bean stage) the feeding from spider mites will have less impact on yield.

European Corn Borer – Looking for Egg Masses

Now is a good time to be looking for the egg masses and young larvae of European corn borer on corn, hemp, quinoa, potatoes and other crops that are hosts of European corn borer. The first report of European corn borer eggs was from July 9th, but there still may be egg masses being laid or young larvae present. After hatching, larvae will migrate to the whorl to feed. The first two instars feed within the whorl and cause shothole and windowpane damage. The first two instars complete development in seven to ten days. The third instar larvae



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bores into the stalk or stem of their host plant. Once inside the stem, it is too late to achieve effective chemical control.
For information on the biology, scouting techniques, thresholds and management of European corn borer, Manitoba Agriculture has a recently revised factsheet: european-corn-borer-factsheet.pdf (gov.mb.ca)

I am also **looking for European corn borer egg masses or larvae** for a study on European corn borers by the University of Guelph. If anyone does notice a lot of egg masses or larvae of European corn borer, please let me know (see contact information for John Gavloski at the end of the update). Corn borer eggs or larvae collected will help us verify what strains of European corn borer are present in Manitoba, and determine if resistance to Bt corn is developing in our Manitoba populations.

Weeds

Testing for Herbicide Resistant Weeds

Testing is available for suspected Group 14 resistant kochia. Contact me to set this up, I need a small amount of fresh plant tissue. Testing is also available through Manitoba Agriculture for suspected waterhemp. We can identify the Amaranth species and test for resistance to several herbicide groups. I need a small amount of fresh plant tissue, contact me to arrange for sample pick up.

Forecast

Bertha Armyworm

The population of adult moths of bertha armyworms are being monitored during the flight and egg-laying period in June and July using pheromone-baited traps. Bertha armyworms have been found in all 83 traps that counts were reported from so far. Cumulative counts remained in the low risk category in most traps (75 of the 83 traps), however traps near Makaroff and Durban in the Northwest region, Kenton and Whitehead in the Southwest region, Carman in the Central region, and Broad Valley, Lundar, and Pleasant Home in the Interlake region have increased into the uncertain risk category.

The highest cumulative trap count so far is 506 from a trap near Makaroff in the Northwest region.

Table 2. Highest cumulative counts of bertha armyworm (*Mamestra configurata*) in pheromone-baited traps for five agricultural regions as of August 1, 2025.

Region	Nearest Town	Trap Count
Northwest	Makaroff	506
	Durban	326
	Dropmore	259
	Swan River	219
	The Pas	142
Southwest	Kenton	449

← Highest cumulative count

0-300 = low risk
300-900 = uncertain risk
900-1,200 = moderate risk
1,200+ = high risk

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	Whitehead	317
	Shoal Lake	218
	Rapid City	214
	Metigoshe	195
Central	Carman	375
	St. Claude	206
	Cypress River	173
	Emerson	169
	Baldur	168
Eastern	Ste. Anne	95
	Tourond	83
Interlake	Broad Valley	334
	Lundar	327
	Pleasant Home	317
	Arborg	180
	Warren	135

Highest counts in each region of Manitoba and a monitoring summary are updated weekly on the Insect Page of the Manitoba Agriculture website at: https://www.gov.mb.ca/agriculture/crops/insects/pubs/bertha-armyworm-monitoring.pdf

Information on the biology of bertha armyworm and monitoring larval levels can be found at: https://www.gov.mb.ca/agriculture/crops/insects/pubs/bertha-armyworm-factsheet.pdf

True armyworms

Larvae of armyworms (*Mythimna unipuncta*), sometimes also called true armyworms, can cause significant feeding injury to cereals and forage grasses when levels are abundant. Adult moths of armyworms migrate to Manitoba in the spring from overwintering sites from the southern US. A network of pheromone-baited traps are being monitored from early-May until late-July to determine how early and in what levels populations of armyworms have arrive.

Armyworm moths have been caught in all 32 traps. The highest cumulative counts so far have been in the Interlake region, where there are three traps with cumulative counts above 200, and a trap near Riverton exceeding 400. All three traps in the Eastern region have cumulative counts ranging from 88 – 212. In the Southwest region counts have been lower; there are three traps with cumulative counts above 40.

Table 3. Highest cumulative counts of armyworms in pheromone-baited traps for agricultural regions in Manitoba as of July 30, 2025.

Region	Nearest Town	Trap Count	
Southwest	Brandon	53	
	Pierson	49	
	Lyleton	44	
	Isabella	29	
	Birtle	14	
Central	Arnaud	37	
	Ermerson	3	
Eastern	Kleefeld	212	
	New Bothwell	163	
	Greenland	88	
Interlake	Riverton	407	← Highest cumulative count
	Famnes	308	
	Washow Bay	273	
	Zbaraz	144	
	Fisher Branch	64	

Those scouting cereals and forage grasses may want to check to see what armyworm larval levels are like in their fields. Armyworm larvae have been noticed in some fields, and some fields of small grain cereals and forage grasses in the Interlake, Eastern and Central regions have been sprayed for armyworms.

A map showing armyworm counts from Manitoba, Eastern Canada, and several Northeast U.S. states is available at: https://experience.arcgis.com/experience/7164d23d488246d198dcf7a07d8c9021/page/Home/?views=Welcome. Go to the link "TAW". The "Play" button at the bottom can be set so the map automatically advances (click middle arrow), or set to "Stop" and the arrows at either side of the button used to go forward or backward a week at a time.

Grasshopper survey

A reminder for those participating in the grasshopper survey that counts are done during August, when the majority of grasshoppers are in the adult stage.

Agronomists and farmers who would also be interested in estimating grasshopper numbers in or around any of the fields they are in, and having this information included in the survey, are encouraged to see the survey protocol (at the link below) for more details of the survey and where to send data. Your counts would be welcomed.

Estimates of grasshopper levels can be collected during regular farm visits. "Estimates" of grasshopper populations is stressed as it will not be possible to accurately count grasshoppers along a field edge or ditch area as they will be moving around as you get near the area of the count. But estimates of what is present gives us some idea of the relative numbers that are present in different areas.

Data from the survey, along with weather data during the egg laying period of the grasshoppers, will be used to produce a grasshopper forecast for 2026.

The protocol and data sheet for the grasshopper survey is at:
https://www.gov.mb.ca/agriculture/crops/insects/pubs/grasshopper-survey-protocol-revised-2025-07.pdf

Identification Quiz

What is this insect that can sometimes be found while sweeping in ditches?

This is a dictyopharid planthopper (family Dictyopharidae). The family is represented in Manitoba by 3 known species in a single genus, *Scolops*. Worldwide there are about 730 species of dictyopharid planthoppers. Like other bugs (hemipterans), dictyopharids have piercing mouthparts which they use to take fluids from plants. Although they may be commonly found in ditches outside of fields, dictyopharids are not a threat to any crop in Manitoba.

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 one of the following Manitoba Agriculture Pest Management Specialists.

John Gavloski, Entomologist (204) 750-0594
Kim Brown, Weed Specialist (431) 344-0239

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