

The Municipal Agricultural Connection



Partners in
Rural
Conservation
www.mdwainwright.ca



Have an interesting topic you want discussed in the Newsletter or municipal meeting? Send suggestions to Asst. Agricultural Fieldman Tanis Ponath, asb@mdwainwright.ca or 780-842-4454

Herbicide Resistant Weeds

Herbicide resistance is a growing concern for producers. Although the problem has been around for 30 years it has progressively become a larger problem in the past decade. Canada is now third in the world for the highest number of resistant weeds behind the United States and Australia. Overuse has affected commonly used products for weed control and decreased options which used to be readily available. This problem is not going away and if we do not manage the tools we have then it won't be long before they are ineffective. Current weeds that show herbicide resistance in Alberta are ball mustard,

chick weed, cow cockle, false cleavers, green foxtail, hemp nettle, kochia, narrow leaved hawk's beard, Shepard's purse, spiny annual sow thistle, stinkweed, wild buckwheat, wild mustard and wild oats. Most recently, glyphosate resistant kochia has been found in Southern Alberta.

Resistance develops when a few individuals in a weed population have natural resistance to a herbicide. When that herbicide is repeatedly used those individuals will survive and numbers will increase till they make up most of the population. Herbicides are classified into groups depending on their mode of action. Weeds resistant to one herbicide will most likely be resistant to other herbicides in the same group. Annual weeds are more susceptible to developing resistance compared to perennial weeds. Herbicide resistance is most likely to occur when a single type of herbicide or herbicide with a single mode of action are used repeatedly to control weeds at a particular site. To combat herbicide resistance you can implement cultural, mechanical and biological control practices while still using chemicals. Do not rely on a single herbicide, use herbicides from different groups in rotation, in sequence or in a tank mix. Follow rates and timing of application, use clean seed, control weeds after harvest and maintain a competitive crop stand to suppress weeds. If you suspect you have herbicide resistant weed the Crop Protection Laboratory with Saskatchewan Agriculture will test samples for a fee.

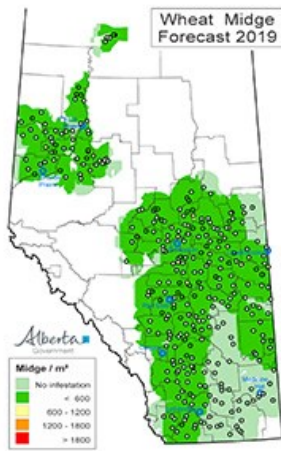
If you want to know your risk for developing herbicide resistance on your operation visit www.weedtool.com. The goal of the site is to help producers gauge their risk of developing glyphosate resistant weeds. Based on your answers to 10 questions it will assess your operation on a field by field basis and provide you with agronomic practices. The tool covers the United States, Western and Eastern Canada.

Alberta Pest Update

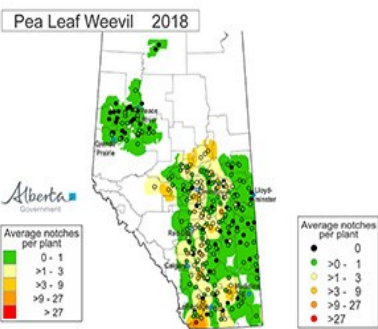
In the last quarter of 2018 there were five confirmed rat sightings in the Province. There was a small infestation identified in the rat control zone with one to three rats. Two Norway rat sightings in Calgary, one roof rat in Rocky View County and one roof rat in Jasper. Throughout 2018, there were 24 confirmed rat reports in Alberta. Four of these confirmed reports were small infestations located in the rat control zone. There were 3 infestations in Provost and 1 in Sibbald. The rest varied in location from Lethbridge to Fort McMurray.

Wild boar at large continue to be a concern for central and northern Alberta. Reports from municipalities and landowners indicate there are more sounders than initially suspected. There have been new reports of sightings in Woodlands, Lac Ste. Anne, Two Hills and Yellowhead counties. The Government of Alberta recently completed an air survey where wild boar were observed along the boundary of the county of Two Hills and Vermilion River. Trapping efforts continue in Whitecourt and Mayerthorpe areas with additional traps and trail cams being set up. Report any sightings to the Agricultural Fieldman or contact Perry Abramenko at 1-403-330-844 or 310-FARM.

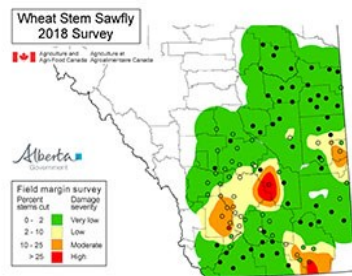
2019 Insect Forecast Maps



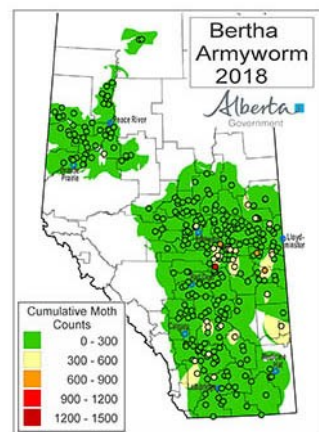
The wheat midge forecast for 2019 shows an overall low level of wheat midge across Alberta. Individual fields or small pockets of wheat midge may still exist so it is important to remain vigilant and scout your fields. The midge population in the NE region is lower than previous years, this could be due to the use of midge tolerant wheat. Wheat midge are a cause for concern when there is late seeding and higher than average rainfall in the spring. Field variation has been considerable throughout the province. Weather conditions, specifically temperature and moisture will determine the extent and timing of midge emergence during the growing season. Temperature and wind play an important role in egg laying activities of the female midge. The level of damage from wheat midge is determined by the synchrony of wheat midge emergence, wheat variety and the number of wheat midge present. Parasitism of midge larvae plays an important role in keeping midge population below their economic thresholds. Once wheat midge has established in an area it is unlikely to ever completely disappear. Low lying and moist areas in the field provide a refuge, enabling the population to survive even when conditions are not favorable in the rest of the field.



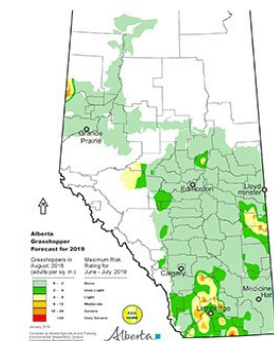
The range of pea leaf weevil activity has been expanding significantly since 2013. The M.D. of Wainwright could potentially start seeing populations show up. However, the level of pea leaf weevil feeding damage was the lowest observed in the past eight years even though populations expanded. Pea leaf weevil damage is determined by the number of notches per plant. Past surveys have shown that activity levels higher than 9 notches per plant is sufficient to cause significant damage if conditions are favorable in 2019. Research has shown that seed treatment is much more effective in reducing losses from pea leaf weevil than foliar treatments. Spring weather conditions have a large impact on the timing and severity of pea leaf weevil damage. When warm conditions persist (>20 C) for more than a few days in late April or early May, weevils arrive in fields early. Early arrival means potential for higher yield losses. When cooler weather persists, the arrival of the pea leaf weevil is delayed yield losses are lower especially is already passed the 6 node stage.



The wheat stem sawfly survey results shows increasing population in parts of southern Alberta. The populations in central Alberta (Flagstaff & Beaver County) has completely collapsed and there is no evidence of a recovery.



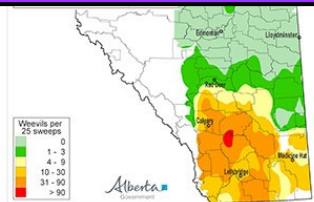
The bertha armyworm populations showed an increase in numbers in many locations across the province in 2018. Spraying was only reported from a small area in Vermilion River, Birch Hills and the Peace Region. It can be difficult to accurately predict the 2019 bertha armyworm populations based on the 2018 moth catch however, the trend is bertha armyworm populations are increasing. The Alberta Pest Monitoring Network indicated that a bertha armyworm outbreak is possible in the central and peace regions in Alberta. Bertha armyworm populations are normally kept in check by weather and natural enemies. During the monitoring season a real time map can be viewed on the pest monitoring website which updates weekly with trap numbers. The numbers are cumulative throughout the season but does not replace individual field monitoring.



The 2019 grasshopper forecast map is based on adult grasshopper counts conducted in early August 2018 by Agricultural Fieldmen across the province. The adult grasshopper counts give an indication of the number of individuals that are capable of reproduction and egg laying. Environmental factors can result in higher or lower actual population than forecasted. Grasshopper numbers have been increasing in numbers in southern Alberta due to consecutive dry summers. Recently, the Brunner's grasshopper was recognized as a pest. This species was a possible explanation for the outbreaks in alternate years that have resulted in wrong forecasts (Peace River region and north-central Alberta). Investigations are still underway to assess their biennial lifecycle and the impact on grasshopper forecasts.

Insect Forecast Continued

The cabbage seedpod weevil was once again found at economic levels in southern Alberta however, many fields were below threshold levels and on average the numbers were lower than normal. There has been no return to the northern extent of the range extension of 2016. In 2016, there was lower numbers found in the M.D. of Wainwright. Time will tell if this range retraction is permanent or a short term situation. No cabbage seedpod weevils have been found in the Peace River region at this point.



Poisonous Plants for Cattle

There is a large variety of plant species that are toxic to livestock. Most species are common weeds however, some are found on the Alberta prohibited and noxious weed list. Eradication and control of weeds found on your property not only promotes healthy sustainable environments but healthy livestock as well.

It is important to identify these weeds and symptoms associated with poisoning because some species like water hemlock are very fast acting and by the time symptoms show the likely of survival are very low. These plants are often unpalatable and animals will not graze them if given the choice. A majority of poisonings occur when contaminated harvested forages are fed to livestock because the most toxins do not degrade in silage or hay.

Lupine: *Difficult breathing, loss of all muscular control, convulsions, coma and death. The greatest risk of lupine is crooked calf syndrome caused by pregnant cows grazing certain lupines during late first trimester or early second trimester. Poisonous species of lupine are toxic throughout the growing season. Livestock may graze lupines later in the season when grass becomes mature and dry. The amount of lupine that will kill an animal varies with the species and time of year.*

Death Camas: *Nausea, vomiting, muscular weakness, coma, heart failure, death. Death camas is a common name for several species of plants that are poisonous to livestock. The most common are grassy, meadow, foothills and Nuttall's death camas. Death camas is one of the first plants to grow in the spring, without other forage available there is high risk for it to be grazed. Death can occur within a few hours or a few days. Death camas is also poisonous to humans.*

Nightshade: *Salivation, nasal discharge, increase in body temperature, increased heartrate, paralysis, gastrointestinal irritation including inflammation, hemorrhage and ulceration. There is several species of nightshade that are toxic to livestock. The species that would be common in our area is black henbane which is a noxious weed. Nightshade is very unpalatable to livestock and is most commonly found in hay and silage crops. Poisoning by this group of plants does not always end in death. If acute poisoning is discovered the animal may recover in a few hours to a few days, death is mainly associated with paralysis. Signs of chronic poisoning includes rough hair coat, anorexia and constipation.*

Water Hemlock: *Excessive salivation and frothing, tremors, violent convulsions, coma and death which may occur as early as 15 minutes after a lethal dose is consumed. Water hemlock is the most violently toxic plant in North America. Water hemlock is also poisonous to humans. Cattle have been known to consume water hemlock even if other suitable forage is available. Water hemlock is commonly found in wet meadows and pastures along stream banks.*

Seaside Arrow-grass: *Vomiting, convulsions, salivation, trembling and death by asphyxiation. Seaside arrow-grass is a native plant found across Canada in saline soils, marshes, freshwater, damp grasslands, fens and bogs. The plant contains cyanogenic glycosides, which release when the plant is chewed by animals. The concentration of toxic chemicals in the plant increases in times of drought.*

Tall Buttercup: *Irritation or blistering of the skin, mouth and digestive tract, paralysis, convulsions and death. Tall buttercup is a noxious weed found in the M.D. of Wainwright and is especially toxic to cattle. Tall buttercup is toxic throughout the growing season. However, once cut and dried, the toxin decomposes and is no longer poisonous. Cows that consume tall buttercup usually have milk that is reddish in colour and has an unpleasant odor to it.*

Other noxious weeds that can cause poisoning in large quantities include tansy and leafy spurge.

If poisonous plants are found on your property a good grazing management system is one of the ways to manage them along with chemical and mechanical methods. As stated above, a majority of species are unpalatable to livestock however, in circumstances of stress and overgrazing livestock will consume poisonous plants.



Photos from Brazeau County



Save the Date!



June 11 & 12, 2019

Conrad Schinkinger Memorial Rodeo Grounds
Lamont County, AB

Come listen and engage with a great selection of speakers geared toward Farm & Ranch Women. And stay for our Long Table Dinner, Entertainment & More!



Raccoon Control

In Alberta, raccoons have become an agricultural nuisance. Raccoons are easily identified by their black face mask and distinctive tail which alternates yellow and brown rings. The body fur of raccoons has a salt and pepper appearance, they can weigh anywhere from 12—36lbs and range in length from 75cm—90cm. Normally raccoons are positively identified by their footprints.

Raccoons feed on fruit, vegetables, berries, grain, insects, frogs, birds and small mammals. They prefer to live near water sources, using the natural cover of trees and shrubs for shelter. However, they can adapt easily to farm settings. They use haystacks, culverts, abandoned burrows and old buildings for shelter and to raise their young. Raccoons breed late winter and after a two month gestation period young are normally born in mid April to early May. The average litter size for raccoons is three to six kits with only one litter per year.

Raccoons aren't known to cause significant economic damage to your operation. They are more of a nuisance leaving garbage and debris around yards and fields. To get at food sources they may rip off shingles and siding off buildings. Raccoons will contaminate feed, seed and livestock supplements with their urine and feces. Raccoons will attack chickens and turkeys. Signs of predation on poultry include carcasses with missing heads, bites on the back, torn necks and breasts, and feeding on the breasts and entrails.

The *Alberta Wildlife Act* classifies raccoons as a non-game animal which means they may be hunted without a licence using a firearm or trap at any time of the year. Controlling raccoons can prove to be a difficult task because they are nocturnal animals. Raccoons can be successfully removed with a trap. The M.D. of Wainwright has wire mesh raccoon traps available for rent. Several kinds of bait will attract raccoons, this includes, sardines, fried bacon, cat food, chicken eggs or corn. You can contact the M.D. shop at 780-842-4024. If you have any further questions regarding raccoons, contact Pest Control Officer Rod Gabrielson at 780-842-7285.

Stay tuned to our Facebook page, webpage and Star News for upcoming spring workshops.

Riverdale Mini-Park 2019 Booking Dates

Bookings are from 9:00 a.m.—1:00 p.m. each day

- Tuesday April 23, 2019: Seasonal and Monthly
- Wednesday April 24, 2019: Seasonal, Monthly and Weekly
- Thursday April 25 & Friday April 26, 2019: All Bookings
- Monday, April 29 & Tuesday April 30, 2019: All Bookings
- Wednesday May 1, 2019 Open Regular Hours
Reservations made in person will have priority over telephone calls.