Manitoba Insect and Disease Update

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To report observations on insects or plant pathogens that may be of interest or importance to Farmers and agronomists in Manitoba, please send messages to the above contact address.

To be placed on an E-mail list so you will be notified immediately when new Manitoba Insect Updates are posted, please contact John Gavloski at the address or numbers listed above.

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Recent Insect and Plant Pathogen Activity

Small Grains

Cereal Leaf Beetles: Some cereal leaf beetles have been reported from the area northwest of Dauphin, and a cereal leaf beetle larva was found this week in a field of oats near Graysville. So the beetle is starting to show up in some more areas of Manitoba. Only low levels have been reported so far this year, so it is not appearing to be an economic threat. But if you do notice cereal leaf beetle in your area, collect a sample and send it to me for verification. We are still trying to determine the extent of the beetle in Manitoba. Although it has been established in the Swan River valley for a few years, a parasitoid call *Tetrastichus julis*, which can be very effective in regulating populations of cereal leaf beetle, is also established in the Swan River area. Because of this, agronomists and cereal growers in the Swan River valley are encouraged to only use insecticides on cereals when absolutely necessary, as it is in our long-term benefit to help these parasitoids get well established.

Figure 1. Larva of cereal leaf beetle.

Figure 2. Adult of cereal leaf beetle – about 5-6 mm long

Canola

Diamondback moth: Some feeding on buds of canola from diamondback moth has been noted. One thing to consider when trying to decide how serious such feeding can be is the growing conditions for the plants. If there is adequate soil moisture, canola is very good at producing more buds and flowers to compensate for those lost to insects and through other means. So when growing conditions are good, each bud or flower lost does not correlate to a lost pod.

Also note that when the majority of diamondback moth are in the larval stages, heavy rains can reduce the population. So populations can fluctuate due to weather.

If you are noticing a lot of pupae on the plants, the larvae are changing into a non-feeding stage, so feeding will decrease, at least temporarily. We should get at least a couple more generations of larvae though. Last week we addressed the question of whether the populations will increase or decrease in succeeding generations. A lot depends on the level of parasitoids, as well as weather. Recall that in 2011, 66 to 86% of larvae collected in the central region in August contained parasites, mainly a species of *Cotesia*, and we saw the diamondback moth population crash. This is why it is important to monitor what the situation is like in each field, and only be applying insecticides when economic thresholds are surpassed.

Figure 2. Diamondback moth pupa (left) and larva (right).

Note that once canola has 3 or 4 true leaves it can compensate very well for feeding by **flea beetles**. In the traps we have set up for flea beetles (we are trapping live flea beetles for parasitoid studies) the levels of flea beetles have declined substantially of the last couple of weeks. So we have moved past the point where flea beetles are likely to be of concern.

So when scouting canola fields the current insects to look for would include:

Diamondback moth
Lygus bugs – if the plants have reached the bud stage.
Predators and parasitoids (lacewing larvae will feed on diamondback moth larvae, and damsel bugs like small caterpillars as well; and there are several species of parasitic wasps that will lay eggs into and the larvae develop inside diamondback moth).

General Crop Scouting

Grasshoppers: The species of **grasshoppers** that we monitor as potential pests are emerging and in their young instars. Last year grasshopper populations were low, but we did get some good conditions in late summer for those grasshoppers that were present to lay a lot of eggs. This could help the population to start to rebuild. One of the things that can set grasshopper populations back is a lot of heavy rainfalls in June. So keep an eye on the grasshopper populations along the field edges and in the ditch areas next to the fields. If populations seemed high earlier in June, it may be worth re-assessing now that we have had some significant rain.

Cutworms are getting large and should begin pupating soon. For many of our common species of cutworms, larvae will get about 38mm (about 1.5 inches) when fully grown. After that they will become pupae, a non-feeding stage. During the last few days as larvae they may not feed much as well, as they are getting ready to pupate. So hopefully the cutworm feeding in many areas will decrease soon.

Surveys and Forecasts

Diamondback Moth Monitoring: Traps around Beausejour, Stead and Morris continue to have the highest counts, and all the higher counts in the pheromone-baited continue to be in the eastern part of Manitoba. West of Carman the highest counts have been in the area north of Dauphin; 54 at Ethelbert and 51 at Fork River.

Table 1. Highest cumulative trap counts for diamondback moth in Manitoba as of June 21, 2012

Location	Cumulative Trap count
Beausejour	407
Stead	317
Morris (East)	197
Morris (West)	150
Altona	136
St. Joseph	79

The full data set for adult counts of diamondback moth can be viewed at:
http://www.gov.mb.ca/agriculture/crops/insects/db/index.html

The data from the pheromone-baited traps tells us how early diamondback moth were present, so we can estimate the number of generations we may see. What is most important now is what the levels of larvae are in the fields.

The traps for diamondback moth were originally set to be taken down after counts on the week of June 18 to 24th. So traps for diamondback moth can now be removed.

Traps for moths of bertha armyworm: Some moths are starting to be found in the pheromone-baited traps for bertha armyworm, although so far numbers are low.

Table 2. Highest cumulative trap counts for moths of bertha armyworm in Manitoba as of June 21, 2012

Location	Cumulative Trap count
St. Joseph	76
Rosenfeld	60
Treherne	60
Altona	48
Stead	42

The full data set for adult counts of bertha armyworm, as well as how to interpret the data, can be viewed at:
http://www.gov.mb.ca/agriculture/crops/insects/bertha/index.html

Insect Identification Quiz

Question: You are starting to see a lot of these brown and white alligator-shaped insects while out sweeping your crops. What are they?

Answer: These are larvae of green lacewings. These are predators and will not feed on your crops. The lacewing larva in this picture is eating an aphid. They also like small caterpillars and insect eggs.