Issue 14 – August 21, 2025

Manitoba Crop Pest Update

Seasonal Reports Weekly Weather Maps Insects

Summary

Insects: Some insecticide applications for **bertha armyworm** continue in the Western regions of Manitoba**. Flea beetles** are quite abundant on canola in some areas. There continues to be areas where **spider mites** are abundant on soybeans, although many fields are now past the more vulnerable stages. Some **grasshopper** damage to pastures has occurred in the Northern Interlake.

Weeds: Pre-harvest weed control and crop dry-down continues as many fields had large green weeds present that would interfere with harvest. Weed escapes may be due to several reasons, if herbicide resistance is suspected plan to test the plants or seeds.

Entomology

Grasshopper Control in Pastures

A reminder that if grasshoppers are to be controlled in pastures, a technique called reduced agent and area treatments (RAATs) can be used. RAATs has nothing to do with rodents but involves applying insecticides in treated swaths that alternate with untreated swaths. This reduces the cost and amount of insecticide applied. It also allows insect predators and parasites preserved in untreated swaths to continue to prey on grasshoppers. Studies in rangelands found about 80 to 95% control of grasshoppers was achieved by alternating treated and untreated swaths.

The ideal timing for grasshopper control is when they are nymphs. With many insecticides lower rates can be used for nymphs, and if combined with spraying in swaths can keep grasshopper management costs in pastures down. Grasshopper populations would mainly be in the adult stage now in most areas, so higher rates would need to be used.

Grasshopper Identification

There are about 85 species of grasshoppers in Manitoba, and 180 species in Canada. There are four species of grasshoppers in Manitoba that, when populations get high, can potentially be pests of crops. Knowing pest from non-pest species can be good, as well as distinguishing the different pest species. One of the potential pest species, clearwinged grasshopper, is primarily a grass feeder, and seldom feeds on broad-leaved plants. The following page provides an identification guide to the pest species of grasshoppers in Manitoba

Report compiled by John Gavloski, Kim Brown
Entomologist, Weeds Specialist, Manitoba Agriculture
Subscribe to the weekly Crop Pest Update

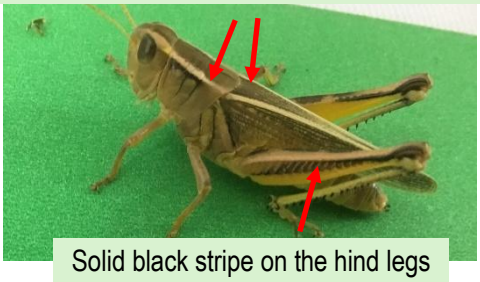
Manitoba

Potential Pest Grasshopper Species in Manitoba

Identification of the adults (left) and nymphs (right)

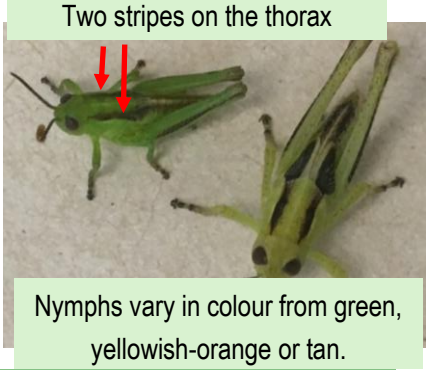
Twostriped Grasshopper (*Melanoplus bivittatus*)

Two pale stripes extending from the eyes to the tips of the forewings



Solid black stripe on the hind legs

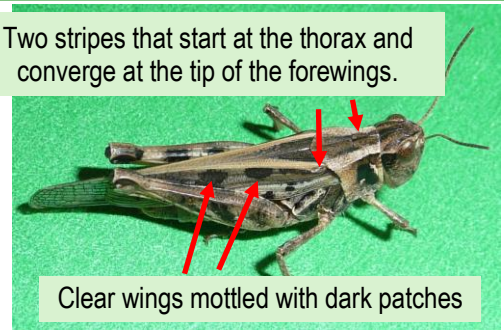
Two stripes on the thorax



Nymphs vary in colour from green, yellowish-orange or tan.

Clearwinged Grasshopper (*Camnula pellucida*)

Two stripes that start at the thorax and converge at the tip of the forewings.



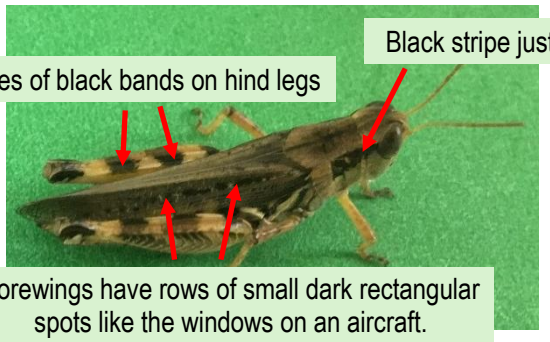
Clear wings mottled with dark patches

Photo by B.C. Ministry of Agriculture

Migratory Grasshopper (*Melanoplus sanguinipes*)

Series of black bands on hind legs

Black stripe just behind each eye

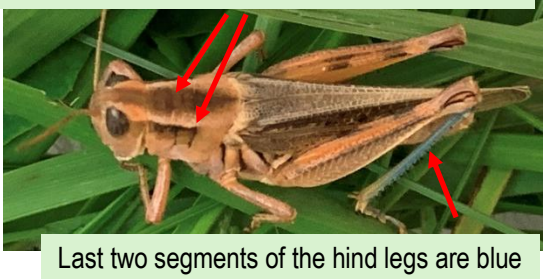


Forewings have rows of small dark rectangular spots like the windows on an aircraft.

Photo by B.C. Ministry of Agriculture

Packard Grasshopper (*Melanoplus packardii*)

Two pale stripes extending from behind the eyes to the back of the thorax



Last two segments of the hind legs are blue

Nymphs are lime green or brown with scattered, black, pepper-like dots

Photo by Dan Johnson

The following factsheet contains more information on grasshopper identification, biology, scouting, and control:
https://www.gov.mb.ca/agriculture/crops/insects/pubs/grasshoppers-factsheet-revised-november2022.pdf

Donate Your European Corn Borer Larvae to Science

I am looking to collect larvae of European corn borer for a study by the University of Guelph on resistance and also strains of European corn borers. If anyone does notice larvae of European corn borer, or evidence of their presence, in corn, millet, hemp or any of their host plants, please let me know (see contact information for John Gavloski at the end of the update). Corn borer larvae collected will help us verify what strains of European corn borer are present in Manitoba, and determine if resistance to Bt corn is developing in our Manitoba populations.

Emergency Registration for Avian Control in Sunflowers

Avian control, a bird repellent, has received an emergency registration in sunflowers. The emergency registration is for the reduction in damage by blackbirds to sunflowers in Manitoba from August 18, 2025 until August 17, 2026. Avian Control can be applied up to the day of harvest. Do not apply if rain is expected. Note that the active ingredient, methyl anthranilate, may result in plant damage, such as leaf discoloration or leaf burn. It is recommended that a small group of plants be treated at the use rate and observed for 5-7 days to determine if damage occurs before treating a large number of plants.

We are looking for use information from this season. For example, how effective was it, was coverage an issue with aerial application, any challenges, any crop injury issues, etc. If anyone does use Avian Control on sunflowers, and is interested in providing feedback, that would be appreciated.

Weeds

Weed Resistance

Wild oats are showing up everywhere again this year. If resistance is suspected gather wild oat seeds and send to a lab for testing. This will give you the information you need to plan future weed control operations and choose herbicides that have the best chance for success. Wild oats growing in-crop can produce 20-150 seeds per plant but without competition could have more than 1000 seeds. Anywhere from 30-70% of those seeds hit the ground before harvest, so as harvest approaches its time to gather suspected resistant seed off the plants. The Resistant Wild Oat Action Committee has a great website full of information on wild oats here: https://weedscience.ca/wild-oat-action-committee/. This site features videos of farmers dealing with resistant wild oats as well as factsheets and infographics on how to gather and test the seed and how to interpret the results. Once you've got enough wild oat seed it can be sent for testing to the Crop Protection Lab in Regina, SK (https://www.saskatchewan.ca/business/agriculture-natural-resources-and-industry/agribusiness-farmers-and-ranchers/programs-and-services/crops-programs/crop-protection-laboratory-services 1-306-787-8130) or Ag Quest in Minto, MB (https://agquest.com/location-minto.php 1-204-776-2087).

Forecast

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 any of 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.

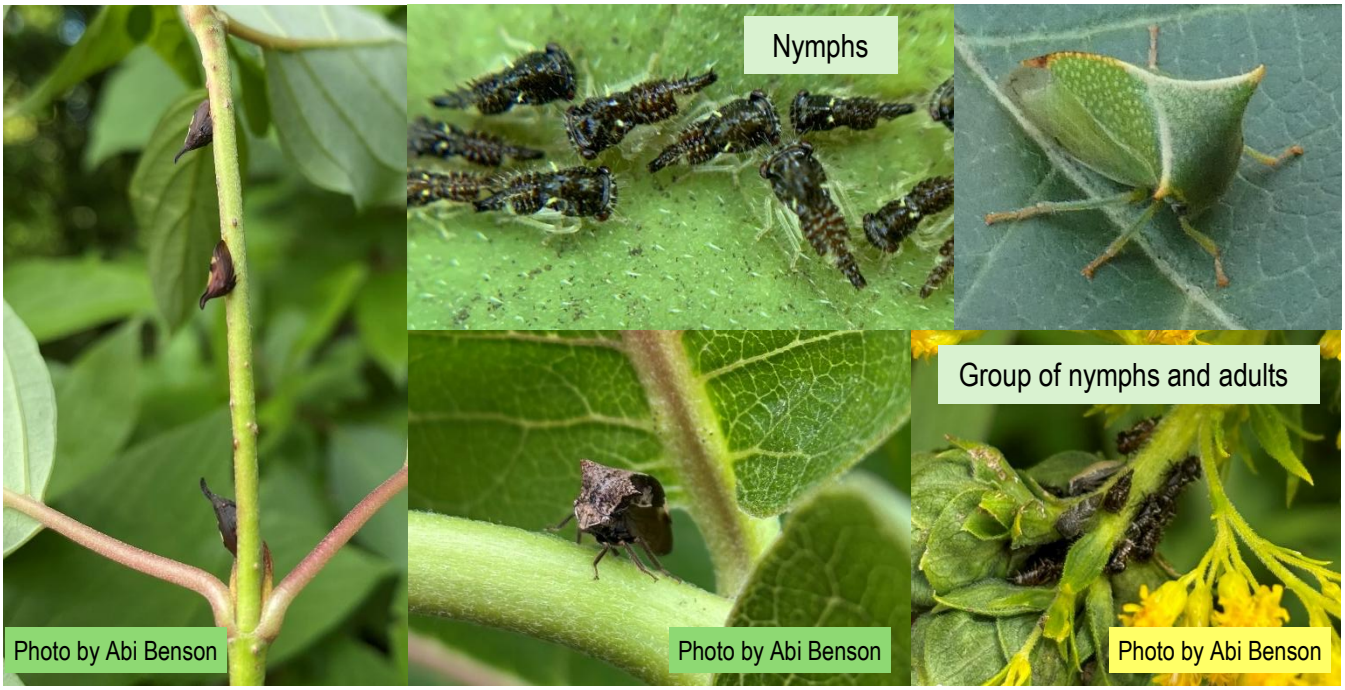
Estimates of grasshopper levels can be collected during regular farm visits. "Estimates" of grasshopper populations is stressed as it will not be possible to accurately count grasshoppers along a field edge or ditch area as they will be moving around as you get near the area of the count. But estimates of what is present give 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 grasshopper forecast for 2026.

The protocol and data sheet for the grasshopper survey is at:
https://www.gov.mb.ca/agriculture/crops/insects/pubs/grasshopper-survey-protocol-revised-2025-07.pdf

Identification Quiz

Question: Occasionally while crop scouting, walking on trails, etc., you may see insects that look like thorns, although at times you may be fooled and not even recognize them as an insect. What are these thorn mimics?



Answer: These are treehoppers (Hemiptera: Membracidae). Of the approximately 3500 species known, roughly 40 species are found in Manitoba, as treehoppers are a predominantly tropical group. Treehoppers have outgrowths on their backs called helmets which are shaped to mimic thorns, seeds, caterpillar feces, or even ants.

In addition to their unusual shapes, treehoppers also have some interesting behaviours. In some species, the female guards her eggs then remains with the young after they hatch to guard them as well. Some treehopper moms do so by waving their front limbs or kicking at attackers with their hind legs. The young alert their mother of an approaching threat using vibrations conducted through the plant material they are standing on. Similar vibrations are also used by treehoppers to attract mates or announce the discovery of a good feeding spot. They create these vibrations by shaking their bodies and each species has a different vibration pattern. Many of the species which stay as groups are also defended by ants. Much like aphids, treehoppers create honeydew which the ants collect in exchange for protection.

Despite being called treehoppers, these insects can often be found on vegetation other than trees. None of the treehopper species are crop pests in Manitoba, just a cool treat to observe while crop scouting.

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
Kim Brown, Weed Specialist (431) 344-0239

Manitoba