



# The Blade

*Creating an Awareness of Forages*

Monthly  
Newsletter  
of the  
*Grey Wooded  
Forage Association*



Photo by Jacquie Turuk, Shars and Sheep



## Message from the Chair

By Gil Hegel, Chair, Grey Wooded Forage Association

As your new Chairman I look forward to serving the GWFA for the coming year. We have a small beef and commercial hay operation in the Eagle Hill area between Olds and Sundre.

Your Board is currently grappling with a couple of issues. Both our Forage Specialist and Manager resigned in the last two months. Going forward do we need two full time employees or is one full time and one part-time sufficient and if so what position is full and which is part-time?

We need to continue providing effective and efficient management of the association and also our commitment to field projects. We hope to resolve this by the end of June and start recruiting.

In the meantime, we have a very capable temporary person, Brenda Kossowan, who is handling our office management.

We are also extremely fortunate in the summer student we were able to hire. Erin Willsie lives near Caroline and her parents have a beef farm in the Garrington area. She has spent many years in 4H and is currently pursuing a Bachelor of Science at the U of A, Augustana Campus in Camrose.

Erin is overseeing the existing projects and assisting Brenda as



required.

I would like to thank those directors who are retiring from the board: Ken Ziegler, Andrew Ritson-Bennett, Ted Chastko and Cy Newsham and welcome the new directors, Jess Hudson, Dallas Jenson, Deb Skeels and Greg Campkin. Ken will continue as the GWFA representative on ARECA (Agricultural Research and Extension Council of Alberta).

To our membership, I encourage you to get as involved as you can. Any thoughts and suggestions for new projects, seminars and workshops are welcome.

We hope to implement a blog on our website for members to access to provide comments, ask questions and initiate discussion.

*Until the next time,  
Gil Hegel*

The Blade is a monthly publication  
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and Erin Willsie  
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Shars and Sheep

### **GWFA Mission Statement**

*To promote environmentally and  
economically sustainable  
forage and agricultural practices.*

### **GWFA Vision Statement**

*The community is engaged in  
regenerative agricultural  
production methods.*

The Grey Wooded Forage Association is  
a member of ARECA



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## Office Report

Horse trainers of all stripes talk about the beauty and grace of a smooth transition—that seamless move that keeps the beast moving forward and on task while changing gears, enabling the rider to drop a loop or round a barrel without a hitch.

It is my pleasure to report that the new staff at Grey Wooded Forage Association—the transition team if you will—have saddled up in good form to assume the role of keeping the association on track and moving forward in the absence of Ginette Boucher and Devin Knopp. Erin Willsie and I have had tremendous support from board members past and current, former staff and representatives of the various non-profit agencies, municipal and provincial government organizations and business people who have been such a strong component in the association's success. We have reached out to people by email and in person, and are taking advantage of every opportunity to climb a learning curve that is still straight up.

In that vein, we each spent a few hours meeting people and hearing speakers at the Central Alberta Hay Centre's Forage Forum in Red Deer on May 30.

Erin heard Marty Seymour speak about the future of Agriculture in Canada and Bento Schmidt's presentation about preserving forage. Seymour talked about the potential from 3D printing equipment parts, decentralization of data transfer and production of alternative foods. Equipment makers could save a great deal of warehouse space by being able to print parts on demand, at their service locations.

Decentralization of data to run GPS systems, drones and other

autonomous equipment will help farmers be more efficient by not having to compete for bandwidth. Fair warning, Seymour says competition is heating up from the use of alternative food product and cultured meats made in the lab.

Schmidt addressed efforts to preserve forage, including inoculation and proper storage of silage.

I attended the afternoon session, hearing Dan Undersander's prescription for achieving maximum yields from perennial forages. Undersander addressed a number of key factors, including soil pH, swath width, whether or not to use a conditioner, ineffectiveness of inter-seeding, cover crops and the life expectancy of a stand of alfalfa.

As I write this message today, it has been three weeks since Erin and I met 2017/19 Chair Amy Leitch to pick up our keys and get started. I heard at the AGM the previous Friday that our membership is proud of the projects and events hosted by the GWFA, including publishing The Blade. We have promised the new board of directors to ensure that the GWFA lives up to those expectations.



**Erin Willsie (l) and Brenda Kossowan**

- Brenda Kossowan

### BLOG-IT

Every edition of the Blade will include a research abstract, such as the rejuvenation article on Page 11. You are invited to join the blog on our webpage to discuss the research and generate new ideas.



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## Management Decisions with Spring Grazing: How Early is Too Early?

Karin Lindquist, Forage-Beef Specialist, Ag-Info Centre, Stettler

Calendar dates are one thing when it comes to noting when spring is finally here. But when the grass emerges after the snow has nearly disappeared, it can certainly be safe to say then that spring has finally arrived.

Of course, that often equates to the itchy temptation in believing that's also the time to turn out the cows to the pasture! However, it may in fact be better to wait a bit longer so that you're not pushing the limits with future pasture productivity.

So, I ask you to consider this: How early is too early to turn out your cows?

When you start seeing that first hint of green in your pastures, those are the first leaves emerging from plants with very little energy stores left in their roots and crowns. That first leaf is very important for the next few weeks of growth because it is the very first leaf that starts photosynthesis so that other leaves from that same plant can also begin to emerge.

If that leaf is clipped off before it has fully grown and the second leaf begins to also emerge, the plant must draw on more energy reserves that are already mostly depleted.

This sacrifices a plant's vigor and health later on into the growing season, particularly if there's not enough leaf area left to continue even some photosynthesis.

Perennial forage plants that are left alone until they have gone past the 3 to 4 leaf stage, though, will then have replenished most of their energy stores to be able to regrow sufficiently after grazing. The time taken to get to this stage will ultimately be determined by the amount of energy store left in the roots at the time that first leaf begins to emerge.

If plants are coming out of a period of stress from the previous year via overgrazing, drought, or insects, then expect those plants to take longer to grow up to this stage than if they were emerging after a previously normal or excellent growing season.

This may mean having to defer the start of grazing 2 to 4 weeks later than normal.



Plant growth the previous year stops earlier with drought or overgrazing, forcing the plant to draw on reserves for longer. Plants that are not given adequate biological time to recover decline in productivity and health, which eventually may lead to death. This may not be noticeable during the season where drought or overgrazing is evident, but it may certainly show up come the following spring.

That is why allowing rest for recovery is crucial. Allowing plants adequate rest is certainly the cheapest rejuvenation strategy you can allow. Managing the new regrowth is also important to guarantee good productivity and regrowth for the rest of the year.

Suitable rest periods are needed in between grazings. Grazing lightly so that there is more than half the residue left behind will allow for a quicker recovery.

Rest periods need to be long enough to allow plants to regrow to their 3 to 4 leaf stages, and in the spring, this may only take a matter of days. The rule of thumb is *graze fast if the grass comes back fast*. It's the exact opposite if the grass is growing slowly, like later in the year; *Grazed slow if the grass is growing slow*. Rest periods need to be longer for slower-growing grass than fast-growing grass. Use of cross-fencing and temporary electric fencing will help allow for more flexibility with managing your pastures and with forage growth and recovery. Adding fertility may also help with plant recovery if moisture is adequate.

Certainly, too early is when plants are beginning to emerge. Simply waiting a little longer can yield surprising results later in the year, both literally and figuratively. By understanding and monitoring plant growth, you give yourself a greater ability to make wise decisions that will benefit your profitability in the short-term, and help encourage greater returns on your operation for the long term. Just remember, if you look after your grass, your grass will look after you!



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## Demonstration Days are here again

### *Sustainable beef production through the interaction of cows, forages and genomics*



2017 was a year of exciting firsts for Gentec and Delta Genomics.

In February, we launched the first genomics application for the commercial cow-calf sector discovered and commercialized within Alberta.

The collaboration between the Grey Wooded Forage Association (GWFA) and Gentec as part of the Cow-Forage Gentec Tour demonstration event was our first involvement with a forage association, making the GWFA the first to deliver this

information to its members. Last August's event was one of our most highly rated demonstration events, with particularly positive comments on the forage component for cow-calf producers and on the impact of Alberta Agriculture and Forestry (and Gentec collaborator) John Basarab's presentation on genomics tools for commercial cow-calf producers.

The day began with GWFA's Murray Abel hosting a multi-site legume tour where best practices relating to plots of alfalfa, cicer milkvetch and sainfoin and their relative benefits among the various forage options were discussed "in field."

Back at the Lacombe Research Centre, attendees participated in several producer-focused sessions. In perhaps the most talked-about session of the day, John Basarab discussed the ongoing research behind, and the economics of EnVigour HX<sup>TM</sup>. This is the DNA-based tool developed in Lacombe with the University of Alberta (Gentec).

Over lunch, Charlie Brummer of the University of California, Davis talked about the power of genomics in plant breeding. His presentation outlined how his research was using the same genomics tools that Basarab was using to help identify and select for cows with greater fertility and longevity to select for varieties that produced more forage, were less sensitive to the lack of daylight at northern latitudes (such as Lacombe). These varieties can produce more forage, later into the season, and benefit producers through increased stocking rates and reduced supplemental feeding costs.

Based on this success, our two organizations continue to work together to update GWFA members on opportunities to apply genomics and best forage and beef production practices, including opportunities to participate and benefit from practical on-ranch validation and research opportunities.

This year Gentec has partnered with GWFA neighbour, the Foothills Forage and Grazing Association (FFGA), to host two Forage to Beef Field-Demonstration Days. The first, July 10th at the Waldron Ranch Grazing Cooperative (near Longview, AB) with the second the following day (July 11th) co-located between Difficulty Ranch and at Whiskey Ridge Cattle Company (both near Didsbury, AB).

The Waldron Ranch Grazing Cooperative event July 10th, will be hosted by Mike Roberts, Ranch Manager. Roberts will compare plots that have never been grazed, those that have been continually grazed, and those used for intermittent grazing. He will discuss forage species, performance indicators, the production and environmental benefits (with yearling cattle on-site), the managerial and economic impacts of incorporating hybrid vigour into the cow herd and new findings. There will also be a demonstration of drone application in ranch management.

The second event, hosted jointly by Morrie and Debbie Goetjen

(Whiskey Ridge Cattle Co.) and Sean and Holly LaBrie (Difficulty Ranch) will reflect local ecology and production techniques. They will showcase forage topics such as the cell, swath and bale-grazing techniques they use on-ranch, display their cow herd and discuss their beef production philosophy. The hybrid vigour and drone demonstrations from the previous day will be repeated. It wasn't that long ago that the GWFA collaborated with Gentec and Agriculture and Agri-Food Canada to host the Cow-Forage Gentec Tour at the Lacombe Research Centre. This was Gentec's first pivot towards focusing on the forage aspect of beef production as part of a field-demonstration event, our first direct collaboration with a forage association—and incidentally one of our most highly-rated programs. As was the case in 2017, the overarching theme of the two days is sustainable beef production and the interaction of cows, forages, and genomics in the optimal development and management of the cow-herd. More information and registration information will be available shortly.

Visit [livestockgentec.ualberta.ca](http://livestockgentec.ualberta.ca) and [foothillsforage.com](http://foothillsforage.com).

- Clinton Brons

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## GREY WOODED FORAGE ASSOCIATION

### 2018/19 Board of Directors

Title	Name	Residence
Chair	Gil Hegel	Olds
Vice-Chair	Vacant	
Secretary	Deb Skeels	Rocky Mountain House
Treasurer	Vance Graham	Rocky Mountain House
Director	Jason Bradley	Sundre
Director	Greg Campkin	Sundre
Director	Jess Hudson	Bashaw
Director	Dallas Jenson	Bluffton
Director	Amy Leitch	Alhambra
Director	Benz Rufenacht	Bluffton
Director	Megan Snell	Oyen/Olds
ARECA rep	Ken Ziegler	Rocky Mountain House
Ex-officio	Maria Champagne	Bluffton
Ex-officio	Yadeta Kabeta	Lacombe

## AFSC DEADLINE REMINDER

JUN  
20

**Annual Crop Insurance** - Last day to file Land Reports (without penalty), and report acres that remain unseeded due to excessive moisture.

**Bee Overwintering Insurance** - Last day to apply, make changes or cancel coverage.

JUN  
25

**Annual Crop Insurance & Perennial Crop Insurance** - Premiums received by AFSC the later of June 25 or within 15 days of each version's billing date receive an early payment discount.

**Annual Crop Insurance** - Last day to file Land Reports (with penalty).

Learn more by contacting an Insurance Specialist at one of AFSC's branch offices today.

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## Why Wait: Some Ideas for Grazing in Riparian Areas

By Ken Lewis, Conservation Coordinator, Red Deer County

Riparian areas are those areas beside wetlands, sloughs, creeks, rivers and lakes, that are “wetter than dry, but drier than wet”. In other words, they are the land between the water and the uplands. They normally have wetter soils and plants that are adapted to those wet soils.

As a result, riparian areas ideally are managed separately from the neighbouring upland areas. Here’s a few ideas to consider when planning grazing management of riparian areas.

- Graze riparian areas when the soil is as dry as possible (or frozen). Riparian soils are wet, and therefore highly susceptible to compaction, “pugging and hummocking” and even erosion, if grazed too early.
- Graze riparian areas for short periods, and allow a long rest and recovery time before the next grazing period. Just like in the uplands, the ideal is to have a plant bit only once in a grazing period, with enough rest and recovery time for the plant to totally regrow what was bitten off, before it gets bit again.
- Graze riparian areas at different times each year. Options here can be less, but changing the time that a riparian area is grazed, allows different plants to be impacted by grazing in different ways each year, and helps with rest and recovery of plants. An example might be grazing a riparian area one year in the end of July, and then waiting the next year until September to grazing that same area.
- Use other tools to attract livestock away from the riparian area. Riparian areas are extremely attractive to a cow...they offer everything they need, especially on a hot summer day: plenty of food, water, shade, trees to rub on. It’s not surprising that a cow will park herself down there as much as she can. So, anything you can do to encourage that cow to “go elsewhere” helps. This could be easy things like locating the salt / mineral tub away from the riparian area. And it could be more infrastructure type things, like providing water or shelter away from the riparian area. In some cases, riparian management fencing could be a useful tool.

Providing tools like this, is also where the ALUS (Alternative Land Use Services) Program comes in. With ALUS, you can get funding to cost share on things like alternative watering systems, portable shelters, riparian fencing etc.

You can get up to 85% of costs covered from the ALUS Program. On top of that, you can get paid \$30 per acre per year, for the riparian areas that you are managing with those tools. To

find out more, please contact me anytime at 403-505-9038 or [klewis@rdcounty.ca](mailto:klewis@rdcounty.ca)



*“The top photo was taken in 2008, shortly after a new riparian fence and new riparian management techniques were started. The other photo was taken in 2017, in the exact same spot. This riparian area is grazed, but it is grazed using management like that described in this article.”*

## Planning to Avoid a Feed Shortage

By Barry Yaremicio, Ag-Info Centre, Stettler

Pastures and hayland were stressed last year due to dry conditions, grasshoppers, over-grazing and a long winter. It is difficult to estimate how the stands will respond this spring or what the yield potential is for this year.

With many feed yards and silage pits nearly empty or empty, the amount of carryover feed for the winter of 2018 -19 is minimal.

Moisture conditions this spring are variable. Some areas are good to excellent while other areas are drier. Long range weather forecasts for this summer are for a warmer, drier growing season. To reduce the risk of not having sufficient amounts of forage for next winter, consider planting an annual crop for use as additional pasture, greenfeed or silage.

There are a number of seeding options available. Seeding crops early in the season to take advantage of available spring moisture is one strategy to increase yield potential.

Instead of planting the crop in early to mid-June, seed as soon as possible in May. Oats and triticale are considered more drought resistant than barley. Cutting the oats and triticale for greenfeed or silage should be done at the late milk to early dough stage to maintain quality. Leave the stubble stand. If there is a late season rain event, it is possible that some re-growth may occur.

Including a winter annual such as fall rye, along with the cereal crop this spring allows the winter annuals to start growing in May or June. The advantage is the winter annual can produce additional vegetative forage growth late in the growing season after the cereal crop is cut for silage or hay. The winter annuals have a growth spurt in August and September, which produces high quality forage, which helps keep cows in good condition and maintains growth rates on the calves.

Moving stock onto the winter cereal allows the perennial pastures to rest and be under less stress going into winter. There is the possibility that the winter annual will come up the following spring providing some very early grazing.


We don't know what forage prices will be next fall, but if the weather does not cooperate this summer, it is unlikely that prices will be lower than what we experienced this spring. If the annual crop produces 8 tons of silage or 3.2 tons of greenfeed, value of the crop is roughly \$360 per acre when silage is \$45 per ton and \$320 per acre when greenfeed is 5 cents a pound.

Compare this to an 80 bushel crop of barley valued at \$5.00 per bushel generating \$400 per acre in cash returns. A disadvantage when the cash crop is used for forage production. Tame hay yields could also be reduced in a dry year.

If feed supplies are short this fall, it might be difficult to source forage from neighbors or within a reasonable distance from the

farm or ranch. Cost of transporting forage from further away by Super B loads is roughly \$5.00 per loaded mile.

It does not take a long for freight to cost more than the cash difference of using land for silage or greenfeed instead of cash crops.



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**Is your annual compensation review coming this year?**  
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## Canadian Agricultural Partnership is Up and Running!

By Ken Lewis, Conservation Coordinator, Red Deer County

Get access to \$3,000,000,000 over the next 5 years. Or at least, get access to some of it.

This is the budget for the Canadian Agricultural Partnership (CAP). CAP is the successor program to Growing Forward.

CAP is available to individuals and groups of agriculture producers and agri-food processors, through 15 programs.

In Alberta, these programs are grouped into five themes:

- Environmental Sustainability and Climate Change
- Products, Market Growth and Diversification
- Science and Research
- Risk Management
- Public Trust.

The website for CAP is [www.cap.alberta.ca](http://www.cap.alberta.ca).

The programs will be introduced in 2018, and run until March of 2023. Already launched and accepting applications, are: Environmental Stewardship and Climate Change Programs (for Producers and for Groups); Farm Water Supply Program; and Irrigation Efficiency Program. Other programs will start up in the coming weeks.

The list of projects, activities, and actions that are eligible for

funding is long.


In general, if you are thinking of doing something new on your farm/ranch/agri-food business, it's worth a look at the CAP webpage to see if there's funding available to help you do it.

Red Deer County staff are available to help Red Deer County producers and agri-food processors with their CAP applications. Once you know which CAP program(s) you are interested in applying to, the best thing to do is call the Ag Services department at 403-342-8654. From there, we'll direct you to the person who can provide support and advice, either from the County or from elsewhere.

Examples of support that County Staff can help you with:

- Environmental Farm Plans
- Business Development Plans
- Emergency Preparedness Plans
- Long-Term Water Management Plans
- And more!

Please have a look at the CAP website ([www.cap.alberta.ca](http://www.cap.alberta.ca)), and give us a call (403-342-8654).



## Grey Wooded Forage Association

*Creating an Awareness of Forages*


**Is your EFP current?**

**The 10-year renewal policy became effective as of April 1, 2018 and affects all participants.**

**Contact us for more info to help upgrade or create your plan.**

*An Environmental Farm Plan is a tool to help identify environmental risks on the farm.*

*It is used to develop plans that prevent future problems related to the identified risks.*



[gwfa3@telus.net](mailto:gwfa3@telus.net) | (403)844-2645 | [www.greywoodedforageassociation.com](http://www.greywoodedforageassociation.com)

## Prepare for the summer grazing season: Consider creep feeding calves

By Grant Lastiwka, Forage/livestock business specialist, Alberta Agriculture and Forestry

Cool dry conditions across most of Alberta have slowed forage growth in pastures and hay fields. If it stays dry, the amount of growth will be limited and it is possible that pastures will run out much earlier than normal. In general, 70% of total forage growth occurs before the 15 of July. If significant amounts of rain do not come soon, total growth could be compromised.

One strategy to stretch limited forage supplies is to creep feed calves throughout the summer. Calves that are 45 to 60 days old can digest grains and use the nutrients to improve growth rates. An Ontario Ministry of Agriculture factsheet indicates that on poor pastures, for every 5 pounds of creep feed consumed, calf growth rates improve by one pound. A second advantage of creep feeding calves is that the amount of grass consumed by the calf is reduced, which stretches the amount of grass available for the cow.

Calves under 700 pounds eat grain slowly and chew the material sufficiently that processing is not required (Ohio State University Extension). Average daily gain and feed conversion efficiency is equal to that of processed grain.

Using whole oats or barley as the sole ingredient in a creep ration for small calves does not work. A creep ration requires 14 to 16 percent protein to "frame out" the skeleton properly and to develop muscle.

Intakes generally are in the two to three pounds a day range for 350-pound calves and can get as high as eight pounds a day when the calves are 600 to 700 pounds. A recipe for a home -grown creep feed is to include split or cracked peas at 35% of the mix with oats or barley (or a combination of the two grains).

If wheat is to be part of the creep feed, the inclusion rate should not exceed 20 to 25% of the mix to minimize the chance of acidosis. If no additional protein is added to the creep feed, it is possible to have short fat

calves that could be discounted at the auction market come fall.

A commercially prepared creep ration is another option. These products should contain a minimum of 75% TDN and again the 14 to 16% protein content is required. Screening pellets generally have lower energy content than grain and do not deliver the necessary energy needed to get the additional gains on the calves.

Creep feeding the calves for the majority of the grazing season can result in 25 to 100 pounds of additional gain compared to animals that are not supplemented.

If 700- to 800-pound calf prices stay at the current price of \$2.85 a pound for steers, this could increase the value of the calf by \$70 to \$285 per calf – a good return on investment.



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- 1) Soil Health demonstrations
- 2) Understanding the 4 ecosystem processes critical for soil function
- 3) The concepts of biomimicry
- 4) Strategies of Agroecology
- 5) Principles of soil health
- 6) Animal/Insect integration
- 7) Identifying and Addressing resource concerns
- 8) The strategy and logistics of designing biological primers (polyculture cover cropmixes)
- 9) Adaptive multi-paddock grazing:
- 10) Farm and ranch financial planning & management
- 11) Ranch/Farm economics: Stacked Enterprises
- 12) Direct marketing
- 13) Ecological nutrient management
- 14) Social aspects of soil health

### INSTRUCTORS



Dr. Kris Nichols



**DATES:** FIRST SCHOOL JULY 9, 10 & 11  
SECOND SCHOOL JULY 12, 13 & 14

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## Research Abstract: *Forage Production and Economic Performance of Pasture Rejuvenation Methods in Northern Alberta*

Akim Omokanye, Calvin Yoder, Lekshmi Sreekumar, Liisa Vihvelin, Monika Benoit

Producing high quality forage and maintaining productive pastures is a major challenge that beef producers encounter, as rejuvenation is complex and costly. This article is excerpted from a paper that is part of a series looking at potential options and methods of rejuvenation to improve the productivity of older forage stands in northern Alberta.

The methods of rejuvenation investigated were sub-soiling; break and re-seeding; a combination of manure application plus subsoiling; high stock density grazing; bale grazing; pasture rest, as well as direct seeding in spring and fall. In this series, forage dry matter (DM) yield, forage nutritive value and economic performance are presented and discussed. The top 5 forage DM yielders were bale grazing, manure plus subsoil in fall, break and re-seeding, high stock density grazing and fertilizer application in that order. In both years, bale grazing consistently produced higher forage DM yield than other methods including control, with bale grazing giving up to 100% higher yield at site-1 and 219% at site- 2 for the 2-year total forage DM. Most forage nutritive value parameters measured were similar for the rejuvenation methods investigated. A simplified economic analysis done in this study showed that the direct input cost of rejuvenation an old forage stand was higher with the break and re-seeding method than other methods. However, for bale grazing, when the cost of hay bales used was factored in, then the cost of bale grazing far exceeded those of other methods including break and re-seeding.

Results of the study demonstrate that producing high quality forage and maintaining productive forage stands are major challenges for Alberta's beef producers, as rejuvenation is a complex and costly challenge for producers. However, rejuvenation as a pasture management strategy for rapid improvement of high performance grazing should still have a significant positive impact on sustainability and competitiveness of the cattle industry.

In the present study, the top forage DM yielders were bale grazing; manure application plus subsoil in fall; break and re-seeding; high stock density grazing, and fertilizer application. Their performance in terms of forage DM yield could likely be associated in part to improved soil conditions such as infiltration rate, soil moisture and compaction; and soil nutrients (nitrogen, phosphorous and potassium in particular) earlier report as parts of the present study by Omokanye et al (2018).

Overall, bale grazing produced far more forage DM yield than other rejuvenation methods investigated here. Fertilizer application produced a forage yield advantage of up 2000 kg ha<sup>-1</sup> forage DM in 2017 over control, indicating that fertilizer application can be used to bring the productivity of a stand back, without the expense of re-seeding. Using fertilizer has potential to substantially increase forage yield and quality, and has potential to improve condition of forage stand.

This study further confirms that manure can be a valuable source of plant nutrients and organic matter and when used as a fertilizer, will improve forage production and soil quality (as seen with manure application plus subsoil in fall as well as bale grazing and high stock density grazing, which were thought to have higher manure (fresh or stockpile) concentrations than other methods of rejuvenation. Forages offer an opportunity for manure application, though not all the nutrients in manure are immediately available to the crop. Depending on amounts of nutrients applied and growing

conditions, improvement in forage yield and quality would usually last at least two to three years (Springer, 1999). The simplified economic analysis done in this study shows that the direct input cost of renewing or rejuvenating an old forage stand could be as high as \$625/ha with the break and re-seeding method and as high as \$2570/ha for bale grazing (cost of 60 hay bales/ha included). Bale grazing seemed to have higher direct input costs than other methods, but it is important to note that the effects of bale grazing on improved soil health conditions (infiltration, compaction, water holding capacity and soil N, P and K) and forage yield and quality could last far longer than other methods investigated here.

In this study, most rejuvenation methods investigated entailed significant financial risk over the study period, probably because moisture was limiting in 2015, a condition which did not seem to affect bale grazing system as the pastures in that system were able to bounce back easily following bale grazing in the following winter. Because of the long-term effects of bale grazing and high stock density grazing in terms of soil nutrients distribution and availability, both rejuvenation methods would not entail financial risk as they both appear to be cost effective.

Overall, without having to break and re-seed, the three top suggested methods of pasture rejuvenation that are expected to reduce time for rejuvenation and loss of productivity, are bale grazing, manure application plus sub-soiling and high stock density grazing (that is followed by a period of long pasture rest in the same year). Research will continue on methods of adding legumes in pastures for improving soil health, forage productivity, livestock carrying capacity and profit. The research will further help to identify appropriate legume species and cultivar that can give best complementary effects for different rejuvenation options.

This project was supported by funding from the Alberta Crop Industry Development Fund and is greatly acknowledged. We are thankful to Soames Smith and Bill Smith for providing the project sites, for their interests in the project and for assisting with treatments implementations. We are grateful to Crop Production Services and Golden Acre Seeds for fertilizer and forage seed donations. This project was also supported by funding from Agricultural Opportunity Fund and the Municipal districts of Greenview and Spirit River in northern Alberta. We thank Graeme Finn of Union Forage for providing the Agrowplow subsoiler, Lawrence Andruchiw for allowing the use of his manure spreader and Peace Country Beef and Forage Association, particularly Kaitlin McLachlan and Carly Shaw, for technical assistance.

Please visit <http://www.ccsenet.org/journal/index.php/sar/article/view/74173/41276> for the complete text .

## Two-Day Course in Riparian Management

July 23-24, 2018

9:00am to 4:00pm each day (doors open at 8:30am)

Bergen Community Hall

Are you a farmer, rancher, or acreage owner with a “riparian area” – that is, land that borders some sort of water feature? Perhaps you have a stream running through your property, a small pond out back, or even just a wet spot in your cropland. If you do, then the next question is: **are you managing your riparian areas to their full potential?**

On July 23-24<sup>th</sup>, the Agroforestry and Woodlot Extension Society is partnering up with Cows & Fish and Mountain View County County to deliver a mini-course that aims to help landowners manage their riparian areas in ways that maximize the environmental, social, and economic benefits to themselves, their community, and the greater watershed. Examples of these benefits include improved water quality, moderation of floods and droughts, erosion reduction, wildlife habitat, forage production for livestock, recreational opportunities, and alternative enterprises such as timber, firewood, fruit, nuts, mushrooms, and medicinal plants.



**What else could this riparian area be doing for you?**  
Photo credit: AWES.

The course will begin with a brief background on riparian areas and their importance within the larger watershed. Participants will then get the chance to visit a riparian area in Mountain View



**It can be difficult to grow grain in and around riparian areas, but would other foods do better? Photo credit: Saskatoon Berry Council.**

County, where they will learn how to conduct a site assessment for determining riparian health and potential to provide functions, goods, and services.

Back in the class, participants will be given maps of their own riparian areas and other tools to help define a vision and management plan. Course staff will support this exercise through presentations and one-on-one technical assistance on potential management practices that landowners may wish to consider (e.g. to provide opportunities for sustainable grazing, fruit or timber production, wildlife habitat, etc.), and an additional field visit, weather



permitting. The course will end with participants having the opportunity to share their vision and management plan with other participants to receive further feedback and insight.

In short, this course includes:

- Two full days of instruction/active participation on riparian area assessment, restoration and management. This includes site visits to nearby riparian areas each day, weather permitting.
- Printouts of background information and management tools, including a course workbook, relevant informational factsheets and manuals, laminated maps of participants' properties, and more
- Lunch and snacks/refreshments for both days

The fee for this course is \$20 per participant. This fee has been greatly reduced, as the majority of course costs are being covered by a grant from the Watershed Resiliency and Restoration Program (WRRP), administered by Alberta Environment and Parks. The primary objective of WRRP is to increase the natural ability of the province's watersheds to reduce the intensity, magnitude, duration and effects of flooding and drought through watershed mitigation measures. Widespread implementation of the riparian restoration and management practices taught in this course has the potential to mitigate flooding and drought throughout the watershed while also providing direct benefits to landowners.

Register at: <https://bergenriparianmanagementcourse.eventbrite.ca>

For more information please contact Daniela at Mountain View County at [darcher@mvcounty.com](mailto:darcher@mvcounty.com) or 403-335-3311, Ext 204.





Guest article by retired  
Withrow area farmer  
Ken Pattison—  
pictured with his wife  
Shirley.



# The Medicine River News

A publication of the Medicine River Watershed Society  
June 2018

## Pasturing and the most effective management tool

We first started experimenting with intensive grazing in 1986. Both yearlings and cow/calf enterprises have been used over the years to utilize available forage. The term “grass farmer” seems to best describe our operation since it doesn’t really matter what type of grazing animal is used. As long as there is a healthy forage stand the animals will do well. The first priority is to look after the forage.

There are many management tools available to a grass farming enterprise that must be looked at holistically in order to get the most effective results. Things such as, watering sites, forage type, rest periods, grazing periods, stocking rates, stock density, paddock number and size, winter feeding plan, etc., all must be planned together for best results. Managed properly the forage should never have to be broken up and reseeded.

Sometimes there will be a single change in management that will make a huge difference. Our farm is located on a continuous south slope with a creek at the bottom. In order to get the cattle to water we originally arranged the paddocks with connecting alleyways to bring the stock into the yard for water. The livestock would come in large groups and stand around the waterer waiting for their turn to drink. This meant that a large portion of urine and manure was being deposited in the yard. In effect, most of the natural fertilizer was being transferred from the paddocks to the yard. As well, the alleyways would get overgrazed and over trampled producing very little in the way of forage for the stock.

We solved this problem by purchasing a fairly large amount of one inch plastic pipe and running it out to the paddocks. A couple of small “stone boats” served as platforms for water troughs that could be pulled around with a quad to the various paddocks. The troughs were fitted with full flow valves to supply water as quickly as possible. It soon became apparent that the animals came in very small groups for water and spent very little time hanging around the trough which meant that manure and urine was quite evenly distributed over the grazing area. Most importantly it was remaining where it was being produced.

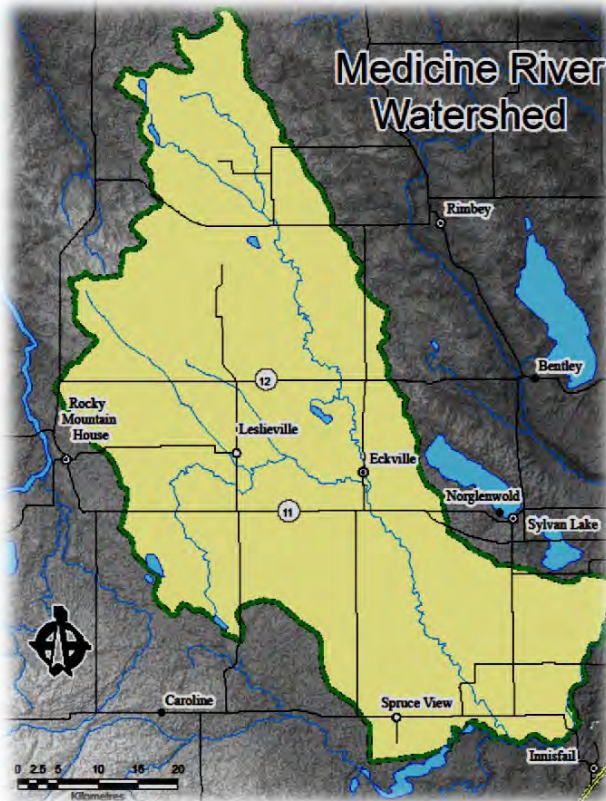
The investment in materials was really quite small when compared to the benefit gained from keeping the nutrients in the field as well as less fencing for alleyways that didn’t produce much forage.

In short we “took the water to the cows” instead of “taking the cows to the water”. This one management change was no doubt one of the best decisions made in our operation.

All the best!

*Ken*





#### DID YOU KNOW

The Medicine River is part of the larger Red Deer River watershed, meandering through the counties of Ponoka, Lacombe, Clearwater and Red Deer. Along its journey it collects water off nearly 300,000 hectares of foothills, grassland prairie and aspen parkland.

Twenty teams participated in the 2018 Louis Riel race on a spring Saturday. More than 100 people joined the fun which included two mile run, one mile horse-back ride, three mile pedal bike, concluding with a six mile canoe trip. The canoe portion was on the mighty Medicine river!



All photos credit: Erin Dyrlund

You don't want to miss this!

## Whose water is it & your right's as a Landowner

June 14 at the Gilby Hall

You are invited to the Society's 2018 annual general meeting with supper at 6:30 followed by a presentation by Gordon Ludtke, Senior Water Administration Engineer with Alberta Environment and Parks along with a representative from Lacombe County.

This evening is open to the public.

New memberships accepted and existing memberships renewed for only \$5. Join us to increase awareness of our most valuable resource.

There will be silent auction items with proceeds toward the ongoing work of the MRWS.

For more information please contact one of the following Board members: Ward Nelson 780-679-2113, Keith Pregoda 403-358-9130, or Hope Jensen 403-341-0677.

[www.pixabay.com](http://www.pixabay.com)



**Save the date! Plein Aire day on Sunday, September 9** featuring the photos and paintings of area art enthusiasts plus a supper open to the public.



# Grey Wooded Forage Association

## 2018/2019 Memberships

Memberships are \$40.00 and run from April 1 to March 31

Memberships are open to anyone interested in forage production, grazing management and environmental sustainability

For information call 403-844-2645

### Membership Benefits:

- Receive discounts on courses, seminars, workshops, and tours
- Receive The Blade
- Receive Environmental Farm Plan delivery
- Free Equipment Rental (deposit required)
- Access to the GWFA library
- Access to our Member Facebook Group
- A chance to network with like minded producers
- Free Farm consultation service (phone, email, and in person in the office)
  - Farm calls are \$0.55/km travel each way
- Receive an Annual Report

*Please fill out and mail the portion below with a cheque or e-transfer of \$40 to:*

**Grey Wooded Forage Association  
Box 1448, Rocky Mtn House, AB, T4T 1B1**

Renewal \_\_\_\_\_ or New Member \_\_\_\_\_

The Blade: Email \_\_\_\_\_ Canada Post \_\_\_\_\_

Name/Company Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Mobile Phone: \_\_\_\_\_

Town/City: \_\_\_\_\_

Email: \_\_\_\_\_

Province & Postal Code: \_\_\_\_\_

Please print clearly

How would you describe your occupation

- Beef Producer
- Sheep/Goat Producer
- Dairy Producer
- Annual Crops
- Forage Producer
- Other \_\_\_\_\_

How many head of livestock are you managing?

Beef Cows/Heifers: \_\_\_\_\_  
Dairy Cows: \_\_\_\_\_  
Feeders: \_\_\_\_\_  
Ewes: \_\_\_\_\_  
Does: \_\_\_\_\_  
Other: \_\_\_\_\_

How many acres are you managing?

Pasture: \_\_\_\_\_  
Hay: \_\_\_\_\_  
Crop: \_\_\_\_\_  
Other: \_\_\_\_\_

What topics are you interested in learning more about? \_\_\_\_\_

How can GWFA better serve you? \_\_\_\_\_