

# Manitoba Crop Pest Update

## Issue 2: May 31, 2023



### Summary

**Insects:** Both crucifer and striped flea beetles are present in canola fields. A few canola fields in the Central region and Northwest have had foliar applications of insecticides for flea beetles. Aster leafhoppers have been detected in Western Manitoba and the Central region, and samples collected to assess level of infectivity for aster yellows. Emergence has begun for the potential pest species of grasshoppers, but no economic populations reported so far. Cutworms have been controlled in a few fields in the Central region, in cereals, soybeans and canola. So far cutworm issues this year have not been as bad as some recent years.

**Weeds:** This past week saw poor conditions for spraying due to high winds. If you missed spraying a burn off and still want to spray then thoroughly check for emergence. Warm soil temps mean speedy crop emergence, but dry conditions have slowed things down so each field must be assessed carefully. Weeds are emerging rapidly and our warm season weeds like foxtails, barnyard grass and pigweeds are loving these temps and rapidly putting on new leaves.

### Entomology

**Leafhoppers:** Both aster leafhopper and potato leafhopper have arrived in at least some locations in Manitoba, and we are still assessing levels of both, and whether the aster leafhoppers are infected with the pathogen that causes aster yellows. In our weekly sweeps in alfalfa at the University of Manitoba Research Farm near Carman, this week we found 41 leafhoppers in 60 sweeps; 29 were potato leafhopper, 10 aster leafhopper and 2 non-economic species of leafhoppers. These are not very high numbers of leafhoppers, but there have been reports of high leafhopper levels from western regions of the province and we are still assessing what species these are. The photos below shows the aster leafhopper, with the three pairs of dark spots on the forehead visible, and the actual size of an aster leafhopper. You may need magnification to see the 6 spots on specimens you collect.



Aster leafhopper – showing spots



Aster leafhopper – showing size (about 4 mm)



Potato leafhopper – adult (about 3 mm)



Potato leafhopper - nymph

Note the white eyes on the limey green potato leafhopper, and six white spots behind the eyes in the adult. Nymphs are easily disturbed and will attempt to walk away sideways or backwards. Potato leafhoppers have a wide host range, which includes alfalfa, clovers, potatoes, soybeans, and beans. Potato leafhoppers do not overwinter in the Canadian prairies, but can arrive with southerly winds.

## Weeds

High temps and high winds lead to very challenging spray conditions. It's not recommended to spray systemic herbicides above 27-28 degrees while contact herbicides can be sprayed a little hotter, up to 30 degrees. Spraying when it's hot and dry can cause more crop injury as the stressed crops can't metabolize the herbicide as quickly, and on the flip side we may not get as good weed control as expected. Weeds that are growing under hot dry conditions can have thicker cuticles which inhibit herbicide absorption. As well in low humidity we see rapid evaporation of small spray droplets so less herbicide hits the target.

Use as coarse a droplet as is recommended to reduce drift and evaporation. Use as much water as possible to increase coverage, especially for contact herbicides. Assess where your crop and weeds are at – are there more weeds coming? Do a scrape back in the top inch or so of soil with your trowel or seed depth checker and see what weeds have germinated but aren't through the surface yet. If there are lots more weeds just emerging then its better to wait till they're up. With the recent rains over most of the province I would expect to see a new flush of weeds so watch for those coming. With most crops emerging or in early leaf stages we've got lots of room for in-crop sprays, when to spray will depend on your driver weeds and how big they are. And of course if the weather cooperates...

Here are some pics from some recent field visits:



Lamb's quarters *Chenopodium album* (above) already in the 4 leaf stage. Watch labels for appropriate staging and spray before it gets out of stage.



Round leaved mallow *Malva pusilla* (above) with two true leaves. Note the heart-shaped cotyledons, these are distinctive, this is the only weed we see with cotyledons like that.



Common ragweed *Ambrosia artemisiifolia* (above) watch this one for glyphosate resistance. While its not been officially confirmed we have several reports of it being resistant.



Canada fleabane *Erigeron canadensis* (above) surrounded by kochia in the left pic, in the right pic I am holding up a bigger kochia to compare. Sometimes confused early on with kochia, both start off as hairy rosettes but fleabane has a notched leaf edge while kochia does not. As they grow kochia will branch extensively but fleabane will only have a single stalk. Also watch this one for glyphosate resistance.



Northern willowherb *Epilobium ciliatum* (above) will be noticeable in the wetter areas of the fields.



Purslane speedwell *Veronica peregrina* (above) will be growing in the wetter areas of the fields, as in the pics above with northern willowherb.

## 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 37 out of 66 traps that counts have been reported from. Levels are generally low. The highest cumulative trap count so far is 34 from a trap near Altona in the Central region. We had some strong winds from the south recently, so it will be interesting to see whether or not this results in an increase in diamondback moth in the traps.

**Table 1.** Highest cumulative counts of diamondback moth (*Plutella xylostella*) in pheromone-baited traps for five agricultural regions in Manitoba as of May 31, 2023.

| Region    | Nearest Town              | Trap Count |
|-----------|---------------------------|------------|
| Northwest | Makaroff                  | 3          |
|           | Russell                   | 2          |
|           | 0 in all other traps      |            |
| Southwest | Lauder, Miniota           | 4          |
|           | Rapid City                | 3          |
|           | Brandon, Tilston,         | 2          |
|           | Whitehead                 |            |
| Central   | Altona                    | 34         |
|           | Culross                   | 13         |
|           | Horndean                  | 12         |
|           | Layland                   | 9          |
| Eastern   | Whitemouth                | 16         |
|           | Beausejour                | 15         |
|           | Stead                     | 7          |
|           | Tourond                   | 6          |
|           | Hadashville, Ste. Anne    | 1          |
| Interlake | Meadows, Steeprock, Vidir | 6          |
|           | Poplarfield               | 5          |
|           | East Selkirk              | 4          |
|           | Lundar, Riverton, Arborg  | 3          |

← Highest cumulative count

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>

So far no larvae of diamondback moth have been reported.

## Identification Quiz:

**Question:** These were found while someone was digging in the soil this past week. What are they?

**Answer:** These are grasshopper eggs.



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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.