

Manitoba Crop Pest Update

Issue 16: August 25, 2021

Summary

Insects: Grasshoppers are still quite noticeable in some ditches and edges of some field edges, but control seems to have tapered off. Some movement of grasshoppers from harvested crops to later maturing crops has been noticed. Heavy populations of flea beetles have been noticed on some later maturing canola fields, resulting in some control measures. Spider mite concerns in soybeans have also diminished, with the recent rains and advancing growth stages being potential factors.

Diseases: This week we present some of the preliminary findings of our three major field crop disease surveys, from canola, wheat and soybeans.

Weeds: Green, actively growing weeds continue to be a problem in fields that are ready to harvest. Recent rains will be causing regrowth of both harvested crop and weeds in those harvested fields. Winter annuals will be showing up soon too, thanks to that much-needed precipitation. Despite the recent moisture soil conditions are still very dry and chemical control may be a better option than tillage.

Entomology

Grasshopper Management tips in Winter Cereals: Because there can be a reduced amount of green vegetation present in late summer and fall, newly emerging winter cereals can be very attractive to grasshoppers. Before planting, estimate grasshopper levels around field edges. If grasshopper populations along the borders or within the field are in the range of 11 to 20 per square meter, the following seeding practices may be helpful:

Seeding date: For winter wheat and other late-summer seeded crops, seeding near the end of the optimum planting window can reduce the risk and severity of grasshopper damage.

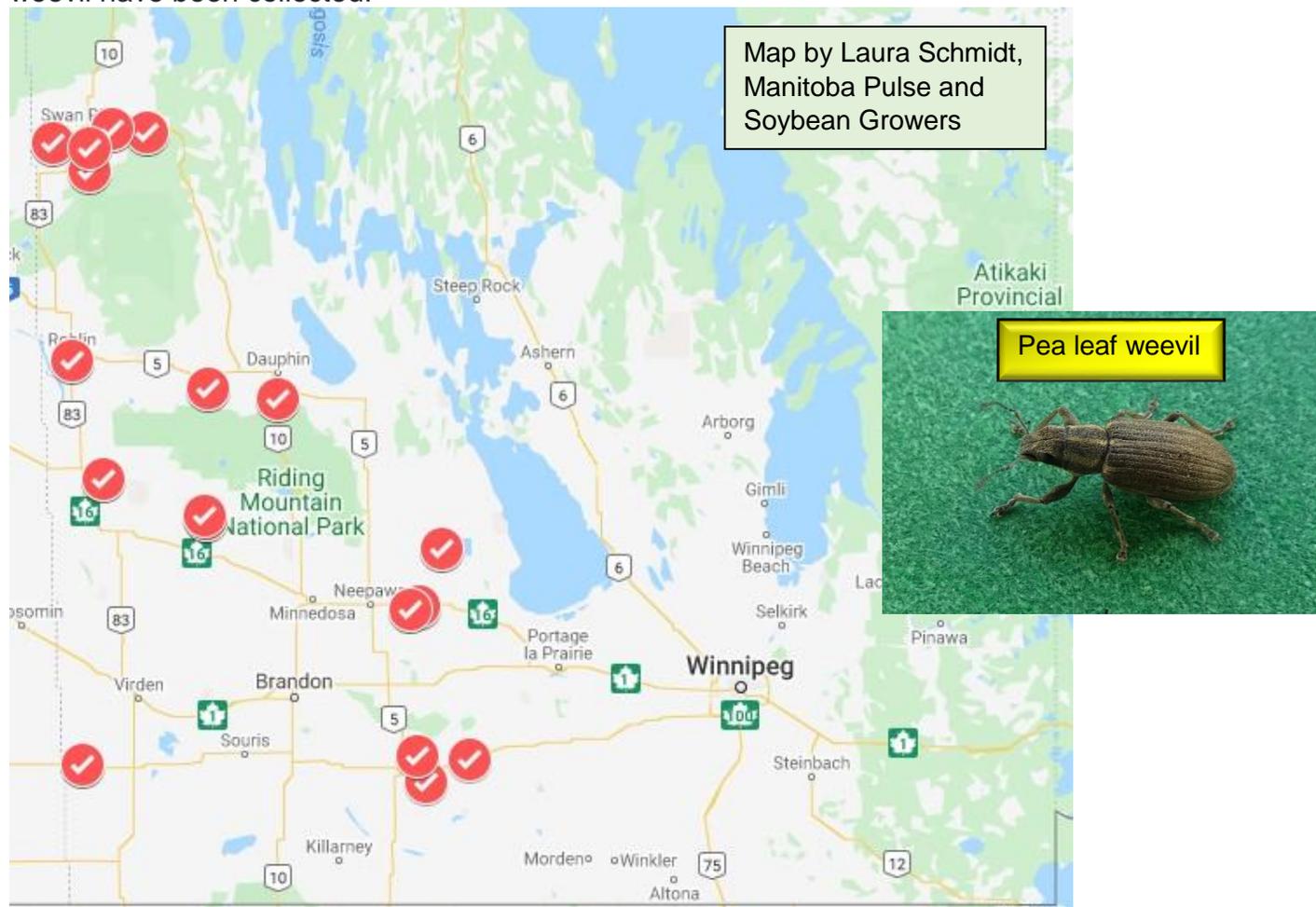
Recommended seeding dates for winter wheat in Manitoba are September 1 to 15 in northern areas and September 1 to 21 in southern areas.

Seeding rate: Seed density can be increased along field margins. For example, doubling the planting populations for a strip that is between 20 to 40 metres wide around the field edge. This increased plant stand should slow the movement of grasshoppers into the rest of the field, and compensate for lost seedlings.



If injury from grasshopper feeding is severe along the field edge, it is possible to replant these areas after the first hard frost. Grasshopper will have significantly declined.

Pea leaf weevil distribution in Manitoba: The known distribution of pea leaf weevil in Manitoba has expanded quite a bit over the past year. We did put in pheromone-baited traps in the spring, and were catching weevils in some fields, mainly in the Northwest region. But a large part of the documented range expansion is because of some keen agronomists who have been collecting weevils from faba beans and peas in late-July and August. The checkmarks on the map below show where positive samples of pea leaf weevil have been collected.



If anyone does find weevils on faba beans or volunteer peas that have come up, please consider sending them to me (John Gavloski) for identification, especially if you are outside of the known distribution range.

Cabbage Seedpod Weevil Survey Results: A survey for cabbage seedpod weevil was once again conducted in July to determine relative levels and range of cabbage seedpod weevil in Manitoba. Sweep net samples were taken from 23 fields of flowering canola between July 6 and 20th. At each field 3 sets of 25 sweeps were done, for a total of 75 sweeps. Cabbage seedpod weevil were found in 4 of the 23 fields. The highest count in any field was 3 weevils in 75 sweeps. To put this in perspective, the economic threshold for cabbage seedpod weevil is 25 to 40 weevils in 10 sweeps on average. Although cabbage seedpod weevil is present in western Manitoba, it remains at levels hard to detect and well below economic threshold.



We did expand on the known range of cabbage seedpod weevil with the survey this year. One of the cabbage seedpod weevils found the survey was from a canola field south of Gladstone in the Municipality of Westbourne. This is the furthest east cabbage seedpod weevil has now been found in Manitoba.

We also look for pollen beetle while going through the insects in the survey for cabbage seedpod weevil. Once again, no pollen beetles were found, so Manitoba appears to still be free of pollen beetle.

Plant Pathology

Major Canola Diseases	# of samples	Verticillium	Blackleg BSC		Sclerotinia	
		prevalence	prevalence	severity	prevalence	severity
So far in '21	54	35%	20%	1.27	0.7%	1.00
Results 2020	161	~30%	83%	1.40	39%	2.60

FHB in Wheat	# of samples	Fusarium Head Blight	
		prevalence	Fusarium index
So far in '21	56	0.7%	n/a
Results 2020	137	33%	0.02

Major Soybean Diseases	# of samples	Bacterial Blight		Septoria Brown Spot		Downy Mildew
		prevalence	severity	prevalence	severity	prevalence
So far in '21	23	8%	0.43	26%	0.62	4%
Results 2020	66	92%	1.26	80%	1.11	27%

Prevalence = percentage of fields surveyed that had some of the specific disease

Severity = mean rating of infected plants within those fields (0-5 scale for BL, SSR, BB, SBS and DM)

Fusarium Head Blight Index = (mean incidence x mean severity)/100

With about one third of surveyed fields in 2021 tabulated, we see a drastic decrease in all of the major diseases. This is no surprise in a year that was likely the driest in the last five years. Most notable is the near total absence of Sclerotinia in canola and the same for FHB in wheat. In soybeans, Septoria brown spot was more prevalent than Bacterial blight, but all of the three main foliar diseases were negligible.

Canola Conundrum from last week:

Two issues that have received more attention in our NW Manitoba canola mystery are: the likelihood of boron deficiency – paired tissue tests will be the decisive test – and intensity of flea beetle feeding and how that is affected by availability of soil moisture across the landscape.

Apologies that we have no new theories nor a conclusive diagnoses at this time. Perhaps later in the fall we can report on this outside of the Manitoba Crop Pest Update.

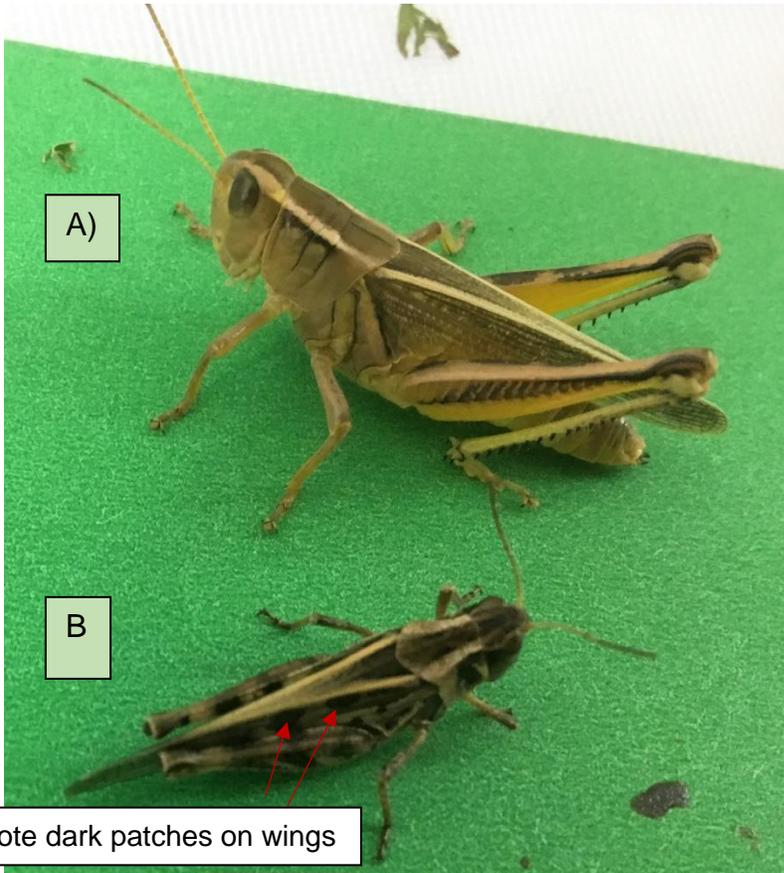
Weeds

Waterhemp: Keep watching for this Tier 1 Noxious Weed, now is the time we can really see it towering above soybean fields. Waterhemp is an extremely aggressive weed, here are some pics of some plants that were mowed two weeks ago. They have regrown from below the main stem cut (circled), and are already starting to set seed. In the pic on the right all of the green growth in the stubble is waterhemp. This field will have to have another round of waterhemp control to destroy these plants that are growing back.



Identification Quiz:

Question: Do the two grasshoppers in the photo below look similar to you? What are these two species and why does it matter?



One is a generalist and will feed on a lot of types of crops, the other is primarily a grass feeder, and seldom feeds on broad-leaved plants. Knowing what plants and crops they will feed on is a good reason to get to know some of the potential pest species of grasshoppers

Hint: Note that the bottom grasshopper (B) is smaller and has dark patches on the forewings.

Note dark patches on wings

Answer: The grasshopper at the top of the photo (A) is a two-striped grasshopper. It is the largest of our pest species of grasshoppers and will feed on both broadleaf plants and grasses. The grasshopper at the bottom of the photo (B) is a clearwinged grasshopper. They are primarily grass feeders.

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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.