Manitoba Crop Pest Update
Issue 9: July 19, 2023

Manitoba Agriculture

Summary

Insects: High levels of **diamondback moth** larvae have been reported from canola fields in the Plum Coulee, St. Joseph and Dominion City areas, with some fields having insecticides applied. **Lygus bug** levels have also been increasing in canola in some areas. Lygus levels around the 20 to 30 per 10 sweep threshold have been reported from the Austin area. **Grasshoppers** remain a concern, and there have been reports of control in pastures and spring cereals recently. There was also a report of noticeable levels of dead grasshoppers at the top of the plants in a field near Austin; which is caused by a pathogenic fungus. **Armyworms** are still high in some areas, although reports of high levels have deceased as larvae have turned to pupae in some areas. **Aphids** are building towards threshold levels in some small grain fields, although some fields may already be beyond the susceptible stages. High levels of adults moths of **banded sunflower moth** were reported from a sunflower field in the Eastern region.

Weeds: Continue post-spray scouting for weeds. We are unfortunately finding more fields with waterhemp infestations. Finding and removing waterhemp plants before they set seed is critical.

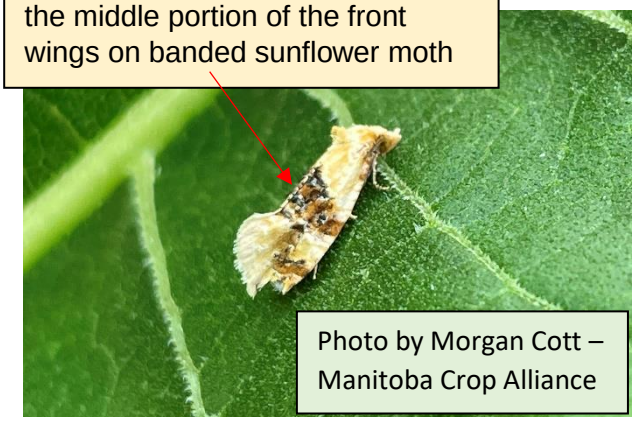
Entomology

Aphids in cereals: Levels of aphids have been increasing in some fields of small grains. The economic threshold for aphids on small grain cereals is an average of 12 to 15 aphids per stem prior to the soft dough stage. After the early dough stage insecticide treatments would not be cost-effective. Another consideration would be preharvest interval. The only insecticides registered for aphids on wheat, barley and oats are malathion and dimethoate (Cygon, Diamante 4). Dimethoate has a 35 day preharvest interval, so it is not likely going to be an option in most fields this year. There is a big need for a selective insecticides (to aphids an sap feeding insects) with low preharvest interval to be available for aphid control in small gain cereals. Aphid mummies, the remains of parasitized aphids, are also be noticed on some cereals.

English grain aphid

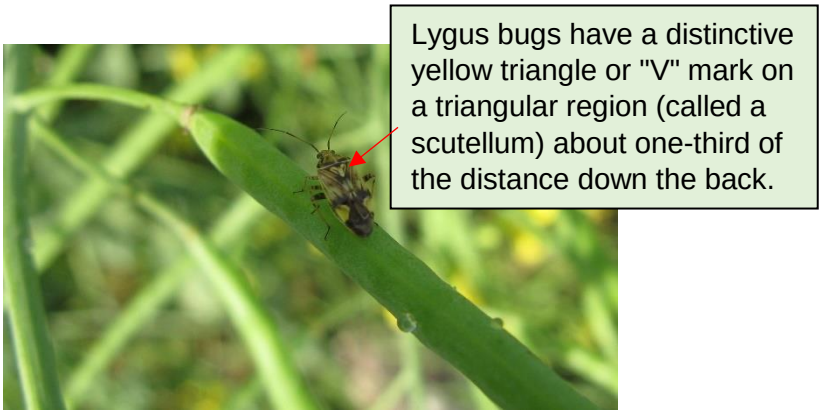
Banded sunflower moth: Adults of banded sunflower moth have started to be noticed in some sunflower fields in the eastern region.

Look for the adult moths when scouting sunflowers during the late bud (R-4) to early bloom (R-5.1) stages in sunflowers. When monitoring in the early evening or early morning, one banded sunflower moth per two plants is a reasonable economic threshold.



Economic Threshold for Lygus Bugs in Canola: Thresholds for Lygus bugs in canola have been revised in recent years. A threshold of 20-30 Lygus bugs per 10 sweeps is suitable for good growing conditions. Using the lower end of the threshold (about 20 per 10 sweeps) may be appropriate for stressed canola with less ability to compensate for feeding.

Pods are the focus for crop protection efforts against lygus in canola. The most vulnerable crop stage for lygus feeding is after flowering and when seeds are enlarging on lower pods. When most pods become leathery and when seeds inside are firm, lygus bugs can no longer penetrate the pods or seeds with their mouthparts and are no longer an economic threat.



Weeds

New infestations of waterhemp continue to show up and everyone needs to be on the lookout for this weed. Waterhemp has recently been found in wide-row soybean fields where only glyphosate has been applied, and it's obviously resistant to glyphosate. All soybean and corn fields that have only been sprayed with glyphosate need to be closely monitored. Sunflower and dry bean fields are vulnerable as well. These four crops are most susceptible to waterhemp infestations as they are grown in wide-rows and have limited weed control options in-crop. Narrow-row soys are more competitive and cover the ground more quickly than wide-row soys but all soybean fields need to be watched. Waterhemp that was previously found in MB was resistant to several herbicide groups, combinations of Group 9 and/or Group 2 and/or Group 5 and/or Group 14. Multiple herbicide resistance can develop very quickly, for instance Ontario farmers discovered

their first glyphosate resistant waterhemp in 2014 and now have 5-way resistance (Groups 2, 5, 9, 14 and 27).

Waterhemp is a Tier 1 noxious weed and as per the Noxious Weeds Act it must be destroyed without exception. Seed set is imminent and any plants found must be removed soon through hand-weeding or mowing. Mowed waterhemp plants must be monitored as regrowth will occur and those plants will continue to set seed. Here are some pics of an infestation found recently in the De Salaberry RM:

This is a severe infestation especially along the edge of the drainage ditch. Parts of this field are being mowed as there are too many waterhemp plants to pull out.

Scout fields along waterways like drainage ditches and creeks as we know seed can move this way.

Here's a pic of the result of hand-weeding another field in the RM of Emerson-Franklin. Waterhemp plants were pulled or dug out, bagged and removed from the field. These came off a wide-row soybean field that had only been sprayed with glyphosate. This field has many more plants which will be pulled or mowed out. This waterhemp infestation is most severe along a creek that runs through the field.

Forecasts

Bertha armyworm: Cumulative counts are still all in the low risk range in the traps for bertha armyworm, except for a trap near Waskada, which has moved into the uncertain risk range. The highest cumulative trap count so far is 353 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 July 19, 2023.

Region	Nearest Town	Trap Count
Northwest	Durban	89
	Inglis	88
	Makaroff	66
	The Pas (East)	61
	Minitonas	59
Southwest	Waskada	353
	Miniota	163
	Minto	118
	Pierson	84
	Crandall	71
Central	Lowe Farm	146
	Emerson	67
	Greysville	34
	Barnsley	20
	Horndean	19
Eastern	Whitemouth	67
	Stead	60
	Beausejour	52
	Ste. Anne	17
	Tourond	14
Interlake	Teulon	126
	Stonewall	69
	Meadows	63
	Ashern	61
	Hodgson	54

← Highest cumulative count

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

Identification Quiz:

Question: While a couple of our summer students were out doing cabbage seedpod weevil survey, they came across this rather metallic beetle on some dogbane growing in the ditch beside the field. What is this beetle? The plant it was on is a hint.

Answer: This is the dogbane beetle *(Chrysochus auratus*). As the name suggests, the dogbane beetle lives and feeds on dogbane but also on milkweed. The sap of both dogbane and milkweed contains a poison that when ingested causes the beetle to become toxic. The dogbane beetle stores these chemicals in glands to secrete them when attacked. Some believe that the flashy colouration of the beetle is advertisement for their toxicity. In addition to being toxic, the sap of their host plants is also sticky. To overcome this, the beetles make a cut “upstream” of where they intend to feed then move “downstream” of the leak to feed. When the beetle inevitably gets sap on its mouthparts, it puts its face against the leaf and walks backwards dragging its mouthparts against the leaf to wipe the sap off.

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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.