



# The Municipal Agricultural Connection



Merry Christmas and a Happy New Year from everyone at the M.D. of Wainwright. Have a safe and happy holiday.

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 842-4454

## Fire Permits

You must obtain a fire permit from the M.D. of Wainwright if you are burning on your property this winter. Fire permits are available at the M.D. office, through the local fire chief or the councillor in your division. Fire permits are also available by phone if you have access to email or fax.

## Clubroot Meeting

The M.D. of Wainwright will be hosting another Clubroot Information Meeting in the new year. If you were unable to attend our first meeting this is a great opportunity to attend and learn about clubroot. Stay tuned for details and keep an eye out in our newsletter, web-site and Facebook page.

## Bill 6 & Farm Safety

The Alberta Government has released the recommendations submitted by the 6 technical working groups created in 2017 for consultations. You are encouraged to review the recommendations submitted and submit any feedback you may have. Consultations close January 15, 2018.

<https://www.alberta.ca/farm-and-ranch-consultations.aspx>

## 3D Wildlife Fencing

Some producers may find they have to contend with elk and deer to keep their winter feed storage secure. Elk are one of the biggest contributors to losses of feed. Herds of up to 200 can move in without notice and deplete stock piled feed. Some producers have had success in installing a 3D fence. The Peace River Forage Association and the Grey

Wooded Forage Association have both done research trials on the success of 3D fencing. 3D fences are a 2 fence set-up. The fence is set up in a way to add height, width and



depth. Since elk and deer have poor depth perception they tend to be more careful and approach the fence with caution. If you find that the wildlife are still testing your fence once you have set it up, adding electricity may be enough to deter them and make them choose an alternative area and food source. There are multiple designs that a producer can build. Research the different options to find which designs best suits your needs and operation.

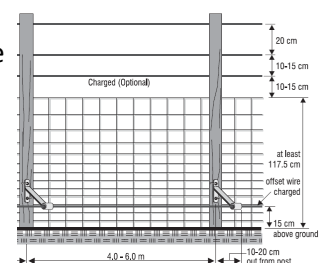
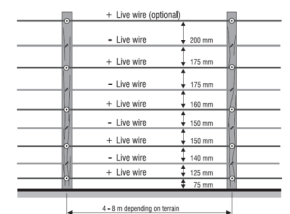
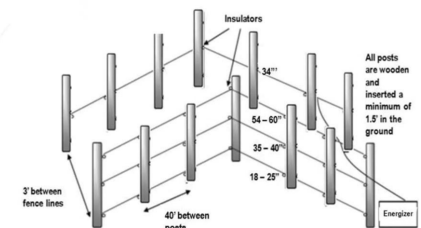
You may also have problems with predators such as coyotes harassing livestock. An electric fence set-up is proven to be the best way to deter predators. You can choose to build a fence with multiple single strands, mesh wire or a combination of mesh and single strand wire.

Image 1, shows a nine wire single strand fence. The height of the fence is 1.37m and has alternating charged and grounded wires. This is a fairly simple design and could be utilized if you are using temporary fencing.

Image 2, is a combination of mesh and single strands. This is a ideal option for a permanent fence. Wire mesh spacing should be no larger than 15 X 15 cm. Coyotes, foxes and smaller dogs may crawl through spaces larger than 15cm. Some predators may try and out smart your design by digging under the fence. To avoid this place a charged high tensile wire 10-15cm above ground and 10-20cm out from the mesh fence.

If you are experience problems with predators this winter give Rod Gabrielson Pest Control Office with the M.D. of Wainwright a call at 780-842-7285.

### 3D Fence Design



## Lets Talk Beavers



Image 1

The beaver or *Castor canadensis* is native to most of North America and are considered ecological engineers of the landscape. Even though they can have very positive influences on the environment they are considered by most to be a pest on the landscape. Is there a way to positively live with these creatures on the landscape? To answer this question we need to learn more about beaver biology and how they can transform the landscape.

Beavers are semi-aquatic animals. Specialized valves prevent water from entering their nose and their fur is water repellent due to an oil produced by glandular secretions and they are known for holding their breath for up to 15 minutes. Beavers live in colonies which are comprised of family members. The average colony is made up of a breeding pair along with last years and this years kits. Once beavers are two years old they disperse from the colony and form new colonies. This

happens in the spring during run-off, beavers normally travel 8-16km away to find a new home but have been known to travel up to 230km away. A beaver can live up to 16 years of age, however, mortality rates are high mostly due to predation, disease, and trapping. They are a very territorial species and mark their territory with scent markers. Their diets primarily consist of bark, twigs and leaves of woody species. They rely on the cellulose and digest it with microbial action in their stomachs. Their meal of choice is aspen and willow but will rely on a variety of species for survival. If a colony is situated near crop land beavers have been known to store large amounts of canola, barley or oats and can cause significant crop damage. The amount of woody plants consumed by the beaver depends on the time of year. In the spring woody plants account for 32%, the summer 16%, the fall 60% and finally winter 86%.

It is in the beavers nature to stop the flow of running water. The purpose of building dams is to hold enough water for the lodge. They do not like water levels that fluctuate more than 1.5m annually and beavers need at least 0.7m of water depth under the ice to have access to food caches and avoid predation. Dams are built using a variety of material and it comes down to what is available in the area. Tree branches, logs, cattails, grass, rocks and mud. In addition, beavers prefer to use trees that are within a 30m radius from where the dam is being built. Shrubs and smaller trees are chosen first then larger trees are utilized. Once the primary dam has been built that impounds the water around the lodge a colony will build secondary dams. These secondary dams improve transport of woody materials, extend the safe swimming areas and ensure a year-round supply of water. On average a colonies range will consist of three dams. The beavers cycle of colony establishment, maturity and abandonment can be as short as 10 years or up to 30 years or even longer. Like many species the longevity of beaver colonies depends on food, water, mortality rates, predation etc. Water is the biggest contributor that determines how long a colony will reside in an area. Beavers have the ability to create their own habitat. Once a dam is built the sediment trapped by the dams changes the landscape over time. The elevation of the stream bed rises, widening the valley. A series of stair-stepped dams flatten out the gradient of the valley floor. Image 2 shows the influence beavers have on the landscape over time.

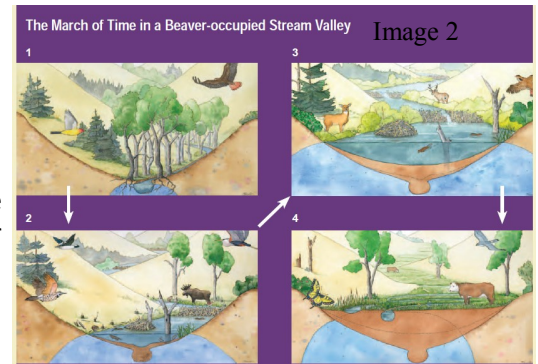


Image 2



Image 3

Beaver ponds create very diverse and productive habitats for multiple species of plants and animals. Beavers are known as keystone species because they have such a large effect on the landscape relative to the abundance of beaver, meaning just a few beaver can transform a watershed. Beavers are also known as foundation species because other species depend on them. Landscapes that were once dominated by upland grasses shift towards a wetland community with the rise in the water table and flooding. Once the beavers have abandoned the area the landscape changes yet again and forms a grassy meadow from the sediment accumulation. These communities can exist on the landscape for a long period of time. Wildlife, fish and insect populations all increase. Beavers enhance riparian areas and approximately 80% of fish and wildlife species use riparian areas for all or part of their lifecycle requirements. A beaver pond can provide an alternative water source and higher water tables that increase forage production for livestock producers. Even though there are many benefits to living with beavers they do come with many challenges living on your land. Flooding crops, plugging culverts, damaging fences from dropped trees and impacts on infrastructure are a few of the problems they can cause. Understanding beavers is the first step in dealing with the challenges they may bring.

There are many beaver solutions that may or may not work depending on your situations. Barriers, habitat management, deterrents, repellents, regulating water levels, population management and re-location can all be used to manage beavers. You can visit the publication below for more details about beaver solutions.

If you are having any beaver problems on your land, give Rod Gabrielson the M.D. of Wainwrights Pest Control Officer a call to discuss options.

**Images and texts taken from Fitch, L. 2016. Caring for the Green Zone– Our Watershed Partner. Lethbridge, Alberta: Cows and Fish– Alberta Riparian Habitat Management Society.**

### Festive Holiday Cheesecake

Ingredients:

Crust

- 1-1/4 cups of crushed wafer
- 1/2 cup chopped walnuts
- 1/3 cup of sugar
- 1/2 cup melted butter

Filling:

- 2 packages of cream cheese, softened
- 3 tbsp. sour cream
- 1/3 cup sugar
- 2 lg eggs, lightly beaten
- 1/2 cup evaporated milk
- 1 tsp lemon juice

Instructions:

- In a small bowl, combine the wafer crumbs, walnuts and sugar; stir in butter. Press onto the bottom and halfway up the sides of an ungreased pan. Freeze for 10 minutes
- In a large bowl, beat the cream cheese, sour cream and sugar until smooth. Add eggs, beat on low speed just until combined. Combine milk, lemon juice and add to cream cheese mixture until blended.
- Pour into crust. Bake at 350 for 35-40 minutes or until center is almost set.
- Combine the sour cream, sugar and vanilla. Carefully spread over cheesecake. Bake 10 minute longer. Cool for 10 minutes and refrigerate overnight.
- Garnish with chocolate syrup and candies.



## Clubroot is on the Move!

Clubroot is on the move! Not only did we find 8 positive locations in the M.D. of Wainwright it was also found for the first time in the Peace Region and found in Saskatchewan again. There was one isolated incident in the SE corner of the peace region in Big Lakes County. Saskatchewan found its first positive case since 2008 in the north central area of the province. Conditions have been favorable especially in the NE region of Alberta, increased moisture and warm temperatures favor the development of the disease. This should be a reminder to all producers that there is no special area that



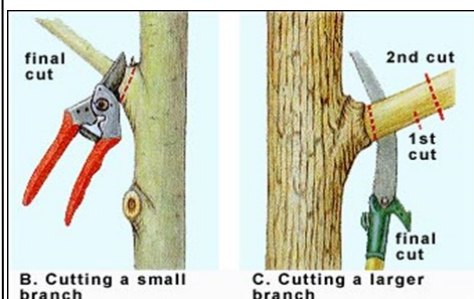
ble to M.D. of Wainwright has been completing inspections since year 1 canola field selected at ran-clubroot inspection this year myself. However, and Agricultural Fieldman James Schwindt completed approximately 2 per township and inspections with U of A clubroot lead researcher Victor Manolii for a total of 88 inspections across the M.D. If you have any questions regarding our policy for clubroot inspections you can call 780-842-4454 and ask for James or Tanis. Prevention should always be part of your operation. Don't wait until clubroot shows up on your operation to control it. Rotating crops manages spore load, the longer the rotation the better. Plant only resistant varieties and practice sanitation by reducing soil movement. Clubroot is a management issue and you the producer will know what will work best with your operation.

## Heavy Snow on Trees

Frequently, in Alberta we can get a heavy dump of snow in early spring and late fall which can greatly affect our trees and shrubs. Most species are well adapted to winter on the prairies however, a sudden heavy snow on trees that have not completed or just started their growing season can be devastating. Most evergreen species are equipped with flexible branches to with stand heavy snowfall however some coniferous species often have their tops broken. Swedish poplar, junipers, shrubs and species with narrow upright branching are highly susceptible to damage from wet snow. The best way to deal with this is to gently remove snow or ice with a broom. Do not shake trees or shrubs as they could easily break. If the snow or ice is frozen on the branch wait until warmer weather hits and it thaws. Do not use any salt de-icing products or heat to melt snow. Salt is the most common killer of trees and shrubs in Alberta. If you don't notice any damage on your trees after a few heavy snowfalls it is okay to leave the tree alone. If you find that some trees and shrubs in your yard are damaged,



pruning is your only option. Overall our trees and shrubs are adapted to winter conditions. In some circumstances where we get heavy snow or ice you may not need to do anything except monitor the situation. Always keep safety in mind.



**If you haven't already stopped by the M.D. office for your 2018 calendar, make sure to do so before they're gone.**

## Species at Risk

By definition species at risk is a term for plants and animals that are declining or are naturally rare in Alberta. MULTISAR or Multiple Species at Risk is a Alberta wide initiative used to give farmers and ranchers suitable tools to continue to co-exist with different species and their habitats. Their goal is to conserve species at risk through habitat stewardship while maintaining viable ranching operations. MULTISAR has developed guidelines for three separate strategies producers can utilize.

1. **Habitat Conservation Strategies:** These detailed plans are put together by the landowner, wildlife biologist and range agrologists. A detailed inventory of the land is put together along with current and past management practices. A ranch plan is then developed with specific management recommendations for maintaining or increasing species at risk (SAR) habitat. MULTISAR assists the landowner with implementation and then will monitor and evaluate the success of the management actions.
2. **Species at Risk Conservation Plans:** This is a visual assessment of key habitats found on the property. Information is given on subtle changes that could be made that would benefit SAR and other wildlife.
3. **Best Management Practices:** These are simple strategies that reduce the risk to SAR and protect habitats. For example landowners can place salt and mineral away from ponds to prevent livestock from trampling banks.

SAR are separated into 6 categories in Alberta.

1. **Extinct:** A species that no longer exist anywhere in Alberta or the world. The Plains Grizzly Bear, Plains Wolf and the Banff Long Nosed Dace were once native to Alberta but have since become extinct.
2. **Extirpated:** A species that no longer exists in the wild however, exist in captivity. The Black Footed Ferret has been extirpated since 1974 will no wild populations anywhere in Canada .
3. **Endangered:** The species is at immediate risk of extirpation or extinction. The Burrowing Owl, Limber Pine and the Ferruginous Hawk are all listed as endangered in Alberta.
4. **Threatened:** Is a species that is likely to become endangered if limiting factors are not reversed. The Grizzly Bear, Lake Sturgeon, and Woodland Caribou are all listed as endangered.
5. **Species of Special Concern:** A species that is sensitive to human activity or natural events. Examples of these species are the Loggerhead Strike and Long Toed Salamander.
6. **Data Deficient:** A species for which there is insufficient information to support a status designation. In Alberta data deficient species include the Wolverine and American Badger.

A full list of species can be found on the Alberta Environment and Parks website.

Although MULTISAR has a heavier presence in the Grasslands region there is work being done to extend the projects north since there are large variety of species that ranges extend throughout the province. We also need to work together to protect our native prairie that is still functioning.

Alberta EFP is adding a new species at risk chapter, this is a 3 year initiative with funding from the Government of Canada. Their goal is for producers to know which species they have on their land and how to make simple changes that will conserve them and their habitat. Most producers are already doing something to protect SAR such as grazing rotations and management.

### County of Vermilion River Wetland Restoration Reverse Auction

There is a unique opportunity coming to the M.D. of Wainwright. The County of Vermilion is introducing a new way to connect with landowners who want to restore wetlands and discover the benefits of restoration. They are having an auction but in a reverse.

Here's how it will work:

- Step 1: Landowners will submit bids for what they feel is fair compensation to have a wetland restored on their land.
- Step 2: They County of Vermilion River will evaluate bids based on environmental benefits and cost.
- Step 3: Bids are selected providing high environmental benefits at affordable costs.
- Step 4: Selected landowners will have their wetland restored and will be paid out of the County of Vermilion River Wetlands Restoration Fund.

There are multiple benefits to having wetlands restored. They recharge groundwater, reduce floods and stabilize water flow, improve water quality, increase biodiversity just to name a few.

For more information you can call Tanis at the M.D. office and she can put you in touch with County of Vermilion River staff. If you would like to contact the County of Vermilion River directly call Cathie at 780-808-6163/ carychuk@county24.com or Chris at 780-853-7844/celder@county24.com.

I also have handouts available at the M.D. office if you would like to pick some up.