

# FORAGE FIRST

Published by the Peace River Forage Association of British Columbia

84<sup>th</sup> Edition

Fall 2020

\$10

## Time to Test



Devyn Dilworth samples their bales for forage quality. This is step 1 in making a winter feeding plan for their horses.

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2020/ 2021 Membership & Feedback Form

Friends of Forage Ads

Forage Facts

#### Inserts: (for renewing members)

2020/ 2021 Membership & Feedback Form

Visit us at [www.peaceforage.bc.ca](http://www.peaceforage.bc.ca) or visit our Facebook page

# President's Message

by Neil Ward

Ok so now we have all this lush grass and plentiful feed. What do we do with it? I am still learning about all the services, equipment and information that are offered through the Peace River Forage Association of BC. For example did you know we offer feed and silage probes for rent to encourage feed quality testing?

The PRFA of BC has also recently purchased a Vredo sod seeding drill. The drill is being evaluated by producers in demonstrations as part of the Interseeding to Improve Forages Project. If you are interested in trying some seeding with this drill this fall, contact the Project Lead Julie Robinson, Forage Friendly Enterprises at 250 262 7576.

Did you know we have several factsheets about livestock nutrition and support hands on rationing courses using Cowbytes, Sheepbytes or Horsebytes? (see last page for upcoming courses this fall).

There is a ton of information on our website. Have you ever tried the **Search** function on our website to get information on a topic? For example, when you type in **TDN** into the search bar on the upper right of every page, here is the first 4 listings of the 11 that are displayed. Who knew?



Peace River Forage Association  
of British Columbia

Home | About Us | Information | R&D Projects | Forage Facts  
Services & Rentals | Links | Contact Us

[peaceforage.bc.ca/forage\\_facts.../FF\\_20\\_Understanding\\_Feed\\_Tests.pdf](http://peaceforage.bc.ca/forage_facts.../FF_20_Understanding_Feed_Tests.pdf)

## 20 Understanding Feed Tests

File Format: PDF/Adobe Acrobat

Energy (**TDN**) values. > 55% **TDN** is good feed. 2. Protein (CP) values average alfalfa > 8%. 3. Fibre (ADF) values good feed ...

[www.peaceforage.bc.ca/.../FF\\_104\\_Grazing\\_Weeds\\_Nutritional\\_Value.pdf](http://www.peaceforage.bc.ca/.../FF_104_Grazing_Weeds_Nutritional_Value.pdf)

## 104 Nutritional Value of Thistle

File Format: PDF/Adobe Acrobat

Further, Canada thistle has an average energy value. (total digestible nutrients – **TDN**) of 65.5%! This high digestibility is due to the higher leaf to stem ratio of.

[www.peaceforage.bc.ca/forage\\_facts\\_pdfs/FF\\_83\\_Beef\\_Nutrition.pdf](http://www.peaceforage.bc.ca/forage_facts_pdfs/FF_83_Beef_Nutrition.pdf)

## Beef Nutrition - What to Look At & How Much?

File Format: PDF/Adobe Acrobat

Adjustments to **TDN** Values. Advice received from Barry Yaremicio, AB. Beef & Forage Specialist, is to use the document to the right to cross check feed.

[www.peaceforage.bc.ca/newsletters/Forage\\_First\\_10\\_1994\\_Apr.pdf](http://www.peaceforage.bc.ca/newsletters/Forage_First_10_1994_Apr.pdf)

## Forage First Issue 10

File Format: PDF/Adobe Acrobat

Other winners were Legume Hay - Peace Vale Farm, Fort St. John, 68% **TDN**, 20.2% Protein,. 25.2% Fibre; Grass Hay - Doug London 59% **TDN**, 9.7% Protein, ...

# Is My Membership Paid Up?

by Chris Thomson

Hey, Forage Enthusiasts!

We appreciate you keeping your membership current. Sometimes, it is hard to remember if you need to renew or if you are paid up for several years. To help you figure this out, we have implemented a new tracking system. If you look at the **top right of your mailing label, there is a date. This is the date that your membership is set to expire!**

The newsletter is now being published 4 times a year, so it is a great place to find out what has happened and what is going to happen in the near future. Please keep us informed if your email or contact information changes.

If there is a “**N**” on your label, we need your feedback. Even if you are a paid up member (we do appreciate this) **please turn over the membership form and take just a few minutes to answer the questions.** Your timely feedback will really help the new enthusiastic people working for you set new directions and serve you better as members. Plus you get a set of **Forage ID cards!**

Keep your membership up to date so that you always have the latest information about the happenings of the Peace River Forage Association!

Chris Thomson, PRFA of BC Membership

# Heather Fossum's Profile

## *A little bit about where she is from and what she has done*

I was born and raised west of Dawson Creek (Arras) with cows, horses, cats and dogs. A love of animals developed early on. I would make fun of how my Mom could remember the name of every flower/bush in her gardens... little did I know that I would develop a keen interest in plants later on. Growing up I enjoyed playing soccer/volleyball/basketball and the cello, Highland dancing, musical theatre and riding horses. My brothers (Jordy & Craig) and I participated in 4-H, gymkhana, competitive trail rides, cattle drives & round-ups at the community pasture and family horse packtrips to the mountains. I developed a passion for light horse showing and competed in shows at the local and national level - it wore down the rubber on my parents vehicle (Lary & Diane). I received my first cow at age 12 and then developed a small herd where calf sales went towards funding my education.

A highlight in my teens was participating in a year long Rotary Youth Exchange in Argentina (Comodoro Rivadavia, Patagonia) where I lived with three host families. It challenged me in so many ways and was an incredible life experience. I discovered a love of travel and the benefits of learning another language.

After high school I headed to the U of A (Edmonton) where I obtained a BSc in Agriculture with a major in Animal Science and Rangeland Management. My first grazing management class ignited an unexpected fascination in plants and after that my animal science classes didn't hold the same appeal. It's weird how some things turn out. I also spent a semester in Perth, Australia studying native plant propagation & revegetation.

I worked a few summers for the BC Forage Council with their forage variety trials. I also assisted the Peace River Forage Association of BC (PRFA) with projects/events, which I found so interesting and relevant. As well, I spent one summer working for the BC Grain Producers on their variety trials.

During my last year of studies I met my husband Ryan Frost at curling (neutral territory for the Ag/Engineer rivalry). I was an Aggie and he was an Engineer although he did come from a grain farming background.

My first career job was based out of Fairview where I worked as a Rangeland Agrologist with the 10 Grazing Reserves in the AB Peace (for eight years). My main focuses were conducting tame pasture health assessments, mitigating impacts of oil & gas development, inspecting government land improvement contracts and assisting with allotment allocations. It was a fulfilling position and I thoroughly enjoyed learning from all the long term grazing/livestock managers & engaged producers.

Heather excited to be on the family packtrip after a seven year hiatus. Brewsters Wall in the Willmore Wilderness Area, September 2020



On one of our annual backpacking hikes Ryan and I became engaged and we married the next year. A short while later I joined Ryan in Fort McMurray and we started a family. We had an incredible trail network behind our yard, and I spent many hours pushing a stroller along the forest trails. Although I supported Ryan in his ultramarathons I never thought I would join him. Eventually his enthusiasm motivated me and I started jogging and going on trail runs. Fort McMurray was a lovely town and a wonderful place to raise a family. We probably would have stayed had we wanted to remain living in town.

We moved our family to a quarter east of Dawson Creek five years ago. I was keen to attend PRFA events and learn about projects first hand rather than solely through the newsletter. I served as a director for the PRFA for a couple years, enjoyed reconnecting with those I knew and met new forage enthusiasts. Our clan increased by one and we now have 4 children (currently aged 11, 8, 6 and 3). Time sure flies when you are having fun & sleep deprived! :)

We graze chickens & horses, garden and grow forage & curious minds. Our cows are managed with my parent's herd and I hope to increase my involvement as more of our little humans get on the school bus. The little humans have many interests which currently include dance, swimming, curling, cross country skiing and Scouts. They also have their own egg business called CHILD EGGS to earn money for their piggy banks. Ryan and I continue to curl and hope to keep at it for many years to come.

In July I joined Sandra Burton to work one day a week as part of the Communications team for the PRFA of BC. So far, I have been updating information & events on the website, collecting feedback from members from the paper and online survey, sending out a monthly events email and working on the fall newsletter. I look forward to connecting with members and working with an association that has been so exemplary at sharing knowledge and information.



# COVID 19 in Animals

*by Dr. Zoe Ross, Dawson Creek Vet Clinic*

It seems that all the news these days is about COVID 19 and it has created a huge amount of worry and stress for people around the world. There have been many questions about COVID 19 and animals and the purpose of this article, is to answer some of these questions. COVID 19 is caused by a Corona virus, specifically SARS-CoV-2. Producers and animal owners may have heard of other diseases in their livestock or pets that can be caused by corona virus (such as diarrhea in new born calves) but these diseases are not similar to COVID 19 and the virus that causes these diseases is not the same as that which causes COVID 19.



Dr. Christa Harder and Dr. Joana Varga hard at work saving lives.

## **Can animals get COVID 19?**

There have been several animals around the world that have tested positive for SARS-CoV-2 (dogs, cats and a tiger). These animals were in close contact with a human infected with the virus. Currently the spread of the virus seems to be primarily between humans. The cases in animals have been animals that have been exposed to an infected person. At this time it doesn't appear that people are at risk of being infected by an animal with COVID. Obviously this is being closely monitored as ongoing research is being done. The OIE (World Organization for Animal Health) is a really great reference site where more detailed information about surveillance and results of testing of animals. Routine testing of animals for this virus is not currently being recommended.

## **Can animals act as a carrier of the virus?**

The risk for animals to carry the virus and transmit it to humans is considered low at this point. It doesn't seem that the virus is replicating in pets and then transferring to people. It is also fairly unlikely for the pet to act as a fomite (an object that the virus sits on that can act as a source of infection). Pet hair is quite porous and research has shown that the virus doesn't last as long on porous materials (such as cloth and paper) as it does on non-porous surfaces (stainless steel or plastic).

## **What should you be doing to protect your pet?**

We are encouraging clients and animal owners to follow the recommendations on social distancing, hand washing, not touching your face or mouth with your hands as well as covering your face when you cough or sneeze. If you are ill, try to handle your pet less and limit your pet's contact with others. While at this time, it is not thought that animals can transmit the virus to people, there are other diseases that can be spread from animals to people. These are called zoonotic diseases and it is always important to wash your hands well after touching animals and to regularly clean and disinfect pet food dishes and litter boxes.

## **What are some of the other Corona Viruses that can infect animals?**

Bovine Corona Virus is a virus that can cause diarrhea or less commonly respiratory disease. The most common presentation of animals infected with bovine coronavirus is diarrhea in calves that are 1 to 3 weeks of age. This virus was first reported in the early 70's. Coronavirus can also cause a syndrome known as

"winter dysentery" where older cattle get spontaneous diarrhea during the colder winter months. This is more often seen in dairy cattle that are housed in barns. There have also been reports of coronavirus being associated with bovine respiratory disease complex although this is usually not the primary pathogen that causes animals to get pneumonia or become very ill. There are vaccines available for bovine coronavirus and most scours vaccines for calves provide protection against the form that causes diarrhea in calves.

There is also an Equine Coronavirus that can cause diarrhea and colic in horses. It is not a common infection seen in horses and often they recover with supportive care. There is not currently a vaccine available for this virus.

There are also coronaviruses that affect pigs including the Swine Delta Coronavirus which causes diarrhea and vomiting and has been around since 2012 and the Swine Respiratory Coronavirus which causes respiratory disease.

Dogs and cats also can be infected with certain types of Coronavirus as well and these viruses may cause enteric (diarrhea and vomiting) or respiratory disease. Usually the feline coronavirus will only result in very mild disease but in some cases the virus may mutate and cause a condition known as Feline Infectious Peritonitis that is fatal.

Biosecurity in animals is a very important tool in controlling the spread of coronavirus between animals. Taking care in introducing new animals to your herd, minimizing manure contamination of feed and water sources and vaccinating animals when appropriate are all important. Calving ground management is very important in controlling scours in new born calves. Making sure animals have adequate nutrition so their immune systems are set up to handle infection is also important. Minimizing stress (protection from bad weather, minimizing transportation or mixing of different groups of animals, low stress handling) can also help keep animals healthier.

If you want to read more information about COVID and animals, the Canadian Veterinary Medical Association has information online (<https://www.canadianveterinarians.net>) as well as the OIE as previously mentioned. Our veterinarians are also available to answer any further questions you may have.



# BC Peace Weather Monitoring Network

*August 2020 Update by Talon Gauthier, Andy Nadler & Keith Uloth*

## Brief History

It was identified in 2014, by local producers in the region, that there was a gap in accessible and agriculturally relevant weather data. Not only would this data be useful to producers but also to industry professionals for determining baseline data for improved monitoring and forecasting of pests and diseases. (see final report <http://www.bcagclimateaction.ca/wp/wp-content/media/PC02-Peace-River-Weather-Data-Report.pdf>).

In 2015 and 2016 the producer groups and regional district approved an initiative to fill the monitoring gaps and enhance access to weather data for real-time, seasonal, and long-term decision making. During that time 16 stations were added and 2 were relocated across the region to the existing network of 7 (making 23 total) and a website was developed to access the agriculturally relevant weather data and decision support tools (<http://www.bcpeaceweather.com/>).

Since then the commodity groups in the region have been working collaboratively to:

- ♦ Increase the functionality and utility of the website.
- ♦ Train a local individual to perform maintenance and troubleshooting on stations.
- ♦ Develop a long-term strategy to fund ongoing data collection and access to data.

## Where We Are Today

The BC Peace Agricultural Weather Network is housed at [www.bcpeaceweather.com](http://www.bcpeaceweather.com) and contains several key features listed below:

1. The current and historical information is available on a website for any person or industry wanting/ needing access to rural Peace Region weather. There are no subscription fees or complicated accounts preventing access to information.
2. There are stations set up in several rural communities throughout the North and South Peace region and more are planned to be added to keep increasing the capacity of the network and servicing more users.
3. Users have access to historical data which may be needed for a variety of situations such as claims to crop insurance, litigation issues with other industries (i.e. oil & gas) or to assist researchers/ government when developing models or trends.
4. The PRRD Emergency Management team can access all information to assist in drought/flood risks and city residents could use the information to inform them of potential weather disasters.
5. There are weather tools and models on the website to assist farmers in making in season management decisions. These tools include

fusarium Head Blight model (disease in wheat), Wheat Midge model (economic pest in wheat) and growing degree days (indicating when a crop will reach maturity).

6. Users can set up their own alarms to alert them to a variety of weather events such as a heavy rainfall, an early frost, or high wind occurrences.

Local commodity groups and the regional district are continuing to work on the network to improve the users experience. There have been some bumps and data glitches along the way but an agricultural meteorologist, Andy Nadler with Peak HydroMet Solutions, was contracted in the spring of 2020 to resolve all data issues and set up a basic data quality control system.

## Aug 2020 Report from Agricultural Meteorologist

**Rainfall discrepancies:** The [bcpeaceweather.com](http://bcpeaceweather.com) website has been showing rainfall values that are not consistent with what the stations have been measuring. Addressing this issue has been the highest priority. Several iterations of testing, code review, corrections, and re-testing have been performed, resulting in most of the rainfall data now being correct. However, some stations (eg: Rolla) continue to show some anomalies. This appears to be caused by inconsistencies with the actual Davis data feed, which is beyond our control.

The weather stations send data to the Davis WeatherLink portal. The backend system that supports [bcpeaceweather.com](http://bcpeaceweather.com) retrieves current weather conditions, along with cumulative rainfall using Version 1 of Davis's API (application programming interface). V1 does not provide any historical data. Within the past few weeks, Davis announced that their Version 2 API will work with the type of weather stations that are in the BC Peace. This version allows retrieval of historical data and permits querying of rainfall in different formats. We are currently investigating the feasibility of implementing Version 2. This would improve the overall data handling.

## Website User Experience

The [bcpeaceweather.com](http://bcpeaceweather.com) website does not provide the most ideal user-experience. Specifically, it is not always clear if the weather information being displayed is observed or forecasted. Numerous functionality improvements have been proposed and are in the process of being implemented. Some of these include clearer labelling, improved visualization, and easier navigation.

# BC Peace Weather Network *continued*

by Talon Gauthier, Andy Nadler & Keith Uloth

## Point-Based Forecast

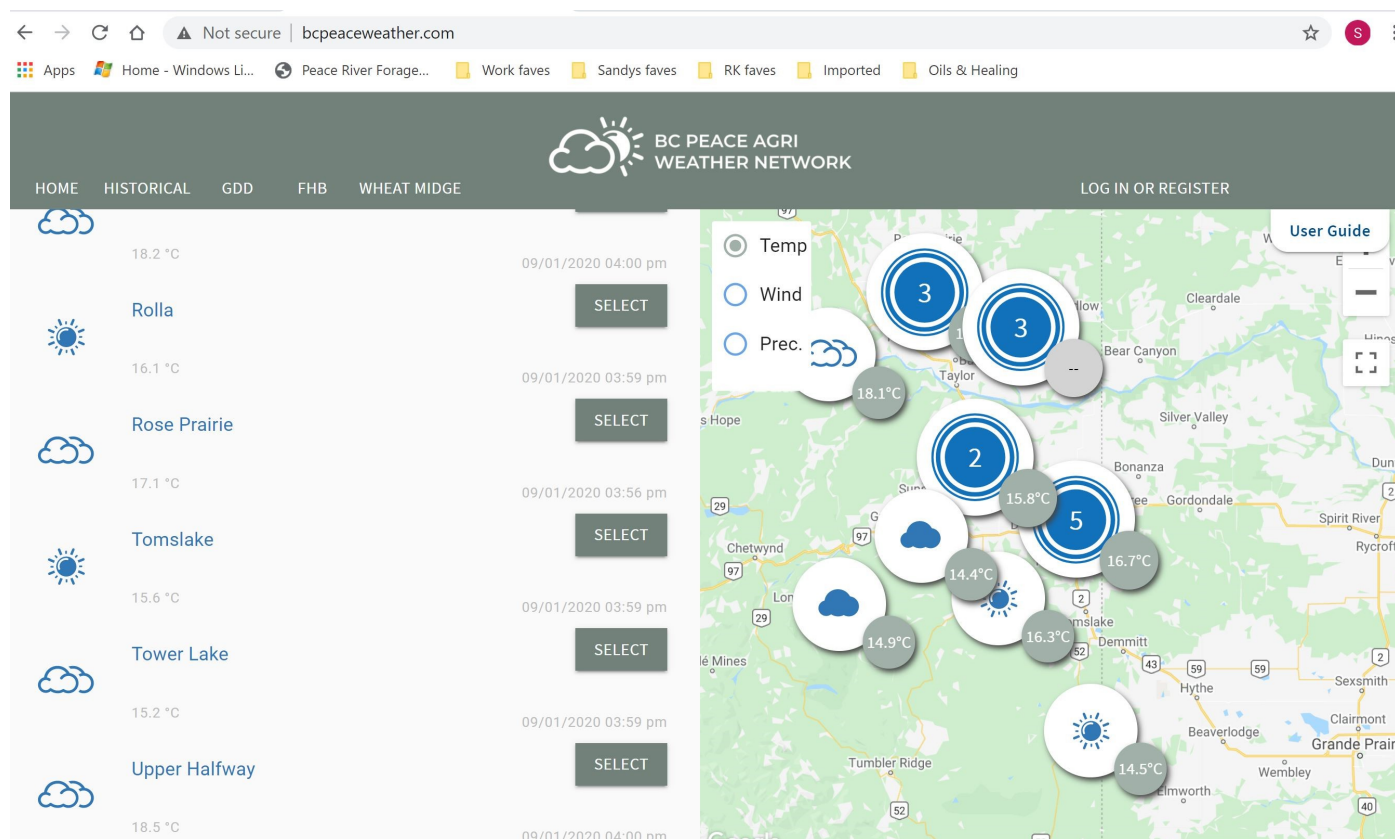
One of the original objectives has been to implement a point-based forecast in favour of a regional forecast to better represent the spatial variability of weather. Several forecast providers have been assessed.

## Basic Data Quality Control System

Data quality control (QC) allows administrators to rapidly detect possible errors in the weather data or stations that are offline. A basic stand alone QC has been developed to assess the timeliness, accuracy, and consistency of certain weather parameters. This platform will serve as a starting point for a more comprehensive system that will be proposed later within the project.

## Next Steps

The main tasks in the coming months will be to set up the most optimal method of ingesting weather data to bcpeaceweather.com. At the same time, several enhancements to the website will be implemented. The new localized forecast will also be incorporated. As the above tasks get completed, we will look to add new features and functionality to the website. These could include new decision support tools or new methods for users to access the information, such as receiving automated reports. The physical network will also be assessed to determine if there are certain adjustments or improvements that should be considered. In addition, a plan for knowledge transfer will be developed. As extension events get scheduled, we will want to ensure that the weather program gets promoted. Priorities will be based on input from the project partners and will be reviewed in the upcoming meeting that is to be scheduled for next month.



Website screen capture of home page of <http://www.bcpeaceweather.com>

**Note:** the network consists of a total of over 20 weather stations! This is quite an improvement over the days of 2 choices: the weather at FSJ airport & the weather at DC airport. You can now check out the weather in Bear Flats, Buick, Cecil Lake, Dawson Creek (BCGPA), Doe River, Farmington, Fellers Heights, Flatrock, Fort St. John (BCGPA), Goodlow, Groundbirch, Kelly Lake, Lone Prairie, Montney (Bickfords), Pouce Coupe, Prespatou, Rolla, Rose Prairie, Tomslake, Tower Lake, Upper Halfway.



# Chramostas Host Pasture Walk

*by Heather Fossum*

Chramostas kicked off the first Pasture Walk of the season on August 5th. Amanda and Deny are managing their pastures with horse grazing. They have incorporated bale grazing the last two winters and are starting some rotational grazing with temporary fencing. Amanda is a farrier and grew up with horses in stables and confined pens. Since moving to the Peace she has been exposed to a variety of extensive systems through her clients and their own operation. She has found that many hoof problems, such as white line disease, occur less frequently when animals are managed on a pasture system and given plenty of room to exercise. There was much discussion regarding methods to minimize the sugar content of forage for horse grazing, such as grazing plants that are more mature (more fibrous and less soluble sugars) and grazing in the morning rather than the afternoon/evening (because plants produce lots of sugars during the day via photosynthesis and have the highest levels of sugars during the afternoon/evening).

Matthias Loeseke and Aaron Mackay from Blackbird Environmental demonstrated a drone in flight and explained how a near infrared camera can detect photosynthetic activity which can be used to show production levels across a field/ pasture. Displaying this information on maps can help producers understand production variability within a field/pasture and help determine what locations can be targeted for improvement. Matthias & Aaron also contributed to a discussion regarding the importance of organic matter in regards to water infiltration and water storage in soils. The manure and hay left over from bale grazing contributes fertility and organic matter to the soil which in turn (1) helps more rainfall infiltrate vertically into the soil (instead of running off parallel) and (2) acts as a sponge to help hold the moisture in the soil pores for the plants to access when they need it.

Deny showed an innovative water system using rain water collection from buildings, underground water tanks (buried below a depth of five feet), an insulated culvert water trough and a water outlet. He plans to build a dugout for the water outlet to flow into as one big rain fall easily fills up his current underground water storage tanks.

Deny also took us to a second pasture that they sprayed with Ally to control the alsike clover. Identification markers for red, alsike and white clover were given. Amanda and Deny explained that alsike clover is the **only** culprit in terms of clover poisoning for horses. In the future, they plan to cross fence and mow the pasture to reduce the willow.



Amanda Chramosta discussing hoof health on pastures.



Deny Chramosta digging up some soil in a field with bale grazing & Amanda Chramosta discussing horse grazing.



Deny and Matthias looking at alsike & red clover.

For more information see Forage Fact #114 M&Ms of Controlling Alsike Clover on our website at this link:  
[http://www.peaceforage.bc.ca/forage\\_facts\\_pdfs/FF\\_114\\_ControllingAlsikeClover.pdf](http://www.peaceforage.bc.ca/forage_facts_pdfs/FF_114_ControllingAlsikeClover.pdf)



# Neil Ward Hosts Pasture Walk, August 6<sup>th</sup>, 2020

by Samantha Dilworth



Neil Ward (far right) discussing grazing management.

Cattle ranchers are making a movement towards better quality forage, longer & more productive grazing seasons and more profitable land. Neil and Chelsey Ward are also interested in turning methane gas burps and the manure from their rears into soil sustaining nutrients.

Round Up 80 Ranch purchased the Halfway Ranch in 2014. The Halfway Ranch was an over grazed 8800 acres that only had the ability to sustain 500 head of cattle. As of August of 2020 the Halfway Ranch is running 1000 head of cattle on their abundantly lush, nutrient rich 8800 acre, while haying another 3300 acres.

How has this been possible?



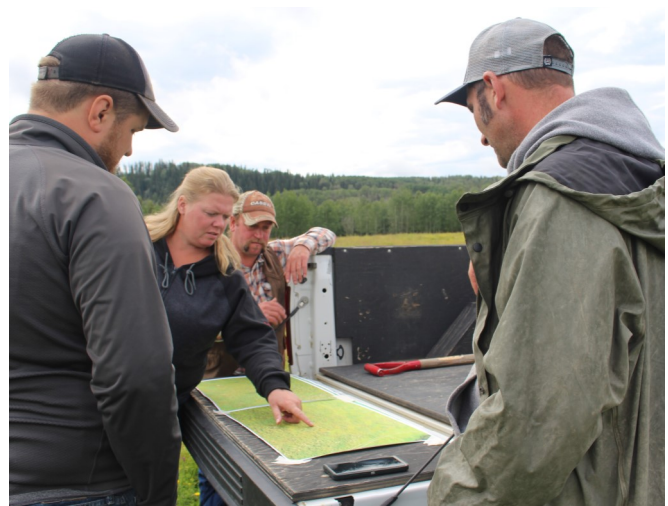
Neil Ward demonstrating his electric fencing tester.



Neil bale grazes to improve his organic matter & topsoil.

Answer: They introduced controlled and timed rotational grazing to areas that need improvement. This is done by using The Range Ward Power Grazer portable fencing system. This electric fencing towable unit has been designed and tested by Norm and Neil Ward. You can learn more about these quality designed units at [www.rangeward.ca](http://www.rangeward.ca).

With our long winters in the North, Neil is also using bale grazing to increase the organic matter and nutrients being put back into the soil. The areas where residue is left, from bales and cattle, are easy to distinguish by the lush green forages that grow in the spring and summer. It will be great to see all the improvements that come as the years pass.



Aaron Mackay, Shannon Moobis & Neil Ward use aerial imagery to discuss rotational and bale grazing.

# Cocktail Cover Crops at Dan Martins & Andrew Millers

*by Heather Fossum*

## **August 27, 2020: Baytree Cocktail Cover Crops with Julie Robinson and Akim Omokanye.**

Cocktail cover crops are being used by producers for multiple reasons. Increasing soil nitrogen, improving water infiltration, enhancing soil moisture retention, enriching soil organic matter, supplying a large volume of diverse forage, and providing high quality fall forage are a few of those reasons. Species within a mix are selected based on their compatibility and the goal of that cocktail cover crop. We started off the morning at Dan Martin's and viewed three fields that he had seeded cocktail cover crops into this spring. Mr. Martin lives near the border; he has a 200 cow/calf operation and grazes his yearlings. He is an experimenter and regenerative agricultural enthusiast, who learns toward organic production but is not certified.

The first field was seeded (zero till drill) with a cocktail cover crop of annual grasses, brassicas, annual clover and hairy vetch on May 26th. This perennial grass/alfalfa field (25ac) had been bale grazed the winter before, and the goal of seeding was to have production this season in the areas with heavy residue to extend the grazing season.

Akim Omokanye (Peace Country Forage Beef and Forage Association, Fairview) helped identify various plants in the cocktail cover crop such as: turnip, radish, hairy vetch, buckwheat, berseem clover, forage brassica, sunflower and annual ryegrass. He also went over a few of the qualities that make them beneficial for use as a cover crop. For instance, buckwheat is a productive species that is fast growing and can help with weed control. Hairy vetch is a competitive winter annual that adds nitrogen to the soil and can produce stems 5-10 feet long at the end of the growing season. Mr. Omokanye will be establishing test plots on this field in 2021 for oats, peas, triticale, winter annuals and cocktail cover crop species.

Julie Robinson demonstrated a penetrometer, which is a soil probe tool that can estimate pressure needed to penetrate soil layers. It mimics root growth through the soil and helps determine a potential for compaction and water infiltration. Penetrometers can be purchased for under \$500 and used to show if farm practices/management are impacting water infiltration within the field. Julie measured an area with lots of bale grazing residue that measured under 300 which shows good water infiltration. Then she tried areas away from the bale grazing residue and they measured 350 for the top 4 inches of the soil which indicates less water infiltration. Mr. Martin believes this compaction is due to spring feeding. Another method to measure water infiltration is to hammer a can into the ground (with no bottom or top), time how long it takes for a known volume of water to infiltrate twice. Then this can be repeated later to determine if water infiltration has improved (less time) or not (more time).

Julie Robinson reviewed the costs of cocktail cover crops. Most producers are spending \$30-\$50/ac to seed cocktail cover crops and comparatively the range for oats is \$16-\$20/ac and for an oat/pea mix is \$25-\$36/ac. Is it cost effective to seed cocktail cover crops when you compare it to the costs of oats or peas? Again, it depends on the reason for the cocktail cover crop. If it is seeded entirely to produce biomass then maybe not; but if it is seeded to help fix nitrogen, enhance soil health, improve water infiltration, increase organic matter, control weeds or provide high quality fall forage then maybe it is cost effective.

In the third field Mr. Martin seeded a mixture of crimson clover, berseem clover, sorghum sudangrass, Red Proso millet, hairy vetch and annual ryegrass which he silage (bale wrapped) mid August.

We then continued east towards Andrew Miller's, who has a cow calf operation. He is a dedicated rotational grazer, buys all of his feed and has seen many improvements to his pastures through bale grazing. However, he has become tired of feeding from Oct 1st-May; therefore, he is looking at ways of extending his grazing season and using cocktail cover crops to help achieve that.

The field we visited had been bale grazed last winter and "knocked" down by yearlings in the early spring in preparation for seeding the cocktail cover crop on June 12th (zero till drill,  $\frac{3}{4}$ " depth). Over 11 species were selected for the mix, including Haymaker oats, forage brassica, hairy vetch, turnip, and buckwheat (supplied by South Peace Grain). Mr. Miller's goal is to swath graze the cocktail cover crop in early winter, thereby extending his grazing season and reducing the hay he needs to purchase. Due to the incredible amount of rain in June/July the cocktail cover crop is less productive than expected but the existing perennial forage made up for it. Mr. Miller is still considering swathing the field for winter grazing.

Julie Robinson shared a tray of cocktail cover crop seeds, which displayed the wide variety of seed sizes between species. When considering what to include in your own cocktail cover crop seed mix, it is very helpful to decide on the % plant composition you would like to see first and then convert that to the % seed weight using the Peace Forage Seed Tool on the Peace River Forage Associations website. Julie is adding all of the cocktail cover crop annual species to the Seed Tool.

The interactive Peace Forage Seed Tool can be accessed through the link on the front page of our website or directly by linking to: <http://www.peaceforagetool.ca/>





Dan Martin explains seeding into a winter feeding area.



Akim Omokayne discusses high quality fall grazing with cocktail cover crops. Cattle will eat even the turnip bulbs.



Andrew Miller explains extending his grazing season.

### Baytree Cocktail Cover Crops hosted by Dan Martin & Andrew Miller with speakers Julie Robinson Akim Omokayne



Some cocktail cover crop species (from left to right): turnip, forage brassica, buckwheat, hairy vetch and crimson clover.

### Montney Cocktail Cover Crops Pasture Walk hosted by Earl, Doreen & Shaun Cusack with speaker Julie Robinson



Earl Cusack (center) with Mathew Robinson & Aaron Mackay discussing soil compaction.



Seed sizes vary widely between cocktail cover crop species. When choosing a blend with your seed supplier first discuss the amount of each species by **% composition** (what you would like to see growing) rather than by % seed weight.



Doreen Cusack with granddaughter Gracie Robinson.

Funding for these Technology Transfer Project field days has been provided by BC Hydro's Peace Agricultural Compensation Fund.

In addition, the 2 field days about cover crops on August 27 in Baytree & on September 1 in Montney were jointly funded through contributions from South Peace Grain.





# Time to Feed Test & Make A Winter Feed Plan

by Lori Vickers

## Making a Winter Feeding Plan - Step 1: Feed Testing

The days are getting shorter, the mornings are cooler, the hay is being stacked (or set out for bale grazing) and the animals are being moved closer to home for the winter. It is time to start to think about a winter-feeding plan. Feed is one of the largest expenses incurred when it comes to taking care of any type of livestock. Feed testing is the only way to evaluate the quality of the feed to make balanced rations for our livestock. Feed tests will help to determine what feed to feed which animals, when to feed it and what type of supplements might be best paired with the forage. Having a well thought out feeding plan and forage analysis is the best way to manage an effective feeding program to achieve your management goals over the winter months and ensure animals thrive.

**Equipment needed:** Forage probe, clean bucket, ziplock bags, permanent marker, shipping box

### Feed Testing

The feed analysis is only as good as the sample that you take. You need the right tool for the job.

First step is to obtain a feed probe or core sampler. These are sharpened tubes that collect a more accurate representation of the forage by collecting all the leaves and stems into the core of the bale. In contrast, a grab sample (using your hand to grab a handful of feed) often misrepresents the forage as when you grab the hay sample, the fine leaves are quick to fall off onto the ground. Feed probes can be borrowed or rented from the Ministry of Agriculture offices in Fort St John or Dawson Creek or from the Peace Region Forage Association. Call ahead to make arrangements.

Next, you need to identify your forage inventory by lots. A 'lot' of hay or silage is forage that is expected to be very similar: i.e. cut from the same field, the same maturity at cutting, a similar mix of forage species or a similar amount of rain damage. Each lot of forage should be sampled separately and receive its own analysis.

For each lot of forage, take 10-20 core samples from different bales spread throughout the stack. Empty each core sample into a clean, dry bucket. Mix all your accumulated samples and empty the entire contents (including the fine pieces at the bottom!) into a clean Ziplock bag. Close the bag and clearly label it.

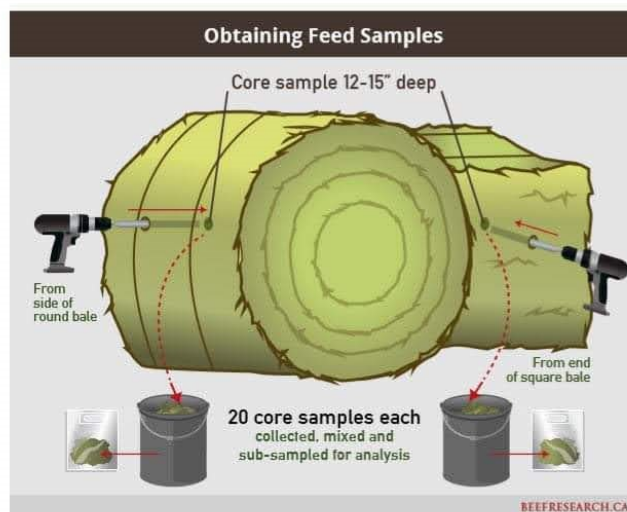


Diagram showing how to feed test. Source: BCRC website <http://www.beefresearch.ca/blog/its-time-to-start-thinking-about-feed-testing/#AlbertaBeefForageGrazingCentre>

To maintain the sample moisture level, put the hay samples you took into the fridge and any silage sample into the freezer until you are ready to send them off.

### Sending Feed Samples for Analysis

There are no local labs that do forage analysis, but there are many across Canada. Contact your lab of choice for current pricing, packages available and add-ons (such as nitrate testing or testing for sugars). Remember to pick a package appropriate for the species you are feeding. Most are designed for ruminants (cattle and sheep). If you are testing hay exclusively for horses, pick an equine package.

Here are a few **labs that do forage testing**:

1. **Nutrilytical**, Calgary, AB <http://nutrilytical.ca>
2. **A&L Canada Laboratories**, London, ON [www.alcanada.com](http://www.alcanada.com)
3. **Fraser Analytical**, Abbotsford, BC <http://fraseranalytical.com/>

For more information see Forage Fact #18 Feed Samples: Only as Good as the Sample You Take [http://peaceforage.bc.ca/forage\\_facts\\_pdfs/FF\\_18\\_HowtoFeedtest.pdf](http://peaceforage.bc.ca/forage_facts_pdfs/FF_18_HowtoFeedtest.pdf)

If you want to chat any more about feed sampling or testing, please reach out! Have your feed test results ready by the PRFA AGM to take part in our upcoming discussion about building a winter feeding plan. See next page for details about AGM & the upcoming nutrition courses and coordinated shipping rebates.

# Upcoming Forage Events in BC

## Time to Test Your Feed & Register for Winter Feed Planning Courses

### Submit Feed Samples & Register for Feed Courses

\$50 Feed Course registration fees for members only.

**Deadline: Nov 1, 2020**

### Feed Probe Rental & Sample Drop Off In

**Fort St John:** coordinate with BC Agri Lori Vickers, 250-219-2715.

**Dawson Creek:** South Peace Grain at 250-782-7820.

### Cost for feed samples for paid up members

PRFA will cover up to \$50 worth of costs (sample analysis + shipping) for the first 20 registered participants.

Producers need to pay for all sample analyses with **A&L Canada Labs** up front & rebates will be sorted out at the feed courses.

### Recommended Lab Analysis from A&L Canada

#### Ruminant feed analysis:

FF2 Complete Feed Package approx \$50.

Includes Dry Matter, Moisture, Crude Protein, Soluble Protein, ADF-CP, UIP, ADF, NDF, Calcium, Phosphorus, Magnesium, Potassium, Sodium, Sulfur, Copper, Manganese, Zinc, Iron, Calculated Values (TDN, NEL, MEM, MEG, RFV, NFC)

#### Equine feed analysis:

F2H Equine Forage Complete Package approx. \$52.

Includes Dry Matter, Moisture, Crude Protein, Soluble Protein, ADF-CP, UIP, ADF, NDF, Calcium, Phosphorus, Magnesium, Potassium, Sodium, Sulfur, Copper, Manganese, Zinc, Iron, Calculated Values TDN, Equine DE, NFC + NSC (Sugars included)

Nitrates, silage or other add ons can be requested for extra fees

### Feed Courses Dates

#### All Ruminants:

**Wed Nov 18, 2020**

12:30 to 4:30 pm  
Fort St John, BC

**Wed Nov 25, 2020**

12:30 to 4:30 pm  
Dawson Creek, BC

Cowbytes will be available for purchase. Please let Sam know in advance.

#### Horses:

**Thur Nov 26, 2020**

12:30 to 4:30 pm  
Location to be determined.

\$50 Feed Course registration fees for members only.

**To register** or for more information call or text Sam Dilworth at 250 784 4764

**Please Note: this year's PRFA of BC AGM is on December 1, 2020**

- Two Options: 1. Participate virtually (on-line) OR  
2. Attend at the Farmington Community Hall (there will be a cap on attendance)

#### *Tentative Agenda:*

3:30 p.m. Livestock Nutrition & Interpreting Your Feed Tests: A Discussion led by Lori Vickers

6:30 pm AGM of Peace River Forage Association

7:30 pm PRFA Board of Directors meeting to follow

**For more info:** Follow updates on our website [www.peaceforage.bc.ca](http://www.peaceforage.bc.ca)  
OR follow us on Facebook OR email [prfaevent@gmail.com](mailto:prfaevent@gmail.com)  
OR call Samantha at 250 784 4764

**We will be following current COVID19 guidelines as set out by the province of BC.**

**Pre-registration is required.** Further details regarding the virtual/ on-line AGM participation will be mailed or emailed to you in November.



We will be following  
current COVID 19  
guidelines as set out by  
the province of BC

# UPCOMING EVENTS



## PASTURE WALKS & FARM TALKS

### **Oct 22, 2020 @ 12:30 Sunset Community Pasture**

Foxtail Barley Treatments and Interseeding on Pipeline in Sunset Community Pasture

Contact Julie Robinson to Register 250-262-7576



## FEED AND NUTRITION

ONE FREE FEED  
ANALYSIS FOR THE  
FIRST 20 PEOPLE  
REGISTERED  
Course Cost \$50

### **Sept 25 - Nov 1, 2020**

Sample Probes & Drop off Locations

**Dawson Creek- South Peace Grain 250-782-7820**

**Ft. St. John - AGRI Lori Vickers 250-219-2715**



### **Nov 18, 2020 @ 12:30-4:30 Fort St John**

**Northern Lights College - Registration Information Below**

All Ruminants Winter Feeding and Nutrition Course

### **Nov 25, 2020 @ 12:30-4:30 Dawson Creek**

**Northern Lights College - Registration Information Below**

All Ruminants Winter Feeding and Nutrition Course

### **Nov 26, 2020 @ 12:30-4:30**

**Exceptional Equine - Registration Information Below**

Horse Winter Feeding and Nutrition Course



## LIVESTOCK HANDLING

CLINIC COST  
\$450.00  
PRFA Members  
recieve \$75 off on  
their clinic cost

### **Nov 13 - 15, 2020**

**Rafter G Ranch - Lara Kelly 250-793-0093**

**Jamie Dodds Ranch Roping & Stockmanship Clinic**

Dry work, and live cattle. You will learn about balance point, flight zone, position, low-stress livestock handling and how to use your horsemanship skills to work cattle effectively develop a proper swing and delivery,



You can find event details:

Facebook Peace River Forage Association of BC

Visit [www.peaceforage.bc.ca](http://www.peaceforage.bc.ca)

To Register for Upcoming Events:

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

Call 250-784-4764





We will be following  
current COVID 19  
guidelines as set out by  
the province of BC

# UPCOMING EVENTS



## LIVESTOCK HEALTH

Course Cost TBA

**Nov 12, 2020 @ 3pm - 7pm**

**Parasite Identification Course -Location to be determined**

More Information To Be Announced



## SOIL HEALTH

Course Cost TBA  
Soil Sample Fees TBA

**Oct 19 - Nov 27, 2020**

**Blackbird Environmental Ltd.**

**Aaron Mackay 778-256-9635**

Soil Samples -Collection & Plot Site Set up

**Jan 16 , 2020 @ 10:00-4:00 Fort St John**

**Northern Lights College - Registration Information Below**

Soils Health and Reading Lab Results Course, 2021 Planning

**Jan 23, 2020 @ 10:00-4:00 Dawson Creek**

**Northern Lights College - Registration Information Below**

Soils Health and Reading Lab Results Course, 2021 Planning



## FARM & RANCH MANAGEMENT

Course Cost TBA

**Weekly Series Dates TBA - Virtual**

Strategizing and Understanding Market Analysis and Livestock Trends with Ann Wasko



## MEETINGS & CONFERENCES

**Nov 18-19, 2020 - Virtual**

Canadian Forage and Grasslands Association Conference

**Dec 1, 2020 @ TBA - Farmington Hall/ Virtually**

Peace River Forage Association - Annual General Meeting



# ALREADY THINKING ABOUT HOW TO FEED YOUR CATTLE THIS WINTER? Think about a **HUSTLER**!



Hustler's self-loading Bale Feeders allow you to equally feed your cattle with the correct amount of dry hay, baled silage, or straw in just minutes without ever plugging, from the comfort of your tractor seat, and you'll only need to feed what your livestock require, saving the rest for the next feeding, ensuring forage is fresh and waste is minimised. Pasture damage is also minimized, and manure is naturally spread throughout the pasture saving you time repairing pasture and spreading manure. Ranchers are seeing hay savings of as much as 40% compared to traditional methods and because the forage is gently teased apart, the leaf with all its nutrition is retained, saving on nutritional supplements.

Give us a call, stop in, or head on over to our website for more information on any of our lines.

**HUSTLER**  
RETHINKING THE EVERYDAY



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**McHale**

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Locations in  
Beaverlodge AB  
Fort St John BC



**# 1 in PRICE # 1 in QUALITY**

**Call us today about**

**FORAGE SEED, INOCULANT, CANOLA**  
**1-800-379-4804**

**Fescue Contracts Available**

**FORAGES:** *PEACE Alfalfa, Brome, Timothy, Clover*

**RECLAMATION AND FORESTRY:** *Custom Blending to your specific use*

**TURF GRASSES:** *Creeping Red Fescue, Kentucky Bluegrass, Perennial Ryegrass*

**LAWN MIXTURES**



# South Peace Grain

Traditional Values. Modern Approach. | [www.spgrain.ca](http://www.spgrain.ca)

## For All Your Livestock Needs



### Livestock Equipment

- Fraser Pacific Gates, Panels & Feeders
- 24ft Free Standing Panels
- Solar Water Buggy
- Cattle Oilers
- ArrowQuip Cattle handling equipment



### OLS Lick Tubs

- #4 Equine Licks
- #9 Bovine Breeder Tub
- #12 Sheep Tub
- #14 Bovine Breeder Tub
- #20 Performance Bull Tub



### Custom Feed Blends

We customize feed blends for a wide variety of species including but not limited to:

Poultry	Pigs
Sheep	Cattle
Horses	Goats

Blends are available in 25kg or mini totes.

**Grain is locally grown & cleaned at  
South Peace Grain**

**NEW** to the SPG line-up

SPG 17.5% Complete Layer

SPG Poultry Grower

SPG Poultry Starter

Available in mini totes & 20kg bags!

**We carry a wide variety of products, including but not limited to:**

- Winter Cattle Mineral with & without Bovatec
- Trace Mineral w/ selenium loose & blocks
- Cobalt Salt loose & blocks
- Poultry 36% supplement
- Oystershell & Grit
- Turkey starter & grower
- Corn, Beet Pulp, Alfalfa Pellets & Cubes
- Soybean meal
- Sheep mineral

**Call NOW to book your  
Winter Mineral**

**Call or check out our website for prices & product lists**

**Borrow our Hay Probe and have us send out your feed samples for testing to help prepare your Winter Feed Program**



[www.spgrain.ca](http://www.spgrain.ca)

Located at RD 213,



250-782-7820

(Spirit River Hwy)



[info@spgrain.ca](mailto:info@spgrain.ca)

Dawson Creek, BC

Traditional Values. Modern Approach.







**THIRD NOTICE**  
**2020 Annual Membership Fee: \$50.00**  
*Membership year is April 1, 2020 to March 31, 2021*

**Contact Information:**

Family Name: \_\_\_\_\_

First Names: \_\_\_\_\_

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

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

\_\_\_\_\_

Postal Code: \_\_\_\_\_

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

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

**Preferred Method of PRFA of BC contacting you:** \_\_\_\_\_

PRFA of BC is subject to the Freedom of Information & Protection of Privacy Act. Therefore this office will not release information to anyone other than those involved in PRFA of BC business, events & information sharing.

◇ **Please check here** if you authorize us to use your information to contact you about events, sharing knowledge & other PRFA of BC business.

**Fellow Forage Enthusiasts please note:**

This \$50 membership fee provides you with 3 to 4 newsletter & information packages mailed out per year (Forage First), copies of our Forage Facts from our research projects, special pricing at our events & member pricing when using our rental equipment.

**Multi-Year Membership:**

Some members have suggested we give you this option. Please check if you would like to purchase your membership for more than one year & make your cheque out accordingly:

\_\_\_\_\_ # of years x \$50 per year = \$\_\_\_\_\_

*Please make your cheque payable to:*  
**Peace River Forage Association of BC**  
**(PRFA of BC)**

*& mail to:*

**Box 955,**

**Dawson Creek, BC V1G 4H9**

or

bring this form & your cheque  
to one of our events.

***Thank you for your support !***

**Main Enterprise & Interest**

***Please check one or more  
that apply to you:***

Beef

Dairy

Sheep

Bison

Horse

Game

Seeds

Hay

Grazing

Agribusiness

Resource Agency

Forage Enthusiast

Association Projects

Industry

Other

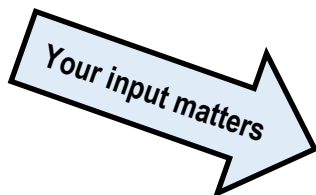
***Please turn to the other side &  
give us your feedback about:***

*What events & topics & speakers  
should we organize next?*

*How should we share information?*

*What would you like to see in a  
future R & D project?*

***Thank you for your time in making  
the Peace River Forage  
Association of BC  
a member driven organization !***



## Feedback From Members of the Peace River Forage Association of BC

Name: \_\_\_\_\_

### Events:

What events have helped you in your operation or business?

☐ tours ☐ workshops ☐ podcasts ☐ other

☐ field days ☐ seminars ☐ webinars \_\_\_\_\_

What events or topics or resource people should we organize next?

What have we done well? What could we improve on?

### R & D Projects:

What would you like to see in a future R & D project?

☐ grazing ☐ rejuvenating ☐ soil health ☐ forage sp

☐ fencing ☐ weed control ☐ other \_\_\_\_\_

What R & D projects or topics have improved your operation or business?

Why were they worthwhile?

If you would prefer person to person please call Sandra at 250 789 6885 or email [coordinator@peaceforage.bc.ca](mailto:coordinator@peaceforage.bc.ca) with your ideas & feedback.

### Sharing Information:

How would you like to hear about events?

☐ mail ☐ newsletter ☐ texts ☐ phone

☐ website ☐ facebook ☐ other \_\_\_\_\_

How do you like getting information & results from R & D projects?

☐ mail ☐ newsletter ☐ texts ☐ other

☐ website ☐ facebook ☐ factsheets \_\_\_\_\_

How often do you want to get information from PRFA of BC?

☐ 3-4 x yr ☐ monthly ☐ weekly ☐ daily

Your ideas will be compiled for the Board of Directors as they develop their next 5 year strategic plan.

Thank you for your time in making the Peace River Forage Association of BC truly a member driven organization !

Peace River Forage Association  
of British Columbia



# Frost Seeding 101

Frost seeding is broadcasting forage seed onto the ground surface while the ground is still frozen in the Peace this can be between Oct 15 – March 31. Frost Seeding has been reported to work 60 to 70 % of the time. Frost seeding is worth exploring because of the cost saving that comes from not needing a seeder. While frost seeding is a less expensive method of seeding forages than conventional seeding, it is also riskier than seeding with a drill because seed-soil contact is more sparse and it produces less uniform stands. One of the advantages of frost seeding is that repeated freezing and thawing of the soil surface causes surface cracks in the soil which allow seed incorporation and helps break the dormancy of hard seeds often found in legumes such as alfalfa and cicer milkvetch.



Seed can be distributed by broadcast seeders that are either tractor or ATV-mount. The optimum for Peace Ranchers is to broadcast seed after the ground is frozen and before the spring melt. Frost seeding works best if pasture/forage residue has been removed prior to broadcasting the seed, to allow the seed to reach the soil surface. Residue removal is best done by grazing late the previous fall. Residue can be removed by grazing or burning in the spring but either may delay seeding. Frost seeding also works well on sites that have been fall prepared with disking or herbicides.

Frost seeding works best for legumes and grasses that germinate rapidly and at low temperatures. Red and white clover is the easiest to establish but we have also had some luck with birdsfoot trefoil in the Peace. Frost seeding alfalfa has resulted in negligible benefits over spring seeding, but some producers think it is best to have the seed there ready to germinate when soil moisture is highest. Frost seeded Italian (annual) ryegrass and orchardgrass have high success rates across Canada. Other grasses have been frost seeded with varying success.

The other key to successful frost seeding is to reduce competition to the new seedlings as they are starting out. It is critical to graze or mow the pasture as the seedlings begin to emerge and whenever the grass gets 8 to 10 inches tall. Some have felt the mowing or grazing would hurt the new seedlings. However greater damage is caused by the shade from the established species if it is not removed periodically during the seeding year.

A SPG Recommended Frost Seeding Hay Mix at 10 lbs /ac \$27.50		
Species	By Composition	Plants per ft2
Birdsfoot Trefoil	17%	9
Red Clover	16%	9
Alfalfa	17%	10
Smooth Bromegrass	25%	14
Orchardgrass	25%	14

Call the South Peace Grain office and talk to Julie Robinson for more information about Frost Seeding 250-262-7576