

Manitoba Crop Pest Update

Issue 14: Aug 24, 2022



Summary

Insects: Aphids are still a concern on soybeans in some areas, although concern is declining as crops advance. High aphid levels are also being seen in some sunflower fields. Control of Lygus bugs on canola was reported from the Northwest and north Interlake regions. Grasshoppers remain a concern in some areas. Crickets were noted feeding on barley heads in the Eastern region.

Diseases: Surveyors are beginning to report canola fields with significant incidence of Sclerotinia stem rot. As nearly as we can determine, these are fields that did not have fungicide applied during flowering. Other diseases – blackleg and Verticillium stripe – have thus far been seen at lower incidence than in 2021. No clubroot has been reported from the general Canola Disease Survey. However, two new symptomatic cases have been identified by agronomists and documented by Oilseed Specialist, Dane Froese, who provided a special contribution in this week's update.

Weeds: As crops mature across the province we see lots of actively growing weeds that will hamper harvest. Desiccation and preharvest weed control operations have begun in many areas, be sure to follow proper staging for the chemistry you've chosen to use. Confirm the product you're using is registered for use on that crop and acceptable to the buyer. This is also a good time to be scouting for waterhemp or Palmer amaranth as they are very tall (7-8 feet or more) and will be noticeable in most crops. Stop and investigate any large weeds or plants that look similar to red root pigweed.

Entomology

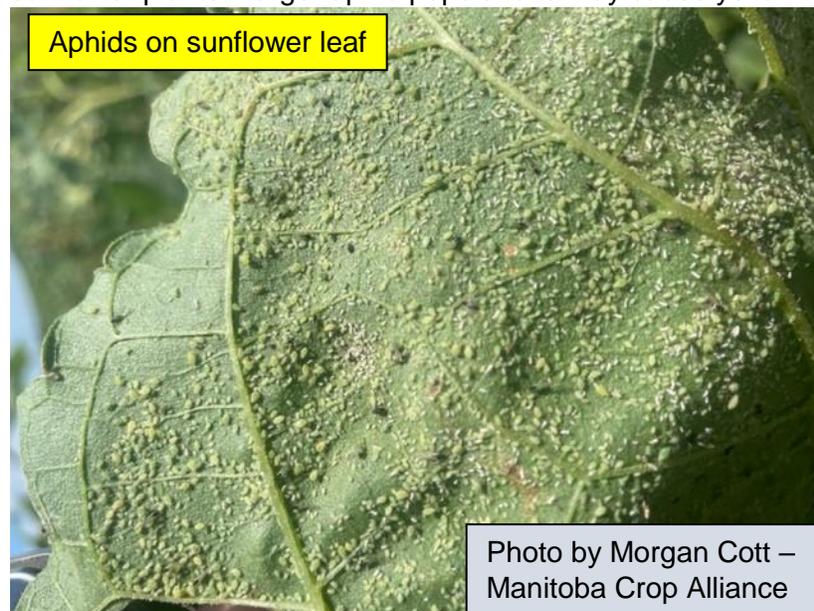
Soybean stages and Soybean aphids: A reminder that the action threshold for soybean aphids (where insecticide application is recommended to prevent economic loss) is:

- 250 aphids per plant on average,
- and the population is increasing,
- and the plants are in the R1 (beginning bloom) to R5 (beginning seed) growth stages.

Once soybeans reach full seed set (R6), research has not shown a reliable yield gain from an insecticide treatment.

Aphids on Sunflowers: There is not a lot of information regarding aphids on sunflowers. They have generally been regarded as non-economical. No economic thresholds exist, and no insecticides are registered for aphids in sunflowers. Research in Hungary on aphids in sunflowers showed an edge effect, but the aphid species were different than the species more common on sunflowers here.

As there are no set thresholds for aphids in sunflower, consider the general health of the sunflower plants. Larger aphid populations may cause yellowing or wilting of the sunflowers.



Late-season thresholds for flea beetles in canola: Flea Beetles on Podded Canola: Late-season flea beetles can commonly be seen on canola, and will do some feeding. Generally this is not going to be economical to control, although there can be exceptions.

A study at Agriculture and Agri-Food Canada in Saskatoon on flea beetles in canola late in the summer concluded that:

Flea beetle feeding on canola in late-summer is rarely an economic concern. Flea beetle feeding that occurs when seeds in lower pods of canola are at the green stage or beyond is unlikely to affect seed yields regardless of the infestation rate of flea beetles. Even when seeds are translucent to green, numbers higher than 100 flea beetles per plant, and for some cultivars higher than 350 per plant, may be necessary to cause significant yield reductions (Soroka and Grenkow. Can. J. Plant Sci. 2012: 97-107).

Canola can withstand high levels of flea beetles late in the season, so a bit of feeding on pods is tolerable. But in past years we have seen situations where there was a lot of damage occurring on pods. It is good to keep an eye on how much feeding is occurring to pods, and if it is severe there may be instances where control is needed. Sometimes the flea beetles are doing more damage along a particular edge or part of the field.

Once the canola becomes less palatable for the flea beetles or is being cut, these species of flea beetles will be on the move looking for other cruciferous host plants to feed on, including cruciferous garden vegetables and flowers, and can be hard to manage.

Plant Pathology

Mid-August to mid-September is the prime time to scout for clubroot development in ripening canola. We've had several calls on this disease in recent weeks, as growers and agronomists find patches of prematurely ripening canola in a sea of green pods. Above-ground symptoms to watch for are premature ripening, and smaller, spindly or shrivelled canola – often surrounding a low spot in a 'bathtub ring' effect where the canola in the centre died off earlier or drowned out. Patches are typically concentrated in high-risk areas near field approaches or surrounding low spots and water runs, in corners, or near shelterbelts. The photo shows a clubroot positive field where galls were found (red area), and areas of concern that should be investigated (blue circles and line).



Aerial imagery is a great way to scout for areas of concern with a soil-borne disease like clubroot. Once patches are identified, dig up plants in these areas, evaluating root health and structure. Gall development of any kind indicates yield loss is occurring, and immediate steps are needed to proactively stay ahead of disease development on that field, as well as for the entire farm to ensure canola crop health remains a priority for long-term sustainable production. If you suspect or have identified clubroot, please contact Dane Froese at Manitoba Agriculture for assistance on next steps and for gall testing. For growers that are concerned about clubroot in their fields, targeted soil testing can help identify if clubroot spores are present in high-risk areas. Visit canolagrowers.com/in-the-lab/psi-lab/ for instructions on how to test and submit samples.

Manitoba now has 10 municipalities that have confirmed cases of symptomatic canola fields where galls have been found – the newest RM will be published when the latest clubroot ID maps are released in mid-September. If you work or farm in or adjacent to any of these municipalities, a lengthened canola rotation (minimum 2-year break) and growing clubroot-resistant hybrids is a must. Improved equipment sanitation and reduced tillage and patch management will all help lower the risk of clubroot spread to other areas of the field and farm.

Dane Froese, Oilseed Specialist
Manitoba Agriculture

Weeds

Preharvest: Preharvest applications are underway, there are three different products that can be used. Glyphosate can be applied for perennial weed control when grain moisture is less than 30%. Heat brands can be applied for harvest aid/desiccation at similar staging to glyphosate. Reglone (diquat) is used to dry immature green material at the top of indeterminate crops and green weeds to facilitate harvest. Applying any product earlier than the labelled stage can result in reduced yield and quality. Consult product labels in the 2022 Guide to Field Crop Protection for appropriate staging.

Waterhemp: Continue monitoring for waterhemp and Palmer amaranth, these plants are recognizable as a pigweed but have hairless smooth stems unlike the more familiar red root pigweed. There are several pigweed species in MB, they are hard to tell apart, especially when plants are small. Here are a couple pics comparing waterhemp to redroot pigweed:



Waterhemp has alternate, oval to lance to spear shaped leaves, they can have a glossy, waxy sheen. By now we start to see these plants above the crop, waterhemp is can be anywhere from 4 to 10 feet tall. Its dioecious, meaning there are separate male and female plants. Seed heads can be up to a foot long. If you suspect you have waterhemp, or Palmer amaranth, proper identification is essential. These are Tier 1 weeds under the Noxious Weeds Act and as such must be controlled, without

exception. Resistance to multiple herbicide groups means dealing with these weeds in-crop will be difficult and expensive, they must be eradicated so they don't become widespread. A great guide to help recognize the different Amaranth species is available from OMAFRA, at this link: [PIGWEEED SPECIES IDENTIFICATION GUIDE AVAILABLE | The Grower](#). Suspected waterhemp or Palmer amaranth plants can be sent to the Pest Surveillance Initiative lab in Winnipeg where they can do DNA analysis to determine the correct species. MCGA members get free sampling (up to 8 plants per sampling). More information is available on their website [Pest Surveillance Initiative \(PSI\) \(mbpestlab.ca\)](#).

Here's a couple pics of a suspected waterhemp found in a soybean field, its over 8 feet tall. We are awaiting positive confirmation of the species and have sent tissue away for herbicide resistance testing. Based on field history its glyphosate resistant, and may be resistant to more herbicide groups.



Forecasts

Grasshopper Survey: A reminder for those participating in the grasshopper survey that counts are done until the end of August.

Agronomists and farmers who would also be interested in estimating grasshopper numbers in or around the fields they are in and have 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.

Data from the survey, along with weather data during the egg laying period of the grasshoppers, will be used to produce a forecast for 2023.

The protocol and data sheet for the grasshopper survey is at:

<https://www.gov.mb.ca/agriculture/crops/insects/pubs/grasshopper-survey-protocol-2022.pdf>

Identification Quiz:

Question: We have been finding a few of the insects in the photos below while sweeping some grassy areas in the Carman area in July and August. They are not common, but interesting to find. What are they?



Answer: This is a species of mantidfly called the brown wasp mantidfly, *Climaciella brunnea*. It mimics species of paper wasps in the genus *Polistes*. When disturbed, they will move their abdomens in a pumping-motion that resembles an aggravated wasp preparing to sting. They do not possess a stinger though. They are predatory on other insects, and also takes some nectar and sap.

Larvae are parasitoids of spiders. When the eggs hatch each tiny larva waits for a passing spider. The larva boards a passing spider, where it rides around, subsisting on the spider's blood until the spider lays an egg sac. The tiny larva crawls off the spider and into the sac as the eggs are being laid. Once securely inside the completed egg sac, the larva will feast on the spider eggs until it pupates.

We have been keeping one of the adults caught locally as a lab pet here in Carman for over a month.

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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.