Manitoba Crop Pest Update
Issue 5: June 21, 2023

Manitoba Agriculture

Summary

Insects:
High levels of **grasshopper** nymphs are being noticed in some areas. There were reports of grasshopper control this past week in pastures, canola, ditches and field margins.
Cutworms were still an issue in some fields, with control reported in dry beans, canola, wheat, oats and soybeans.
Larvae of **armyworms** are being found in some fields of cereals and forage grasses in the Interlake and Eastern regions. A field of fall rye and a field of wheat, both well above the economic threshold, were sprayed for armyworms in the Interlake.
Alfalfa weevil and their feeding are being noticed in some alfalfa fields. Notching from **pea leaf weevil** is quite evident in some fields of peas in the Northwest.
Green cloverworm is being noticed in soybeans and dry beans.
Foliar insecticide applications for **flea beetles** are decreasing as canola is advancing beyond the susceptible stages.

Weeds:
Herbicide applications are winding down except where second pass Liberty will be applied. Dry conditions have advanced crop and weed growth out of stage for herbicide applications. Hot dry conditions during spraying decreased crop tolerance but generally crops are recovering. Rain is needed across the province to help stressed crops and increase their competiveness against weeds.

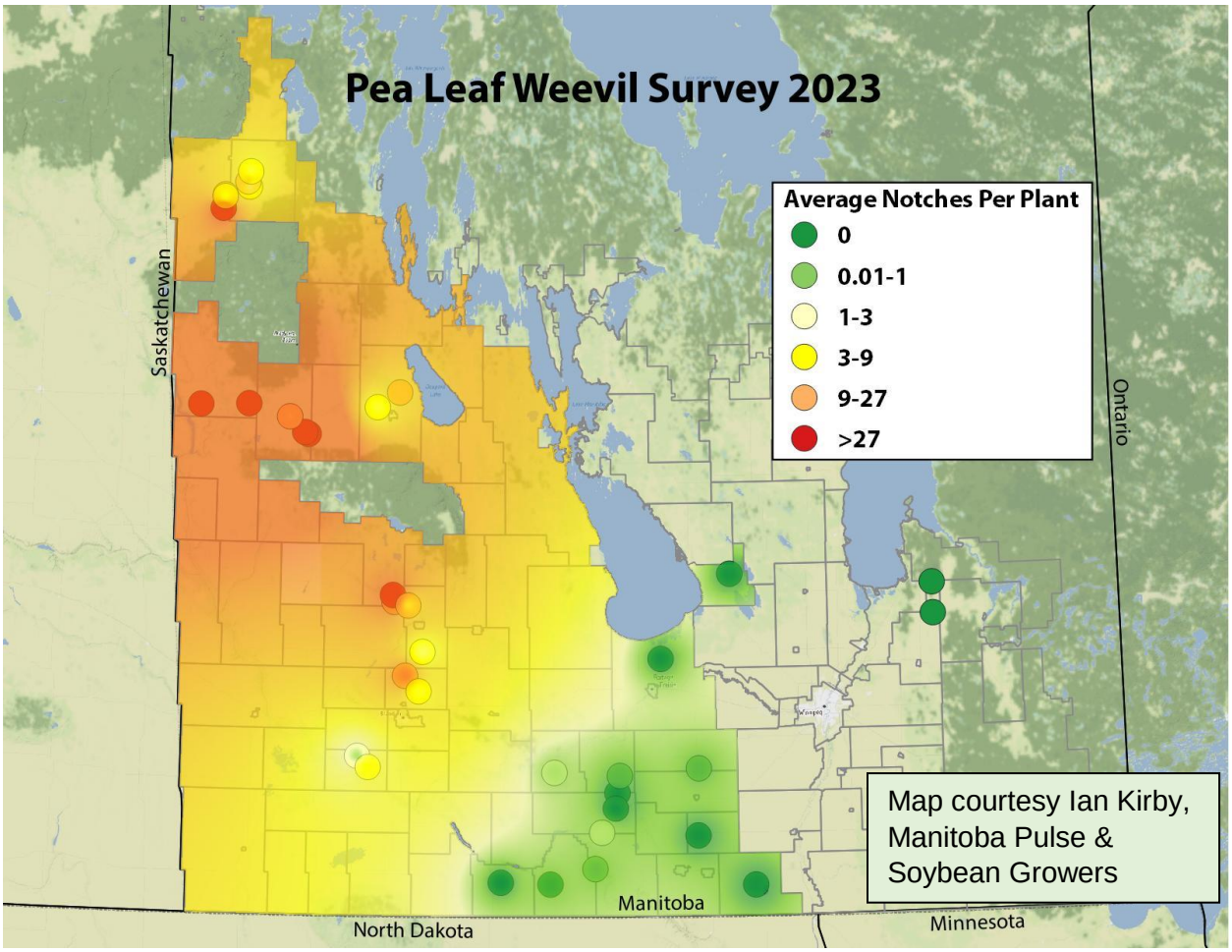
Entomology

Insecticide Updates and Reminders:

Eco Bran label update: Note the following changes to the label for Eco Bran, a bran bait that is used for grasshopper management. Corn, alfalfa, clover, wheat, oats, barley, rye and sweet white lupins have been removed from the Eco bran label. It is currently registered for use on pastures and rangeland, forage grasses, canola, beans, field borders, headlands, rights-of-way, and roadsides.
These changes to the Eco Bran label did not get into the Guide to Field Crop Protection for 2023.

Lambda-cyhalothrin reminder: Note that for lambda-cyhalothrin based insecticides (Matador, Silencer, Labamba, Zivata, Voliam Xpress), certain uses were removed, and there are additional restrictions on uses on some crops. Crops where uses were removed from the labels include sunflowers, pastures, bulb vegetables, lettuce, and mustard seed (condiment type). For a lot of the remaining uses, including small grains, canola and oilseed mustard, corn and flax, lambda-cyhalothrin is still registered, but the crop can't be used as animal feed.

Pea Leaf Weevil Survey: Pea leaf weevil was first found in Manitoba in 2019, and since then its spread and levels have been monitor. Initially we were using pitfall traps to capture adult weevils, but in recent years have monitored the level of the distinctive notching the adult weevils do to leaf margins. The adults are not the potentially damaging stage. It is the larvae feeding on the nodules on the roots of peas and faba beans that can be damaging, as this affects the plants ability to fix nitrogen. Counting the notches to leaf margins by adult weevils is the best way to assess relative level of pea leaf weevil though. The following map shows the average notching per plant for different regions of Manitoba in 2023. Highest levels are generally in Northwest Manitoba. Notching has been found as far east as a field south of Elm Creek in Manitoba, although no weevils were found at this site for verification. We did find pea leaf weevil, as well as their notching, in a field near St. Leon. The range is gradually expanding, and the Northwest region remains the hotspot in Manitoba.



Weeds

We are hearing many reports of the above weed showing up in fields where it's never been before and is an increasing cause of concern across the province. Common milkweed (*Asclepias syriaca*) is a perennial weed reproducing by seed and underground rootstocks. It has opposite leaves and milky sap – easily seen when you pull off a leaf. Common milkweed will soon be flowering, you will see clusters of purplish-pink flowers at the top of the plant. They will develop large banana-shaped pods full of seeds with silky hair attached that helps them spread by wind. Common milkweed is easy to spot in most fields as it gets quite tall and grows in large patches. In the picture on the left, there are at least two dozen milkweed plants in this patch, ranging from the tall ones that are flowering to some recently emerged. It doesn't tolerate wet conditions and the lack of moisture nearly everywhere this season is contributing to its spread.

What are our herbicide options? Not good news, they're very limited. Glyphosate is the only option in-crop for glyphosate-resistant crops. Group 4 herbicides like dicamba and 2,4-D will have some effect but not complete control. Patch treatment in crops with glyphosate can be effective, although repeat applications are necessary because of the varying stages of milkweed plants within patches. Preharvest glyphosate is a good option as this is a perennial weed with an extensive underground root system. Rogue or mow patches where possible to help prevent spread – this is a very aggressive weed. Patches grow rapidly and yield loss is high within the patches. Common milkweed can cause harvesting issues as there's a lot of green plant material that will interfere with combining and cause staining in dry beans.

Forecasts

Diamondback moth. A network of pheromone-baited traps are being monitored across Manitoba in May and June to determine how early and in what levels populations of diamondback moth arrive. So far, diamondback moth has been found in 68 out of 79 traps that counts have been reported from.
Trap counts were low until the week of May 21-27th, when some moderate counts occurred in traps in the Eastern region. The following week (May 28-June 3rd) higher counts occurred in some traps in the Eastern

and Central region, with counts in 4 traps approaching or exceeding 100. The week of June 4-10th there were 3 traps with counts exceeding 100, two in the Eastern region and one in the Central region. One of the traps in the Eastern region (near Beausejour) continued to have a high moth count the week of June 11 – 17, although many traps had lower numbers that week. The highest cumulative trap count so far is 483 from a trap near Beausejour in the Eastern region.

Table 1. Highest cumulative counts of diamondback moth (*Plutella xylostella*) in pheromone-baited traps for five agricultural regions in Manitoba as of June 21, 2023.

Lower Risk: 0-25 Elevated Risk: 26-200 Higher level of moth catch: 200+

Region	Nearest Town	Trap Count	
Northwest	Makaroff	22	
	Durban	21	
	Russell	14	
	Shell Valley	13	
	Minitonas, Roblin	7	
Southwest	First week with weekly trap count greater than 25: June 18-24		
	Lauder	77	
	Tilston	35	
	Miniota	21	
	Belmont	14	
	Minnedosa, Minto	10	
Central	First week with weekly trap counts greater than 25: May 28 – June 3. Weekly trap counts greater than 100 occurred at the Brunkild and Altona traps for the week of June 4 – 10.		
	Altona	262	
	Brunkild	162	
	Horndean	143	
	Layland	60	
	Culross	59	
Eastern	First week with weekly trap counts greater than 25: May 21 – 27. Weekly trap counts greater than 100 occurred at the Beausejour trap for the weeks of May 28 - June 3, June 4-10 , and June 11-17		
	Beausejour	483	← Highest cumulative count
	Whitemouth	173	
	Hadashville	71	
	Ste. Anne	34	
	Tourond	30	
Interlake	First week with weekly trap count greater than 25: June 4-10		
	Teulon	46	
	Ashern	41	
	Poplarfield	39	
	Arborg	35	

	Stonewall	33

Highest counts in each region 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/diamondback-moth-monitoring-05-24-2023.pdf

Larvae of diamondback moth have been found in some areas. Look for diamondback moth larvae when doing crop scouting in canola or other cruciferous crops.

Bertha armyworm: Cumulative counts are still all in the low risk range in the traps for bertha armyworm. The highest cumulative trap count so far is 140 near Waskada in Southwest Manitoba.

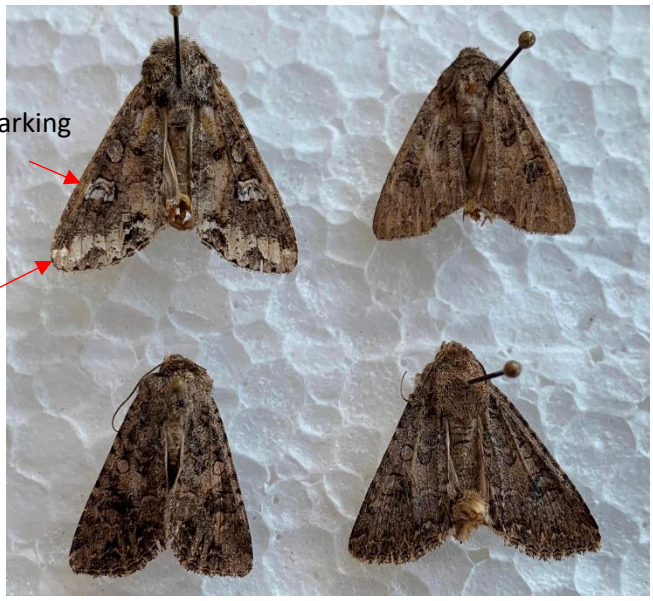
Table 1. Highest cumulative counts of bertha armyworm (*Mamestra configurata*) in pheromone-baited traps for five agricultural regions in Manitoba as of June 21, 2023.

Region	Nearest Town	Trap Count
Northwest	Angusville	6
	Inglis	2
Southwest	Waskada	140
	Minto	60
	Miniota	27
Central	Lowe Farm	62
	Emerson	35
	Carman	2
Eastern	Beausejour	36
	Stead	20
	Whitemouth	10
Interlake	Hodgeson	41
	Poplarfield	34
	Arborg	28

← Highest cumulative count

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

Tips for monitoring traps or bertha armyworm: For those monitoring traps for bertha armyworm, note that often moths other than bertha armyworm end up in the trap. Bertha armyworm does have some distinctive markings, but if moths lose a lot of scales from the wings, determining if it is bertha armyworm can be tricky. If it is the same size and shape as bertha armyworm, but hard to tell because of lack of scales, by default it can be counted as bertha armyworm. But sort out the moths that are not bertha armyworm from those that are before entering counts.



Moths found in bertha armyworm trap.

Only the moth on the upper left is bertha armyworm

Bertha armyworm (left) and another moth common in the trap for bertha armyworm

Note the shorter legs of bertha armyworm, and the white bands on the legs of the bertha armyworm.

Identification Quiz:

Question: This insect was found on the soil in one of the fields we were in doing pea leaf weevil survey. What is it?

Hint – we saw lots of ground beetles running around on the soil that day.

Answer: Many will be able to recognize the adult stage of ground beetles, but the insect in the photo is a ground beetle larva.

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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.