

# FORAGE FIRST

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## Eventful Summer for Forage Friends



Seeking some much needed shade on a warmer than average summer tour day!!

Gordon & Brenda Lazinchuk (*photo left, credit: Julie Robinson*).

Asenath & Don Herbison, Ulla & Ralf Hogberg, and Dennis Lapierre from BC Investment Agriculture Foundation (*photo right*).

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# Introducing Energetic Students

*By Jenna Hiebert & Liz Payne*

Hello everyone! My name is Jenna Hiebert and I am the 2018 summer student for the Peace Region Forage Association (PRFA)! Over the course of the summer I have been working on a number of projects under the PRFA, as well as, the Peace Region Forage Seed Association (PRFSA) alongside of Julie Robinson, Keith Uloth, and Sandra Burton.

I grew up on a cattle ranch in Montney, BC with my parents and grandparents, Ron and Noreen Kramer. In March of this year we calved around 60 head of mostly Charolais cows. Some of my favorite memories include either a horse, cow, my family, or all of the above! Being raised in this lifestyle has given me a huge appreciation for producers and ranchers, so I am grateful to have had the chance to work with and help some of the Peace Region's own over the summer.

Because we raise cattle, we farm to feed them, not for seed. That being said, this summer I have been exposed to a whole other

side of farming on an industrial level. I was able to go on many tours with the PRFA and PRFSA where I learned about different farming techniques and strategies that have been developed specifically for the conditions of the Peace. I have also been interacting with local producers regarding their farm practices and preferences for the purpose of building a knowledge based on what works and what doesn't for the benefit of other producers in the area.

The majority of my time is spent on the PRFSA's Pest Monitoring project where we monitor and observe many pests of crops in the Peace Region. This includes both insects and plant diseases prevalent in forage seed crops. I have been learning a lot about insect damage to crops, and how to identify some plant diseases that can seriously reduce a crop's yield. I have also been helping with the communications aspect of the project by writing articles and social media posts about our progress and discoveries as we go.



Throughout the summer I also worked with Sandra Burton on her soil productivity project doing soil sampling and testing. This was also a whole new learning experience for me as I learned there is much, much more to soil than what meets the eye.

I would like to say a big thank you to everyone involved with the PRFA, PRFSA, and Blackbird Environmental for providing me with such an engaging summer job that allowed me to learn so much more about the lifestyle I grew up in! It was a summer full of not only learning, but fun, that I will never forget!



My name is Liz Payne, born in Fort St. John, B.C. and raised just north of Montney, BC on a cattle ranch. I enjoy agriculture and the concept of using the resources of the land to its fullest potential, and to increase its usefulness.

After graduating high school in 2017, I started working for Roy Northern Environmental as a summer student. Since deciding to take a gap year from school, I've now worked at Roy Northern for over a year and working for them has been an amazing opportunity. I've been lucky enough to experience some of Roy Northern's multiple departments, including archeology, spill response, and primarily environment!

Another great opportunity from Roy Northern was my involvement with Sandra's soil quality and forage projects. As I am quite familiar with forage, due to my agricultural background, it was interesting to learn the scientific aspect of forage crops and how to test soil quality. The information Sandra taught me has helped in my environmental career as well as my personal gardening and farming. It was always an exciting day when I got to head out to farms around the Peace Region with Sandra.

As for my future, I will be attending the Land and Water Resources program at Northern Lights College this September and I will be continuing my career in the environmental field.





## New Members, New Ideas

by Al & Barb Crain

We live and farm on two parcels of land about 20 km north of Quesnel, in a wonderful community called Moose Heights. It's an older farming community with lots of knowledge and helpful people.

Al was raised on a farm south of Quesnel where his parents farmed sheep. Al spent his younger years driving tractors, fixing equipment and throwing square bales. Barb grew up in Port Alberni and moved to Quesnel when she was 14; no hands-on farming experience, but her parents tell her that she "always wanted to be a farmer". Her family always had an acre or two just outside the city limits and her family came from a farming background. Barb's mother came from Cecil Lake where her large family had a farm. And her father's grandparents were farmers in Carrot Creek, Alberta. We met in 1999 at the local lumber mill where we both worked production. It wasn't until 2005, when we were both single, (Barb with a teenage daughter), that we realized we had a future together.

Our dream was to get married on our own farm. After a few years of living just outside of town on 2 acres, we decided to purchase 153 acres in 2010. Originally, we decided we would just sell hay, but that changed the night of our wedding in 2012. Instead of a lavish affair we had an old fashioned barn (corral) dance and invited the neighbourhood. That evening, our neighbours and mentors, Stan & Judie Hall talked us into the cow/calf business.

That fall we bought our first 4 bred heifers, and that was the start of our endeavour into the cattle ranching. The first calving season went well with the help of our neighbours, as we really had no handling system and no cattle knowledge.

Second year we decided to continue to grow the herd. After all, raising cattle didn't seem that bad. We purchased another 6 bred heifers and our knowledge grew that year. We figured we had it all under control. We had put a lot of time and effort into building a nice wooden corral system and made a spot in the 1950's barn for a mom and calf to have a relaxing first few days. The second cow to calf that year was the start of our next few years of craziness. We figured something was wrong when this cow hadn't calved after a few hours. We got a hold of the wise farmer down the road. Stan came down and helped us tie her up to a questionable pole in the old barn, got her more or less confined and proceeded to check out what was going on. After a number of puzzled looks, as he tried to find a foot or head, he suggested we call the vet. The vet showed up at 2 am, checked out the cow, glanced at us and said, "hope you're not squeamish". What we had was a Schistamosis refluxes calf. A what? An "inside out calf". A c-section was performed with the aid of a trouble light in the old barn and the cow was back with the herd by 5 am that morning. A few weeks later Barb got promoted to shift foreman at the mill and rather than celebrating with dinner out, we stopped by the feed store and bought a maternity pen. No more tying to a 50 year old post in the barn.

Each year we have added what we could afford to the herd, purchasing bred heifers. Each year we have learned more.

We lost three calves and one cow to birthing issues, but for the most part all was good till 2017. About a month before calving was to start, we were walking out to feed the herd and found a 2 headed calf lying in the yard. The mom had delivered it successfully by herself, the calf was a stillborn. We donated it to the local high school, which was much appreciated. A few weeks later we had a mummified calf. We've had all sorts of non-farmers suggest that it's the feed; it's the ground; it's this and that. No, the reality is we just have luck - not the kind that wins you lotteries though. It's all good, we have learned lots with the oddities we have had.

As we start into the 2018 calving season we now have a herd of 38, our goal is to get to 50 head. With that we need more land, so in the fall of 2017 we purchased the neighbouring farm and moved our daughter, her husband and their young family next door. Our secret goal is to make farmers out of the toddlers that will now grow up in the farming community.

If you have cows - you have to make the most out of the pastures and fields to gain the most weight on your calves. Al is a "hobby researcher", as well as a Red Seal Millwright. Put those two together and it's enough to drive you crazy. He researches everything to death; and builds his own designs for equipment to 'get the job done'. Al also is forward thinking. Rather than settle with, "this is the way it's always been done and it works"; he's always trying to find a better, more efficient way of doing something. We plow 10-20 acres under every fall in order to improve production. We do a two year rotation on all fields to help improve the soil as well as keep the weeds down.

# New Members, New Ideas *continued*

by Al & Barb Crain

The first year gets oats/peas (and lately whatever new item Al thinks will help the soil). This is cut as green feed, wrapped and fed to the cows. The cows will lick the ground that this gets rolled out on, before they even think of touching a nice green hay bale in the feeder. The next year the field gets oats/alfalfa/grasses, which with the higher content of oats gets cut (just as the oats are in the milk stage) and dried and works wonderfully as both feed and bedding when it comes to calving season. We get our soil tested every few years and our pH is low (about 5.6). Everyone tells us you can't grow alfalfa here. Being the stubborn farmer Al is, he hates being told he can't do something. We got together with Glendale in 2011 and came up with a custom fertilizer formulated for our fields that incorporates a lot of gypsum. We carefully track each field's production, which has gone from 2 tonne/acre to 3.5 tonne/acre on a single cut without irrigation.



Al standing in his newly planted "alfalfa field that everyone told him he couldn't grow in this area!"

In 2012 we miscalculated how much fertilizer we needed for the new field and ended up short. Using an old IH drill that bands the fertilizer in with the seed, we put on 80 lbs/ and then broadcasted another 150 lbs/acre. After 4 rounds around the field we ran out of the 'banded' fertilizer. Call it an experimental mistake, as those 4 rounds out produced the rest of the field. We never plant now without banding fertilizer with the seed.

The next problem was late pasturing. We were not able to put the cows out to pasture after the first cut as the high alfalfa content would kill them. After doing much research on different legumes that are bloat free, we decided to try birdsfoot trefoil. This change allows the cows to graze the field after taking the first hay cut; and the additional fall pasture enables us to grow our herd.



The birdsfoot trefoil is doing wonderful and letting it set seed will increase the plant counts for next year.

Again, we planted the oats/peas the first year. We also feed on the 'new field' all winter long, moving the feeders every three days, which evenly distributes the manure throughout the field. In the spring we disc all those nutrients back into the ground and it reduces the fertilizer we have to add.

In 2017 we had a hot dry summer and were quickly running out of pasture. We decided to try turnips and kale, as all the research said that they are great for fall grazing.

So, we purchased 100 lbs of each. We planted it in early July and it didn't rain. Nothing happened to that barren field until the end of August when we finally got a few days of rain. That field took off. The cow/calves were being fed hay in the next pasture and we noticed the calves sneaking through the barbwire to eat the turnips and kale. To save our fence we finally put up a creep feeder to allow them access to the field. Did that ever make a difference to their weight! We went from an average weight of 500 lbs to 543 lbs. After we sold the calves in October, we let the field grow some more. We put the cows in it in November, and that 5 acres gave us another 1.5 to 2 weeks of extra feed for 30 cows. They even pulled up the turnips and ate them. (See photo below)



As 2018 shapes up, we will see how the birdsfoot trefoil has established. Currently we have 40 acres plowed under on the new property. After the first year of oats and peas and a new item to try - tillage radish, we intend on planting it to a mix of birdsfoot trefoil with a bit of vetch as the legumes, plus our traditional grass mix.

We first learned of the Peace River Forage Association from a forum in Prince George held by the PG Cattlemen. We enjoyed learning new things from the speakers and finding that our own experiments were being validated in other areas and being proved as good farming practices. We hope to continue to learn from our fellow farmers and researchers and maybe help others learn from our success and failures.



# The Power of Leveraging

by Darryl Kroeker



Darryl Kroeker,  
president of the PRFA,  
speaking at an event.

I hope that many of you wonder from time to time how your \$50 annual membership is able to fund the extensive program undertaken by your Peace River Forage Association. After all, with a membership of approximately 160, the revenue from your membership fees is only \$8,000 each year. Yet our projects may require budgets in excess of \$100,000 per year. The answer is that the PRFA leverages its funds, the information it gains and the resources of its cooperating members.

For example, let's use the project "Improving Productivity & Profitability of Forages". The project had a budget this past year of about \$120,000. A large portion of the funds for this project (59%) comes from the Investment Agriculture Foundation of the BC Agri-Food Futures Fund. Applications to IAF BC require matching financial and in-kind contributions in the proposal to be successful. Financial matching can come from the PRFA operations budget and the in-kind contributions come from the nine farm/ranch project partners who are implementing management practices on behalf of the PRFA towards the project objectives. These farms/ranches allow monitoring to take place to measure progress towards the project objectives.

The Peace River Agriculture Development Fund (PRAD) is contributing \$35,000 towards this project. PRAD is specifically interested in research that improves agriculture in the Peace and a key part of the funding proposal includes how the information gained by this project could positively impact the economics of agriculture throughout the region. PRAD is looking at how the information gained can be leveraged into benefits to many producers.

Similarly, Agrifood Business Knowledge and Adaptation is investing \$11,300 into this project because the decision tools being evaluated will benefit productivity and profitability of Peace forage producers in evaluating and adapting new management practices.

One of our industry partners in this project is the Peace Region Forage Seed Association. We are sharing summer students with the PRFSA making more efficient use of the students' time and reducing costs for both organizations.

Funding for the students is stretched by applying to the Canada Summer Jobs program which will pay up to the minimum wage for summer students for non-profit organizations such as the PRFA. The PRFA tops up the wages to make them attractive but our students come to us for less than half price!

The South Peace Grain Cleaning Co-op is another industry partner in this project. The information gained will allow the Co-op to make better recommendations in forage selection for producers throughout the Peace Region. Blackbird Environmental is mapping forage changes as part of the monitoring process. Monitoring management results remotely, also demonstrates the usefulness of drone technology in improving forage management and profitability.

Dr. Bill McGill and the University of British Columbia partner and contribute to this project because they believe the information we generate is of benefit to students, professors and producers in other regions.

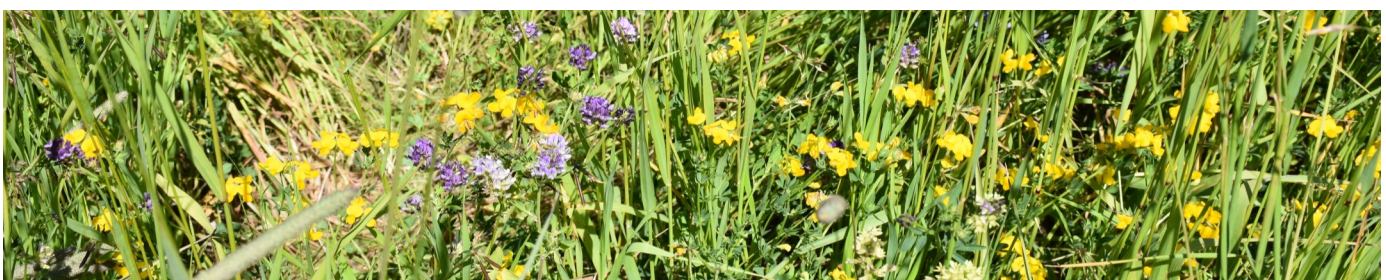
So the next time you renew your PRFA membership, take a bit of time to consider the extent of the benefits that accrue to not only you but to agriculture throughout the Peace region. Thank you for your contributions!

*"Membership renewals are always welcome. Remember to keep us updated if your email or contact information changes."*

*Your membership is good value for you personally. You get discounts at events, 3 thick packages of information mailed to you each year and a delicious hot meal at the Fall Equinox Event/ AGM. See you September 22!"*

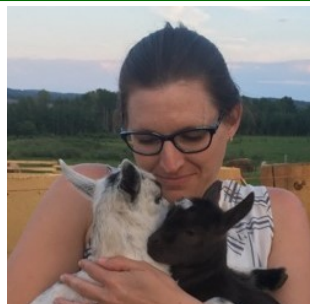
*Chris Thomson, Membership*

Clarkes' birdsfoot trefoil (below) set seed for a multiplier effect.



# Fencing as a True Test of Love

by Rebecca McCauley



Many people say you should live together before you get married as you may not be compatible on a day to day basis. I'm sure in many cases they are absolutely correct. However, for Murray and I it wasn't an issue. We blended nearly seamlessly, as long as you ignore the great Tupperware debacle of last January. And we do. For us, the true test of our love has been FENCING with a trailer post pounder.

We had fenced some together and it went remarkably well. Blissfully we pounded posts with a pounder attached to the front of Murray's brother's bobcat. I had some previous experience running a skid steer so in I went. I was very slow and very precise. Murray was very patient and we made beautiful fences together.

Sadly, it was not to last. Aforementioned bobcat is needed at home so we have borrowed a trailer style pounder for the summer from a very generous neighbour. Our goats need more room as I may have gone a little crazy at an auction, forced to use my own judgment, as they looked up at me with their quirky ears and chubby pregnant tummies, and as Murray was foolish enough to send me alone. We also now have some fuzzy cows who need proper accommodation. One of which is due in August! I'm going to have a fuzzy cow baby people. (psst: I will trade combine rides for fuzzy cow baby cuddles).

Have you ever backed up a post pounder? I'm sure you have. Pause to laugh or groan as you remember. I'll wait.

It is terrible!

I've tottled around with my little horse trailer with much success. Surprisingly so as I am not what you might call a confident motorist. But I do pretty well. The pounder is not the same.

Murray hooked it to his little pickup in hopes that the short wheel base would make straight fences somewhat attainable. We are not fencing wide flat land either. That would be boring. No, we have barns, fences, hills and trees to avoid. Enter the ever difficult middle child.

I am a girl who likes straight lines and 90° corners. Just ask my family about my string line and level while building a wind break (and *maybe* how I *might* pull off offending boards that are hung too high). In my defense I can throw a potato from my back deck and hit the naughty pony who sometimes joins the cows with relative ease and I'm no outfielder. This fence is right in my yard.

If you drive in a straight line the trailer should follow directly behind you. Post pounders or at least this post pounder is not like that. Maybe it is defective. Maybe I am. No matter what I do it is never where it needs to be. There is some play within the machine but not enough to compensate for my poor navigating. Murray was equally frustrated. After much backing up and pulling ahead. Adjusting over and over and over and no small amount of mumbled cussing on both our parts we finished one fence line and decided if I made a large arch I could come around and make it up the hill straight to make a nice tidy corner.

Unfortunately, as I said earlier we are not on perfectly flat land and due to his extreme frustration that he was struggling to keep under control and I believe a secret desire to scare the crap out of me, Murray forgot to put the pounder part of the pounder down. Now it wasn't entirely his fault. I know I should check the pounder before I move. I also know not to side hill equipment. I know this, just ask me about sliding my tractor down my hill, through my fence and into my barn. It was a loud 15 seconds let

me tell you. But that was years ago. The sound of my voice coming back at me off the glass of the cab doesn't scare me near as much anymore. I'm used to it now. I really should have learned my lesson. Apparently I needed a refresher.

Near the bottom of the little hill I decided to start my left hand turn. You see where this is going, I know you do. Stop laughing. I can hear you.

Yep I rolled it. Broke the tongue off the receiver. Murray was rather impressed with that part. The pounder went over with a huge crash. It didn't hit the pretty little truck and I didn't cry. But it was close. It also didn't turn off. It kept running. Horrible terrifying little beastly. I was certain it was going to catch fire as it dripped whatever fuel it is that makes it run all down the engine. Murray thankfully was there nearly as quickly as I was and was able to shut it off before the problem became shockingly more terrible.

We were able to turn it over, change the hitch and make it ready to go again. Murray made me drive it for the rest of that fence before he gave in to my pleas to trade jobs. You know, get back on the horse and all that rot.

Murray now drives the tractor while I run the pounder. This works very well, I can measure to my hearts content and judge for myself if the line is straight. I'm not saying things are straight or the correct distance apart, but at least I am the one making the mistakes. Everyone is happier when I am annoyed with myself instead of them. We will continue to fence, hopefully for the next forty or so years.



# Stock Dog Clinic

By Jenna Hiebert & Julie Robinson

This summer on June 9<sup>th</sup> and 10<sup>th</sup>, Carol Nelson hosted a Border Collie Stock Dog Clinic near Pink Mountain, BC. The days were filled with lots of learning, fun, and laughs, despite the rain that loomed overhead.



Carol Nelson mentoring Jenna Hiebert. Photo credit: Shannon Trask.

Carol has competed in the highest level of stock dog trials all across North America and Canada, qualifying multiple times for the North American Finals and has just recently won the Western Canadian Finals Trial ! After competing and training her own dogs for so long, she is able to share her extensive knowledge with others through clinics and private dog training. Carol has been working with and training a variety of dogs for over 20 years. She herself though runs Border Collies as she feels they can do it all. Carol explained that when working livestock, they fetch, drive and understand side commands, and this is what makes them so versatile. Right now, Carol has five working dogs that she uses either on the farm or for competitions and takes on a few client dogs for training during the winter months.



Figure 1:  
Have dog balance the sheep to you while moving them through the two orange pylons.

Figure 2: Get in position between the dog & livestock, slightly offset so it is obvious for the dog which way you want them to go. In this image the person is set up for a "Come by".

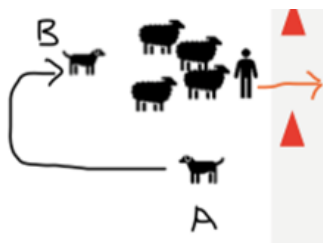
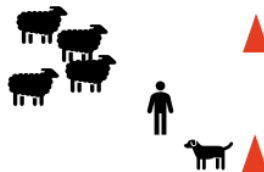


Figure 3: Send the dog "Come by" & keep the dog out as shown, so it doesn't cut in on the corners, this puts too much pressure on the livestock. Once the dog is in position B, handler should back through the pylons, & the dog will balance to bring the sheep.

The clinic encompassed a variety of eager participants from beginner, to experienced regarding both the dog's and handler's capabilities. The first part of the day consisted of each participant introducing and explaining a little bit about themselves, their dog, and their goals for the clinic. Next, each participant took their dog out with the sheep so that Carol could evaluate both the dog and handler and come up with a plan to reach each pair's goal.

The next step was to get each owner and dog to balance with each other, this means to work with the dog, so it can find the position (point of balance) in which they must be in to successfully bring the sheep to you. Figures 1-3 to the left, walk you through a typical balancing exercise. Border Collies are naturally repelled by their handler, staying on the opposite side of the sheep as them. This is what enables the dog to balance, and with time, allows them to handle the stock naturally without much command. Balancing should look like a smooth back and forth process while moving the sheep in a desired direction. To start, send the dog "away to me" or "come by" around the flock. Now the handler, while staying in front of the sheep, walks either to the same side as the dog, or opposite, depending on which way they want the dog to bring the sheep. This back and forth motion is continued until the sheep have been moved to the desired location.

# Stock Dog Clinic *continued*

By Jenna Hiebert & Julie Robinson

Much of the dog's ability to work with stock is based on the instincts they are born with, but the handler must nourish those instincts correctly in order for the dog to reach their potential. Once the dog reaches about 6 to 12 months, they begin to get quite keen to work. Carol stresses that this time frame is so important in determining their future as a working dog. If overworked, the dog may become uninterested as it gets older. "It's a sure way to wreck your pup, takes their heart out of it", Carol says. This leaves them vulnerable to developing bad habits later on in their training.



Julie Robinson & Spotty in action. Photo credit: Shannon Trask.

**Commands** used on the dog vary slightly from handler to handler, but at the end of the day, the meaning of them is the same. However sometimes how they are said makes for different results. The dog must be able to bring stock to its handler in a quiet and smooth manner. Distance between the dog and animal determines how rushed the process will be, and ultimately how effective.

"Lay down" or "Down" is crucial and is one of the first commands a dog needs to learn. This is how the handler controls the speed and precision of the dog.

Flank Commands:

"Come by" To send the dog around the back of the flock clockwise.

"Away to me" is used to send the dog counter clockwise.

"Out" or flank commands are used on the dog when he/she is cutting the corners short and riding to close on the heard.

"Easy" is a command to encourage a slow approach to animals and should be used once they have made the corner on the fetch.

"Walk up" is reserved for drive commands when the dog is in position behind the animals.

Alternatively, some handlers prefer to use a **whistle** to give commands. The dog must first be trained verbally however, and then the whistle can be integrated from there. Most dogs prefer the whistle as they are sensitive to pitches, & can more easily understand commands. Carol says she prefers to use a whistle because it is easier for the dog to hear in the field.

Whether you want your stock dog to work cows, sheep, or any other kind of livestock, Carol says the best way to start them is on a group of 3-4 sheep that are used to being handled by dogs. She says that once they learn how to work sheep, its fairly transferable to other animals. This is a commonly misunderstood concept for most people who say they want a "cow dog" or a "sheep dog". Once a dog has been trained, the concepts are the same for most livestock. The only thing that differs from working sheep to cows is that cows may need the dog to be a bit more aggressive at times as they can be harder to move.



A dog performing the "Walk up" command. Photo credit: Jenna Hiebert.

At the end of the weekend, it was evident that both the handlers and dogs had improved and were able to take a great deal of knowledge back to their farms. A big thank you goes out to Carol Nelson for hosting such an awesome clinic and working so closely with each handler to make sure they got what they needed out of the weekend!



# Changing Our Focus: What Are We Missing?

by Josh & Rachelle Stobbe



Rachelle & Josh Stobbe of Goodlow, BC.

If you could change one thing about your land, what would it be? What if you could improve your soils so that change became reality? What kind of management would that change require?

These are questions we often ask ourselves. As a cow/calf/ back-grounding operation, we tend to focus on production: a given number of calves of a certain weight, tons per acre of hay or silage. We've come to realize that we need to focus at a more basic, as well as, more complex level.

Having attended various soil health and range management conferences/ seminars, we usually try to apply at least some of what we've learned. Yet when the results aren't as good as we hope, we invariably ask ourselves: what are we missing?

At the Soil Health Field School hosted by NPARA in Manning, AB, the Soil Health Consultants (Gabe Brown, Allen Williams, Ray Archuleta, and Dr. Kris Nichols) sought to answer this and other questions. Their approach was practical. Instead of focusing on yield or productivity, we should look at a profit margin, both for now and future years. This approach applies to all aspects of the operation. By mimicking nature and applying soil health principles, we can reduce costly inputs and improve the health of our soil for long term production and sustainability.

According to the soil health consultants, five foundational principles of soil health are:

1. **Minimize mechanical and chemical disturbance.** Tillage destroys soil structure, reduces water infiltration and organic matter, increases weeds, and destroys the home of soil biology. Synthetic fertilizers limit the ability of the plants to draw nutrients from the soil, deposit nutrients back into the soil, and exchange nutrients with other plants through mycorrhizal fungi.
2. **Maintain armor on the soil.** Soil needs to be covered in plant matter at all times or dysfunctional ecosystems result. Bare soils are prone to erosion, don't feed biology, and can't regulate temperature. Soil temperature is critical because it determines the percentage of moisture that can be used for plant growth.
3. **Increase diversity.** Nature doesn't function in monocultures. Diversity drives soil health. Ideally, pasture should consist of at least three grasses, three legumes, and three forbs. A good mix is nutritionally beneficial to the livestock, the plants themselves, and the soil biology, also allowing the production of as much feed as possible for as long a time as possible.
4. **Keep living roots in the soil as long as possible.** Roots build organic matter, cycle nutrients, and provide a home for soil biology.
5. **Manage animal impact.** Managed correctly, livestock can build soil health. Grazing should be goal-oriented, allowing adequate time for plant root systems to recover between grazings. It's important to recognize the impact of our grazing practices on the plants, the soil, and the microbiology in the soil, not just assess animal condition. Rather than using a system, management should be adaptive based on conditions, goals, and needs.

While we don't have space to get into specifics in this article, these principles give a foundation to healthy, sustainable practices.

*"The take home messages for me were what our priorities for soil management needed to be & I also realized the key is to keep our soil cover."*  
Rachelle Stobbe

*"It is not just about maximizing our livestock yield. We need to maximize our profit and ultimately maximize our sustainability on our land."*  
Josh Stobbe



Ray Archuleta (blue shirt) & Dr. Allen Williams (black shirt) discuss soil health.

**Note:** Encouraging members to participate in out of region educational events is partially cost shared through the Project called Improving Forage Productivity & Profitability. See page 15 for this project's funding partners.

# Foragebeef.ca Website Moving to BCRC

*by Grant Lastiwka*

**Foragebeef.ca content [http://www.foragebeef.ca/app33/foragebeef/index\\_body.jsp](http://www.foragebeef.ca/app33/foragebeef/index_body.jsp) will be taken into the Beef Cattle Research Council (BCRC) technology website <http://www.beefresearch.ca/>.**

Duane McCartney, Bill Houston (AAFC), the Alberta Forage Industry Network, and I have been talking with BCRC, key AF leaders Carmen Andrews and Stacy Tames and others for some time on what was needed to be done for this site to continue in a productive way.

The length of time it will take for transfer to occur, or the accessibility to information on Foragebeef.ca during that time is not known. How BCRC and Alberta Agriculture and Forestry (AF) can manage this transition has been left up to internet technology staff and the BCRC/AF organizations. Tracy Herbert at BCRC and Stacy Tames and team at AF will be handling this transfer as it will not be an easy task. We are fortunate to have Carmen Andrew of the Ag-Info Centre, Karen Schmidt of Alberta Beef Producers (ABP) and Andre Brocklebank of BCRC to aid in leading this move. Through Karen Schmidt's, Andrea Hanson's and Susan Markus's (AF) efforts, the Alberta Beef Producers have stepped up and are financially supporting this transition. We cannot thank them enough!!

**As a core group of researchers and extension people from across Canada you are being sent this message out of respect to you for your involvement in development and use of this site.**

Foragebeef.ca has been a collaborative project made possible by the following contributors:

Agriculture & Agri-Food Canada  
Alberta Agriculture and Forestry  
Manitoba Agriculture, Food and Rural Development  
Saskatchewan Ministry of Agriculture  
British Columbia Ministry of Agriculture  
Canadian Society of Animal Science  
Canadian Society of Plant Science  
Alberta Beef Producers  
Alberta Livestock And Meat Agency Ltd.  
Beef Cattle Research Council  
Alberta Environment and Sustainable Resource Development

Duane McCartney, Agriculture and Agri-Food Canada (AAFC) Beef Forage Systems Researcher-now retired was the creator and key developer of Foragebeef.ca. Since Duane has been a mentor and friend to so many peers, when he asked for help to create Foragebeef.ca in the early 2000's, you and

others did just that. With assistance from those across Canada in research and extension this site had topics developed, reviewed, and added. Knowledge nuggets extension factsheets...research papers. Over time as you sent new materials to us new research and extension publications were added so this site could be more current knowledge. Gerrard Vallencourt and Stacy Tames and team of AF created this site for Duane. Kyle Greenwood was hired to do literature searches and find key forage or beef publications from around the world.

Over the years Ken Ziegler, Stephanie Kosinski, (both developed knowledge nuggets and topics) Linda Hunt, Janet Fletcher, Amrit Matharu, Stacy Tames and team and myself (all Alberta Agriculture and Forestry staff with apologies to any I have left out) kept it going. Every two years or sooner all topics revolved through review, link correction, and reinstatement. Although Alberta did the behind the scenes work (that was just how Duane had set it up) we all wanted this to continue to be a truly Canadian forage and beef knowledge library owned by us all.

We are pleased to say that Andrea Brocklebank, Reynold Bergen, and Tracy Herbert of BCRC want the same knowledge sharing. BCRC was an original funder of Duane and your efforts of knowledge capture. Duane did not want to lose knowledge and wisdom as staff retired and it left with them. To assist in succession planning as new staff, new producers, new researchers came into our forage and beef industry he wanted mentorship so learning could be accelerated for the most competitive Canadian cow/calf industry possible i.e. Foragebeef.ca is a knowledge store-house for quick wisdom. **In 2008 Foragebeef.ca won the prestigious AAFC Golden Harvest Award for recognition of its excellence. This recognition of value continues in our forage-beef industry as Foragebeef.ca has been accessed with over 85,000 views in the last two years.**

I think on behalf of all of us I would like to thank Andrea Brocklebank, Reynold Bergen, Tracy Herbert of the Beef Cattle Research Council (BCRC); Karen Schmidt and the Alberta Beef Producers (ABP); and Stacey Tames, Darren Semotiuk, Amrit Matharu, Janet Fletcher, Linda Hunt, Andrea Hanson, Susan Markus, Carmen Andrew, Jeff Millang of Alberta Agriculture and Forestry (AF) or their efforts in trying to help this transition process become a reality.

Please take in Past and Future Knowledge of Forages and Beef at BCRC <http://www.beefresearch.ca/>



# PRFA 2018 Summer Tour

*By Erin Maxfield*

On June 20<sup>th</sup>, 2018 the Peace River Forage Association hosted their annual summer forage & livestock tour in the Tower Lake - Braden Road - Groundbirch areas. There were over 90 people participating in parts of or in many cases, for the whole tour. The tour this year will be remembered as an extremely hot day, but everyone managed to stick it out with the help of an air conditioned bus and slightly adjusted tour schedule. Thank you to everyone who made it possible for such a great tour to happen! Special thanks to Sandra Burton and Julie Robinson for all their time and commitment put in to making it such a great day.

## Nil-Ray Farms

The first stop of the day was the Nil-Ray Farms (formerly South Peace Stock Farm). It is currently being managed by Scott Fraser. He and his wife Brittany, and their new baby, Tucker, moved to the Peace Region from Lamont this past winter. With new management, Scott has been doing some fertilizer trials in some grass pastures and the results were very prominent on the tour. Within farm boundaries there is a heavy oil and gas presence, so we heard about some of the management challenges Scott faces with industry operations. Scott works closely with EnCana to try and minimize the effects of timing of disturbance on farming operations as much as possible. We visited a processing plant that is on farm property, and Brian Lieveise from EnCana explained to us a bit about the processing of natural gas and how they try their best to accommodate landowners.



Brian Lieveise from EnCana explains the steps in processing natural gas.



Trevor O'Dwyer shows us his forage seeding equipment.

## Stan & Shirley Smithard

The second stop of the day was hosted by Stan and Shirley Smithard. They have lived on their farm in Sunset Prairie since 1980 when they bought the home quarter. Stan and Shirley have worked closely with the PRFA on various projects including "Improving Productivity and Profitability of Forages" and looking at proper manure handling techniques. Upon arrival, Trevor O'Dwyre talked to us about some of the seeding equipment that has greatly improved his revegetating experience. We then broke out into groups and looked at different stations which included; managing manure with Stan Smithard and Sandra Burton, forage health with Julie Robinson, remote sensing with Matthias Loesecken, and improving soil quality with Aaron MacKay. Once we completed the stations we enjoyed a delicious lunch prepared by Classic Cuisine.



We were joined at our lunch stop at Smithards by about 30 guests from Investment Agriculture Foundation of BC.



# PRFA 2018 Summer Tour *continued*

By Erin Maxfield



Bill Field crosses Woodland bulls with Plain bison cows.

## Bill Field

Our third stop of the day was at Bill Field's property out in Sunset Prairie where he runs his buffalo operation. We learned about the management of buffalo and how once you get the hang of it, they are low maintenance in the winter and overall much easier to manage than cattle. In the winter they don't require fresh water; licking the snow is sufficient for them. However, fencing is different for buffalo, since they are much more destructive than cattle. Bill uses 8 wire fencing, 2 of which are hot. He told us that the bulls stay in with the herd all year long, leaving it up to them when the cows calf. Bill has had great success with orchard grass in his grazing and haying pastures and swears by it! His daughter, Dawn, also accompanied us on the tour and we learned about how she used to raise reindeer for 20 years. Fun fact, her herd of reindeer can be found starring in the movie "Elf".

*Please note the thank yous on page 15 that made this tour possible.*

## Craig Fossum and Brette Madden

The 4<sup>th</sup> stop of the day was at Craig Fossum's and Brette Madden's 120 acre "Away Ranch" in Groundbirch, BC. Starting in 2017, they have been working with Julie and Sandra to improve the capability of their soils. Here there were stations on pasture management with Julie Robinson, Bill Wilson and Craig Fossum, on bee keeping with Brette Madden, and lastly on insects and soil biology with Keith Uloth, Sandra, and Aaron MacKay. Below are photos from the station I attended. Keith talked about the importance of net sweeping and knowing what pests are in your field. He is working with the PRFA/ PRFSA on the pest monitoring project and has been doing net sweeps, pit fall traps, and sticky traps to identify pests in the Peace Region with local producers. We learned the proper technique of sweeping from side to side, 180 degrees, and then bagging the insects for ID. In our nets we found leaf hoppers, cutworms, click beetles, and much more. If you have any pest ID questions, send Keith an email ([pest@bcgrain.com](mailto:pest@bcgrain.com)) with a photo and he would be happy to help. Sandra and Aaron then explained to us how they have been assessing soil quality with producers. They finish with a soil report card portraying the health of the soil. We learned how to measure soil respiration and how important it is for overall soil and plant health.



Keith Uloth demonstrating insect sweep net techniques.



Sandra Burton and Aaron MacKay measuring soil respiration.

## Dinner

The 5<sup>th</sup> and last stop of the day was back to Stan and Shirley Smithard's farm for dinner. After a long hot day, cold beverages and some shade were thoroughly enjoyed by all. Thank you to the **Dawson Creek Rotary Club** for providing the barbeques and chefs for dinner. We would like to thank Stan and Shirley once again for hosting us not only once during the tour, but twice! Thank you for all the work that went into having us on the tour.



Dennis Armitage, Myles Mowat & Alex Reschny, the Bar BQ crew from Rotary Club, grilled our steaks for supper.



# Grazing Management - What Really Matters

by Jenna Hiebert & Julie Robinson



On August 7th, a group of 40 forage producers from the BC and Alberta Peace Region participated in a grazing workshop led by Jim Gerrish. Jim and his family operate American GrazingLands Services LLC based in Patterson, Idaho. They are dedicated to aiding farmers and ranchers to more effectively manage their grazing lands profitably and for environmental enhancement.

For most people, grazing simply consists of turning their livestock out to pasture for the summer months and bringing them back in for the winter. When done, with a bit of strategy and planning, pasture productivity and recovery can be maximized quite quickly. Jim Gerrish of Idaho, USA has been successfully grazing cows in a rotational pattern for most of his life and has developed his business American GrazingLands Services around this strategy. The Peace Country Forage and Beef Association hosted Jim at Andrew and Vivian Miller's farm near Bonanza, Alberta this year where he gave a one day clinic on his approach to grazing management.

To begin with, Jim explains that you need to understand what makes up the grazing land and what it needs to prosper. He then broke it down into four simple ingredients; solar energy, water, soil minerals, and carbon dioxide. Understanding this and knowing how to utilize naturally occurring events makes a huge difference in the quality of your grazing pastures. More than 90% of what goes in the front of a cow comes out the back, and a cow will eat 6 tons of food a year. When translated to the cost of buying fertilizer this is roughly equal to \$480 worth of fertilizer in manure that each cow produces in a year. This is one example of how a naturally occurring event can be managed to benefit your pasture land.

Jim stresses the importance of management intensive grazing, meaning that cows will graze intensively but the important part is to manage this grazing just as intensively. Factors such as stock density, timing, utilizing environment, subdividing pastures, and locating stock water all play a critical role when we think about intensive grazing management.

## Stock Density

The number of animals in a specific area at a given time is how Jim describes stock density. This is an important concept to grazing management because having the right stock density affects how well the pasture will recover. As you put more stock on less amounts of pasture, the grazing period must decrease, but this leads to optimal plant recovery because the plant is able to spend more time growing than it does being eaten.

Jim Gerrish teaches us to train our eyes to estimate grazing yields in animal unit days per acre.



To learn more about American GrazingLands Services check out their website at <http://www.americangrazinglands.com/>.

# Grazing Management *continued*

by Jenna Hiebert & Julie Robinson

## Timing

Arguably the most important factor in grazing management is time. How long the stock is in a pasture determines how much plant damage occurs. The 'first bite' is described by Jim as the first time a plant is bitten by an animal. Ideally, the animals should only be in a pasture long enough to take the first bite, then they should be rotated to a new area so that recovery can begin. This takes place usually within 1 to 3 days, but this depends on the pasture, forage and the animal. Often, people are hesitant to rotate this frequently though because of the fear of 'wasting grass', but Jim stresses this is not the case because even though there is grass left over, it is vital to the re-growth of the plant.

## Utilizing Environment

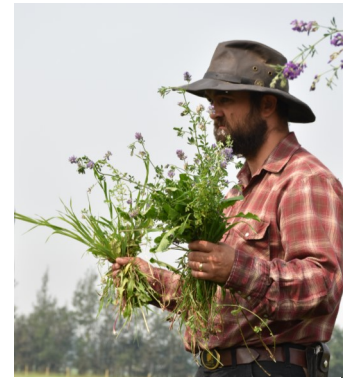
When making grazing decisions, don't forget to consider the environment in which your grazing land exists in and the state of the grass before you graze it. Leaf area index (LAI) is the ratio of leaves on the plant to how much ground is showing. An optimal LAI to begin grazing on is 5 leaves per forage plant. This indicates that the plant is in a positive carbon dioxide balance and is capturing enough solar energy for photosynthesis to withstand the damage of the first bite and still recover effectively. Weather will also affect how you manage your stock. For example, if you have a rainy summer and you know that one of your pastures is prone to have standing water in it, grazing this pasture should be delayed until the water has dried to avoid root and soil damage.

## Subdividing Pastures

Subdividing grazing pastures into smaller paddocks is the central idea that intensive grazing management focuses on; putting your stock in smaller units of space to graze for shorter increments of time. Subdividing increases the pasture's quality, recovery, grazing efficiency, and nutrient cycle. Some things to consider before you subdivide your space though are the resources you have (access to water etc.), costs, and benefits. It is also a good idea to use temporary fencing at first until you are sure the system you have designed works for you.

## Locating Stock Water

Watering locations dictate where you can subdivide. It depends on how far the animal has to travel to water and how hot the weather is. Jim says it is most efficient to set up one watering system to be shared between 2-4 subdivisions of pasture, than having the cow walk to water. "Taking water to the cow is more cost effective than taking the cow to water", Jim says. Ideally the cow should not have to go further than a quarter of a mile. Extending the trip beyond that puts more manure and urine on the path to the water than uniformly distributed over the pasture.



Tim Siemems from Fort Nelson illustrates the quality and quantity of the 1<sup>st</sup> bite in his left hand compared to the 2<sup>nd</sup> bite in his right hand.



Thank you to Andrew and Vivian Miller for hosting the event and catering our lunch.

*The day after the workshop Jim Gerrish offered to do one on one ranch consults. Forage Friendly Enterprises (Bill Wilson & Julie Robinson) and Muddy Creek Livestock (Jodi Kendrew) were the first to step forward for a half day with each of their operations.*

*Julie summarizes their time together:*

*"Jim steps in as a catalyst, shakes up the box, throws new ideas in, shakes it up some more, then you apply what makes sense to your operation. Bill and I walked through our O'Dwyer and Price pastures with him. Here's what jumps out at me.*

*Jim said 20 years ago, he couldn't convince graziers to leave enough behind for fear of wasting grass. Now we are leaving lots... too much. We need to push our pastures more. He said we don't have a forage production issue, especially this year, we have a utilization issue. We need to do a better job of using the higher value grass now. We can leave some of the over mature grass and use it for stockpiling and later fall grazing. Once we are behind, grazing over mature grass is the same now as in October, unless we are talking alfalfa. He stressed that we need to invest more in our waterers to get more of the benefits of managed grazing. We also need to consider smaller pastures and moving every 3 days rather than the way we are currently doing once a week.*

*As we discussed various topics with Jim, he asked several times if we were asking the wrong questions. That helped get us thinking from another angle. All in all, spending time both in the workshop and afterward with Jim Gerrish was very worthwhile."*



# Thank You to Our Event Sponsors & Partners

## Thank You to Our Tour Hosts

Scott & Brittany Fraser  
Stan & Shirley Smithard  
Bill & Betty Field  
Craig Fossum & Brette Madden

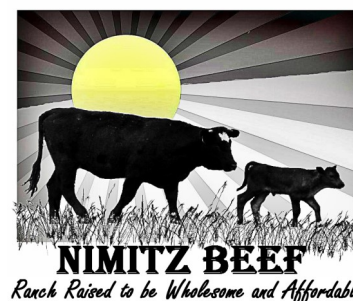
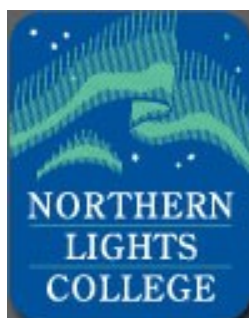
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The Summer Tour was partially funded through 2 projects:  
Improving Productivity & Profitability of Forages  
& Forage Starting Over Do's & Don'ts.

These projects are partially supported through:

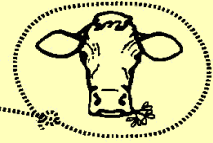
Peace River Agriculture Development Fund (PRAD) & federal & provincial government programs  
delivered by the Investment Agriculture Foundation of BC (IAF).

# Upcoming Forage Events

## Pasture Walk & AGM

*Celebrate Fall Equinox with the*  
**Peace River Forage Association**  
**Saturday Sept 22, 2018**

Peace River Forage Association  
of British Columbia



**3:00 pm: Meet to vehicle pool at the  
Tower Lake Community Hall, Tower Lake, BC**

Afternoon in field to include:  
cocktail cover crops, pig feeding & bee keeping

**5:00 pm: Return to Tower Lake Community Hall**

**5:30 pm: Hot Supper catered by Classic Cuisine**

**6:30 pm: AGM of Peace River Forage Association**

**7:30 pm: PRFA Directors meeting to follow**

**Pre-registration is strongly advised!**

For more info or to register please

Email [prfaevent@gmail.com](mailto:prfaevent@gmail.com)

Or call Chris @ 250 793 8916

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