Manitoba Crop Pest Update
Issue 13: August 14, 2019

Manitoba Agriculture

Summary

Insects: Grasshoppers continue to be a concern in many crops. There have been some canola fields sprayed for bertha armyworm in western Manitoba.

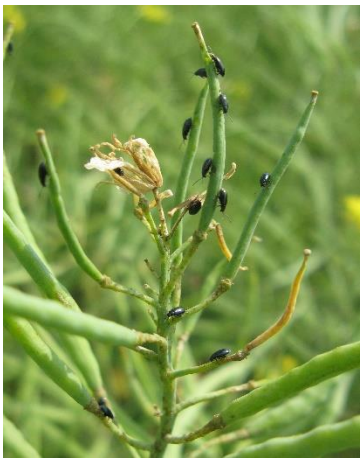
Diseases: Surveying of major field crops continues with very low levels of disease in canola, wheat and soybeans.

Weeds: Rain has slowed harvest for some areas but will mean some later crops have better yield potential. It will also mean the potential for some post-harvest control of perennial weeds as there should be better regrowth. When considering establishing a cover crop or a fall cereal, a pre-seed herbicide application is recommended to minimize weed issues.

Entomology

Flea Beetles on Canola in late-summer: Flea beetles can be quite noticeable on canola late in the summer, as can their feeding on the pods at times. Research at Agriculture and Agri-Food Canada in Saskatoon looked at how economical this late-summer feeding can be. The study concluded that:

Flea beetle feeding on canola in late-summer is rarely an economic concern. Flea beetle feeding that occurs when seeds in lower pods of canola are at the green stage or beyond is unlikely to affect seed yields regardless of the infestation rate of flea beetles. Even when seeds are translucent to green, numbers higher than 100 flea beetles per plant, and for some cultivars higher than 350 per plant, may be necessary to cause significant yield reductions (Soroka and Grenkow. Can. J. Plant Sci. 2012: 97-107).



Once the canola becomes less palatable for the flea beetles or is being cut, these species of flea beetles will be on the move looking for other cruciferous host plants to feed on, including cruciferous garden vegetables and flowers, and can be hard to manage.

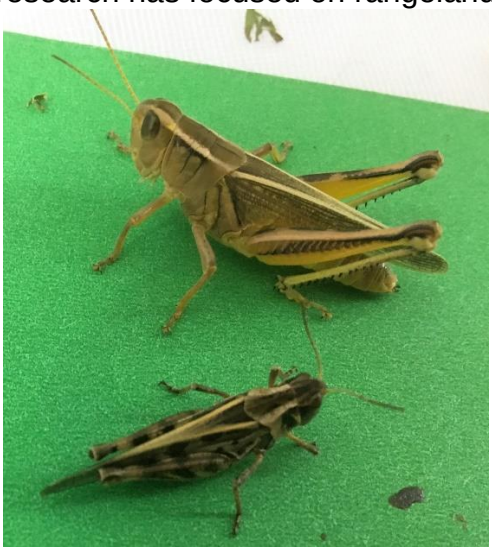
Soybean Aphid Update: Still no soybean aphids found in Manitoba this year. We try to track when the first soybean aphids are found each year, so please let me (John

Gavloski) know if you see any. At this point the risk of there being any economic problems should they be detected soon is low.

Grasshoppers: Grasshoppers have been a concern in many crops, and as crops like cereals mature and become less attractive they are moving into other crops like canola, which may have been less attractive to them earlier in the season. With canola there is often an edge effect. So if you see grasshoppers at what seem to be high levels while entering a canola field, assess whether populations decline as you move into the field.

Preharvest intervals restrict insecticide options for grasshoppers late in the season. If insecticides are being considered for late season grasshopper control, note that preharvest interval is the time until the crop is swathed or cut.

Research on grasshopper control on rangelands has demonstrated that spraying in strips can be an option, providing a high level of control at a reduced cost: http://www.grasshoppercontrol.com/_pdf/articles/raat.pdf
It would be nice to have data for this control strategy on cereal crops, but currently the research has focused on rangelands.



Twostriped grasshopper (top) - a generalist feeder

Clearwinged grasshopper (bottom) – primarily a grass feeder.

Plant Pathology

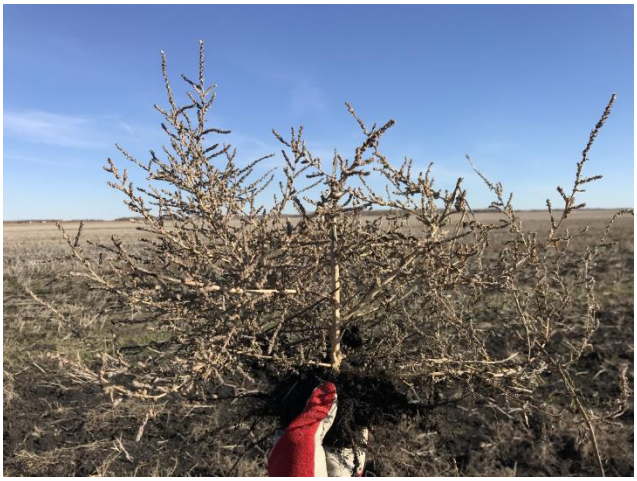
Basal stem rot (Sclerotinia) in sunflowers

Perusing the Crop Report this week, I came across mention of basal stem rot caused by Sclerotinia in sunflowers. Some may wonder how, in a year that has been so dry, it is possible for Sclerotinia to infect these plants. In most of the diseases this pathogen causes in broadleaf crops, there must be ample moisture at the soil surface to promote the germination of apothecia. However, in sunflowers, there can be direct infection through the stem. This occurs when the resting bodies (sclerotia) are within 1-2 cm of the sunflower root. Root exudates from the sunflower plant stimulate the sclerotia to

germinate as mycelium which then colonize and penetrate the root/stem tissue. This process does not require a great amount of soil moisture, as does apothecial germination. There are no spores involved in this type of infection. Consequently there is not much chance of plant-to-plant spread in the field.

Weeds

Swath or straight cut weed patches?



The question of swathing/desiccation or straight cutting any crop that has patches of green weeds is a judgement call. I favor swathing to minimize seed set and seed viability. That does not mean that cutting off the weed or even desiccating will completely prevent seed formation, it just reduces it. Plants that continue to mature until combining will have more viable, mature seed than those that are cut off at swathing. The regrowth is also an issue. A study in Montana showed that regrowth of kochia that had been cut off by the combine can still mean over 4,000 seeds per plant are produced, before a killing frost. Also, harvesting weed infested areas separately, from a dockage perspective and to minimize spread of seeds is important.

Forecasts

Entomology:

Grasshopper Survey: A reminder for those participating in the grasshopper survey, that counts are done during August. Agronomists and farmers who would also be interested in estimating grasshopper numbers in or around the fields they are in and have this information included in the survey are encouraged to see the survey protocol for more details of the survey and where to send data:
http://www.gov.mb.ca/agriculture/crops/insects/mb-grasshopper-survey.html
Estimates of grasshopper levels can be collected during regular farm visits.
Data from the survey, along with weather data during the egg laying period of the grasshoppers, is used to produce a forecast for 2020.

Weeds: Tall waterhemp sightings in the province are likely to increase over the next month as soybeans drop their leaves and the waterhemp plants begin to tower over the mature crop. When in doubt, please ask for help in verifying if plants are waterhemp, as these plants must be destroyed and equipment must be thoroughly cleaned before it

leaves an area with a noxious weed to prevent spread. Scout fields before harvest to prevent seed spread in the field and beyond. The pictures below are green pigweed, not waterhemp and these are great examples of submitted photos that help with Noxious Weed surveillance in the province.

Green pigweed pictures submitted for identification purposes. Inflorescence is more compact and prickly while the leaves are a different shape than waterhemp.

Identification Quiz:

Question: This caterpillar was found on a canola pod. What is it? Is it generally regarded as a potential pest of canola?

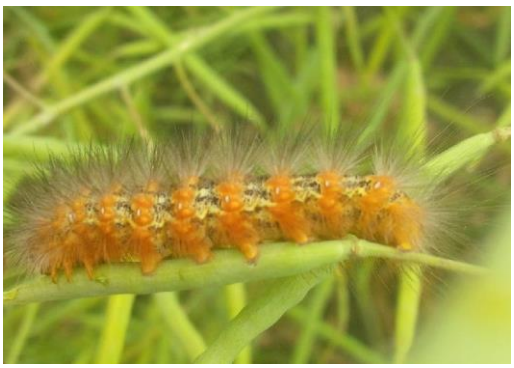


Photo from Chris Nordal, Paterson Grain

Answer: This is salt marsh caterpillar (*Estigmene acrea*). Some have been noticing them while scouting fields. Canola is one of many host plants for them. They are rarely abundant in big numbers in canola. Because of this no economic threshold has been developed, and there are no insecticides registered. They can be very noticeable when in canola this time of year, as they are large, covered in tufts of spines, and high in the canopy. They are generally not regarded as a potential pest of canola.

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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.