

Manitoba Crop Pest Update

Issue 7: July 1, 2020

Summary

Insects: High levels of grasshopper nymphs have been found in many areas. Armyworms are being found in cereals and forage grasses in the Eastern, Interlake and Central regions. Some thistle caterpillars are being noted on soybeans and sunflowers.

Weeds: Skipping a preseed burn has led to some improper staging and I have received a few calls about suspected resistance that are likely more focussed on being outside the proper staging. Now is the time to be scouting for efficacy issues and trying to address issues. Dry conditions, and now very wet conditions in many areas are a stress on crops and weeds, so don't expect the best weed control in these situations.

Entomology

Armyworms: Some high populations of armyworms (*Mythimna unipuncta*) have been reported in fields of small grain cereals and forage grasses in the Eastern, Central and Southern Interlake regions. There are reports of insecticide applications for armyworms in forage grasses and small grains in the Eastern region, and forage grasses in the Interlake. High levels in fall rye in the Central region was also reported recently.

Scouting for armyworms in small grains and forage grasses: A common method of scouting for larvae of armyworms is to check several areas of the field, and determine the number of larvae per square foot. Larvae hide during the day, which makes assessing levels more difficult. Notched leaves may be a sign that armyworms or other defoliators are or have been present. During the day, at each stop shake the plants and look on the soil for armyworm larvae. Also look under plant debris, lumps of soil, and in soil cracks. When armyworms are found, have a quick look at the back for eggs of parasites. Pay special attention to patches of lodged plants. Some birds commonly search for armyworms in small grain. Any field or areas of fields that have significant bird activity should be scouted.

Threshold for armyworms in Small Grains:

Preheading: Treat when four or more armyworms per square foot are present.

Heading (head clipping): If heads are being clipped, treat when two or more armyworms per square foot are present.



Threshold for Forages: Control is warranted when five or more larvae (smaller than 2.5 cm) per square foot are found. In seedling crops, two to three larvae (smaller than 2.5 cm) per square foot may warrant control.

Control tips:

- Only infested areas of the field may need to be treated. Levels may vary between locations in a field, so assess how widespread the higher levels are.
- Spraying should be done in the evening when armyworms are feeding on the plants.

For more information on armyworms see:

<https://www.gov.mb.ca/agriculture/crops/insects/true-armyworm.html>

Weeds

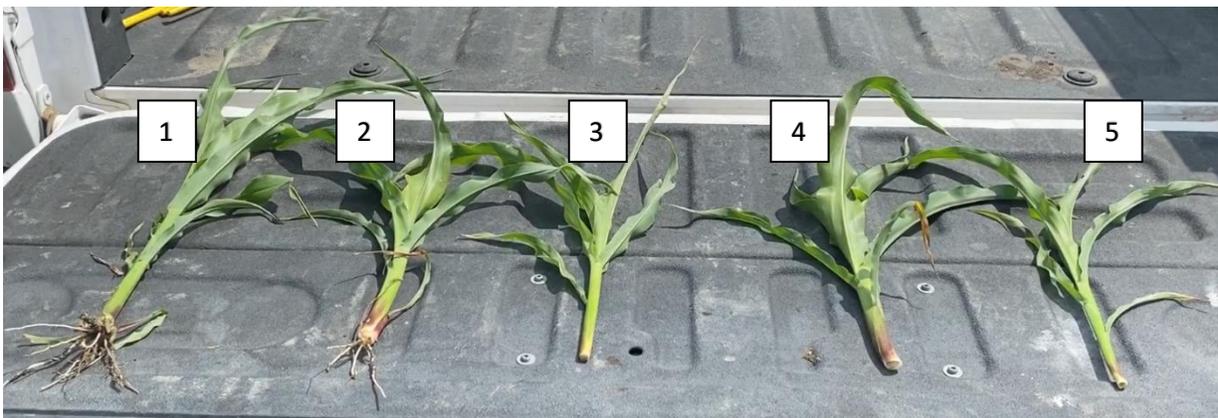
Scouting for herbicide resistance



I love this picture!!!! What are we looking at? Group 1 resistant wild oats. Why is there a line in the picture that is a clear divide? Because I'm always saying look for irregular patches. In this case the diagnosis is based on know what was sprayed – the left half of the picture is without glufosinate (Liberty, Interline or MPower Vigor), it's just the

Group 1 herbicide. A good reminder that glufosinate is registered to control wild oats and volunteer cereals at up to the 4-leaf stage depending on the rate applied and the density of the infestation. Now is the time to be scouting for escapes – 14 days after herbicide is pretty typical to assess efficacy. That way, if there is an issue, there is hopefully time to respray. This will get a treatment with glufosinate in order to minimize wild oats in the field.

Controlling RR volunteer corn in soybean



Controlling RR corn volunteers in soybean has been a frequent question this year. The addition of a Group 1 herbicide is the simple solution. The line up here is:

1. Untreated
2. Glyphosate + clethodim but forgetting the surfactant – slower activity
3. Glyphosate + clethodim + surfactant – very effective
4. Glyphosate + quizalofop but forgetting the surfactant – slower activity
5. Glyphosate + quizalofop + surfactant – death in 5 days under great growing conditions

Keep in mind that this is a “normal” RR volunteer corn – Enlist corn is trickier to manage and I will talk about that in the Crop Diagnostic School sessions. As a reminder 2020 Manitoba Crop Diagnostic School will be held virtually this year at www.mbcropdiagnosticschool.ca. The School will occur from July 7th to August 8th, with pre-recorded lessons explaining the diagnostic and crop management concepts. In addition for interaction, there is a discussion board that is monitored regularly by the Crop/Pest Management Specialists and a weekly phone/video chat option for live interaction. Registration is open until July 6th.

Forecasts

Diamondback moth. A network of pheromone-baited traps are monitored across the Canadian prairie provinces in May and June to determine how early and in what levels populations of diamondback moth arrive. Highest counts have been in the Eastern and Interlake regions. Counts in these region have climbed substantially in the past few weeks.

Table 1. Highest cumulative counts of diamondback moth (*Plutella xylostella*) in pheromone-baited traps for five agricultural regions in Manitoba as of July 2, 2020.

Region	Nearest Town	Trap Count
Northwest	The Pas	123
	Bowsman	50
	Bowsman	31
	The Pas	30
Southwest	Hamiota	15
	Brookdale	7
	Foxwarren	5
	Rivers	3
Central	Gladstone	57
	Reinland	52
	Portage la Prairie	15
	Winkler	12

Eastern	Lac du Bonnet	400
	Whitemouth	372
	Stead	263
	Beausejour	189
Interlake	Warren	241
	Vidir	137
	Balmoral	127
	Gunton	106

Larvae of diamondback moth are now being observed in some areas, though there are no reports of them being near damaging levels. When scouting canola, make sure to assess levels of diamondback moth, particularly in the Eastern and South Interlake regions.

Bertha Armyworm. A network of pheromone-baited traps are monitored across the Canadian prairie provinces in June and July to determine levels of bertha armyworm adult moths, and forecast risk of there potentially being economic levels of larvae somewhere in the region. The traps do not determine risk for the field specifically that the trap is in, but can estimate regional risks, which can help prioritize scouting for larvae.

So far all cumulative trap counts are still in the low risk category. The highest trap counts is 75 near Dunrea.

Table 1. Highest cumulative counts of bertha armyworm (*Mamestra configurata*) in pheromone-baited traps for five agricultural regions in Manitoba as of July 2, 2020.

Region	Nearest Town	Trap Count
Northwest	Grandview	23
	Durban	14
Southwest	Foxwarren	71
	Minto	16
Central	Dunrea	75
	Kilarney	54
Eastern	Tourond	63
	Lac du Bonnet	31
Interlake	Warren	55
	Clandeboye	38

0-300 = low risk
300-900 = uncertain risk
900-1,200 = moderate risk
1,200+ = high risk

Soil Fertility

RGS in Corn

Rapid Growth Syndrome (RGS) is apparent this week in several Manitoba cornfields (photos below). Rapidly emerging leaves are often bright yellow with crinkled texture because they have been rolled up in the whorl without exposure to sunlight. This often results after a period of slower growth under cooler, cloudy weather followed by hot, sunny conditions. The twisted or rolled leaves are sometimes confused with herbicide injury. Once these yellow leaves are exposed to sunlight they will develop chlorophyll and be undetectable within few days.



Rapid corn growth resulting in twisted leaves in the whorl and yellow leaves.

Copper Deficiency – or Not?

Last week I was checking fertilizer spreader patterns in a wheat field and came across the occasional pig tailing of leaf tips (photo below). The agronomist eye would consider this as a diagnostic symptom of copper deficiency. But the local agronomist reminded me of the recent heat and high winds, and suggested wind damage and rapid transpiration may have been the culprit instead. To settle the disagreement, I took separate tissue tests of the worst affected leaves and the general area. Copper level came back as 8 ppm and 6 ppm, respectively, within the sufficiency range of 5-25 ppm. Note to John: always consider the environmental conditions when relying on visual symptoms and confirm with analysis.



Red arrows to desiccated leaf tips.

Identification Quiz:

Question: What caused this blistering appearance on this wheat leaf? Hint – please don't guess blister beetles, they don't cause blisters on plants.



Photo by Jeff Vanrobaeys

Answer: This is RGS (Rapid Growth Syndrome) in wheat. The leaves are unfurling so fast with moisture and heat that they emerge with crinkles. The same thing happens in corn but is much more visible and includes yellow leaves. The crops will grow right out of it.

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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.