Issue 2 – May 30, 2024 Manitoba Crop Pest Update



Seasonal Reports

Weekly Weather Maps

Insects

Summary

Insects: Both striped and crucifer flea beetles are present. In most regions, reports of high levels of damage to canola are minimal so far. In some areas of the Northwest region, flea beetles are starting to reach threshold on emerged canola, and farmers are starting to make insecticide applications. In some regions farmers and agronomists have commented on the flea beetle levels and feeding on volunteer canola and other cruciferous plants being less than last year. Some seedcorn maggots have been reported from a sunflower field in the Central region, but no serious damge. Wireworms and damage from their feeding have been noticed on some wheat in the Southwest region.

Disease: With rainfall amounts throughout Manitoba being well above normal since the beginning of May, and with Growing Degree Day accumulations being lower than average, we would usually see more seedling diseases than in other years. That has not been the case so far in 2024. Have a series of dry growing seasons led to a decrease in stubble-borne inoculum? Or have environmental conditions not been favourable for infection?

Weeds: Cool weather and rain/snow from last week have slowed weed growth somewhat but weeds like wild oats are really prevalent. As seeding continues be mindful of surrounding crops when spraying burnoff products. Many crops have emerged and are vulnerable to spray drift, especially with glyphosate. High winds while spraying have contributed to some drift issues on emerged crops.

Entomology

Flea Beetles

Some have commented that flea beetle levels so far have not been as high as they have become used to seeing in canola fields in recent years. The cooler, and at times very windy, weather we have had recently would not have been ideal for flea beetles to be very active. Hopefully, there will be lower levels this year, but the real test will come when we get a stretch of warm (temperatures 20°C and above), calm and dry weather. These are the conditions where they feed most aggressively.

My speculation is that levels are lower, but probably still high enough that if canola development was to stall in the seedling stage, some producers would carry out foliar insecticide applications. My hope is that now that we have some good soil moisture and warmer weather on the way, canola will have what it needs to get through the more vulnerable stages with only minor feeding from flea beetles. The next couple of weeks will be the real test – once the canola is up and we have a few hot, calm and dry days.

Report compiled by John Gavloski, David Kaminski, Kim Brown Entomologist, Field Crop Pathologist, Weeds Specialist, Manitoba Agriculture Subscribe to the weekly Crop Pest Update



Striped flea beetle

Seedcorn maggots

Seedcorn maggots are usually more of a problem in cool, wet springs, so may be something to watch for this spring. Seedcorn maggots overwinter as pupae, and when they emerge as adult flies in the spring the females search for egg laying sites. The females are attracted to moist soils that give off an odour of decaying organic matter, such as plant residues or areas where manure has been applied, or freshly tilled soil. If crop seeds are germinating close to the decaying organic matter, the maggot can move to the seeds and begin to feed.

Nothing can be done to rescue a damaged field unfortunately, except replanting if necessary. Seed treatments are available and can help minimize damage by seedcorn maggots in dry beans, soybeans and corn (the Guide to Field Crop Protection shows these) but not other field crops. Also, the greater the gap between when green manure and/or manure is incorporated into the soil and when seed is planted in the same soil, the lower the risk of seedcorn maggot being present.



Cutworms for research trials

About 100 or more cutworms are needed for research trials on insecticides for cutworms. Ideally these would be from a field that does not have a seed treatment that controls cutworms. If anyone is finding sufficient cutworm populations that could be used for this research, please contact John Gavloski.

Plant Pathology

Seedling symptoms

An agronomist in Southwestern Manitoba sent some images from barley that they suspected to be scald, a fungal disease. The leaf spots had a distinct purplish brown margin and a tan center, however, that was where the symptoms characteristic of scald ended. The spots were not eye-shaped and there were no early-stage symptoms: same shape but with dark green margins and greyish-green centers. The lesions were also smaller than typical scald lesions.



Figure 1. Photo courtesy of Sheila Elder



A more probable hypothesis is that rapid drying of herbicide droplets led to a physical response that mimics pathogenic disease. Such symptoms are often masked quickly as new leaf growth emerges. It is far too early to be considering a fungicide application even if this had been scald. Leaf disease development, caused by pathogens, can be tracked and intervention is most effective just before full emergence of the flag leaf. In barley, scald is usually supplanted by another fungal disease – net blotch – as the season warms up. Net blotch is the most important foliar disease to track in barley. If net blotch appears at the seedling stage, it was likely seed-borne, as was the case in the image to the right.



Weeds

Grass weed ID

It's tough to identify grasses when they're just coming up, it's impossible to tell by just looking at this first picture. Is it barnyard grass? Green foxtail? Yellow foxtail? Dig it up, look at the seed (if it's there), bend the top leaf back and look for a ligule and/or auricles.



Pulling that top leaf back shows no auricle, no ligule, just shiny inside. That tells me this is barnyard grass, and seeing the seed covered with short, stiff hairs and an awn confirms that.



Forecast

Diamondback moth

A network of pheromone-baited traps are being monitored across Manitoba in May and June to determine how early and in what levels populations of diamondback moth occur. Diamondback moths have been found in 59 out of 80 traps that counts were reported from. Trap counts have generally been low so far, however, some moderate counts have occurred in the Eastern, Interlake and Central regions.

The highest cumulative trap count so far is 82 from a trap near Riverton in the Interlake region.

Table 1. Highest cumulative counts of diamondback moth (*Plutella xylostella*) in pheromone-baited traps for five agricultural regions in Manitoba as of May 30, 2024.

	0-25 Elevated Risk: 26-200 Higher level o	
Region	Nearest Town	Trap
		Count
Northwest	Makaroff	12
	Roblin	6
	Shell Valley	4
	Dropmore	3
	Bield	2
Southwest	Belmont	8
	Brandon East	7
	Melita, Rivers	4
	Baldur, Ninga, Pierson	2
	All other counts 0	
Central	Altona	41
	Rosetown	31
	Fannystelle	30
	Rosenfeld	26
	Winkler	24
Eastern	First week with weekly trap counts greater than 25: May 5-11	
	Hadashville	66
	Beausejour	24
	Stead	13
	Whitemouth	3
	Kleefeld, Tache, Tourond	2
Interlake	First week with weekly trap count greater than 25: May 12-18	
	Riverton	82
	Hodgson	41
	Arborg	31
	Ledwyn	29
	Memville	21

Highest counts in each region and a monitoring summary are updated weekly on the Insect Page of the Manitoba Agriculture website at: https://www.gov.mb.ca/agriculture/crops/insects/pubs/diamondback-moth-monitoring-may-30-2024.pdf



True Armyworms

Larvae of armyworms (*Mythimna unipuncta*), sometimes also called true armyworms, can cause significant feeding injury to cereals and forage grasses when levels are abundant. Adult moths of armyworms migrate to Manitoba in the spring from overwintering sites from the southern US. A network of pheromone-baited traps are being monitored from early-May until late-July to determine how early and in what levels populations of armyworms have arrive.

Some moderate counts have occurred from traps in the Eastern and Interlake regions of Manitoba. The highest cumulative count is 132, from a trap near Dencross in the Eastern region.

Table 2. Highest cumulative counts of armyworms in pheromone-baited traps for agricultural regions in Manitoba as of May 29, 2024.

Region	Nearest Town	Trap Count
Northwest	Russell	0
Southwest	Pierson	9
	Medora	6
	Rivers	4
	Belmont	1
Central	Morris	9
	St. Joseph	8
	All other counts 0	
Eastern	Dencross	132
	Beausejour	34
	New Bothwell	6
	Lorette	3
	Kleefeld	1
	Riverton	76
	Fisher Branch	27
Interlake	Teulon	21
	Washow Bay	20
	Meadows	17



← Highest cumulative count

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A map showing armyworm counts from Manitoba, Eastern Canada, and several Northeast U.S. states is available at:

https://experience.arcgis.com/experience/7164d23d488246d198dcf7a07d8c9021/page/Home/?views=Welcome. Go to the link "TAW". The "Play" button at the bottom can be set so the map automatically advances (click middle arrow), or set to "Stop" and the arrows at either side of the button used to go forward or backward a week at a time.



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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