

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.

Recent Insect and Plant Pathogen Activity

Canola

Flea beetles: Flea beetle feeding will generally be less as we get some cooler and wetter weather, which is forecast for the next few days. Hopefully this will help plants in some fields get to the 3 or 4 true leaf stage without significant flea beetle damage. Until the plants get a few true leaves, it is important to monitor fields that have been seeded more than 3 or 4 weeks ago for flea beetle feeding. In these fields seed treatments may no longer be controlling flea beetles, and until there are a few true leaves the plants would have trouble compensating for higher levels of flea beetle feeding.

Small Grains

Rust on Cereals: Reports of rust on spring and winter wheat in the Dauphin/Grandview area have been received. Details given indicate that this is most likely a case of leaf rust. It is unknown whether the pathogen overwintered in the area or whether spores blew in from the south. Wind trajectory reports indicate that there was a wind event from the Texas/Oklahoma region that passed over Dauphin on May 8th. In addition, stripe rust has been observed in spring wheat near Grand Forks, North Dakota. Scouts should be on the look-out for rusts in winter and spring cereals as it appears to be showing up earlier than “normal” this year.

Corn

Seedcorn maggot: Seedcorn maggots and their feeding are quite noticeable in some corn fields south of Winkler. Seedcorn maggots are fly larvae. These small, white larvae are easy to tell from cutworms and wireworms because seedcorn maggots have no legs and lack a well-developed head; characteristics that are typical for fly larvae. You will see legs on both cutworm and wireworm larvae.



Figure 1. Seedcorn maggot

Female flies of seedcorn maggots are attracted to moist soils that give off an odour of decaying organic matter such as crop residue, areas where manure has been applied, or freshly tilled soil. Risk of seedcorn maggot causing significant damage to plants is also favored by early planting dates, cool-wet weather, or any other factor that results in the delays in germination and early growth. Agronomic practices that promote quick germination and early growth can reduce damage. Seed treatments that control seedcorn maggots are available, however rescue treatments after the crop has been seeded are not available. Seedcorn maggots feed directly on seeds, but may occasionally tunnel seedling stems. Seedcorn maggots can be a problem in many large seeded crops including corn, beans, peas, and soybeans.

General Crop Scouting

Aster leafhoppers: Some high populations of aster leafhoppers are being found in cereal fields in Manitoba. Although there is some evidence that in some years aster leafhoppers may potentially overwinter in the Canadian prairies to some degree, this is another insect where the majority of our population usually blows in. Leafhoppers feed on the sap of plants, they do not chew leaf material. 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. 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. 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 2. Aster leafhopper.

Heavy populations of aster leafhopper have also been reported this spring in North Dakota, Minnesota, South Dakota and some of the U.S. midwest states. In some of these areas heavy rainstorms seem to have lowered the populations a bit.

Cutworms: High populations of cutworms are being noticed in some fields. Corn fields near Niverville, Starbuck and Eden have had insecticides applied recently for cutworms. 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.

Wireworms: Some wireworms and a bit of damage to wheat seedlings was noted in the Crystal City and Cartwright areas. Overall there have been few reports of wireworm damage so far this year.

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 have been in the eastern part of Manitoba. West of Carman the counts have all been low, with the highest cumulative count so far being 10 at Rivers.

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.

Some diamondback moth larvae have been noted on canola plants, but no populations of larvae or feeding near economic levels have been noted.

Table 1. Highest cumulative trap counts for diamondback moth in Manitoba as of May 24, 2012

Location	Cumulative Trap count
Morris (East)	149
Beausejour	140
Morris (West)	93
Carman	47
Stead	47
Altona	45

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

Know your cutworms: Below are photos of 3 of our more common species of cutworms from crops in Manitoba. What species are these? Which of these will be larger early in the spring and complete their development earlier? What stage are the cutworms at in figure 6?



Figure 3



Figure 4



Figure 5



Figure 6

Answer: If you look carefully at figure 3, you will see what look like a series of “v’s” or “tire-tracks” going down the body. Larvae in figure 3 are dingy cutworms. Figure 4 is a redbacked cutworm. Note the reddish stripes going down the back. Figure 5 is a darksided cutworm. These can be hard to tell from redbacked cutworms, but the colour of the stripes is different. Figure 6 is of cutworm pupae (these are from redbacked cutworms but pupae of most species of cutworms look quite similar). Once they reach this stage they are done feeding on crops for the year.

Dingy cutworm is quite different than redbacked and darksided in the way it develops and feeds. It overwinters as a partially grown larva, the other 2 species overwinter as eggs. So dingy cutworms are bigger early in the spring and will complete their larval stages sooner. They will come out of the soil at night and feed on the foliage of plants but are less likely to clip plants than redbacked or darksided cutworms.