Issue 13 – August 15, 2024

Manitoba Crop Pest Update

Seasonal Reports Weekly Weather Maps Insects

Summary

Insects: **Bertha armyworm** continues to be noticed at high levels in some canola fields in the Southwest region and western part of the Central region. Some insecticide applications have occurred. High levels of **Lygus bugs** were noted in some canola fields in the Northwest and Eastern regions. Levels of **soybean aphids** have been increasing on soybeans in some areas, but there have been no reports yet of economic levels or insecticide applications for soybean aphids.

Disease: Annual Crop Disease surveys are in full swing. In fact, surveying soybean at the early stage (R3-R4) is nearly complete; this part focussed mainly on root diseases. Phase II will begin when those same fields have reached R5-R6; leaf, stem and pod diseases are the focus of the second visit. The only new or expanded disease issues to report are rust in sunflowers, an FHB lookalike in wheat, and the advance of crown rust in oats.

Weeds: Preharvest applications are underway as crops near maturity. Many fields have large weeds that escaped herbicide application or germinated after spraying and these may interfere with harvest. Watch for weeds that escape preharvest desiccation and perennial weed control herbicide applications and do everything possible to prevent these weeds from setting viable seed. With most annual weeds it's far too late for that and our focus should shift to containing those weed seeds and not spreading them throughout the field and across the farm.

Entomology

Lygus Bugs – Monitoring and Identification

Lygus bugs can be very mobile (depending on the stage they are in) and like to feed on buds, flowers and young seeds. They also will feed on many types of plants. These include alfalfa, canola, beans, sunflowers, flax, hemp, quinoa, buckwheat, as well as many weeds such as red root pigweed and lamb's quarters. As host plants mature or are cut, they can move around looking for other hosts at the appropriate stages, which can be crops, weeds, or wild plants. Methods of monitoring Lygus bugs depend on the crop. In crops such as canola and dry beans, a sweep net is needed. One of the challenges in canola though can be that once pods form, in vigorously growing crops the crop gets very tough to walk through and sweep.

For both adults and juvenile Lygus bugs, there are things that they can possibly be confused with.

Report compiled by John Gavloski, David Kaminski, Kim Brown
Entomologist, Field Crop Pathologist, Weeds Specialist, Manitoba Agriculture
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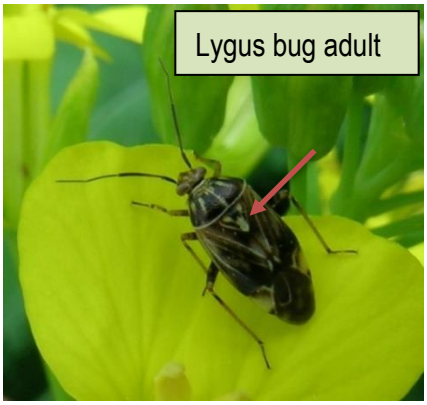
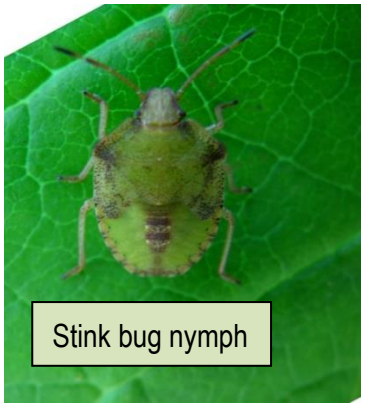
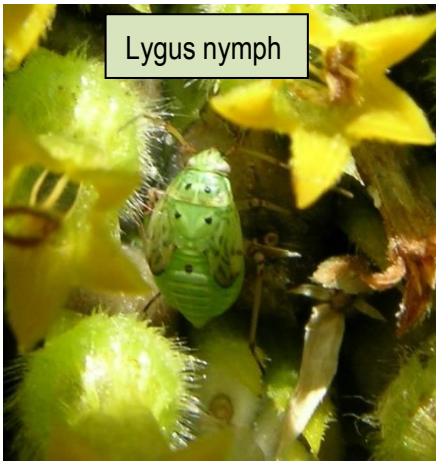


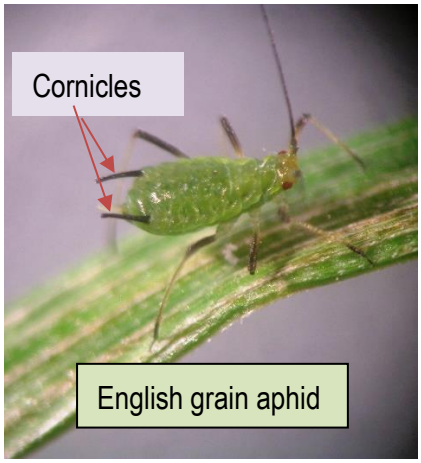
Lygus bugs have a distinctive yellow triangle or "V" mark on a triangular region (called a scutellum) about one-third of the distance down the back, just in front of the wings.

Stink bugs are somewhat shield-shaped.





Lygus nymphs are pale-green and look somewhat like aphids, except that they are more active, and lack cornicles (small tubes at the back of the abdomen in aphids).



Green Caterpillars in Canola

There are several green caterpillars that can potentially be found in canola. Currently, it is bertha armyworm that seems to be the most common, especially in the Southwest part of Manitoba, but diamondback moth is also present, and it is possible that you may see some of the other green caterpillars in the photos below as well.

Clover Cutworm

- Broad yellowish-pink stripe along each side

Bertha Armyworm
(Green form)

- Broad yellowish-orange stripe along each side

Imported Cabbageworm

- Covered in short hairs giving it a velvety appearance
- Faint yellow stripe on back and broken yellow stripe on each side

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Diamondback Moth

- Spindle shaped
- Last pair of prolegs form fork-like prongs at posterior end
- If disturbed, will wriggle backwards violently and may drop from the plant on a silk thread

Alfalfa Looper

- White stripe along each side
- Reduced prolegs (3 pairs of prolegs while the others have 5 pairs)

Plant Pathology

Sunflower Rust

Morgan Cott with Manitoba Crop Alliance reported rust in sunflowers this week – this may be one to watch in any later-seeded sunflower crops.

FHB Lookalike?

Several agronomist and cereal disease surveyors have been asking about this pinkish orange colour on the empty heads of wheat tillers. This is not Fusarium but a **bacterial saprophyte** – an organism that grows on already necrotic pland parts. For what might have caused the premature ripening of these tillers, check back to the August 1st edition of Crop Pest Update. Some enquirers also ask about black "dots" on the same heads. These are fungal saprophytes known by the catch-all term "sooty molds." The heads may be empty, or have severely shrivelled kernels, but these visually striking saprophytes did not *cause* that loss.

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Advance of Crown Rust

The black pustules are teliospores which have now replaced the orange pustules of uredospores. This stage of crown rust will now move back to the alternate host (buckthorn) in the spring. Notice the pustules are small, indicating a level of resistance in the oat cultivar. However, the "green island" effect is showing the pathogen's efforts to maintain healthy leaf tissue for its own development. In essence the plant and the fungus are "battling for survival."

Weeds

Weed Control Programs

Harvest is a good time to evaluate how well weed control programs worked and make plans for future weed control operations. Which weeds are still in the field and why – were they missed at spraying or did they come after? How well did desiccation or preharvest perennial weed control applications work? What resistant weeds do we have and where are they? We need to take all this into account when planning our fall weed control programs. This is our opportunity to target winter annual, biennial and perennial weeds and take pressure off next season's weed control program. While most annual weeds have already set seed and are finished for the season there are a few that we can still target. Kochia and Russian thistle don't have viable seed till later in the fall and there is still opportunity to prevent seed spread within and across fields. Waterhemp will regrow after being cut and will set viable seed by freeze-up. Waterhemp will also germinate post-harvest and will set seed by freeze-up – these plants will be small but could still have hundreds of viable seeds per plant. Know what weeds are still in your fields as well as those that could be coming and plan for effective fall weed control through tillage, herbicide applications or a combination of both.

Forecast

Grasshopper Survey

Manitoba Agriculture is conducting a grasshopper survey during August, when the majority of grasshoppers are in the adult stage.

Agronomists and farmers who would also be interested are encouraged to participate. The survey involves estimating grasshopper numbers in or around the fields you are in. If interested, see the survey protocol (at the link below) for more details of the survey and where to send data. Your counts would be welcomed.

Data from the survey, along with weather data during the egg laying period of the grasshoppers, will be used to produce a forecast for 2025.

The protocol and data sheet for the grasshopper survey is at: [grasshopper-survey-protocol-revised-2024-07.pdf (gov.mb.ca)]

Identification Quiz

Question: What is this large (roughly 7 cm long), slow flying, insect seen in late-summer to early-fall?

Answer: This a parasitoid wasp belonging to the family Pelecinidae, *Pelecinus polyturator*, sometimes referred to as an American pelecinid wasp. Of the three species in this family that exist worldwide, *P. polyturator* is the only species that occurs in North America. The females have a very long and narrow abdomen which is up to five times as long as the rest of her body. They are parasitoids of white grubs (the larvae of June beetles), and the female's long abdomen is used to reach down into the soil, sometimes almost 5 cm deep, to lay a single egg onto a white grub. Once hatched, the larva will feed inside of and kill the grub. The adults on the other hand feed on nectar. The males have shorter abdomens but are much less common. Males are more common in southern populations but in Canada and the US, the males are rare and the wasps primarily reproduce without mating, similar to how aphids can.

Despite their intimidating appearance, these wasps are harmless. These wasps do not have stingers, although if handled the female wasp may probe around your hand with the tip of her abdomen, as if she does. So, unless you are a June beetle larva, American pelecinid wasps are not dangerous.

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

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