SPECIAL AREAS BOARD

Notes from the Field — July 2020

Designing Pasture Pipelines

With pasture systems become more intensively managed, producers are considering piping water directly to paddocks. These pipelines are typically small diameter polyethylene (PE) pipes buried about 12 inches below surface. Used primarily in summer, these pipelines must be drained and blown out with an air compressor each fall. Pasture pipelines can be easily installed using a tractor and specialized plow that minimizes soil disturbance and erosion.

Agricultural Service Boards (ASBs) in the Special Areas have pipe plows available for rent. The large pipe plow - which has rental costs of $250.00/day - can bury up to 3" plastic water line. It requires a 300 horsepower tractor. The smaller pipe plow can bury up to 2" water line and rents for $150.00/day. These plows are in demand this year, so if you are looking to rent either plow you should contact your local Ag Fieldman as soon as possible.

Multiple factors should be considered when designing your pasture pipeline, including: number and type of livestock using the water, pump capacity, well & dugout capacity, and expected peak water consumption per animal. You will need to take into consideration friction, loss of the pipeline, vertical lift from the pressure tank, float valve pressure requirements and more.

Click Before You Dig

Alberta Agriculture and Forestry's Pasture Pipeline Design Guide walks you through the process step by step.

Before expanding pasture watering, it is a good idea to check the quality of your water. You can do this through the Chinook Applied Research Association (CARA). Their livestock nutrition specialist can help you understand your tests, ensuring the water is safe for livestock. CARA also can help you design mineral packages specific to your operations needs.

AFSC Deadline Reminders	
July 15	Perennial Crop Insurance: Last day to file Report of Hay and Report of Export Timothy Hay in Storage Prior to Harvest for Perennial Crop Insurance.
August 15	Annual Crop Insurance: Last day to file Report of Grain in Storage Prior to Harvest.
September 1	Hail Insurance: Interest begins accruing on unpaid insurance premiums.
September 1	Perennial Crop Insurance: Interest begins accruing on unpaid insurance premiums.
September 1	Annual Crop Insurance: Interest begins accruing on unpaid insurance premiums.
September 1	Bee Overwintering Insurance: Last day to file Report of Bees Overwintered and Hive Yard Locations form.
September 30	AgriStability: 2019 Supplementary Forms due (without penalty).

SPECIAL AREAS BOARD

Notes from the Field — July 2020

Managing Saline Land

Adapted from: Brittany Neumeier, Saskatchewan Agriculture

Dealing with salt affected soils? You're not alone.

It's estimated several million acres are affected by salinity in Saskatchewan alone. Saline soils have a high concentration of soluble salts as a result of large deposits of marine shale with high concentrations of sodium salts located in this region. Glacial activity broke up and mixed this material into the soil. These salts are water soluble and can be redistributed within the landscape. Often accumulating around the perimeter of wetlands and in areas with a shallow water table, these areas are generally within two meters of the soil surface (*Henry, 1987*). These dissolved salts increase osmotic pressure of the soil solution, preventing plants from taking up water and nutrients. Saline soils are a production challenge as they are poor yielding, unproductive, and often bare with little plant growth.

So, how do we manage these areas?

Doing nothing may cost you in the long run. In a case study on the economics of saline areas, it was shown doing nothing for these areas ends up costing more versus investing in a permanent solution. Leaving saline areas bare often increases the severity and size of soil salinity. Bare areas have a high rate of evaporation because there is no vegetation shading the soil. Through a process called capillary action, water is carried to the soil surface, and water then evaporates off leaving behind the salts brought with it.

These areas can be managed by establishing a diverse perennial forage stand. Vegetation protects the soil surface from the elements and uses the ground water, lowering the water table and keeping the capillary action at bay. The result is a reduction in the amount of salts being brought to the soil surface. Because salinity is extremely variable, a good strategy when trying to establish perennial forages is to seed a complex mix of grasses and legumes with varying levels of salt tolerance, as well as deep rooted forages that use a lot of water, like alfalfa (*Henry, 1987*). This ensures the highest level of establishment and potential for groundwater use. Planting perennial forages has other benefits as they suppress weed establishment and provide natural pollinator habitats.

Through the Canadian Agriculture Partnership (CAP), the Ministry of Agriculture has funding available through various programs. Under the Environmental Stewardship– Riparian Management category, producers may be able to access funding for saline area management/ seeding. For help with CAP funding grants and applications, contact Chinook Applied Research Association (CARA). You can also contact your Special Areas Agrologists for saline land management best management practices and seeding recommendations.

Noxious or Not? Know Your Purple Flowers

To learn more about Noxious & Prohibited Noxious Weeds visit: www.abinvasives.ca

SPECIAL AREAS BOARD

Notes from the Field — July 2020

Scout Your Hay Fields for Noxious Weeds

Scentless Chamomile *(Tripleurospermum perforatum)*

This is one smart plant! While it does look ornamental, it is certainly not a plant you want in your flower garden - even though we often find it there! This plant can act as an annual, biennial or even a perennial and has the ability to flower at varying heights - if you mow this plant it will flower below the height of your mower next time, but it can also grow to be several feet tall and over a meter wide.

While it can flower all season long, its only reproductive method is through seed (*up to one million seeds per plant)* **so if you see this bushy daisy pick it, bag it & burn it.** While picking is very effective, once this plant establishes in a hay or crop field it can spread rapidly. Cultivation to destroy rosettes and herbicide applications are required. We often see this species pop up in bale yards and where cows were fed in the winter. If you notice any of these white flowers, be sure to have a look at your crop/hay fields. And when buying feed, be sure to check with the seller and ensure it's free of noxious weeds like scentless chamomile.

White Cockle *(Lychnis alba)*

Another white flowered weed that creeps into hay crops is White Cockle, particularly in the northern areas of the Special Area region. This short lived perennial has hairy stems and leaves with clusters of white flowers. The male flowers have 10 veins, while the female flowers have 20 veins. Plants commonly mistaken for white cockle are bladder campion (not hairy, not sticky) and night flowering catchfly (hairy, but sticky). No part of the white cockle plant will be sticky to touch.

What makes white cockle troublesome? Its many seeds are difficult to separate from alfalfa and some grasses, making it a perfect invader of hay land. Stem and root pieces of this plant can form new plants so cultivation is NOT the answer. **Picking the flowers prior to seed set and a herbicide application is the most effective.** In severely infested hay stands spot spraying or re-cropping is recommended.

Common Baby's Breathe *(Gypsophila paniculata)*

Most people are familiar with this ornamental plant, particularly in flower arrangements. What most people don't know is in 2010 it was listed as a Noxious Weed in the Alberta Weed Control Act. This perennial reproduces by seed only (1000's per plant) but spreads easily through its tumbleweed nature. Commonly found in hay fields surrounding old homesteads and cemeteries, this noxious weed is a moisture thief with its enormous tap root often extending 4 meters. It competes very well against hay crops and can rob crops of precious moisture, particularly in drought years.

The first step in battling Baby's Breathe is to prevent seed set. **Mowing prior to seed set (BEFORE you see those white flowers), combined with a selective herbicide will be your best chance at controlling the population long term.** Because of the taproot, fall is an excellent time to apply herbicide to translocate deep into the root system. You must be very diligent not to let the plant flower before then though! This weed is common all over the Special Areas, so scout your hay fields often and carefully.

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

Don't take a chance – Inspect & Control!

SPECIAL AREAS BOARD

Notes from the Field — July 2020

Wood Wide Web: Healthy Roots, Healthy Trees by Toso Bozic

Many recent studies show "trees do talk to each other" through a vast network of root systems. This is called the "**Wood – Wide - Web**", and is mostly a result of the fungus and bacteria symbiotic mycorrhizal relationship and the interaction with tree root systems through sharing water and nutrients. Beside many other functions, these vast mycorrhizal networks are extremely important for tree health during the times of danger and stress.

Certain species of fungi can facilitate tree resilience against some environmental stressors such as predators, toxins, and pathogenic microbes which can invade an ecosystem. The stress signals received by non-affected trees through the root system facilitates the release of volatile hormones or chemicals which then discourage predators or pathogenic bugs.

Soil and Tree Roots

All plant life in the forest originates from the thin layer of minerals, organic matter, water and air we commonly call soil. Tree roots are very opportunistic, growing wherever and whenever there is available oxygen, water, nutrients, and a warm environment. The soil surface is the place where most of these preferable environments exist. That is why the majority of tree roots are in the upper 45 to 60 cm (soil18"-24") of soil. To understand how roots function, it is important to understand the relationship between above-ground tree growth and roots, as well as the proper balance between the two.

If a portion of roots die a certain amount of leaves and branches will die, and vice versa. The fine roots is where the production of essential nitrogen and mineral nutrients happens. They are transported together with water throughout wood tissue. The surface area of roots are several times larger than the surface area of leaves. A good example is the native aspen tree in Alberta. The distance of roots from the main trunk can be as twice the height of the tree itself. For example, an 80 feet aspen can produce roots 160 feet from the main trunk.

Overall, tree root systems provide several key functions including: anchoring portions of the trees above ground, storing essential food reserves, and transporting water and minerals from the soil to the rest of the tree. Root damage will disrupt these key functions and together with pest or environmental issues, such as drought, salt, frost and mechanical damages, will contribute to the decline and the mortality of the whole tree.

Causes of tree root injuries and problems

There are many ways to damage and destroy a root system, ultimately leading to the decline and death of trees above ground. Once a tree is established, anything changing soil conditions or oxygen and water supplies can be extremely detrimental for tree growth and survival.

COMPACTION is caused when soil particles squeeze air and moisture out of the pore spaces. It may occur during new house and road development, construction, livestock grazing, timber harvesting, recreation and hosts of other activities. Compaction in rural settings is less common than in urban settings. In urban settings, the use of heavy clay subsoils instead of topsoil causes compaction. Sandy soils compact the least, while clays and loams are the most susceptible. Moist soils are more likely to compact than dry or frozen soils.

MECHANICAL DAMAGES are caused by severing fine feed and major roots. Mature trees contain 4 to 7 major roots with thousands of medium, small and fine feeder roots. Cutting one major root just a few feet away from the trunk can reduce up to 25% of root system. Mechanical damage to the surface of the roots is the main entry point for many fungal diseases of trees.

CHEMICAL DAMAGES are very common both in rural and urban settings. On farms, constant crop spraying near trees can weaken or kill trees as tree root systems absorb chemicals. Salt de-icing and herbicide use are very detrimental to root survival.

WATERING AND FERTILIZING over or under watering or fertilizing can damage roots. Overwatering will fill the soil air pockets and drown roots. Underwatering will cause improper root development and not allow roots to absorb nutrients. Overfertilizing will "burn" roots while underfertilizing will not allow roots to take necessary minerals for trees to grow.

PESTS can damage roots, with a variety of pests prevalent in both rural and urban settings. The majority of root pests are related to fungal diseases with a few exceptions like insects. Fungal diseases can damage roots by attacking small/fine feeder roots, or can attack large roots resulting in root rots.

Cont'd...

Looking for mulch for your shelterbelts? SAB Youngstown Service Center sells mulch for $30/yard. Call (403) 779-3733 prior to arrange loading & pick up.

SPECIAL AREAS BOARD

Notes from the Field — July 2020

Wood Wide Web: Healthy Roots, Healthy Trees *cont'd*

IMPROPER TREE SPECIES SELECTION AND PLANTING it is very common to see trees planted in soils not preferable for that species. For example, choosing a sandy and dry soil loving tree species like pine, and then planting them in a water logged or swampy area will not allow roots to be established or thrive in these environments. Many root injuries happen due to improper planting or damage resulting from improper planting.

Symptoms

It is sometimes difficult to identify root problems as they can be mistaken for other issues that cause trees to decline. Proper identification of root injury causes and symptoms are crucial for the determination of tree decline or mortality.

There are several symptoms to identify root problems including:

- **Leaves** – yellow, small and chlorotic foliage. Leaves are tufted and scorch looking
- **Branch dieback** – portion of small or large branch entirely dead
- **Bark** – fungal fruiting bodies (conks or mushroom) on bark or under the bark
- **Mechanical root damages** – it sometimes takes years to identify the cause of decline and mortality of trees
- **Dead vegetation -** due to chemical damages
- **Roots are black or brown** vs white or light color (indication of health of roots)
- **Changes in soil slopes**
- **Construction** and soil disturbances

Recommendations for healthy roots

- Avoid practices that cause root damage like compaction, mechanical, chemical, watering and fertilizing damage, etc.
- Use tilling to break up heavy compacted soil prior to tree planting.
- Add some soil amendments if the top soil is poor or removed.
- Apply 2 to 4 inch thick mulch layer to protect soil.
- Improve drainage by ensuring ditches and culvert are kept clear to allow free flow of water.
- Perform soil testing to determine nutrient deficiency and availability.
- Consider tree species suitability for different soil types.
- Avoid any weed control – especially discing and spraying once trees are established .
- Avoid spraying or using chemicals on nearby trees.
- Provide adequate watering and fertilizing based on tests and confirmed data, not just best guesses.
- Avoid grade changes and use directional drilling to avoid root damages.
- Avoid planting trees near sewage lines, sidewalks, and house foundations.
- Perform proper tree planting to avoid too deep or shallow planting. Look into changes in color between trunk and roots as there should be a visible root flare after tree is planted.
- Keep leaves on the ground (do not rake leaves) in the fall as this is source of minerals, micro nutrient, and organic material to roots. It will also protect roots from freezing.

ADDITIONAL SHELTER BELT RESOURCES:

Weed Control for Alberta Shelterbelts

Controlling Weeds in Your Agro-Forestry Planting

Shelterbelts for Livestock Farms in Alberta

We can help plant your shelterbelts!

Call your Ag Fieldman to rent the Fabric Layer or Tree Planter FREE!

***Plastic Mulch can be purchased from CARA with use of fabric layer**

CAP Funding Available

50% Cost Share, up to $10,000

Contact CARA for CAP application help

2% Liquid Strychnine for Richardson's Ground Squirrel Control available at your District Office until August 1, 2020.
To apply for purchase go to specialareas.ab.ca/living/agriculture-services/

SPECIAL AREAS BOARD

Notes from the Field — July 2020

Dutch Elm Disease Pressure Increasing

by Janet Feddes-Calpas

Alberta has the largest Dutch Elm Disease (DED) free American elm stand in the world. This stand is under threat as both Saskatchewan and Montana are currently battling this disease. Once an elm is infected with DED there is no cure, and it must be immediately removed and destroyed.

DED is caused by a fungus that clogs the elm tree's water conducting system, causing the tree to die. The fungus is primarily spread from one elm tree to another by three species of beetles: the smaller European elm bark beetle, the native elm bark beetle, and the banded elm bark beetle. These beetles are attracted to weak and dying trees which serve as breeding sites. Once the beetles have pupated and turned into adults, they leave the brood gallery and fly to healthy elms to feed. This transports the fungus on their bodies from one tree to the next.

Using traps and lures, monitoring for the beetles is done annually in municipalities and campgrounds throughout Alberta by the Society to Prevent Dutch Elm Disease (STOPDED). Since 1996, European elm bark beetles have been found throughout the province in low numbers. In recent years, the banded elm bark beetle has been found in the Province, first in the City of Medicine Hat. These are now spreading, and have been found in municipalities in southern Alberta.

Leaves on a DED-infected elm will wilt or droop, curl, and become brown. These changes appear in mid-June to mid-July. Leaves on trees infected later in the season usually turn yellow and drop prematurely. Leaf symptoms are accompanied by brown staining under the bark. All DED suspect elms must be tested in a lab. A confirmed DED tree must be removed and immediately disposed of in a proper manner to prevent further spread in our elms.

What you should do

- ✓ Be aware of the provincial elm pruning ban in place between April 1 and September 30.
  Elm bark beetles are most active at this time and can be attracted to the scent of fresh tree cuts, possibly infecting a healthy elm.
- ✓ Keep your elm trees healthy, and vigorous.
- ✓ Water elms well from April to mid-August.
  To allow the tree to harden off for the winter, watering should be stopped mid - August followed by a good soaking before freeze-up.
- ✓ Remove dead elm branches as they can provide beetle habitat only between October 1 and March 31.
- ✓ Dispose of all elm wood immediately by burning, burying or chipping.

What you shouldn't do

- ✗ Do not transport or store elm firewood at any time!
- ✗ Do not transport elm firewood into Alberta!
  Firewood is confiscated at all the Alberta-Montana border crossings.
- ✗ Do not prune elms between April 1 to September 30.

DED and these elm bark beetles have been declared pests under the Agricultural Pests Act. Prevention measures are enforceable under this Act.

Did You Know?

Common Mullein is a NOXIOUS weed from the snapdragon family often found on disturbed sites such as railbeds, gravel pits, roadsides, etc. This biennial or perennial is known as "Cowboy Toilet Paper" for its very large, wooly, soft leaves that form a rosette in its first stage of growth. In the second stage, it shoots up a 2.5m tall stem with yellow flowers capable of producing 100-300,000 seeds each. Seeds of this noxious weed can be viable for 100 years!

Infestations must be picked prior to flowering to prevent seed spread. Report this weed to your Ag Fieldman if you see it.

SPECIAL AREAS BOARD

Notes from the Field — July 2020

Range Scouting for Poisonous Plants

While you are out enjoying the lush green pastures this summer, be sure to keep an eye out for poisonous species. These are the top five deadly weeds often seen in the Special Areas. If you need help identifying a poisonous weed, contact your local Ag Fieldman.

Seaside Arrowgrass

SEASIDE ARROWGRASS is a native poisonous early emerging grass which absorbs large amounts of salt making it attractive to livestock, particularly if you've just moved pastures and cows are craving salt. Due to its cyanogenic compound, the poisonings usually occur too rapidly for any treatment.

Found throughout the Special Areas, this poisonous grass is found along sloughs and low lying wetlands, particularly those with high salinity.

Black Henbane

BLACK HENBANE is not only poisonous, but is also designated as a noxious weed in Alberta under the ***Weed Control Act***, meaning landowners are required to control it. This weed is a biennial, growing up to 1 meter tall in its second year with hairy leaves. Its bell shaped yellowish green flower with purple veins is very distinct.

All parts of Black Henbane are poisonous and it's a common weed found in pastures, ditches and disturbed areas.

Lady's Thumb

LADY'S THUMB was a new find this year and can be identified by its unique black "thumb print" on its leaves. This plant, usually found in BC, has lanceolate leaves and tiny pale pink flowers on an erect stem. This weed will cause photosensitivity in livestock including peeling around eyes, nose and light colored skin areas.

Death Camas

DEATH CAMAS is a small perennial herb with grass-like leaves. The many flowers are small, and creamy yellow coloured. The plant grows from a small bulb, resembling an onion. It starts growing early in the spring, before most grasses, and it blooms in May. All parts of the plant are poisonous, the bulb most of all.

Animals can graze on this plant in early spring when hunting for new growth.

Spotted Water Hemlock

SPOTTED WATER HEMLOCK, sometimes confused with cow parsnip, is one of our most toxic native plants. It is known to cause frothing of the mouth within 30 minutes of consumption and violent convulsions following.

Water front and riparian areas house ideal growing conditions for Water-Hemlock.

CAP Agricultural Training Support Program now offers up to $2,000 per employee for training costs associated with COVID-19.

For more information contact CARA.

SPECIAL AREAS BOARD

Notes from the Field — July 2020

Optimal Baling Moisture

Alberta Agriculture & Forestry

The best moisture level for baling hay or green feed depends on the type of baler you use. If you have a large hard-core round baler, 15% moisture is optimum. At this moisture level, the bales will keep for an extended period.

When moisture levels are higher than those shown in the table there will be:

- excessive heating in the bales
- mould growth
- loss of large amounts of dry matter

Moulds consume nutrients and generate heat as they grow. If the hay reaches 55 degrees Celsius or higher, severe browning reactions begin.

Amino acids and sugars combine to form insoluble nitrogen compounds that are unavailable to animals. These reactions increase the amount of insoluble fiber. This leads to a lower digestibility or total digestible nutrients. **These reactions may also lead to spontaneous combustion.**

Mould organisms under heat stress may produce toxins. These can be harmful to livestock and may reduce intake. Moulds also produce spores that, if inhaled, can cause lung disease or exacerbate existing respiratory problems.

Heating in bales occurs to some extent unless the feed contains less than 15% moisture.

BALE SHAPE	HEIGHT (FT)	WIDTH (FT)	LENGTH (FT)	VOLUME (FT^3)	TYPICAL WEIGHT (LB)	SAFE BALING MOISTURE (%)
Rectangular	1.2	1.5	3.2	5.5	60	18-20*
Rectangular	2.7	3	7	56	900	12-16*
Rectangular	4	4	8	112	1800	12-16*
Round	4	--	4	50	500	15-18*
Round	4	--	5	63	850	15-18*
Round	5	--	4	79	1000	15-18*
Round	5	--	5	98	1300	15
Round	6	--	5	141	1900	15

*The lower moisture range is preferred in areas of low humidity. Higher moisture percentage is best for other areas.

Source: Adapted from an article presented at the Alfalfa Intensive Training Seminar, National Alfalfa Alliance, Salt Lake City, Utah, March 2 to 4, 2004, Dr. Mike Collins, University of Kentucky.

Location	Type of Fire Extinguishers Recommended
Workshop	10 pound dry chemical, multi-purpose ABC extinguisher 5 pound dry chemical ABC extinguisher
Barns	10 pound dry chemical, multi-purpose ABC extinguisher 2.5 gallon pressurized water extinguisher
Farm Vehicles	5 pound dry chemical, multi-purpose ABC extinguisher
Combines	10 pound dry chemical, multi-purpose ABC extinguisher 2.5 gallon pressurized water extinguisher
Balers	2.5 gallon pressurized water extinguisher
Tractors	10 pound dry chemical, multi-purpose ABC extinguisher
Silos	20 pound dry chemical, multi-purpose ABC extinguisher 2.5 gallon pressurized water extinguisher

SPECIAL AREAS BOARD

Notes from the Field — July 2020

QUIZ! What Pest Caused This? *Answers at bottom*








Click for more info!

Pesky Pests: Who Ya Gonna Call?

Problem Species	Who to Call	Resources
Livestock predation by coyotes, or rabies suspicion in coyotes	Ag Fieldman	Special Areas Ag Fieldman can discuss management strategies and may be able to offer poisoning licenses for livestock predation only.
Non-livestock predation by coyotes (e.g. dogs, cats, horses, etc.)	Fish & Wildlife Officer	Wildlife Officers are responsible for non-livestock predation management and may be able to offer trapping licenses.
Skunks (for rabies control)	Ag Fieldman	Special Areas District Offices rent skunk traps free of charge ($150 deposit)
Livestock predation by wolves, bears, cougars	Fish & Wildlife Officer	Compensation is available for livestock confirmed to be killed by these species. Call officer immediately as a necropsy is required.
Nuisance pests such as foxes, raccoons, deer, rabbits, geese, weasels, etc.	Fish & Wildlife Officer	Wildlife officers may be able to aid in best management strategies.
Richardson's Ground Squirrels & Thirteen Lined Ground Squirrels	Ag Fieldman	Special Areas District Offices sell 2% Liquid Strychnine to qualifying producers for control of ground squirrels. Available from March 1 to August 1 annually.
Mice & Rats	Ag Fieldman	Special Areas District Offices have Ramex Mouse & Rat Poison available for qualifying ratepayers. We also participate in Alberta Rat Monitoring Program.
Magpies	Ag Fieldman	Special Areas Ag Fieldman can discuss management strategies.

Quiz Answers: 1. Geese eating corn seeds, leaving the stem 2. Blackleg pycnidia (small spore bearing black spots) on canola leaves 3. Black Knot (Apiosporina morbosa) fungus, a very common tree disease 4. Fusarium Headblight 5. Ergot bodies in grain (poisonous to livestock) 6. Clubroot galls on a canola root 7. Flan shaped mound caused by Northern Pocket Gopher, commonly known as "moles" 8. Forest Tent Caterpillars, a defoliator of aspen trees

SPECIAL AREAS BOARD

Notes from the Field — July 2020

Leafy Spurge Costing Producers

Leafy Spurge *(Euphorbia esula)* has long been an invasive weed Ag Service Boards fight to keep at bay in the Special Areas. This Eurasian ornamental is actually closely related to Christmas Poinsettia, but brings much less joy to those who have it.

A creeping rooted perennial, the easiest way to identify this invasive weed is by its unique yellowish green flowers and skin irritating milky sap that oozes when the stem is broken. Leafy spurge can grow up to 1 meter tall and has the ability to catapult its seeds 5 meters from the mother plant! This extremely invasive noxious weed also reproduces by sprouting from its expansive root system which can extend 4.5 meters deep and 9 meters laterally. Leafy spurge is extremely resilient and a combination of control methods is required to control once it invades your land. **Landowners or occupiers are required to control this invasive weed as Leafy Spurge is listed as noxious on the Alberta *Weed Control Act.***

Leafy Spurge is not a stranger to the Special Areas. There are several large infestations near Jenner, Bindloss, and Consort that Ag. Fieldman have been working with landowners to control. **The best control is prevention**. Thousands of grazable acres have been lost to this noxious weed, acres that could otherwise be used by producers to support livestock. Unfortunately, more is being lost every year.

Jesse Williams, Special Area No. 2 Ag Fieldman, describes leafy spurge as “a huge economic loss for producers” in her region, and advises ranchers to be extremely careful about where they are purchasing or importing feed from.

Scouting your fields for weeds is always recommended, but producers should be taking extra care as these noxious weed populations spread in the region. Once

established, multiple control methods are needed. Any landowner or producer looking for more information on this noxious weed should speak with their Ag Fieldman as soon as possible. This will help the Ag. Fieldman work with you to create a strategic plan of attack that will work for your operation.

Chemical spot spray applications, particularly using Tordon 22k (a selective residual broadleaf herbicide), is a critical part of the response to this noxious weed. Not appropriate in all situations, the use of this herbicide can be impacted by variables like soil texture, proximity to water, and desirable trees. Producers or landowners are encouraged to speak to a specialist, and consult the product label prior to using.

The trouble with only using herbicides to control Leafy Spurge is this plant is very persistent and will send out creeping root systems to just outside your application zone. It will then regrow despite these herbicide controls.

Repetitive cultivation has been seen to work in some areas; however, this control method is strongly discouraged in the Special Areas due to the prevalence of sensitive soils. When possible - and using appropriate soil conservation techniques - converting infested pastures into cropland for several years can help with control.

Cattle will not graze Leafy Spurge due to its poisonous milky latex, but sheep and goats have been shown to help control this plant species. Although grazing or mowing will not kill Leafy Spurge, it will diminish root reserves and give other species a chance to compete against this invasive weed.

Over the past twenty years Special Areas has been releasing biological control agents in heavily infested areas to aid with suppression. *Apthona lacertosa* beetles feed on the stems and roots of Leafy Spurge plants, depleting their nutritional reserves. Success has been seen in some locations, although harsh winters can result in some population kills.

While combining different control strategies can see significant improvement, **the best defense is prevention**. Regularly scout fields and report any suspicious weeds to local Ag Fieldman. Be vigilant about cleaning equipment before it enters your property, whether purchased or rented. When renting equipment, landowners and producers are encouraged to ask for sanitization and inspection before using.

In cases of infestation of Leafy Spurge, there is zero tolerance for haying and baling in Special Areas. If leafy spurge is found as a contaminant in stored forage, it will not be allowed to be fed or spread, and will be burned.

If you suspect a Leafy Spurge infestation report it to your Ag Fieldman immediately.

You can now download the AB Crop Protection Guide (Blue Book) or get the App for Apple or Android!

SPECIAL AREAS BOARD

Notes from the Field — July 2020

Rinse. Remove Caps & Booklets. Return to Collection Site.

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

1 Rinse, if possible.

2 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.

Container rinsing made easy

For more information: 1-877-622-4460

cleanfarms.ca

YOUNGSTOWN REGIONAL LANDFILL

now accepts

grain bags & twine!

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

SPECIAL AREAS BOARD

Notes from the Field — July 2020

SOUTHERN ALBERTA GRAZING SCHOOL FOR WOMEN & ALBERTA RANGE STEWARDSHIP COURSE

HAVE GONE VIRTUAL

SAME GREAT COURSES, NEW EXCITING FORMAT!

Shared Courses & Dates

Grazing Principles & Practices - July 16
Riparian 101 & Riparian Health Assessments - July 21
Range Health Assessments - July 23

SAGSW Courses & Dates

Ranching Women - July 28
Mental Health in Agriculture Feat. Do More Ag Foundation - July 30 (Live Only)

****All presentations will begin at 9:00am****

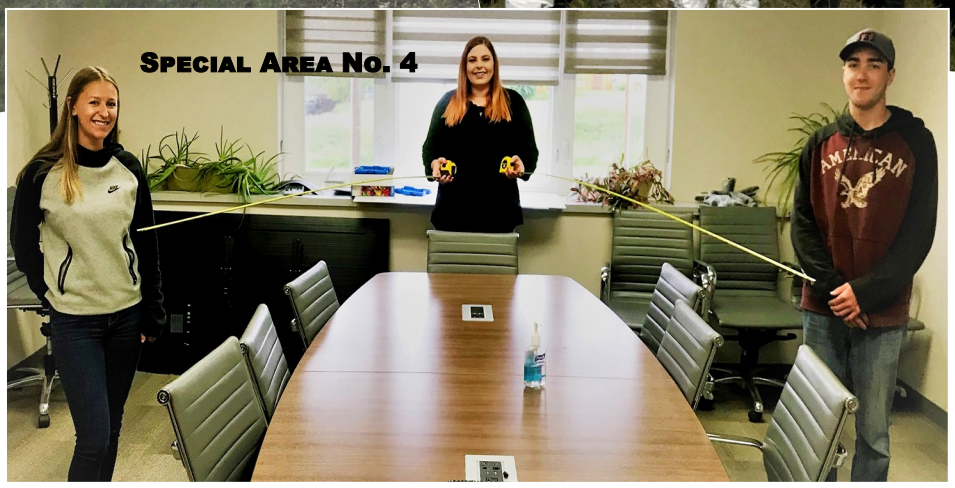
YOU CAN REGISTER FOR THESE COURSES AT
HTTPS://ZOOM.US/WEBINAR/REGISTER/WN_JVGFIKL4RFA69BI9TEVTZW

Please note, webinars will be recorded with the exception of the Mental Health in Agriculture presentation from Do More Ag Foundation.

SPECIAL AREAS BOARD

Notes from the Field — July 2020

Your Ag. Service Board Summer Crews!



YOUR AGRICULTURE FIELDMEN

JESSE WILLIAMS

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DON HOGAN

SA3
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JUSTINE COMEAU

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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.

For more information, go to www.specialareas.ab.ca or visit us on Facebook or Twitter @SpecialAreas.