

Manitoba Crop Pest Update

Issue 12: August 9, 2023



Summary

Insects: Some higher levels of **Lygus bugs** have been noticed in some canola fields, although in many fields the crops has or is moving out of the more susceptible stages. A field of dry beans in the Central region was sprayed for Lygus bugs. Growers of confection sunflowers are also monitoring levels of Lygus bugs. **Diamondback moth** was controlled in some canola fields in the Eastern region. Some higher levels of diamondback moth were also noted in canola in the Southwest region, although many were turning into pupae in some fields. **Flea beetles** are at high levels in canola fields in some areas, with some feeding on pods occurring. A canola field in the Central region was sprayed because of flea beetle feeding. **Soybean aphid** levels increased in some areas; the only report of control so far is part of a field in the Interlake being sprayed for soybean aphids. An increased presence of predators of soybean aphids is being noticed in some fields. **Spider mites** can be found in soybean fields in some areas, often at low levels, although a soybean field in the Eastern region was sprayed for spider mites. There are still some reports of **grasshoppers** damaging crops. In some instances grasshoppers are moving from pastures to other crops.

Weeds: As crops mature across the province we see lots of green, actively growing weeds that will hamper harvest. Desiccation and preharvest weed control operations have begun in many areas, be sure to follow proper staging for each product. Confirm the product you are using is registered for use on that crop and acceptable to the buyer. Keep scouting for waterhemp and/or Palmer amaranth as they can be very tall (6-8 feet or more) and will be noticeable in most crops. Stop and investigate any large weeds or plants that look similar to red root pigweed. Where weeds are known to be herbicide resistant, do not put them through the combine and spread seed around. Instead mow out resistant patches or combine later to prevent weed spread.

Entomology

Identifying Natural Enemies of Aphids: Some have noticed that aphid levels have dropped sharply in their cereals, and that natural enemies were plentiful. Aphid predators are also being noticed in some soybean fields. Some of these natural enemies are easier to identify, and others less well known. Here is a brief photo guide to some of the more abundant predatory insects of aphids.



Asian lady beetle larva

Sevenspotted lady beetle larva

Lady beetle pupa



Hover fly larva



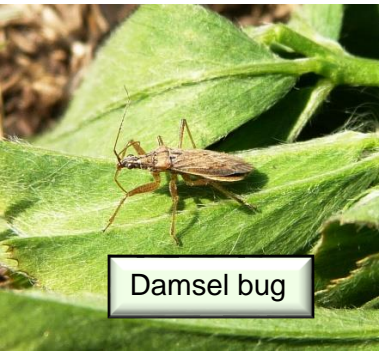
Hover fly larvae



Hover fly pupae



Lacewing larva



Damsel bug



Minute pirate bug

The pupal stages do not feed, but are shown here because pupae of lady beetles and hover flies can often be found on plants that have had a lot of aphids. Also note that all of the insects featured in the photos above are common species in Manitoba, but are members of families that can be quite diverse. In Canada there are 162 species of lady beetles, 539 species of hover flies, 26 species of green lacewings, 43 species of brown lacewings, 22 species of damsel bugs, and 39 species of minute pirate bugs. So don't be surprised to see some variation in the colour or general appearance of some of these insects. There are other insects that will also prey on aphids, but these are some common ones you may see.

Weeds

Crop Drydown and Perennial Weed Control: Preharvest applications are underway, are you wanting crop drydown, perennial weed control or both?

Glyphosate can be applied for pre-harvest perennial weed control when grain moisture is less than 30%. Wheat, barley, oats and canaryseed need to be at hard dough stage, where a thumbnail impression stays indented. Canola and mustard pods should be green to yellow, most seeds yellow to brown. The majority (75-80%) of pea pods should be brown and for flax the majority (75-80%) of bolls should be brown. Fabas and dry beans must have stems that are green to brown in color, pods are mature (yellow to brown in color) and 80-90% of leaves have dropped. Glyphosate can be applied to 3 to 7 days prior to the last cut before forage renovation. Some glyphosate products can be applied by air for certain preharvest treatments, consult the manufacturer for current aerial preharvest registration status.

Heat brands can be applied for harvest aid/desiccation at similar staging to glyphosate, they speed the rate of drydown of crops and green weedy material. Heat brands can be sprayed alone or tank mixed with 1 REL glyphosate, when tank mixing always use the most restrictive staging. Wheat and barley need to be at hard dough stage (Zadok's growth stage 87), seeds must be less than 30% moisture. Apply to canola when 80% of seeds have changed color and to peas when the majority of pods are brown (70-80%). For dry beans the stems should be green to brown, pods are mature (yellow to brown), 80-90% leaves have dropped. Fabas can be sprayed with Heat brands when 80% of lower pods turned black, middle pods turned yellow/tan, and top green pods have firm seed. Apply to flax when 75% of the bolls have turned color. Heat brands can be applied by air for desiccation use only.

Reglone (diquat) is used to dry immature green material at the top of indeterminate crops and green weeds to facilitate harvest. Reglone acts very quickly so do not apply earlier than recommended staging. Spray canola when 90% or more of the seeds are brown, and mustard (condiment type only) when 75% of the seeds have turned brown. Apply to peas when bottom pods are ripe and dry, and seeds are detached from pods. Use Reglone on flax when 75% bolls are brown. Dry beans (red and white kidney) can be sprayed when 80-90% leaves are lost and 80% pods are yellow. Apply to fabas when most plants are ripe and dry, pods are fully filled and bottom pods are black or tan in color. Forage crops for seed production (alfalfa, bird's foot trefoil, alsike clover and white clover) can be sprayed when pods are ripe but before shattering. Reglone can be applied by air in a minimum of 18 L per acre water volume.

Applying any product earlier than the labelled stage can result in reduced yield and quality. Consult all buyers or potential buyers to determine which preharvest products can be used on your crop. Consult the product pages in the 2023 Guide to Field Crop Protection and refer to the product label for more details.

Forecasts

Bertha armyworm: The adult monitoring for bertha armyworm was completed near the end of July. Traps were removed from fields after counts for the week of July 23-29 were done. Final data is presented below.

Cumulative counts generally all remained in the low risk range in the traps for bertha armyworm, except for a trap near Waskada, which had moved into the uncertain risk range. The highest cumulative trap count was 411 near Waskada in Southwest Manitoba.

Table 1. Highest cumulative counts of bertha armyworm (*Mamestra configurata*) in pheromone-baited traps for five agricultural regions in Manitoba from June 4 to July 29, 2023.

Region	Nearest Town	Trap Count
Northwest	The Pas (East)	277
	Minitonas, The Pas (West)	146
	Durban	122
	Inglis	104
	Makaroff	75
Southwest	Waskada	411
	Cypress River	234
	Miniota	205
	Rosburn	134
	Whitehead	128
Central	Low Farm	181
	Emerson	159
	Greysville	38
	Gretna	28
	Altona	21
Eastern	Whitemouth	188
	Stead	94
	Beausejour	69
	Ste. Anne	53
	Tourond	15
Interlake	Meadows	279
	Hodgson	221
	Poplarfield	219

← Highest cumulative count

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

	Selkirk	188
	Arborg	177

Look for the larvae of the bertha armyworm on the ground when out scouting canola fields. So far there have been reports of insecticide applications for bertha armyworm, all in the Cypress River/Baldur area. Note that traps can suggest low risk for an area, yet economic levels of larvae still show up in some fields in the area.

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-revised-may2023.pdf>

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 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 forecast for 2024.

The protocol and data sheet for the grasshopper survey is at: <https://www.gov.mb.ca/agriculture/crops/insects/pubs/grasshopper-survey-protocol-revised-july2023.pdf>

Identification Quiz:

Question: The following insects were found by one of the grasshopper survey participants. Although not the dominant species of grasshopper in the area, they are quite interesting. What are they?



Answer: The insect on the left is called Roesel's katydid, *Metrioptera roeselii*. The insect on the right is called slender meadow katydid, *Conocephalus fasciatus*. Slender meadow katydids can at times be quite abundant in roadside vegetation, but are not considered a pest species of grasshopper. Roesel's katydids likes tall grasses and occur in a variety of habitats, including the edges of roads, field borders and pastures. Both of these are females, with a long ovipositor (for laying eggs) at the end of the abdomen.

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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.