

Issue 5 – June 20, 2024

# Manitoba Crop Pest Update



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## Summary

**Insects:** Flea beetles continue to be of concern, and there has been foliar insecticide applications for flea beetles in all agricultural regions to some degree. Cutworms continue to be found, however they are becoming less of an issue in some regions as we get into late-June. There were increased levels of moths in the diamondback moth traps in the Central, Eastern and Interlake regions during the weeks of June 2-8 and June 9-15. There has also been an increase in moths in the true armyworm traps in recent weeks, particularly in the Eastern, Interlake and Central regions.

**Disease:** This week has not yielded reports of new pathogenic diseases in field crops in Manitoba. However, there has been a report of stripe rust being found in North Dakota, in both winter wheat and spring wheat. Will that be a concern here? Most of the questions coming to me and to Kim Brown, Weed Specialist, have been from some form of abiotic injury.

**Weeds:** Spraying continues across the province despite continuing challenging conditions, with rainfall, wet fields and high winds making things difficult. We have a wide range in crop stages, some crops are just emerging while earliest seeded crops are done herbicide spraying. Weed growth has slowed somewhat due to the cooler wet weather but some weeds are approaching or beyond the maximum stage for herbicide application.

## Entomology

### Late-June Insect Scouting Priorities

As we get into late-June, some of our early-season insects will become less of a concern, and others may emerge to become bigger concerns. Our cutworms that have their larval stages early in the growing season will be turning to pupae; some of this has probably started to happen already, and will continue over the next couple of weeks. Continue to watch for cutworm damage in later emerging crops. Given the cooler temperatures this May and June, there still could be high enough populations to cause economic damage for another 1 to 2 weeks. Cutworms can sometimes be quite variable in their staging within a field.

Report compiled by John Gavloski, David Kaminski, Kim Brown  
Entomologist, Field Crop Pathologist, Weeds Specialist, Manitoba Agriculture  
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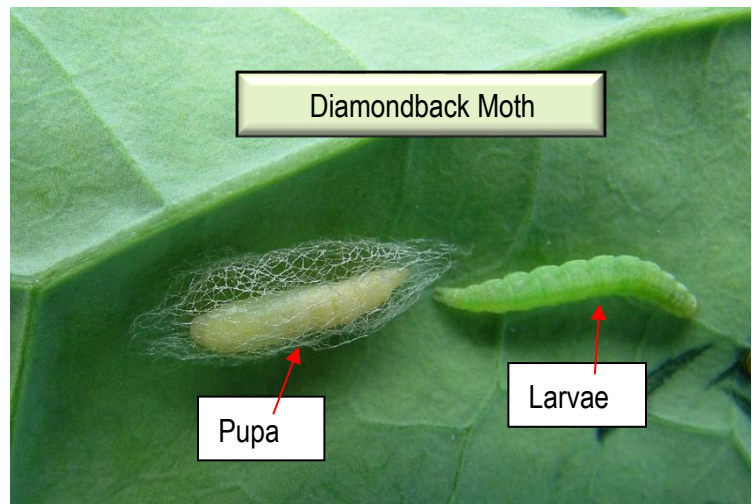
Adults of crucifer and striped flea beetles, which have survived the winter before feeding on cruciferous plants in the spring, will be laying eggs and a decline in population will become noticeable as we get into late-June. Once again, keep an eye on late emerging crops until the end of the month.

Larvae of armyworms, sometimes called true armyworms, are just starting to be noticed in the Interlake region, and may be present in grassy crops and plant stands in other regions as well. No crop damage has been noted so far. Based on trap counts, armyworms are an insect that would be good to monitor carefully in cereals and forage grasses starting soon. For information on armyworm biology, scouting techniques and thresholds, see: [armyworms-factsheet-revised-january2024.pdf \(gov.mb.ca\)](#)



Diamondback moth larvae on canola are another insect to assess when scouting canola, particularly if you start to see feeding on plants that is obviously not from flea beetles. Look for small green caterpillars, about 12 mm long when fully grown, that wriggle backwards quickly when disturbed and may drop from the plant on a silken thread.

More information on the biology, scouting, thresholds and management of diamondback moth can be found at: [diamondback-moth-factsheet.pdf \(gov.mb.ca\)](#)



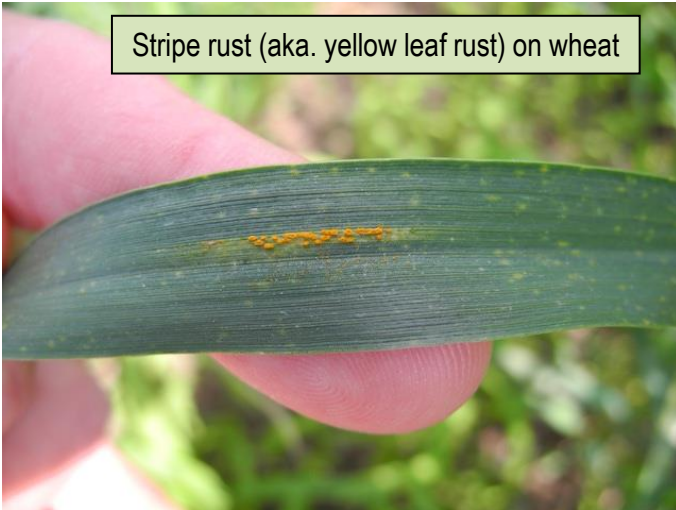
In alfalfa we are currently noticing some alfalfa weevils, adults and young larvae, and pea aphids when we have been doing our sweeps for our beneficial insects survey. Pea aphids are less likely to be an issue in alfalfa in a wetter year like this, but can become an issue in peas later in the season. When peas get into the flowering stage, later in the season, look for pea aphids in the crop. More information on scouting for pea aphids will be provided closer to flowering time.

## Plant Pathology

### Stripe Rust

As we reported last week, the Cereal Rust Bulletins indicated that leaf rust in the Kansas Nebraska region have been slow to develop. Stripe rust on the other hand has been quite prevalent in that region and there are recent reports in the North Dakota State University's Crop & Pest Report, that it has been noted in winter wheat near Fargo and in spring wheat in the western side of the state. Should we be concerned? We have had several strong southerly winds which could bring uredospores into our region. And, unlike many of the other cereal rusts, stripe rust thrives in cool, moist conditions which we have experienced throughout the spring. Stagewise, our winter wheat crop should be beyond the point of significant yield loss should stripe rust be blown here now. Our biggest acreage winter wheat varieties have resistance in the MR to R range and the most widely grown spring wheat varieties have an MR rating. It is worth keeping a sharp eye out for stripe rust, though. Look for yellowish stripes confined by the leaf veins and rows of very small pustules that might be described as an "upside down egg carton."

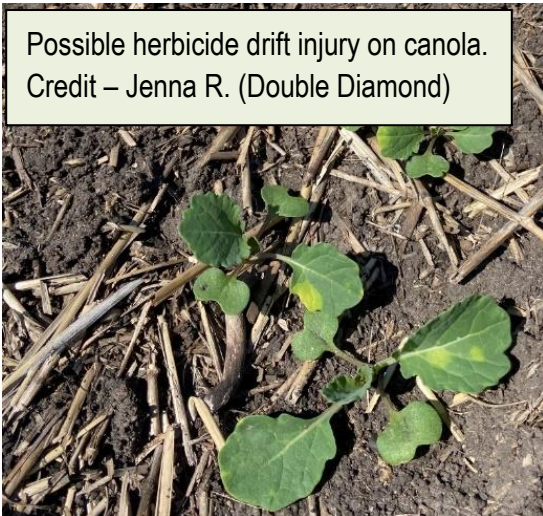
Stripe rust (aka. yellow leaf rust) on wheat



A new resource for early reporting of plant diseases in western Canada was launched this week. Dubbed the [Prairie Crop Disease Management Network](#) (PCDMN). It can be used by agronomists for early detection and they can contribute their findings of pathogenic diseases as well. More on this next week – but check it out for yourself.

### An example of putative herbicide injury

Possible herbicide drift injury on canola.  
Credit – Jenna R. (Double Diamond)



## Weeds

### The value of PRE

Pre-emergent herbicides with residual control (PRE) are working very well this year to continue to hold back the weeds. Adequate moisture has been available for those PRE herbicides that require rainfall for activation. When post-emergent (POST) herbicide application is delayed due to wet or windy conditions we are really seeing the value out of these PRE products. In the pictures below we see the effect of PRE herbicides on soybeans, where Authority Supreme and Voraxor Complete were sprayed mid-May. Weed control in both treatments has been

exceptional and allowed lots of time for a follow-up POST application. These demos plots can be seen, along with other treatments, at the 2024 Crop Diagnostic School.



Unsprayed (left) vs Authority Supreme (right)



Authority Supreme (left) vs Voraxor Complete (right). Note the unsprayed strip between the plots.

## Drift

Good spraying days have been hard to come by and we are seeing a number of drift issues. Every case of drift is unique, some plants will recover and some may not. If drift is suspected gather as much information as possible using the [pesticide-incident-check-list.pdf \(gov.mb.ca\)](#) and [pesticide-incident-reporting-form.pdf \(gov.mb.ca\)](#).



Group 27 injury on canola. Note the characteristic yellowing/whitening of the leaf edges prior to the yellowing of the entire leaf. In this case the canola has recovered and grown through the drift. Photo courtesy of Jason Voogt, Field 2 Field Agronomy Inc.

## Forecast

### 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 occur. Diamondback moths have been found in 75 out of 92 traps that counts were reported from. Trap counts have generally been low so far in the Northwest and Southwest regions. Some moderate to high counts have occurred in the Eastern, Central and Interlake regions. Traps counts in these regions increased over the weeks of June 2-8 and June 9-15.

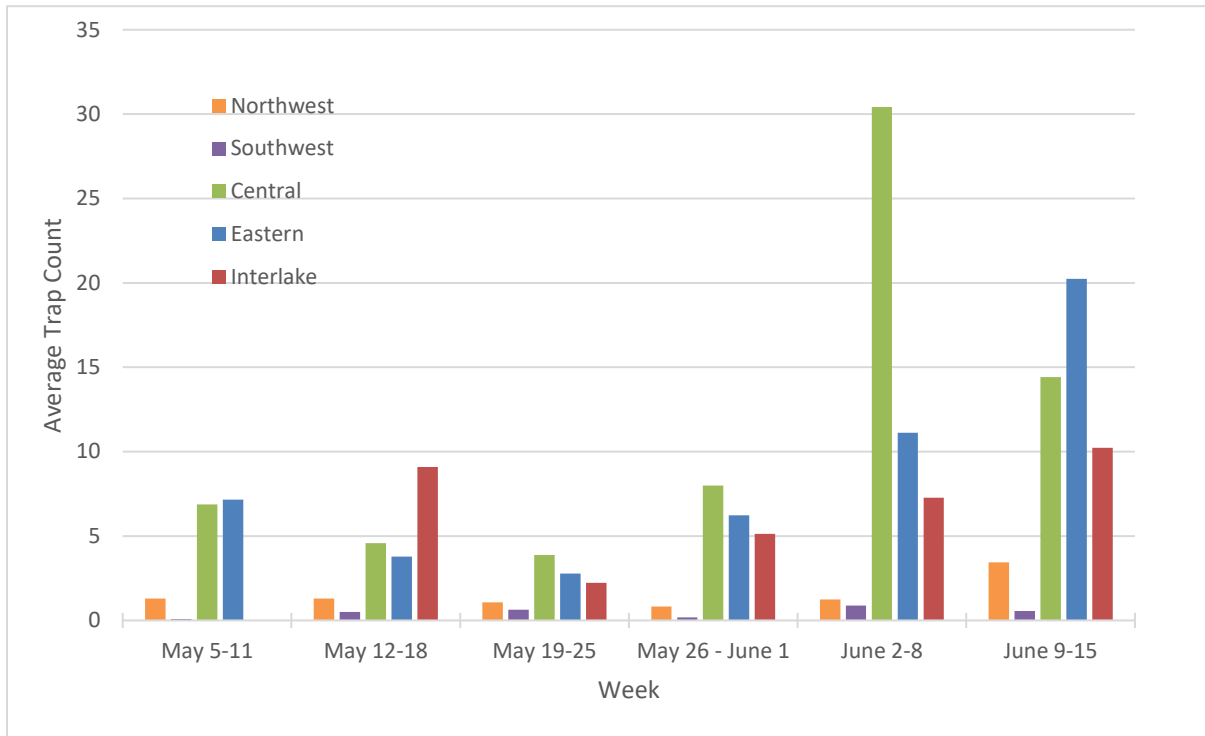
The highest cumulative trap count so far is 210 from a trap near Stead in the Eastern region.

**Table 1.** Highest cumulative counts of diamondback moth (*Plutella xylostella*) in pheromone-baited traps for five agricultural regions in Manitoba as of June 20, 2024.

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

Region	Nearest Town	Trap Count
Northwest	Roblin	19
	Shell Valley	18
	Grandview, Makaroff	17
	The Pas North	15
	Grandview	7
Southwest	East Brandon	19
	Rivers	10
	South Belmont	8
	Coultier, Melita	4
	Pierson	3
Central	First week with weekly trap counts greater than 25: May 26 – June 1	
	Fannystelle	180
	Elm Creek	142
	Rosenort	120
	Rosenfeld	112
	Altona	85
Eastern	First week with weekly trap counts greater than 25: May 5-11	
	Stead	210
	Hadashville	128
	Beausejour	62
	Whitemouth	12
	Tourond	7
Interlake	First week with weekly trap count greater than 25: May 12-18	
	Riverton	206
	Hodgson	155
	Ledwyn	122
	Memville	67
	Gimli	56

← Highest cumulative count



**Figure 3. Average weekly trap counts for diamondback moth per agricultural region in Manitoba**

Larvae of diamondback moth have been noticed in some regions, but no high levels have been reported yet. Look for diamondback moth larvae when doing crop scouting in canola or other cruciferous crops, particularly in the Eastern half of Manitoba and Interlake region.

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-june-20-2024.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.

Counts have been low so far in the western regions of Manitoba, with some moderate counts in the Central region. Some higher counts have occurred in some of the traps in the Eastern and Interlake regions. Counts gradually got higher over a few week period in the Central, Eastern and Interlake regions, peaking during the week of June 9-15.

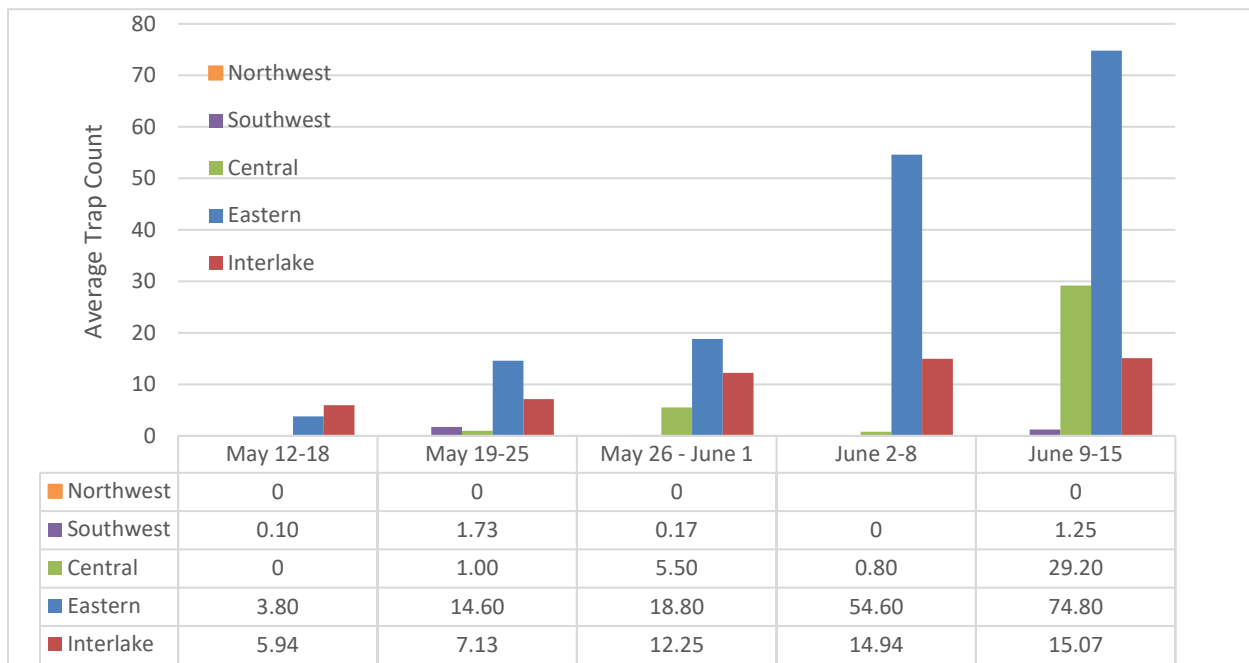
The highest cumulative count is 411, from a trap near Dencross in the Eastern region. There are some areas in the Central, Eastern and Interlake regions where looking for larvae of armyworms while scouting cereals and forage grasses would be good to prioritize.

**Table 2.** Highest cumulative counts of armyworms in pheromone-baited traps for agricultural regions in Manitoba as of June 12, 2024.

Region	Nearest Town	Trap Count
Northwest	Russell	4
	Grandview	0
Southwest	West Pierson	23
	Rivers	14
	North Pierson	9
	Medora, Glenboro	8 3
Central	Horndean	62
	Altona	45
	Rosenfeld	32
	Morris	22
	St. Joseph	17
Eastern	Dencross	411
	Beausejour	210
	New Bothwell	176
	Kleefeld	84
	Lorette	24
Interlake	Riverton	204
	Washow Bay	154
	Moosehorn	96
	Fisher Branch	81
	Teulon	79



← Highest cumulative count



**Figure 3. Average weekly trap counts for true armyworm per agricultural region in Manitoba**

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/true-armyworm-trap-results-06-19-2024.pdf>

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.

## Identification Quiz

**Question:** What are these small (rarely exceeding 5 mm in length) arthropods commonly found in the soil?



Photo by Abi Benson



**Answer:** Springtails. Springtails are relatives to insects, but technically have their own class (Collembola). There are lots of different species of springtails in Canada (474 species). Average densities of springtails in the soil can be around 100,000 per square metre, but extreme densities of over a million per square metre have been recorded. Although springtails are found mostly in soil or leaf litter, they can be found in a variety of other habitats including the surface of glacial ice and melting snow, lake waters as deep as 20 metres, the surface of aquatic habitats, and the tops of trees. The only places where springtails are not found are deep waters (usually deeper than 20 metres) and open ocean. Many species of springtails are semiaquatic; they are adapted to and reproduce more rapidly if soil moisture levels are at or near saturation. The common name 'springtail' comes from a forked appendage most have on their abdomen called a furcula that catches on a latch mechanism. When disturbed or threatened, the latch releases and the furcula catapults the springtail as far as 10 cm. Springtails feed mostly on fungi, bacteria, algae, and dead and decaying plants but a few are predators. A few species will feed on living plants but are not likely to be economical. Springtails can have a valuable role as decomposers feeding on litter. Beyond nutrient cycling, they can also be beneficial in other ways such as providing a food source for arthropod predators or serving as biocontrol agents by grazing on pathogenic fungi.

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  
David Kaminski, Field Crop Pathologist (204) 750-4248  
Kim Brown, Weed Specialist (431) 344-0239