Manitoba Crop Pest Update
Issue 13: August 16, 2023

Manitoba Agriculture

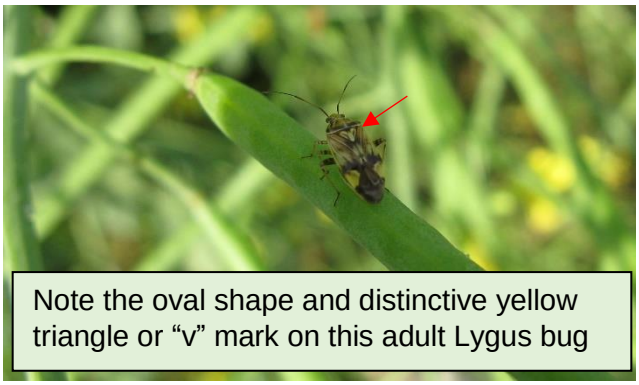
Summary

Insects: Lygus bugs are being found at high levels in some canola fields, with some insecticide applications having occurred, although in many fields the pods and seeds have advanced to the point where Lygus will no longer be of concern. **Flea beetle** levels are also high in many canola fields, often feeding on the upper pods. **Diamondback moths** are still quite noticeable in some canola fields as well. **Green cloverworms** are at levels causing noticeable feeding on the upper leaves in many fields of soybeans and dry beans, with some insecticide applications having occurred. Concerns over **soybean aphids** are decreasing; many soybean fields have reached the R6 growth stage (seeds in top pods are large and fill the pod cavity), and insect predators of soybean aphids have noticeably increased in some areas. **Grasshoppers** are still a problem in some fields. **Fall field crickets** are quite noticeable again this year, and in some instances have been noted climbing and feeding on the heads of wheat, although not at levels that would require control. There are no economic thresholds for crickets in wheat, as they are not regarded as a major pest of cereal crops.

Weeds: As harvest continues producers are reminded to prevent weed seeds from entering the combine whenever possible to reduce spreading weed seeds over the field. Keep scouting for weeds like waterhemp and Palmer amaranth and destroy these plants as soon as they're found. Waterhemp and Palmer amaranth should be hand pulled, bagged and removed from the field as they are prolific seed producers and these plants are resistant to multiple herbicide groups.

Entomology

Economic threshold and stages of canola susceptible to Lygus bugs: 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. The first two instars of Lygus bugs are not taken into account in the economic threshold calculations in canola, because they do not appear to have the ability to puncture the seed.


Note the oval shape and distinctive yellow triangle or “v” mark on this adult Lygus bug

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.

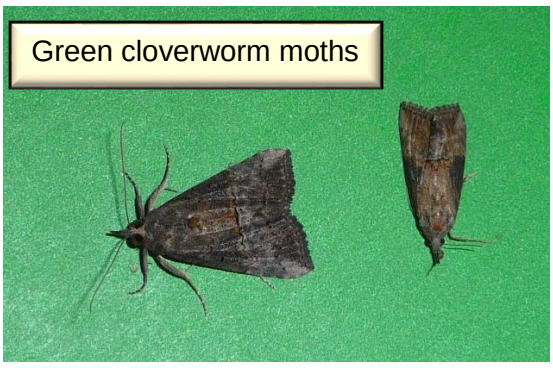
When most pods become leathery and when seeds inside are firm, Lygus bugs can no longer penetrate the pods or seeds with their mouthparts and are no longer an economic threat.

More information on the biology and scouting for Lygus bugs, in multiple crops, can be found at: https://www.gov.mb.ca/agriculture/crops/insects/pubs/lygus-bugs-factsheet3-revised-february2022.pdf

Green Cloverworm Scouting Tips:

- In soybeans, green cloverworm will preferentially feed at the top of the plant, so defoliation will be worse there, and can make it appear as though there is more defoliation than there really is.
- When assessing feeding by green cloverworm, consider the amount of defoliation to the whole plant, and whether pods are being fed on.
- The defoliation due to green cloverworm should be considered together with the damage inflicted by other defoliating insects (such as grasshoppers and thistle caterpillars), wind damage, etc. to make a management decision. Soybeans are most susceptible to defoliation during peak pod filling (stages R1-R6).


Green cloverworm larva


Green cloverworm moths

- More information on the biology, monitoring and thresholds for green cloverworm can be found at: https://www.gov.mb.ca/agriculture/crops/insects/pubs/green-cloverworm-factsheet-revised-july2023.pdf

Weeds

This has been a challenging year for weed control in many crops. Redroot pigweed and kochia have overtaken parts of this field and have set seed. Avoid putting these weedy areas through the combine - there's very little crop in the weed patches and you will be spreading the weed seeds throughout the field. Mow down these patches to stop the weed seeds from being moved around. Watch fields like this for weed regrowth and have a post-harvest/fall weed control plan.

Forecasts

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 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 gives 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 forecast for 2024.

The protocol and data sheet for the grasshopper survey is at:
https://www.gov.mb.ca/agriculture/crops/insects/pubs/grasshopper-survey-protocol-revised-july2023.pdf

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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.