

Manitoba Insect and Disease Update

Prepared by: **John Gavloski**, Entomologist, Manitoba Agriculture, Food & Rural Initiatives,
john.gavloski@gov.mb.ca Phone: (204) 745-5668; Fax: (204) 745-5690
Holly Derksen, Plant Pathologist, Manitoba Agriculture, Food & Rural Initiatives,
holly.derksen@gov.mb.ca Phone: (204) 750-4248; Fax: (204) 745-5690

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.

June 1, 2012

Recent Insect and Plant Pathogen Activity

Wheat

Wheat streak mosaic virus (WSMV) is showing up across the province in winter wheat. Samples from the Morden, Headingley, Glenboro, and Deloraine areas have tested positive for this disease. Characteristic symptoms of WSMV include dashes, streaks, or yellow stripes on the leaves parallel to the veins sometimes resulting in a mottled effect (Figure 1). Infected plants will also show stunting which will vary in severity depending on how early the infection took place. WSMV is spread by wheat curl mites, and chemical controls are not available for the mites or the disease. Scout winter and spring wheat fields for this disease especially where these crops are grown side by side.



Figure 1. Characteristic symptoms of wheat streak mosaic virus

Canola

Flea beetles: Some have been noting the decrease in flea beetle feeding earlier in the week, when the weather was cooler. This does not necessarily mean that the flea beetle population has died off and is no longer a concern to fields that are still in the seedling stage. The flea beetles are less active and not flying when we get cooler weather. We should soon be getting to the point where we will see the levels of adult flea beetles start to die and populations decline. But as we get into some warmer weather, make sure to monitor canola fields that may still be susceptible to feeding from flea beetles.

A rumor seems to have started in some areas that “striped flea beetles are resistant to the seed treatments used in canola”. There have currently been no confirmed cases of any species of flea beetle developing resistance to the seed treatments used in canola. What we do know is that there is some variability in the level of mortality that the neonicotinoid seed treatments can have on different species of flea beetles. Crucifer flea beetles are known to feed less and have higher mortality than striped flea beetles when exposed to the neonicotinoid insecticides currently used in seed treatments in canola. But this variability in mortality is very different than a situation where a species of flea beetle changes genetically to increasingly become less affected by an insecticide.

Corn and Pulse Crops

Seedcorn maggot: More feeding damage from seedcorn maggot has been noticed over the past week. Corn fields south of Winkler and near Elm Creek, and bean fields near Portage la Prairie have been reported with high levels of damage. Often the maggots are right inside the seeds (see Figure 2).

Seed treatments that control seedcorn maggots are available, however rescue treatments after the crop has been seeded are not available. Seedcorn maggots can be a problem in many large seeded crops including corn, beans, peas, and soybeans.



Figure 2. Seedcorn maggot

General Crop Scouting

Aster leafhoppers: High populations of aster leafhoppers continue to be found in cereal fields in Manitoba. Leafhoppers feed on plant sap, and aster leafhoppers can potentially spread a disease called aster yellows. The ability to do this will depend on the level of infectivity of the leafhopper population. Samples from Manitoba have been sent to test for the level of infectivity, but I do not have any data yet to report.

Manitoba Insect and Disease Update

Aster yellows can affect field crops, such as cereals, flax, sunflowers and canola, however damage is usually not as severe as for horticultural crops such as carrots.

Growers of horticultural crops should monitor for aster leafhoppers in their crops, and some have already started to control aster leafhoppers in or near their crops. The following factsheet discusses the biology of aster leafhoppers and how to monitor populations and make management decisions in carrots. Economic thresholds do not exist for aster leafhoppers in field crops.

<http://www.gov.mb.ca/agriculture/crops/insects/fad51s00.html>



Figure 3. Aster leafhopper.

Cutworms: High populations of cutworms continue to be noticed in some fields. Over the past week, high populations of cutworms have been reported from sunflowers in the Beausejour and Oakbank areas, canola north of Portage la Prairie, and corn north of Neepawa. Dingy and darksided cutworm seem to be 2 of the dominant species this year, with some others such as redbacked cutworms mixed in.

A reminder that cutworms are nocturnal, and will be under the soil or debris during the day and emerge to feed at night. So if fields do need to be treated for cutworms, spraying as late in the day as possible is advised. Cutworm populations can also be very patchy in fields, and sometimes only a portion of a field may need to be treated.

Please let me know as soon as possible if you are seeing high populations of cutworms. Someone will come to the field to collect cutworms for a research project on parasitoids of cutworms.

Surveys and Forecasts

Diamondback Moth Monitoring: Diamondback moths were found in pheromone-baited trap early in 2012. Traps around Morris and Beausejour have had the highest counts, and all the higher counts continue to be in the eastern part of Manitoba. West of Carman the counts have all been low.

Whether or not these higher populations of adult moths in the Red River Valley and Eastern Manitoba result in high populations of larva later in the season will depend on factors such as rates of egg laying and the effects of weather and natural enemies on the population.

Table 1. Highest cumulative trap counts for diamondback moth in Manitoba as of May 30, 2012

Location	Cumulative Trap count
Beausejour	179
Morris (East)	149
Stead	130
Altona	99
Morris (West)	93
Carman	73

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>

Insect Identification Quiz

Question: You are looking in the soil for cutworms or wireworms, and you start seeing a lot of larvae like those in the picture below, although not many cutworms and wireworms. Should you be concerned? Hint – this is a livestock operation, and manure is often used to help fertilize the field.



Answer: What you are finding are larvae of dung beetles. They will help decompose the manure, but are of no threat to the crop.