Looking for Greener Pastures to Graze

Look in your own backyard

I have been writing about the benefits of establishing a riparian pasture for 10 years now. Unfortunately, this is one of those horribly dry years where I get to say I TOLD YOU SO! Sorry a little harsh but if you are a producer that grazes livestock in the County you no doubt see that the only green areas left are the strips of water loving vegetation along rivers, streams, canals and lakes. This area is the transition from the water’s edge to the upland, the riparian area. With our extended dry season, it is a perfect time to graze these areas because they will be firm and grazing will not disturb the area like it would if it were wet. Healthy riparian areas provide sustainable forage for livestock grazing. When riparian areas are healthy, riparian forage is productive for grazing and tends to produce more forage on a more stable basis than in the uplands.

Research and my experience show that adding an off-site watering system away from a riparian area will increase the health of that riparian area. Many folks will fence the riparian area off but I have seen improvements in riparian areas where there is no fenced exclusion. There is a great benefit to fencing the riparian area off to utilize it as a pasture for late season grazing. I can say that many producers that use off-site water systems witness the cattle walking by water sources to seek out a water trough to drink from. Here is a testimonial from a producer from the United States.

“I have seen weight gain increases of 5-10% over 9-10 months since removing my beef cattle from the stream and providing water from springs and wells.”

Scott Campbell
Augusta County

I cannot say whether that is true or false. I can say that if you have water sources that have a lot of suspended solids, it is not rocket science to understand that livestock would rather drink from a trough where the sediment has settled out. In the literature I have read and the research I have been associated with, I can say it is easy to see 2.5 – 5% gains in young calves.

Obviously I am very interested in helping all of our producers establish consistent healthy forage in their riparian areas. All you have to do is call and we can start those discussions that can help find funding (when available) and also offer a sound perspective as to what works and what does not.

Healthy riparian areas offer an opportunity to sustain your operation! This newsletter discusses the benefits of establishing riparian areas and the important role they play for extended grazing during a dry period. There is some soil erosion information to help folks prepare for the erosive winds that come with winter. I have included some information about ALUS Canada. ALUS works with farmers and ranchers to establish and maintain projects such as riparian buffers, fencing exclusion, alternative watering systems, native prairie establishment, pollinator habitat, and tree planting.

I have also included an announcement on an Alberta Equine Emergency Preparedness Workshop that is taking place on November 23, 2017.
ALUS investing in sustainable stewardship for farms and ranches

Community-developed and farmer-delivered, ALUS sustains agriculture, wildlife and natural spaces for all Canadians, one acre at a time.

For more than a decade, ALUS has been investing in farmers and ranchers who are producing acres of clean air, clean water, wildlife habitat and other ecosystem services in their communities by providing annual payments for the farmer’s management and maintenance of projects which enhance the ecosystem services provided by their marginal agricultural land.

ALUS works with farmers and ranchers to establish and maintain projects such as riparian buffers, fencing exclusion, alternative watering systems, native prairie establishment, pollinator habitat, and tree planting.

Projects improve riparian habitat, increase flood and drought resilience, improve water quality, increase wildlife and pollinator habitat, enhance biodiversity, and much more.

The community-based ALUS Partnership Advisory Committee reviews and approves all potential ALUS projects in the community, with guidance, support, advice and expertise provided by ALUS Canada and municipal staff.

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This has been a challenging year. The lack of precipitation has all of us very nervous as we finish up harvest and hope that we do not have any large fires in the County. As I write this I am wondering how much land will be affected by the fire at Waterton. No doubt we have all seen the aftermath of fires in the ditches and on some rangeland, thank goodness these were all extinguished quickly. The only thing to do is pray for rain and snow for the mountains. If you have experienced a fire in a field or on your rangeland, it is imperative to establish some cover on the land to avoid erosion events that can occur. This article is not intended to point any fingers at anyone in our industry. The intent here is to offer some information and resources that producers can use if or when they experience a soil erosion event.

The Soil Conservation Act empowers each municipal soil conservation officer to work with landholders, either cooperatively or by issuing a legal notice, to stop or prevent erosion. Lethbridge County has knowledgeable staff that can assist in any way to prevent or reduce lands blowing as a result of wind erosion. Please do not hesitate to call us if such assistance is needed.

As we are all well aware wind erosion damaged an estimated 900,000 hectares (two million acres) of agricultural soils in Alberta during the 1980s. Strong and sustained winds along with dry, bare soils contributed to serious soil loss. I think it is obvious to all of us that we cannot afford to lose the productivity of that many acres in this day and age. I worked with Ross McKenzie at Alberta Agriculture and he was a contact person years back for soil erosion information. The following information is provided by Dr. Ross McKenzie and it is intended to help alleviate the risk of such events happening again.

"Vegetation protects soil from wind erosion by reducing the wind speed at the soil surface," says Dr. Ross McKenzie.

"Vegetative cover, such as a growing crop, standing stubble or crop residues are very effective in helping reduce the potential of wind erosion. The elimination of cultivation and using direct seeding are the best ways to maintain crop residue on the soil surface."

Wind erosion was a frequent problem across the drier regions of southern Alberta, but with the adoption of conservation tillage and direct seeding, wind erosion is no longer a frequent occurrence in southern Alberta on dryland fields. However, in irrigated areas, cultivation is still frequently used and on lands used for row crop production, particularly for sugar beets, potatoes and beans, great care is needed to keep wind erosion in check.

"If soil erosion occurs, there are some practices that can be done on a temporary basis," says McKenzie. "For instance, producers may need to consider using emergency tillage to break up the smooth surface of a bare field into a rough cloddy surface. A very rough soil surface can reduce the wind velocity at the surface and provide traps to catch windblown soil particles. Producers who have problem fields may need to consider working perpendicular to the prevailing wind direction to obtain maximum effect. Continued field observation and care are needed as this type of emergency tillage is only a temporary protection measure, because when soil clods are broken down by the wind, the field becomes smooth and susceptible to wind erosion once again."

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Why Should Agriculture Producers Care about Riparian Health?

Living in Canada we are fortunate to have an abundance of clean fresh water to drink and use for our everyday activities. In Lethbridge County high quality water plays a big role in supporting our agricultural industry; whether it’s for irrigating crops, watering livestock, washing equipment or cooling down milk, the agriculture industry couldn’t survive without it. Agriculture relies on quality water but agriculture does contribute to the reduction in water quality. If agriculture is to be sustainable for many years to come there needs to be a balance between agricultural practices and water quality. An area of focus for improved water quality is maintaining the health of riparian areas. The issue is that many producers don’t understand what a riparian area is or realize the importance of its health to water quality.

Improved water quality means healthier livestock. Cattle and other livestock are much healthier and make greater weight gains when they have access to clean water. Improved water quality means safer and cleaner drinking water for you, your family and your community. Improved water quality means reduced water treatment costs. Improved water quality means improved wildlife habitat for the ecosystem and recreation like fishing and hunting. The benefits of a healthy riparian area to you as a producer are numerous.

Measurements of riparian health have been collected on over 200 lakes, rivers, streams and wetlands in Alberta since 1995. The results of these measurements show that about 51% of Alberta’s riparian areas are healthy, with problems, 28% of the riparian areas are unhealthy and only 21% are healthy. Healthy riparian areas are what sustain our agricultural practices, so the goal for the future is to bring the percentage of healthy riparian areas in Alberta up to 60%. There is a lot of work involved in reaching this goal. It won’t be easy, but it is possible with cooperation and teamwork.

There are a couple ways that producers can get involved and promote healthy riparian areas. Firstly, they can promote healthy vegetation in the riparian area. This can be done by controlling the weed species growing in the riparian area. Secondly, they can encourage the principles of range and pasture management. This includes effective rest periods for pastures to maintain plant vigour, evenly distribute livestock, avoid grazing during vulnerable periods (such as when the soil is wet) and balance forage supply with livestock needs. Thirdly, try moving cattle away from riparian areas whether it’s through off stream watering, moving supplements away from riparian areas or even fencing off riparian areas. Lastly, increase the width of buffers. Having a well-vegetated buffer area alongside a riparian area will minimize impacts from cultivated fields, wintering sites or other intensively used areas.

So who cares about riparian health and water quality? I care about riparian health and water quality and I hope you do too because this isn’t just about making improvements for you and me, but for everyone today and in the future.

For more information on riparian health visit http://www.cowsandfish.org/ or call Dwayne Rogness at 403-380-1598
Our family has about 1,200 acres of grassland along the Oldman River - much of it consisting of coulees and hills sloping down to the river. This layout has discouraged cattle from grazing the upper level of the property, which is away from their source of water.

When we learned that the County of Lethbridge has solar-powered pumping systems that landowners can try, we contacted county extension specialist Dwayne Rogness. Dwayne brought a system to the site and set it up near a natural spring in a coulee. Soon, we had a 400-gallon trough of water near the upper section of our pasture land, with the flow controlled by a float system and powered by solar panels and a small wind turbine.

The result has been much more uniform grazing across our pastureland, and less activity in sensitive riparian areas near the river. Now that we know solar-powered water pumping is a viable option for our situation, we are hoping to invest in a more elaborate system that will further extend our watering range.

Challenges remain (cattle rubbing against sensitive components and trampling water and power lines), but we are confident these can be addressed with electric fencing - also solar-powered.

Kudos to Dwayne and the county for enabling us to try a solar pumping system with no cost or risk, and for providing ongoing assistance and support throughout the process!

Harley Richards

We run a cow/calf operation in the Picture Butte area and have used a solar watering system for two years now. We use it to water 21 cow calf pair out of the Lower Little Bow River and we like that the cows have a constant safe water supply. The cattle don’t enter the river anymore which reduces erosion on the banks and they don’t risk getting stuck in the river. They walk past the pond at home to go to the water trough.

- Ken Johnson

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Harley Richards
Every local ALUS community rests firmly upon ALUS Canada’s eight core principles:

1. **ALUS is farmer-delivered:**
   As the largest single group of landowners in Canada, agricultural producers are in a unique position to provide important solutions to some of the most pressing conservation challenges of our time, including climate change and biodiversity loss.

2. **ALUS is community-developed:**
   The ALUS program is flexible, designed to be customized to suit a community’s own agricultural and environmental priorities. Each ALUS program is managed by a local Partnership Advisory Committee (PAC), and strongly supported by ALUS Canada.

3. **ALUS is integrated:**
   ALUS communities are encouraged to develop partnerships with environmental organizations and agricultural groups, to deliver the ALUS program in a manner that complements existing conservation programs, including federal and provincial government policy frameworks.

4. **ALUS is targeted:**
   ALUS projects focus on select parcels of marginal or ecologically sensitive land that can be managed in a different manner to produce ecosystem services that benefit all Canadians.

5. **ALUS is accountable:**
   ALUS projects are independently monitored, verified, and subject to a robust financial reporting system.

6. **ALUS is science-based:**
   Each ALUS project is based on sound scientific principles. The ALUS program provides valuable support and technical expertise for the design and implementation of each green infrastructure project.

7. **ALUS is voluntary:**
   Producers who choose to participate in the ALUS program have flexible agreements that suit their particular operation.

8. **ALUS is market-driven:**
   The ecosystem services produced by ALUS projects have economic value in the marketplace. Through ALUS Canada, organizations and individuals can invest directly in this innovative form of environmental stewardship, one acre at a time.

While not yet available in Lethbridge County, ALUS Canada is rapidly expanding. ALUS can now be found in six provinces. Since the County of Vermilion River brought ALUS to Alberta in 2010, the program has been developed in eleven Alberta municipalities. If you are interested in seeing an ALUS program in Lethbridge County, please speak to your Rural Extension Specialist.

Find out more at ALUS.ca
Erosion reclamation strategies identified

To minimize wind erosion on fields grown to row crops or root crops that are harvested:
- leave as much residue on the soil surface as possible
- leave the soil as rough and ridged as possible
- spread straw and manure onto areas most prone to erosion
- seed to cover crop as soon as possible after harvest (after bean or potato harvest) to crops such as barley, fall rye, winter wheat or another winter cereal

"Reclaiming eroded soils is a very long, slow process," says McKenzie. "The first thing that needs to be done is soil sampling to determine nutrient and organic matter levels. If there is subsoil exposed, it may be necessary to do some deep tillage with a para-plow and go down up to 20 inches and actually reduce the bulk density by fracturing and loosening the soil. Doing this deep tillage in the fall when the soils are dry, will help to ensure good fracture and breakup of the soil. Then going in with a very good application of manure (30 to 50 tons per acre of feedlot manure) would go a long way to improve the physical condition of the soil and the nutrient level of the soil.

While that amount of manure may sound like a lot, most eroded soils are very deficient in nutrients and the manure will help to improve the physical quality of the soil.

"The following spring, on eroded soils it's recommended to establish a forage crop rather than an annual crop. An alfalfa grass mixture works well as it provides nitrogen benefits. If establishing straight grass, some nitrogen application will be necessary. Establishing a permanent crop for at least five years, will help build up the organic matter, root material, root mass and root channels will be very beneficial in reclaiming an eroded soil."

To reclaim an eroded soil, producers should consider:
- deep tilling to reduce bulk density
- soil testing to determine deficiencies
- a heavy application of manure to further reduce bulk density, improve soil nutrient reserves, increase soil organic matter and reduce soil crusting
- applying other nutrients as required, particularly nitrogen
- establishing forage crop if possible to build soil organic matter and improve physical quality of the soil

Wind erosion is a serious problem which threatens the long-term productivity of prairie soils. By using appropriate conservation farming techniques, you can reduce wind erosion under most conditions. The soil is a precious resource which needs your protection.

For more information on management of eroded soils, contact the Alberta Ag-Info Centre toll-free at 310-FARM (3276). This article was revised from the following sources posted on the Alberta Agriculture and Forestry website at:
An Introduction to Wind Erosion Control
www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex3524

Erosion Control in Irrigated Crops: New Possibilities
www1.agric.gov.ab.ca/$department/newslett.nsf/all/gm10074

Contact:
Lethbridge County Agriculture Service Board at (403)-732-5333
for more information

Visible effects of wind erosion include soil deposited along fence lines and in ditches. Courtesy of ARD
Alberta Equine Emergency Preparedness Workshop

Thursday, November 23, 2017
Lethbridge & District Exhibition (Saddle room)
3401 Parkside Drive South Lethbridge

AGENDA

Purpose: The goal of this workshop is to provide an overview of the equine industry in Alberta and assist municipal bodies and personnel including First Nations to incorporate equine into their existing emergency management plans

Attendees: Emergency response leaders, representatives from municipal governing bodies and field personnel

AGENDA

9:30   Introductions
       Project overview
       Overview of the equine industry

10:00  AEF Alberta Equine Emergency Preparedness – Municipal Guidelines and Templates, incorporating equine into your existing emergency preparedness plan
       Lead by Jennifer Woods, Livestock Handling Specialist

12:00  Lunch

1:00   Equine Emergency Response
       • Animal handling and behavior
       • Rescue and recovery
       Jennifer Woods, Livestock Handling Specialist

4:00   Adjourn

- For more information contact Dwayne Rogness at 403.380.1598 -