

Notes from the Field — Spring 2021

Which side of the fence would you rather be on?

By Agricultural Fieldman, SPECIAL AREAS BOARD

You don't have to look back very far into the history of Special Areas to be reminded just how important soil conservation is to our area. In fact, the reason we are part of the Special Areas can be somewhat attributed to the loss of topsoil in the 1930's. Due in part to prolonged droughts, high velocity winds and lack of soil conservation practices, our topsoil was all but blown away in what has come to be known as the "dirty thirties".

While agriculture technology has come a long way from repeated cultivation and summer fallowing, it doesn't hurt to remind producers just how important soil conservation can be in the Special Areas.

While soil depth, zone and class can vary immensely throughout the 5 million acres of Special Areas land, the practices to conserve topsoil apply to all. In Alberta, agricultural fieldmen are appointed under the <u>Soil Conservation Act</u> as officers and do have the ability to issue soil notices. This act is designed to provide a framework for encouraging sound soil practices, to preserve Alberta's agricultural land base and to ensure the long-term productivity of the farming sector.

While we often think of wind as a major contributor to soil erosion, we can't forget to look at the effect of water. Erosion is a natural process, but is often accelerated by farming activities if soil surfaces are left bare.



PC: Special Areas Board

Water erosion is often overlooked because its not as visible as the "dust bowls", or brown snow covered ditches that come with wind erosion. However it can be very noticeable, especially on years with significant runoff.

Practices such as direct seeding, reduced tillage, using cover crops, reestablishing grass cover, residue management, encouraging healthy riparian areas and establishing shelterbelts have been proven to promote soil conservation. A great resource was developed from 1994-2009 called the Alberta Reduced Tillage Linkages program. Here you can peruse their Agronomy Library that consists of all sorts of soil erosion topics. You can also contact your ag fieldman for site specific recommendations.

We are lucky in the Special Areas to have one of the foremost research resources in the province right here at the <u>Chinook Applied Research Association</u> in Oyen, AB. Dr. Yamily Zavala has constructed a one-of-akind soils laboratory at the CARA center with a focus on allowing producers to access biological and physical soil assessments, understand what affects their soil health and to build a bridge for improving soil based on localized and site-specific constraints.

So as you are out checking your fields this spring, ask yourself which side of the fence you would rather be on— the one with dirt filled ditches or the one with that precious snow accumulation. Make a plan to minimize soil erosion in your farming practices today!



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Plan to Hay Ditches? Better Get Your Permit!

By Agricultural Fieldman, SPECIAL AREAS BOARD

If you are planning on haying any ditches this upcoming year there are a few things you should consider first.



Special Areas District Offices

Hanna (SA2) - 403 854-5625 Oyen (SA3) - 403 664-3618 Consort (SA4) - 403 577-3523

Alberta Transportation
Hanna AT Office - (403) 854-5550

PERMITS

On provincial highways you must first apply for a free permit with Alberta Transportation by contacting the Hanna AT District Office. Click here to see their policies on haying provincial ditches.

If the ditch you are wanting to cut is within Special Areas but is not a numbered highway, you must contact your Special Areas District Offices to identify the ditches you are planning to hay. The Special Areas crews may begin roadside mowing of ditches for safety reasons as early as the beginning in June.

Are you wondering why you need to apply for permits, if they are free? We get this question often. The Agriculture Service Boards work with Alberta Transportation and road foremen to identify any noxious or prohibited noxious weeds along roadsides and coordinate control. If a ditch contains a noxious or prohibited noxious weed, it CANNOT be cut for

forage or transported. It will also receive control that may include herbicide applications. The purpose of the permits are to ensure that ratepayers are not exposing their livestock to herbicide residue, poisonous plants, or spreading noxious weeds to their properties.

NOXIOUS WEEDS

Within Special Areas there are unfortunately noxious species that are often found in roadside ditches. If you do see a ditch with any of these species please contact your agricultural fieldman.

Common Baby's Breathe (Gypsophila paniculata) is a species that was added to the Weed Control Act in 2010. Up until this addition, baby's breathe was considered invasive, but was not required to be controlled. We find in Special Areas that most of the infestations of baby's breathe actually originate from cemeteries, where bouquets of flowers are left, or from old homesteads where baby's breathe was grown in gardens.

Baby's breathe is a prolific seed producer (1000's per plant) that spread though tumbleweeds. The scariest part of baby's breathe is the root system. As a perennial, the tap roots of this seemingly pretty flower can extend up to 4m in depth and can be as wide as your arms can reach around. Imagine the amount of water that a single plant could access and remove from the soil, stealing it from your desirable species or crop!

Because it is a perennial tap root species, picking and pulling are not an option. This species requires a herbicide application to control, but



Common Baby's Breathe, PC: Special Areas Board

mowing prior to seed set can buy you some time to get your herbicide application complete. Extensive cultivation has been known to help destroy the root systems, but is absolutely not advised in Special Areas with our easily erodible soils.

Do yourself a favor and do NOT hay ditches with baby's breathe! You will see extreme spread of this nasty pest through the hay (seeds will survive ensiling and rumination). Your equipment may also carry the seeds to other fields.

This is another reason to be wary when buying any feed. Always ask where the feed was grown, if there are any noxious weeds, and if possible, visit the site. Unfortunately every year there are people that purchase feed with noxious species. Under the *Weed Control Act*, noxious species must be controlled. This often means burning of bales to prevent weed spread. Invasive species should never be considered as forage.



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Organic Farming: It's Not All About Tillage

By Agricultural Fieldman, SPECIAL AREAS BOARD



Soil erosion due to repeated tillage by organic producer . PC: Special Areas Board

Organic operations may choose to use a select few herbicides (yes, that's right, some pesticides are registered for organic use), or even none at all, but that doesn't make any producer exempt from their responsibilities under the <u>Soil Conservation or Weed Control Acts.</u> Tillage has a long, complicated history in the Special Areas and is discouraged whenever possible, no matter if the producer is conventional or organic.

With the <u>Weed Control Act</u> making some invasive weed control required, *some* version of weed control is always going to be important in producing feed or food crops. Repeated tillage in the sensitive soils of Special Areas is NOT the answer. So what *can* producers do?

CULTURAL CONTROL

Crop Competition— a healthy, vigorous crop planted under ideal conditions can establish dominance

over weeds quickly. Know what crops are competitive and when is the best time to seed them. Test your soil temperatures!

Soil Fertility– In organic & conventional practices, its important to feed the biology of your soil. We have a one of a kind Soil Health Laboratory and scientist right here in Special Areas at the <u>Chinook Applied Research Association</u> (CARA). Test your soil & consult with Dr. Zavala!

tillage. combined increased organic matter input through stubble or trash cover will not only anchor the soil from movement; but physical promote the microbial populations to increase within the soil. This will help to recondition the soil profile overtime, allowing more water and absorption, ultimately leading to less erosion and precious top soil loss overtime.

Crop Rotations— Diverse crop rotations are key to any healthy, competitive crop. CARA does Special Areas-specific annual variety trials to determine the best crops for our growing conditions. Rotate your grass & legumes to avoid weed, disease & pest pressure.

Allelopathy— Did you know that some crops naturally emit chemicals that deter the growth of other species? These can be utilized when you know which weed species are a problem. Scout your fields! These crops can include barley, rye, annual ryegrass, buckwheat, oats, sorghum, sudan-sorghum hybrids, alfalfa, wheat, red clover and sunflower.

Variety Selection— Choose varieties that are known to thrive in the conditions of your unique fields. Again, consult CARA's annual variety trials & their team of experts to choose vigorous species with excellent disease & pest resistance.

Sanitation— Use clean seed! Any materials coming to your fields (equipment, seed, feed, manure, etc) should be carefully vetted before introducing potential weed seeds to your property.

BIOLOGICAL CONTROL

There are commercially available insects that are registered for control of certain invasive species in Canada. These include pests for Canada thistle, leafy spurge, dalmatian toadflax, spotted & diffuse knapweed, Russian knapweed & hounds tongue. Contact the Alberta Invasive Species Council to learn more.



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Strychnine Available for 2021 Season

On March 4, 2020, Health Canada and the Pest Management Regulatory Agency publicized their final decision on the registration of Strychnine for control of Richardson's Grounds Squirrels. The registration has been cancelled. You can view the Final Decision documents from Pest Management Regulatory Agency here.



The following deadlines are in effect:

- MANUFACTURER CAN SELL TO MUNICIPALITIES UNTIL MARCH 4TH, 2021.
- MUNICIPALITIES (SAB) CAN SELL THE PRODUCT UNTIL MARCH 4TH, 2022.
- PRODUCERS HAVE UNTIL MARCH 4TH 2023 TO USE ALL REMAINING PRODUCT.

The Agricultural Service Boards met jointly to discuss this decision, and strychnine sales will continue until March 4th 2022. Sale of strychnine for the 2021 season will begin on March 1, 2021 and end on August 1, 2021. For 2022, the sale of strychnine may have adjusted time frames, and will be communicated early 2022.

Producers will be able to purchase a maximum of 2 cases per year at the discretion of the local Agricultural Fieldman. You can fill out the online form here and arrange pick up with our District Offices in Hanna, Oven or Consort.

Recently, Flagstaff County sponsored a resolution brought forward at the Alberta Agricultural Service Board Provincial Conference on January 21st, 2021 that the Pest

Management Regulatory Agency have Strychnine registration extended until an effective and safe alternative control be found and/or Alberta Agriculture and Forestry make significant funding available for research into a sustainable, long term solution for control of Richardson ground squirrels.

ELM PRUNING BAN

From April 1 to September 30th the pruning of elm trees in Alberta is prohibited! Exposing trees during this period attract Elm Bark Beetles, the main vector in spreading Dutch Elm Disease, declared a pest under the Agricultural Pests Act.





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Controlling Gophers Naturally

By Lacey Gould, CHINOOK APPLIED RESEARCH ASSOCIATION

strvchnine becomes unavailable. and dusk. producers will be looking for other ways to control ground squirrels, commonly referred to as gophers. Damage from these pests can be immense in crops, shelterbelts, gardens and young substantial causing losses. Conventional control methods such as baits, poison and trapping can be labour intensive, costly and can harm non-target species.

Producers and homeowners alike can benefit from attracting predatory birds to their property. Birds of prey inhabit a wide variety of environments and dine on many animals we consider pests. A natural approach to rodent and pest control to eliminate these pests with little to no effort on your part!

OWLS

Owls mainly hunt at night and therefore coexist well with other birds you may attract to your yard feeders. They have keen night vision, stealth and are natural born predators. On average, owls consume about 12 mice per night and certain species such as the barn owl, hunt in groups and can quickly eliminate several hundred mice and other vermin like gophers in a single night. Once an owl finds a good food source it will stay in the area until the food source is depleted.

HAWKS

Hawks love grasslands and the Special Areas has lots to offer. They also love to eat pesky gophers which are prevalent in our grasslands. Hawks are prevalent in the grasslands. 95% of of prev information.

As the commonly used 2% liquid have keen eyesight and hunt at dawn the Red-tailed Hawk's diet consists of



Ferruginous Hawk

Ferruginous Hawks are an endangered species, in part due to loss of nesting habitat. They are a sensitive species that will not live in human-disturbed areas, so roads and farmsteads drive them further away. What is amazing is that one pair of ferruginous hawks will eat an estimated 500 ground squirrels each year. Being picky about their nesting spot they like to return to the same spot each year. Their nests are high and well built to handle the strong winds we see here. Producers can put up platforms themselves or ask their energy company about it (Fortis and AltaLink have put up numerous nesting platforms in Alberta).

distributed hawks in North America and

rodents, especially ground squirrels and mice. They nest in tall trees or cliffs and are tolerant of human activities and will nest close-by.

TIPS TO ATTRACT BIRDS OF **PREY TO YOUR FARM**

- Go Natural! Owls particularly like fallen trees and branches to perch on when hunting. Leaving a site natural allows for good prey habitat. Leave tall trees for hawks to nest. Ferruginous hawks need minimal to no human disturbance so if you see a nest avoid driving by it or making a regular motorized vehicle trail.
- Keep pets inside after dark so they don't scare the owls (and/or become a feast!)
- Owls are large and powerful and window collisions can be fatal use curtains or adornments to help the owls see obstructions.
- Turn off yard lights Owls in particular hunt at night and lights can make it difficult for them to hunt and motion detectors can scare them away.
- Do not use poison or pesticides for rodent control if you can help
- · Build platforms or nest boxes

If you would like to learn more about how to attract raptors to your farm contact CARA. With enough interest Red-Tailed Hawks are the most widely they can set up workshops on nest boxes, platforms, and additional birds

BEWARE: Forage with noxious weed species can be **DESTROYED** by the Agricultural Service Board to prevent spread. This includes bales.



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PLANNING FOR SUCCESS!

Take the Canola Council's 4 Part Quiz to see if you're ready for spring planting

Have you subscribed to CANOLA WATCH yet? Click here!



QUIZ! Who Is A Pollinator?









Answer Key: All of the species above contribute to pollination! A) Monarch Butterfly B) Moth C) Hoverfly D) Hummingbird E) Bats F) Leaf Cutter Bees G) Ants H) Mosquitoes I) Rusty-patched Bumble Bee (native)



Download your 2021 Guide) FREE, get the App or order a paper copy for \$15 by visiting



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Impacts & Consequences of Field Windbreak Removal

By Toso Bozic, YARD WHISPERS



PC: Special Areas Board

The value of field windbreaks has been known for many decades in Canadian fields and grasslands. Prairie Provinces. Since the 1930s, farmers and ranchers have planted WHY ARE WINDBREAKS trees to reduce the negative effect of the wind to their homes, soil, crops, livestock, and their water and land infrastructure. Impact consequences of field windbreak removal are not fully understood. The cost to farmer and rural communities is calculated in millions of dollars through loss of road infrastructure and top soil.

WHAT ARE THE BENEFITS?

Well-designed field windbreaks have proper tree/shrub density and stand perpendicular to the prevailing winter wind. Properly planted field windbreaks

Culvert jammed

PC: Norm Boulet, MD Smoky River

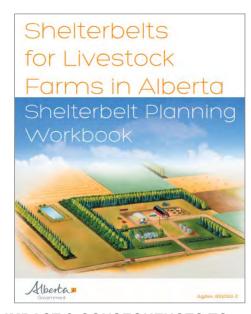
prevent soil erosion, reduce crop damage, protect livestock from extreme cold wind-chill and reduce overland floodina spring. windbreaks in southern Alberta also slow down prairie fires that rapidly move through landscapes due to high wind and warm weather. On-farm field settings windbreaks will provide good snow distribution across a field to a distance of 10 to 15 times the height of the trees.

Windbreaks also reduce snow drifts into highway ditches. Snow does not melt as quickly in treed areas and the land holds more water than in open

REMOVED?

As farm operations become larger and more automated, many windbreaks are removed from the fields due to larger equipment and the convenience of not being required to operate around the field windbreaks. Even though science proves that yields are higher with properly designed windbreaks, trees are cleared for more land for cultivation. The impact of snow drifts on roads Also due to windbreaks, snow stays longer on the field, delaying seeding times.





IMPACT & CONSEQUENCES TO SOCIETY

Weather in prairie provinces is quite variable in spring, with sudden warm temperatures causing fast snow melting and consequent flooding in many parts of the province. Where trees are removed from watershed, water runs from the land much faster into the creeks and rivers.

during winter is very well understood in rural Alberta. The cost related to snow removal is also well known. Very few pay attention to what happens during the spring snow meltdown when huge





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Impacts (cont'd)

amounts of water rush into ditches that **DESIGNING A SHELTERBELT**: are full of hard packed snow with mini SOIL CONSIDERATIONS "ice/snow dams". As a result, high volumes of water are diverted from these "ice/snow dams" to areas where they damage roads, culverts and bridges.

The long-term consequences of field windbreaks removal to farmers, local, municipal and provincial infrastructure budgets are never properly assessed. Millions of dollars every spring/summer are spent to fix local culverts, roads and bridges due to snow melt and flooding directly attributed to windbreak clearing on the fields. Many decision makers and professionals know that treed areas reduce snow drifts, slow spring melt, reduce water flow, reduce wind and stabilize riverbanks.



Strong winds (chinooks and cold jet streams) from the south-west or Fourth rows (shrubs and flowering northwest direction are the major trees): crab apples, lilacs, factors for tree planting design. Trees chokecherries, Nanking cherries, and shrubs should be carefully selected so that they can survive severe cold and rapid drought. transitions between chinooks and cold jet streams. You may need to plant Sandy soils are very porous, not only shrub species and let them grow for 2-4 years prior to planting any tree species. Below are tree and shrubs establishment design scenarios on 3 major soil types with SW and NW predominant wind directions.

Note: Avoid planting caragana along creeks, rivers, or lakes due to very aggressive and invasive nature. Caragana can destroy natural native vegetation in the riparian area but can be a competitive viable option in nonnative areas.

DESIGN ON CLAY SOILS

Clay is very hard for trees to grow in as dense soil particles do not allow roots to go through and do not provide DESIGNS FOR SALINE SOILS enough access to oxygen or moisture for roots. Compaction is even worse for trees than heavy clay soil as there are no pores for air or water pockets and roots simply can't go through.

Firsts row (shrubs): caragana, silver buffalo-berry, cotoneasters

Second rows (hardwoods): Manitoba maple, variety of cottonwoods, willows, green ash and hybrid poplars

Third rows (hardwoods): American and Siberian elms, aspen, bur oak and Amur maple

Fourth rows (coniferous): Colorado spruce, Black Hills spruce, ponderosa and scotch pines and Douglas fir

golden currants, Saskatoon's, red osier dogwood, American plum, rosewoods

DESIGN FOR SANDY SOILS

nutrient-rich and do not hold water at

Firsts rows (shrubs): caragana, silver buffalo berry and fragrant sumac (Skunk brush)

Second rows: Rocky Mountain juniper and Mugo pine

Third and fourth rows (coniferous): Colorado spruce, Ponderosa and scotch pines and Douglas fir

Fifth rows: wolfberry, potentilla or shrubby Cinquefoil, lilacs, golden currants, Saskatoon's, American plum, rosewoods and common juniper

Saline soils are very hard on any tree and shrub species but there are some shrubs and trees that can handle a level of salinity.

First rows (shrubs): silver buffalo berry and Sea buckthorn

Second rows: Caragana, Spreading juniper, Snowberry, Villosa lilac, Hawthorn

Third and fourth rows: Rocky Mountain juniper, Mountain Ash, Ponderosa pine, Green ash, Manitoba maple, Siberian elms. Laurel leaf willow and some apples



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Berry Creek Community School: From Farm to Table & Beyond! By Agricultural Fieldman, SPECIAL AREAS BOARD

Cessford's Berry Creek Community School will be offering some new lessons this spring to its kindergarten to grade 12 students. Principal Leanne Jacobson has a dream to give her students access to fresh produce without driving the 45 minutes to a bigger center.

"It all started with a grade 7-11 class agriculture on plant propagation", she says. From there, Jacobson's plans to incorporate agriculture and healthy eating options into all grades of this small rural school, grew. This spring the school is planning on starting a large community garden on the schoolarounds. starting plants indoors, transplanting them, and caring for their needs until they can hopefully distribute the produce in their community. One such venue will be the new Prairie Girl Café that will be opening in Cessford in May.

Grades 1 and 2 students are already growing tomato plants, while grade 3-4 students have been planning on incubating and hatching chickens. All grades will participate in the maintenance of the garden and learning about where their food comes from. And its not just about the science of food— they'll learn about growing and developing a business, too.



If the school is successful in obtaining a grant, they will replace their small indoor greenhouse with a large outdoor greenhouse for more yearlearning opportunities. Jacobson also mentioned that if the program grows like she is hoping, there could be the opportunity for local food boxes that community members could purchase. And that's what its all about for Jacobson- the community. She explained that the surrounding area is full of talented agriculture botanists. producers, horticulturalists and experts in many fields. Her hope is to provide an opportunity for the community to participate in the education of their

youth, passing down their knowledge and love for agriculture, all while linking the learning outcomes of the current school curriculum.

HOW CAN YOU HELP?

The school is looking for any donations or opportunities to purchase any greenhouse or plant propagation materials such as grow lights, trays, racks, etc., that community members may no longer be using.

Chinook Applied Research Association has already offered their expertise providing soil sample analysis and recommendations for the new garden site. Their renowned soil scientist Dr. Zavala, as well as notch staff full their top agronomists will be a great resource for the students. Special Areas agronomists and agrologists have also offered to provide knowledge on several topics and help link the school with experts in various fields such as pollination, native species selection, insects, diseases and weed pests common to the area.

For more information contact Berry Creek Community School at bccs@plrd.ab.ca or 844-566-3743.

Mark Your Calendars! Native Prairie Speaker Series Webinars

April 20, 2021

Native Pollinators: Who they are and how to help them out

May 11, 2021

Greater Sage-Grouse & Grassland Songbirds





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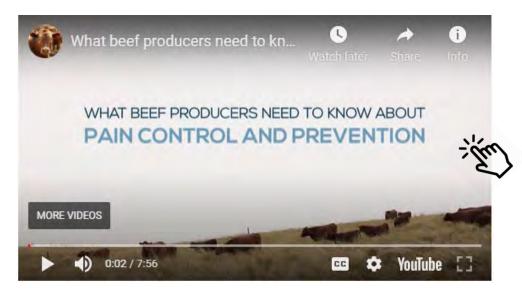
Consider Pain Mitigation this Branding Season

Adapted from BEEF CATTLE RESEARCH CENTER

Common production practices such as branding, castration, or dehorning are often necessary on beef operations, however they do cause pain to the animal. Acute pain generally lasts for a few hours, but is often quite intense. Chronic pain is less intense, but can last for days or weeks.

Cattle are considered to be a prey species, meaning they try to hide signs of pain so they don't appear weak to their predators. Researchers are able to monitor and measure pain using physiological responses, such as amplified brain wave activity or increased cortisol levels, during and after certain painful procedures. The way an animal acts or behaves may also demonstrate that an animal is in pain.

An animal displaying signs of tailflicking, head-shaking, pacing or an animal is in pain. Producers may feel a moral obligation to prevent or minimize pain in animals under their care, however there are also benefits production effective pain mitigation. Fortunately, there are several measures that producers can take to minimize pain associated with these practices. Pain control products are now available for



producers to use on livestock and for example, is more likely to cause including performing procedures at an early age, which are This reduces the amount of tissue easy to adopt. Also, through the recent impacted, reduces pain, improves gain kicking can be subtle indications that National Code of Practice for the Care during the feedlot phase, reduces and Handling of Beef Cattle, Canada marketplace discounts, and lowers the requirements for different procedures.

Castration, whether by surgical, banding, or burdizzo methods, all cause pain to the animal. Some methods, such as surgical castration, cause acute pain, whereas banding,

there are also many best practices, chronic pain. It is important to castrate painful animals at the earliest age possible. recently established pain control risk of further pain or complications later in life. Dehorning can easily be accomplished using polled genetics. to providing ROUTINE PAINFUL PROCEDURES Very young calves can be disbudded using caustic paste or hot iron disbudding before the horns have attached to the skull (i.e. 2-3 months of age). Older animals can be dehorned using scoops or saws, but these

Planning Your Spring Fencing Projects? Check Out Iberta Landholder's Guide to Wildlife Friendly Fencing



Want to learn more about raising chickens?



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Pain Mitigation (cont'd)

practices are more painful and risky. PAIN CONTROL PRODUCTS Tipping, which removes the end of the horn but leaves most of it intact, is a less risky method of dehorning older animals than complete horn removal.

and visible ways to mark or identify cattle. Many lending institutions and community pastures require cattle to be intramuscularly, in cattle, however producers can help proper tools and techniques, avoiding applying a brand.

Pain control drugs are available for cattle through a veterinary prescription. Analgesics, such as non-steroidal anti- Producers have options for reducing or inflammatories (i.e. NSAIDs), are a minimizing pain in cattle during routine Branding is one of the few, permanent type of drug that will temporarily reduce procedures as well as in unusual the effects of pain but not all sensation. circumstances such as injury or difficult Analgesics can be intravenously, branded and it is often also an export orally, making them a practical option undertaking the appropriate procedure, requirement. Branding does cause pain for producers. Local anesthetic drugs using the proper tools, and using can be used, which temporarily block correct medication where necessary to to reduce unnecessary pain by using feeling or sensation in a localized area, support the welfare and productivity of General anesthetics can also be their herds. branding sensitive areas, and ensuring administered, rendering an animal hides are clean and dry prior to temporarily unconscious. Special care needs to be used when administering

anesthetic drugs, however, and only properly trained personnel should use these drugs.

administered labour. Producers should consult with or their veterinarian to ensure they are

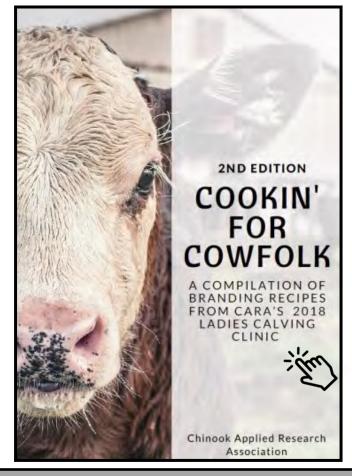
> For more information visit http:// www.beefresearch.ca/researchtopic.cfm/pain-mitigation-81.





Covid-19: Tips for **Branding/Processing**









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Start Scouting for Burdock NOW!

By Agricultural Fieldman, SPECIAL AREAS BOARD



PC: @EdieCreekAngus on Twitter

It's that time of year! The sun is shining, the snow is gone, calves are hitting the ground and you're probably out checking your pastures for the first signs of spring. While you are out and about enjoying the warm weather, make sure to look for the first nasty noxious weed to emerge in Special Areas—burdock.

There are three types of burdock—wooly, great and common—but the differentiation between the three isn't as essential as being able to identify its burdock. At this time of year you will likely notice the seed heads before you notice the seedlings. The burs (seed heads) may be identified on your livestock, pets and wildlife as

Velcro-like balls that stick to their fur and seem impossible to remove! These burs contain many seeds, with a single plant being able to produce as many as 16,000 seeds each!

Since burdock plants are biennials, producing rosettes the first year, overwintering and sending up shoots the following year, first year plants are often overlooked. Most producers don't know they have a problem until they recognize the burs on their clothing or livestock. If you notice these burs you should be thoroughly inspecting your pastures for signs of plants. A great place to start looking is anywhere wildlife or livestock can rub - trees, brush, fence lines, rubbing rocks, etc. The main method of burdock spread is through livestock, wildlife and people rubbing against the plants, picking up the burs, travelling and redistributing the seed heads elsewhere.

Burdock is typically found in pasture situations as it likes undisturbed soil. While burdock used to be found mostly only in the river hills of the Red Deer River, it has now been spread throughout the entire Special Areas, and most infestations can be directly attributed to livestock— cows & horses.

When scouting, focus on areas you know your livestock frequent. Look for paths within treed or shrubbed areas, watching carefully for the first year

stage that looks similar to rhubarb pre-flower. If it looks like rhubarb, and it isn't in your garden, you're probably looking at burdock. Rhubarb is not native and is not typically found growing wild in pasture situations. Second year plants will become quite large and will send up an erect stem with a reddish tinge up to 3m tall. The top of these stems will house the purple flowers with burs (hooked bracts) typically in July.

The bad news with these species is that you usually don't notice you have a problem until you really have a problem. Plus, its usually in hard to access areas that allow it to spread prolifically. The great news is that the plant is actually easy to kill. The plants do have a tap root that can cause issues when pulling if the ground is hard, however you can spot spray the plants with readily available herbicides like 2,4-D or glyphosate. By spot spraying with a backpack you can target these plants specifically, leaving the surrounding vegetation, such as trees, unaffected. When you do find burs, whether on livestock, pets, yourself or the ground, you NEED to pick, bag & burn the burs. While killing the vegetation is relatively easy, a single bur could create hundreds of new plants the following year. Be sure to wear long sleeves and pants when picking as the bracts on the burs can be a skin

REMINDER!

Western Cattle Price Insurance Program for Calves is available February—June. Visit www.lpi.ca for more information.





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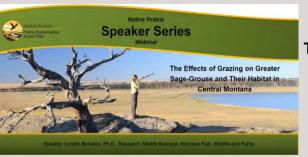


Burdock Biennial Life Cycle in the Special Areas









Click to watch a Youtube recording of

The Effects of Grazing on Greater Sage Grouse and Their Habitat in Central Montana

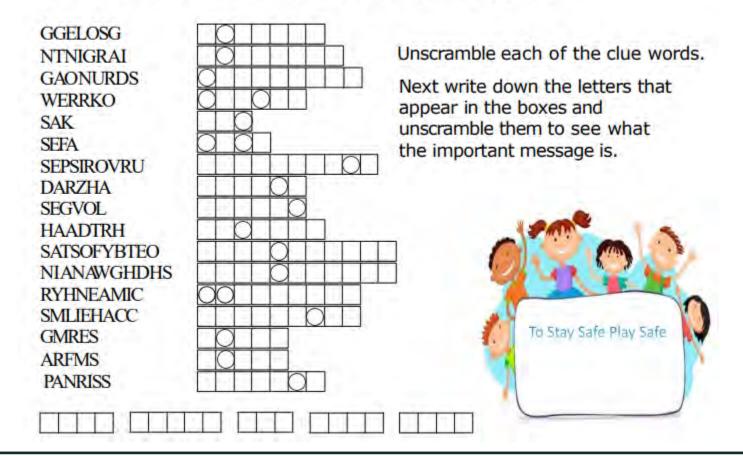
Presented by The Saskatchewan Prairie Conservation Action Plan



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Find The Hidden Farm Safety Message





Farm Safety Center Links to Try With Your Kids Chemical Safety Fire Escape Plans Fun Quarantine Activities for Kids Healthy Lifestyles (Rethink Your Drink Hypothermia (The Chills that Kills) Mental Well-being/Stress - Sugars) (Balloons/Straw) Mental Well-being/Stress (Stress Ball) Poison Prevention (Mistaken Identity) Reaction Timer (How Quick Are You?) Seat Belt Safety Weather Safety When Children Visit the Farm (WSPS Stop, Think, Act)



Notes from the Field — Spring 2021

Altario: Where Community, Education & Agriculture Meet By Kevin Van Lagen, ALTARIO AGRICULTURE ACADEMY



Photo provided by Kevin Van Lagen, Principal of Altario School

On February 1, 2017, Altario came together for a meeting to re-imagine the community. Students shared their ideas in the afternoon, and over thirty community members did the same that evening. A graphic recorder created a vision board for the school and community and this became Altario's vision for revitalization. One of the strongest desires at the meeting and a theme that kept on repeating itself was the celebration of an agricultural heritage.

Today, the Altario Agriculture Academy boasts a program where students lead and operate a functioning farm. Students at Altario School are responsible for the care of cow/calf pairs, steers, turkeys, chickens, and sheep.

Students also run a community garden and oversee a crop test plot. The program offers a three day residency for students from across the province, and Altario students are immersed in the leadership of this event. Students have board meetings where they make financial decisions such as what to purchase, what to sell and for how much and what future profit opportunities they should explore. Student leaders are rewarded with scholarships after each school year.

On an average day, students arrive at school at approximately 8:25 a.m. They immediately proceed to a meeting place and then head out to the school barn for morning chores. Within 15 minutes, students are back inside the school for breakfast. Shortly before 9:00, the regular school day begins. Throughout the day, students are given other opportunities to work with animals and study agricultural related topics. As an example, several students recently built a shelter for our cow/calf pairs.

The Academy offers students the opportunity to understand and appreciate "What's on their plate?" Partially through this program Altario is a growing school. All of this growth and focus on agriculture in Altario School is a response to much planning and the direction set by the community in February 2017. It is meant first and foremost to enhance the educational experience of Altario students, and to give other students the opportunity to learn to celebrate agriculture and a rural way of life. Since 2017, Altario School has become a place where community, education, and agriculture meet."







Notes from the Field — Spring 2021

Pretty or Prohibited? Avoid Planting Invasive Ornamentals

ALL of the flowers below are listed under the Weed Control Act as noxious and must be controlled. Click each image to find out more about the invasive nature of these plants, plus ways to control them effectively. Quiz Yourself- Can you name each species? Answers below.





Notes from the Field — Spring 2021

Scout Your Hayland & Pasture: White Cockle

By Agricultural Fieldman, SPECIAL AREAS BOARD



PC: Special Areas Board

If you live near Paintearth County you might be hearing more about invasive White Cockle this year. Silene latifolia ssp alba is a noxious weed listed on Alberta's Weed Control Act that must be controlled. This member of the Caryophyllaceae family introduced from Eurasia and has been found in extreme infestations bordering and creeping into Special Areas No. 2 & 4 in recent years.

It is most often recognized when in its white flowering stage and seems to be an invader of hayland, tame pasture and now even some cropland. It can act as an annual, biennial or short-lived perennial, with its deep tap root and different male (10 veins) and female flowers (20 veins). It's opposite leaves are oblong, covered in hairs (not sticky) and have a prominent center line.

This species is capable of producing up to 25,000 seeds per plant, which are small, kidney shaped and grey (similar to clover), with the ability to survive in the soil for up to 20 years. By allowing this noxious weed to live in your pastures, crop and hayland, you allow that seedbank to build up and often spread it through equipment, bales, grain, etc.

Special Areas has a policy in which they allow each ratepayer four free hours of noxious weed spraying (time permitting). Beginning in 2021 the County of Paintearth will be blanket spraying one division of countyowned roadside per year specifically for this noxious species. Both municipalities are also asking that producers take a more proactive role in controlling the spread of white cockle, which is the landowner's responsibility under the Weed Control

Special Areas and Paintearth County met with Alberta Agriculture staff in 2020 and agreed upon a plan to work towards a six mile buffer of white cockle free land on either side of the Special Areas/ Paintearth County border, to stop any further spread of this species.

WHAT CAN YOU DO?

Scout your property early and create a management plan with your ag fieldman. This plant is an early spring emerger and scouting should start NOW! We recognize that control won't happen over night but a long term control plan needs to be created to stop the further spread of this invasive pest.

A noxious weed species should never be allowed to go to seed. If you see a

flowering weed you should take immediate action. This may include herbicide applications, mowing (be aware of seeds on your equipment & clean thoroughly before moving to the next field), or burning of bales that contain the weed. Beware that stem and root pieces can propagate to form new plants, so cultivation is NOT recommended. This species is not grazable. To determine which control method is best, contact your agricultural fieldman.

Within Special Areas the major source of white cockle spread appears to be through baled feed. Some bale yards have extreme populations that have been introduced from other fields and concentrated in one site. It is essential to control these bale yards and prevent further spread by feeding these bales. Herbicide applications of bale yards with products like Reclaim can help prevent further weed spread and actually work very effectively.



PC: Special Areas Board



Notes from the Field — Spring 2021



Why is rinsing important?

- It meets the requirements of the Pest Control Products Act.
- It ensures no product is wasted.
- It improves health and safety practices in the community.
- Only clean plastic can be recycled efficiently.

Please note

Before containers can be accepted for recycling, they must be rinsed of all residue after use. Only dry, rinsed containers that are residue-free can be accepted at collection sites.

Important: Instructions for Seed Treatment Containers

- I Rinse, if possible.
- If rinsing is not possible, close cap securely and place unrinsed jugs together in a separate collection bag.
- 3 When the bag is full, securely close with a tie wrap, rope or knot and take the bag to your local collection site for proper disposal.



For more information: 1-877-622-4460

cleanfarms.ca



YOUNGSTOWN REGIONAL LANDFILL now accepts grain bags & twine!

For more specifics visit <u>CleanFarms.ca</u> or call at (403) 857-9300





Notes from the Field — Spring 2021

Be a Boss. Check Your Moss.

By ALBERTA AGRICULTURE

Invasive mussels have been found in (Marimo) moss balls Alberta and we need you to take action to prevent the introduction of this species and protect Alberta's waters!

See the ALERT here.

On March 5, 2021 Alberta Environment and Parks staff discovered that a pet and garden store distributor in Alberta received a shipment of moss balls that originated in the Ukraine- the same place the United States also received musselfouled moss balls from.

Staff inspected the moss balls and confirmed that invasive zebra mussels were found. Hilo, the conservation canine, was also given the opportunity to sniff out mussels on a substrate he's never smelled before- he alerted to a musselfouled moss ball! The moss balls were seized under the Alberta Fisheries Act.

Here's how you can help:

- If you purchased moss balls after January 1, 2021 they must be disposed.
- Destroy the moss balls by placing into a sealed plastic bag and freezing for at least 24 hours. Or place in boiling water for at least one minute and then let cool.
- Dispose of the moss balls by placing them and their packaging into a sealed plastic bag. Dispose of in your household garbage.
- Treat aquarium or container contents and water. Click here for more details.

Please do not flush moss balls down the toilet or dispose of them in the compost. Invasive mussels pose a serious threat to Alberta's aquatic ecosystems, fisheries and water infrastructure like irrigation canals. Never dump aquarium tank pets, plants or water into any residential system or Alberta waterway.

If you suspect you have found invasive mussels call the AIS hotline for additional questions and support.

1-855-336-BOAT (2628)



PC: My Wild Alberta

ZEBRA AND QUAGGA MUSSELS

(DREISSENA SPP.)



One female mussel can produce up to one million eggs a year.



Invasive mussels can disrupt natural food chains. create toxic algal blooms and reduce recreational enjoyment of natural areas.





Originated in the Black and Caspian Seas, brought to North America in the ballast of large cargo ships.







Transferred between water bodies on watercraft and equipment that is stored

An invasion causes millions of dollars in damage to water-operated infrastructure - one estimate predicts it could cost Albertans over \$75 million dollars annually.

Standing water in bilges, ballasts and live wells can harbour hitchhikers. parasites and disease:



CLEAN+DRAIN+DRY to prevent the

spread of invasive





Notes from the Field — Spring 2021

Upcoming Webinars

April 7 <u>Farmer Pesticide Course– MD of Taber</u>

April 8 & 15 <u>Sheepbytes:Ration Balancer Webinar</u>

April 8 Alberta Oat Growers Association AGM- online

April 20 <u>Canadian Roundtable for Sustainable Beef Semi-AGM- online</u>

May 14 <u>Annual grazing for sheep with Graeme Finn Webinar</u>

June 2 <u>Infectious diseases that keep adult sheep from performing– Webinar</u>

July 7 Feeding replacement and late gestation ewes- Webinar

Catch Up on Past Webinar Recordings!

Alberta Native Plant Council- Growing Native Plants Webinar

FCC- Women's Summit Recording

AWES- Shelterbelt & Eco-Buffer- Basics & Advanced Workshops

BCRC- Meeting Your Production Goals: Records for Animal Health & Performance Webinar

BCRC- Breeding Goals: Practical Genetics for Beef Production

BCRC- Record Keeping for Forage & Grass Management

Govt of SK- Tame and Native Forage- Selecting Appropriate Species for Your Soils

SK PCAP- Quantifying Ecosystem Services Derived from Wetlands

SK PCAP- The Effects of Grazing on Greater Sage Grouse

SK PCAP- Drought Proofing Webinar

SK PCAP- Whose Nest is This? Webinar

Your Agriculture Fieldmen

JESSE WILLIAMS



SA2 (403) 854-5625

DON HOGAN



SA3 (403) 664-3618

IUSTINE COMEAU



SA4 (403) 577-3523

We offer support for programs including:

- ♦ Plant identification & noxious weed control
- Grazing management & strategies
- Pest management & controls
- Canadian Ag Partnership (CAP) Funding
- Environmental Farm Plans
- Shelterbelt programs & planning
- Animal predation concerns
- ♦ Equipment rentals including RFID tag readers & pest traps
- ♦ Concerns related to Soil Conservation Act, Weed Control Act, Agricultural Pest Act, Animal Health Act, and other legislation.