



Grey  
Wooded  
Forage  
Association

# The Blade

"Creating an Awareness of Forages"



## JANUARY 2016

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Photo credit: Glenn Mainland

### MISSION STATEMENT

To promote environmentally and economically sustainable forage and agricultural practices.

### VISION STATEMENT

The community is engaged in regenerative agricultural production methods.

## Message from the Chair

By Ken Ziegler



Hi everyone! Hoping that winter has been treating you well so far and that your cows are still happy. We certainly have been having an easier time so far and are very fortunate considering the feed prices earlier and the feed savings because of this mild winter.

Ginette and Albert have been working very hard this month offering various workshops, planning events and coordinating the development of projects and events for the coming winter and spring. Ginette has also been putting our three year plan together in concert with the feedback from many of you regarding issues on your farms. Thank you for your input!

Future funding is offering opportunity to enhance the environmental side of what we do on our farms. This will prove to be exciting for those of us that already have a heart for the health of our ecosystems. Society is taking notice and is also valuing what can be done on the land to enhance environmental stability.

Kudos to the chairs of our Projects and Publicity Committees for their creative energy. We are looking forwards to some pretty cool stuff coming out of these committees in the months to come.

Finally, the Grey Wooded Forage Association is taking on a new way of doing meetings. We have incorporated the 'Go-to-Meeting' format that allows us to engage in meetings over the computer from our own homes. This has been especially valuable during these colder winter months with dark evenings and poorer road conditions. This meeting format allows us all to dial in to discuss the many important issues without ever starting an engine. This also allows us to start the meetings a bit earlier and end later being that we would have been driving instead.

Thanks again to the many contributors of this newsletter! We appreciate your willingness in assisting us in putting this newsletter into a practical and informative piece of work!

Ken



# Save the Date!



**Annual General Meeting**  
**Saturday, April 30, 2015**  
**Eckville Community Centre**

**Watch for more information**  
**in upcoming issues of The**  
**Blade and on our website!**

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



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### *EMF Nutrition & Rocky Feed Solutions* *Meeting*

**DATE:** Thursday, February 4th  
**TIME:** 5:30pm  
Supper is provided  
**VENUE:** Rocky Mountain Legion  
4911 49th St.  
Rocky Mountain House, AB

**Speaker:**

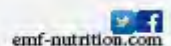
Alin Friedt - Ruminant Nutritionist, EMF Nutrition

**Topics:**

Lick Tub Utilization & Calving Nutrition

Please **RSVP** to Rebekah 403.741.9714 or Rocky Feed Solutions 403.845.7766 by **January 29th**

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## Manager's Notes:

*By Ginette Boucher, Manager*

### Greetings & Happy New Year!

So far winter has been mild, enabling us to get some work done on the farm. The wildlife are grazing in the fields and the nice days are reducing wildlife mortality. This is good for next year's hunting season. The days are beginning to get longer and spring is just around the corner.

We are gearing up for an exciting year at Grey Wooded and are developing our next three year program. The AOF program application deadline was extended a couple more weeks, which is giving us more time to gather survey information. We have received about ten percent feedback on the survey that was emailed out through our digital email marketing system. If you haven't replied it is not too late to do so. The more survey results we have the better our program outcomes will be. At the bottom of this message will be the questions. For those who do not have an email, feel free to call us with your answers. We really need to hear from everyone.

In order to get different results, we need to make changes. GWFA has decided that it is imperative that we contact our members and you can expect to be hearing from our Forage & Grazing Specialist in the coming months. He will be available to discuss production method options and offer his assistance to each and every one of you. This is your opportunity to have some individual time and get some of those questions answered. Should you not require any assistance, then perhaps some neighbors may have some questions that could be addressed.

We have recently purchased some software which gives us the ability to put on some webinars and go to meetings without having to travel. We will continue to put on events and activities, but should two or three producers want to gather around the kitchen table and have some production discussions, all you need to do is ask the question. We can then use this software, and have a real time online discussion. All you would need is having access to the internet. We plan to utilize this software in many applications. For instance we could have a guest speaker from a distant location and run a webinar. We have been using



the 'Go to Meeting' software for reducing travel during the winter months, for our Board and committee meetings. This reduces travelling cost and time for GWFA and for Board members. We have found that our meetings are very effective, and productive. We still plan to meet in person starting in the spring until late fall.

While we are on this topic of Directors, we are looking for some new Board members. Because we serve such a large community, including six counties in central Alberta, we feel that the 'Go to Meeting' option will open opportunities for members to participate at the Board level, who generally wouldn't consider the option, due to the travel and time requirements. Please consider being a Board member if you have something to contribute to the growth of GWFA and assist in its future. We really need some producers that want to make a difference.

In order to continue to grow our membership, we would like for you to give thought to our member services. With our AGM coming up on the 30<sup>th</sup> of April, this would be a good time for this discussion. Also, please give thought to the membership fees. We will need to have a brief discussion in this regard. If we can provide additional services that you value, please let us know. We are here to serve our members and deliver our mandate. With regards to the AGM, it would be great to get your ideas. Being a Saturday, we hope that we would get a much larger attendance. We will of course share a meal and fellowship and have our annual business meeting. We would like to bring in a guest speaker. Please let us know what would be a great topic that would interest you.

In closing, I would like to share this picture with you of the little fishing trip I was on during the holidays. I went to Horsefly Lake in Lethbridge with a dear friend and this was the outcome.

Wishing you all the best in 2016.

*Ginette*



# Please help us meet your needs!

## URGENT!

### Please answer these few questions for us:

- What are the most critical needs that GWFA can assist your operation with?
- What events/ activities would you like to see GWFA host or help organize in the next 3 years ?
- What is your preferred method of delivery (online webinar vs. in-person) for information sessions?
- What topics would you like to see covered in The Blade?
- How can GWFA work with the agricultural business community to deliver relevant information to producers?

**Your answers are important to the future of our program! Your answers can be emailed to us, phoned in, or mailed to our office. Our contact information is on the front cover of this publication.**

# A Summary of Forage Fertilization Research

Just recently I came across some interesting information on the Beef Cattle Research Council (BCRC) website. BCRC is the only national beef cattle research agency we have in Canada. BCRC's role is to identify beef cattle research priorities in Canada. The agency is funded by beef check-off dollars from across Canada.

Anyhow, I came across some information on fertilization of forages based on several research projects from the last forty years, or so. What they found was that yield responses to fertilizers was highly variable, so they couldn't come up with standard yield responses from which economic benefits of fertilization of forages could be charted. Basically, strong evidence for economic benefits of fertilizing forages are not available.

Back in 2002, a research scientist by the name of S. S. Malhi found that fertilizing straight brome-grass with nitrogen could have considerable economic benefits. Applications of nitrogen on brome/alfalfa mixes, however, produced some economic benefits if fertilized at a rate of 50 kg/ha, or less. He also found that there was no economic benefit of nitrogen fertilization of pure alfalfa stands. Around 2009, another research scientist by the name of Khakbazan, showed fairly similar results.

These studies were done on forage stands harvested as hay in two cuts. Pastures, however, are more difficult to measure fertilization responses on. A researcher by the name of J. C. Kopp showed that fertilization of meadow brome pastures and seeding of alfalfa into meadow brome pastures both increased pasture carrying capacity, however were only economically feasible when there was sufficient rainfall.

It was found that residual effects of fertilization could last up to three years, suggesting that fertilizer response data should be collected over a three year period. Another research scientist, R. P. Zentner, did a five year study that showed that producers could fertilize brome-grass with a financially optimum rate that was higher than most producers were using.

It was also found that fertilizer was more economically feasible on poorer soils, like grey wooded soils, than on better black soils. Longer trials, however, showed considerable variations in the results.

Besides the biological factors of soils, weather and temperatures, economic factors like land values, hay prices and fertilizer prices also had an effect on the financial feasibility of using fertilizers on forages. We all know only too well what's been happening with fertilizer prices in the last decade or so. With potential financial benefits of fertilizer being so variable, the risk of the value of additional yield not covering the cost of fertilizer would be only too real.

It was also suggested that you can increase the amount of fertilizer you use on hay land when hay prices are high. Makes sense - higher returns can cover higher input costs profitably.

There's only one problem with that scenario though, prices of hay tend to be highest during a drought. When in a drought, water tends to be the main limiting factor, regardless of how much fertilizer is applied.

*Albert*

## References:

- [Malhi, S. S., R. P. Zentner, and K. Heier. "Effectiveness of alfalfa in reducing fertilizer N input for optimum forage yield, protein concentration, returns and energy performance of bromegrass-alfalfa mixtures." *Nutrient Cycling in Agroecosystems* 62.3 (2002):219-227.
- Kopp, J. C., W. P. McCaughey, and K. M. Wittenberg. "Yield, quality and cost effectiveness of using fertilizer and/or alfalfa to improve meadow brome-grass pastures." *Canadian journal of animal science* 83.2 (2003):291-298.
- Malhi, S. S., et al. "Fertilizer management of forage crops in the Canadian Great Plains." *Recent Res Dev Crop Sci* 1 (2004):237-71.
- Zentner R.P et al. July 1989. "The Economics of Fertilizing Bromegrass in Saskatchewan" *Can J. Plant Sci* 69:841-859
- Malhi et al. (2002) "Effectiveness of alfalfa in reducing fertilizer N input for optimum forage yield, protein concentration, returns and energy performance of bromegrass-alfalfa mixtures."; Malhi et al. (1992) "Response of alfalfa hay yield to phosphorus fertilization in two soils in central alberta."; and Lkhagvasuren et al. (2011) "Plant and soil responses to nitrogen and phosphorus fertilization of bromegrass-dominated haylands in Saskatchewan, Canada."

## Winter has arrived...

## Join our Winter Feeding Strategies Workshop!

There's more than one way to feed a cow (sheep, goat) and more than one place to do it. Register for this workshop and gain useful winter feeding knowledge including:

- Winter feeding options and some production benefits
- Wintering site selection and management considerations
- What if you want to relocate a confined feeding site? Why would you?
- Learn from other producer's experiences

### When

Thursday, January 21, 2016  
12:00 p.m. - 3:30 p.m.

Lunch Included

### Where

Glen Park Hall  
(49004 - RR 274, Leduc County)

### Cost

FREE!



Contact Kim by phone at 780-387-6182 or email at [kimb@leduc-county.com](mailto:kimb@leduc-county.com) or [kbarkwell@county.wetaskiwin.ab.ca](mailto:kbarkwell@county.wetaskiwin.ab.ca) to register.

**Registration is required by January 18, 2016!**

**For sale approximately 195 plastic wrapped 4'x5' barley silage bales** processed by Krone silage maker. The barley was on breaking so has some alfalfa & grasses in it. Moisture content is below 40%, bales weigh about 1500 pounds. Located in Sylvan Lake area. Price negotiable, contact **403-357-9831**.



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AWES is a non-profit society that is a joint venture between government, industry, and conservation agencies. Our mission is to increase the awareness of the economic, social, and environmental values of agroforestry and woodlots within the landscape by providing project support and extension services such as workshops, tours, and consultations to landowners, land stewards, and others who influence land use practices in Alberta.

**For more information on our planting programs and services, please feel free to contact us.**

**Office: (780) 643-6732**

**Email: [info@awes-ab.ca](mailto:info@awes-ab.ca)**

**Website: [www.awes-ab.ca](http://www.awes-ab.ca)**



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## Forage & Grazing Points to Ponder

By Albert Kuipers,  
Forage & Grazing Specialist



Back in December, along with some 400 other attendees, I had the privilege of attending the Western Canada Conference on Soil Health. Featured at this conference were some of the leading soil scientists and producers in North America. Presentations ranged from the basics of soil health to complex soil research to farmers' experiences on their own operations. Here's a bit of a run-down of what was presented at the conference.

While much attention has been given to the physical and chemical properties of soil over the six or seven decades, soil biology has been left behind. In fact, common tillage practices, monoculture crops and high levels of chemical fertilizer and pesticide inputs we've used for many years have had a damaging effect on soil biological communities.

You could say soil health is kinda like a three legged stool, with physical, chemical and biological properties being the legs. Shorten or remove any one of the three legs and the stool falls over and becomes useless.

Parent materials determine quite a lot of a soil's physical properties. However, microbial action is responsible for the breaking down, or the decomposition of parent materials into soil particles. Physical properties like aggregation, aggregate size and porosity are results of microbial action. Basically, soils are the product of microbial action.

Soil biological processes and interactions are what gives soil life. Plants and soil organisms depend on each other for food. Plants make sugars through the photosynthesis process. These sugars are secreted by the plant's roots and are food for microorganisms like bacteria and fungi. These organisms exchange nutrients that the plants need for the sugars.

Then there are all the organisms involved with decomposition of organic materials, plant and animal. There are many interactions of many different species of organisms from dung beetles and earthworms to bacteria and fungi involved here.

One of the main contributors to the effectiveness and diversity of soil organisms is the diversity of living, growing plants and their different root systems and different ways they interact with the soil organisms. It's that simple - diversity creates diversity.

So, we're now beginning to understand our soils and how they work. To apply this knowledge we need to start somewhere. How will we know if what we're doing is improving, or maintaining soil health?

Before making changes to our soil management, we need to measure our soil's health to get a good understanding of what's working in the soil and what's not.

We have standard tests for physical and chemical properties of soils. These are widely used in agriculture today. Until recent years we haven't had soil tests that include the biological properties of soils in the assessments.

From Dr. Harold Van Es, Professor of Soil Science at Cornell University in New York State, we learned that he and his colleagues and grad students have developed a "Comprehensive Assessment of Soil Health" testing process and report. This assessment system identifies limitations of a soil based on its physical, chemical and biological constraints. From this assessment soil management suggestions are made. Once you have this baseline information you can develop your soil improvement program. Then you can have subsequent assessments done to track your progress.

Dr. Van Es provided us with a number of resources that we can use to learn more about the Cornell system and about soil health for healthier and better crops. Here are some links to this information:

- For further explanation of the Comprehensive Assessment of Soil Health Framework: <http://soilhealth.cals.cornell.edu/extension/test.htm>
- The Cornell Framework Manual is available as a free download at: <http://soilhealth.cals.cornell.edu/extension/manual.htm>
- The soil health textbook titled 'Building Soils for Better Crops' can be freely downloaded at: <http://www.sare.org/Learning-Center/books/Building-Soils-for-Better-Crops-3rd-Edition>
- A 'Berry Soil and Nutrient manual can be freely downloaded at: <http://www.sare.org/content/download/74320/1253195/BerrySoilandNutrientManagementGuide.pdf>

Albert



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# Change Driven by Necessity

*Photo credit: All photos on this page are from the Brown's website at [www.brownsranch.us](http://www.brownsranch.us)*

Are you finding it increasingly challenging to make ends meet on your farm? Are hail, drought, flooding, or low commodity prices killing your profits? You just might want to take a look at how one farm family turned around that downward spiral.

Back in the '80's and early '90's, Gabe and Shelly Brown's operation near Bismarck, North Dakota was much like any other mixed farm. They used all the conventional tools like tillage, synthetic fertilizers, pesticides and fungicides in their cropping operations and used vaccines, wormers, insecticides and supplements in their cattle operation.

Gabe started making some changes around 1994. He switched to zero till and started to use crop rotations, using peas, corn and alfalfa along with the wheat, oats and barley he already produced.

But then hail and drought took most of the crops from '95 through '98. The Brown's came pretty close to losing the farm. This got them looking at ways to change what they were doing as they couldn't even borrow operating money to pay for crop inputs. They had to make big changes if the farm was going to survive.

There's a saying, or proverb that Gabe shared with us when he spoke at the recent Western Canada Conference on Soil Health in Edmonton. "If you want to make small changes, change what you're doing. If you want to make big changes, change how you think". Gabe had to make big changes, so he learned how soil functions and changed how he thought about soil and crop management.

Switching to zero till a few years back was just the beginning of a whole lot of changes. Gabe had learned that tillage is destructive to soil aggregates. The pores in soil aggregates are the habitat for most of the soil's biological life. They allow air and water to be absorbed into the soil as well.

Gabe also learned that the soil needs to be covered by plant residue at all times. This regulates the temperature of the soil and protects the soil from erosion. Plant residue also provides food for soil organisms.

Plant diversity is incredibly important for soil organism

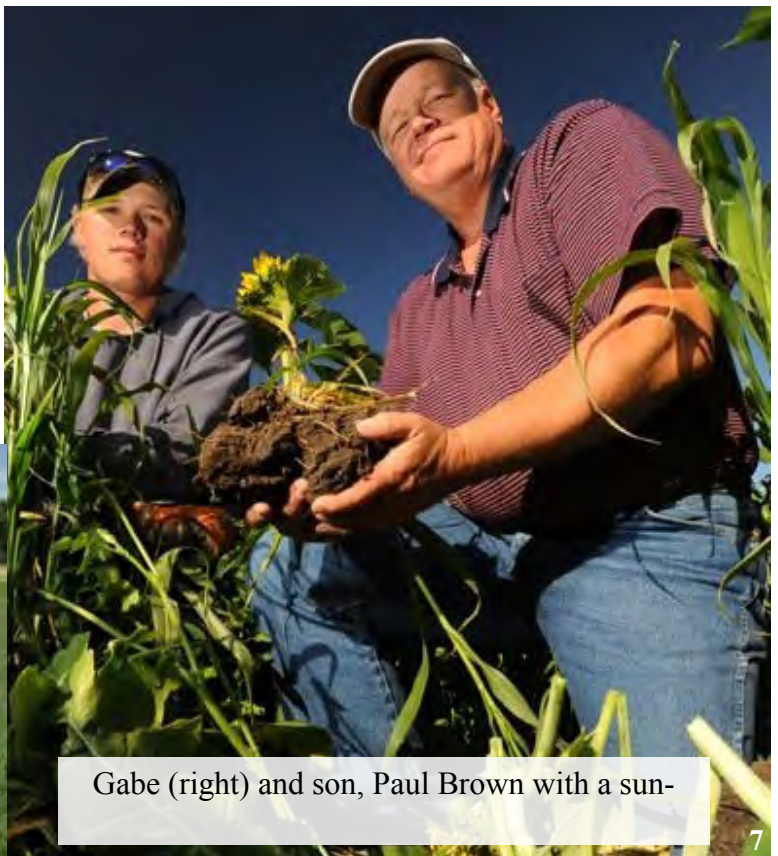
diversity and their interactions with their host plants. Diversity is one of the biggest drivers of soil health. Gabe started using a wide variety of plant species to rebuild the soils on the Brown's farm.

Gabe also learned how to have green, living plants covering his soils for as much of the year as possible. Living plants convert sunlight to sugars, or 'liquid carbon'. These sugars are what feeds soil organisms. In turn, soil organisms provide plants with much needed nutrients. Gabe's highly diverse cover crops are important contributors to having living plants living in/on the soil for as much of the year as possible.

Gabe's livestock are also significant contributors to the health of the soil. Their well managed grazing activity drives plants to produce more sugars which feed more soil organisms which multiply and provide more nutrients to plants that grow and convert more sugars. That's how nutrient cycling works.

With all that knowledge Gabe has totally changed how he thinks about soil productivity and farming practices. The Brown's now produce a wide variety of crops and livestock without those costly and destructive inputs. This has not only saved the farm, but has the farm thriving well enough to bring the next generation of Brown's into the operation.

*Albert*



Gabe (right) and son, Paul Brown with a sun-



# Grazing for Soil Health

Another very interesting speaker at the Western Canada Conference on Soil Health was Dr. Allen R. Williams. While we are in times when profit margins are quite slim in today's commodity agriculture, he sees the future of agriculture full of opportunities.

Dr. Williams suggests that discoveries of ways to rapidly improve soil health and environmental health is full of opportunities. Improved water quality, lower input costs, improved livestock performance are some of the benefits that can be realized when using systems that rapidly improve soil health.

Dr. Williams said he used to think of livestock genetics as the first priority, grass as the second and soil as the third priority. Over the years he's come to realize he had it backwards. The soil is now his first priority and soil health is the foundation of all health and success on the farm.

Here are some of the things I learned and/or had confirmed by Dr. Williams about soil health and grazing of livestock. The good Dr. showed us many research based examples of soil health improvements as a result of using what he calls "Adaptive High Stock Density (AHSD) grazing practices.

His first example came from his own farm. He showed us that he was able to increase soil organic matter from less than 1.6% to over 5.0% in five grazing seasons. He also showed that the soil microbial population increased by 400% to almost 700% over those five years.

Increasing biological diversity is a big part of this success. To have a high diversity of microbes you must have a high diversity of plant species in the pasture. Dr. Williams has seen improved plant health, plant growth, plant nutrient density and increased brix (mineral sugar) levels in pastures with highly diverse plant populations. This resulted in improved animal performance on those pastures as well.

Besides his own results, Dr. Williams showed us the results of research done by several of his colleagues. Some of these studies showed that adaptive high stock density grazing improved soil aggregate stability, water infiltration rates, water holding capacity, vegetative biomass production and plant recovery periods.

Other studies showed that pastures grazed using adaptive high stock density grazing management practices actually sequestered more greenhouse gases than were produced by the livestock. This was not the case for continuous grazing practices.

The 'adaptive' component of adaptive high stock density grazing is very important. We all know nature can throw all kinds of curve balls at us. No year is the same as the previous year. Then there are differences in the numbers and sizes of livestock grazed, and even changes in livestock species, or mixtures

of livestock species.

So, why is adaptive high stock density grazing so important? Since about 40% of the earth's surface and 70% of the world's agricultural area is covered by grass, grazing adaptively at a high stock density plays a major role in cleansing water and air, along with the obvious benefits of increased livestock production.

Did you know that 90% of the bulk mass of grass plants is under the soil's surface? Those huge root systems play an important part in soil and environmental health by supporting healthy and diverse microbial populations, increasing water infiltration and holding capacity and preventing soil erosion.

The world's grasslands evolved under grazing by ruminant animals. Before man's intervention and fences, herds of grazing animals were constantly on the move, seeking fresh forages and urged on by predators, allowing lengthy recovery periods. Predators also kept stock density high as their ruminant prey animals bunched tightly as they found safety in numbers, creating the desired animal impact. Adaptive high stock density grazing management is based on these basic principles.

So, whether you're primarily in forage and livestock production, or in a mixed operation, incorporating adaptive high stock density grazing in your operation can have a highly significant effect on your soil's health and productivity and your livestock productivity. If you're into crops only, developing a working relationship with a neighboring livestock producer, or diversifying into forage and livestock production just might improve the health and productivity of your operation in many ways.

*Albert*

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# First Steps of Cover Cropping

## The Basics

There has been growing interest lately in using cover crops. A cover crop is defined as a crop designed to protect and enrich the soil. That's nice, but it would be nice to get some return on the seed. By grazing or haying, it produces good forage supply. There are some other values that cover crops can deliver. Remediate soil compaction, capturing leached nutrients, increase organic matter, nitrogen fixation, weed smothering, salinity control, or creating cover for moisture retention.

Cover crops do not have a recipe. It will relate to soil type, seeding date, seeding technique, moisture, animal types, what was the last crop, what will the next crop be, and other soil issues that need to be addressed. They can be monocultures, simple mixtures of a few species, or a complex mix that includes many species. Actual species will depend on the goals of the cover crop.

Grass species will produce the most biomass in blends. They produce a fibrous root system to help with stabilizing the soil, and are good hosts for mycorrhizal fungi. Grasses are high users of nitrogen. As with other plants, as the plant matures, the carbon:nitrogen ratio widens out as it forms more lignin. As the

plant matures, the residue rots slower. Green vegetative growth rots quickly, where straw rots slowly.

Grass species that are utilized include warm and cool season species. Cool season species include spring cereals, winter cereals, and annual ryegrass. Warm season species include millet, sorghum sudan, and corn.

Broadleaf species produce high quality residue. Most are nutrient scavengers. Roots vary from species to species, ranging from fibrous systems to tap root. They will vary with soil modifying properties with species. Some break up hard pan, acidify the rhizosphere, feed earthworms, smother weeds, while others support mycorrhizae. The group tends to have a tight carbon:nitrogen ratio which means they rot quickly after they die. Once again, as they mature or go into their reproductive phase of growth, lignin increases and the ratio widens, meaning they take longer to rot. These species require high amounts of nitrogen and sulphur.

We have more cool season options compared to warm season options that will grow here. Turnip, radish, forage brassica, kale, forage rape, and Phacelia are cool season broadleaf, while sunflowers, okra, and buckwheat are warm season broadleaf species.

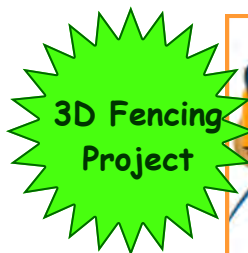
Legumes fix nitrogen. Nitrogen is one of the largest nutrient expenses for most people, so if we have a large enough population of legumes with the proper inoculants in a mix, we can fix "free" nitrogen from the air to feed our crop. Legumes can have various rooting types, fibrous and tap roots. Legumes are high users of phosphate and potassium. They form good mycorrhizal fungi associations, which is the mechanism of how legumes share nitrogen with grasses.

## Step One: Setting Goals

The next challenge is to set a goal for the area to be seeded. Is it for rotational grazing, stockpiled grazing, green-feed, hardpan remediation, salinity control, weed suppression, nutrient cycling, erosion control, or nitrogen fixation? What type of animal is going to utilize it? What soil type? When is it going to be seeded? How? These will determine what species will be selected.



*Sorghum sudangrass, proso millet, Tillage Radish, crimson clover, sunflower, Phacelia mix. Seeding into soil that was too wet to seed in the spring (2014). Seeded field end*



**FOR SALE:** Large round bales of wheat straw, not desiccated.

Located east of Olds.

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# First Steps of Cover Cropping



*Sorghum sudan, barley, kale, forage rape, red clover, oats, Tillage Radish, sunflowers.*

*Seeded for silage, then grazed. Seeded into barley stubble (silaged)*

## Step two: Choosing cover crop types

Once goals are set for growing a cover crop, then the next step is to start selecting species. Species need to match the goals, growth requirements, and growth period. Ideally, a cover crop will create a full canopy above and below the ground.

Seeding date will influence species selection. Seeding warm season crops into cool soil is not as productive as using cool species. Seeding cool season crops into soil with high temperatures, especially warm nights, is less effective than warm season species. Make sure to match the maturity with the estimated time of growth. Having a species that matures too early may not be the best for the mix.

Soil moisture will also influence what species will be used. Some species are more drought tolerant than others. Larger seeded crops will require more water to germinate, so that may influence your decisions. Soil moisture may even delay seeding until moisture is forecasted. This will shorten the time of growing, but if nestled in a drought period, may save wasting the seed.

There is a fine line between waiting for the rain and missing a rain event. Everything has to be ready to seed. It is better to seed it into dry soil and have it rain, than to seed into tempo-

rally moist soil. If it is a full season poly crop for grazing or hay, Mother Nature will dictate what species will excel, next year the same blend may look different because of weather conditions.

Seeding technique may limit choices of seed options. Broadcast seeding large seeded species will have low success rates, where deep seeding small seeded species will not work consistently. Species like fall rye or winter triticale can successfully be broadcast seeded in either high rainfall areas or irrigation. Likewise small seeded species can be successfully seeded deeper than normal if accompanied by large seeded species. The large seeded crops when coming through the soil, will loosen up the soil allowing the small seeded crops to fight through from the deeper seeding depth. This works when the larger seeds outnumber the smaller seeds, and there is decent organic matter. The risk will be if the soil crusts, the small seeded species mortality rates will be high.

If the goal is to fix nitrogen, then pulses need to be a large portion of the blend. Mixing cool season with warm season species will continue to fix nitrogen throughout the growing season. Make sure the proper inoculants are used. Including a deep rooted broad-leaf in the mix helps with diversity, and the roots are excellent scavengers of nutrients. The deep root will bring up free nutrients in the soil and deposit them the next year in the rooting zone as the root rots. Incorporating some grass plants in the mix will help support mycorrhizal growth.

The end use will be another determining factor on what species will be used. Grasses will produce higher tonnes of wider carbon:nitrogen residue. Legumes will produce nitrogen for the soil and high quality biomass, and brassicas will produce a variety of benefits, including high quality biomass. The end use will determine what blend is used. Once the types of plants are picked, the next step would be picking the actual species to be used in the blends.

By Kevin Elm, P.Ag.  
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# Growing Forward 2 for You

## What is Growing Forward 2?

Growing Forward 2 is a federal-provincial-territorial partnership with a mandate to drive an innovative, competitive and profitable Canadian agriculture and agri-food sector.

The five-year Growing Forward 2 policy framework, which came into effect on April 2, 2013, focuses on three priorities: innovation, competitiveness and market development.

Growing Forward 2 programs aim to help the industry position itself to respond to future opportunities and challenges and achieve its full potential as a productive and profitable sector of the Canadian economy.

The priorities and programs of Growing Forward 2 reflect the views of producers, processors and other stakeholders, as heard during a two-year review of Growing Forward that included a significant stakeholder engagement process.

Stakeholders consistently indicated they want Growing Forward 2 to invest in strategic programs focused on research and innovation, environmental stewardship, food safety, biosecurity, business management, market development, traceability, livestock welfare, energy efficiency and water management.

## What does it mean to Albertans?

In Alberta, Growing Forward 2 reflects an increased focus on three areas: research and innovation, competitiveness and market development and adaptability and industry capacity. These priorities,

advocated and endorsed by stakeholders, are essential to the long-term success of the industry.

## What programs are available for producers and accepting applications at this time?

**Business Management Skills Grant Program:** for new or established producers, agri-processing companies and producer groups improve their business management skills, enhancing the industry's competitiveness and sustainability.

**Business Opportunities Program:** for new or established producers, agri-processing companies and producer groups enhance their competitiveness and growth prospects by connecting them with expert business advice.

**Confined feeding Operation (CFO) Stewardship:** helps Alberta livestock operations assess their potential risk to water quality and implement management practices or make infrastructure improvements that positively influence water quality.

**On-Farm Energy Management:** shares the cost of investments that improve energy efficiency on Alberta farms. This enables producers to conserve energy and reduce carbon emissions, ultimately reducing the environmental footprint of Alberta's agriculture industry.

**On-Farm Stewardship:** funds projects that help livestock and crop producers implement on-farm management practices in five areas that positively impact water quality.

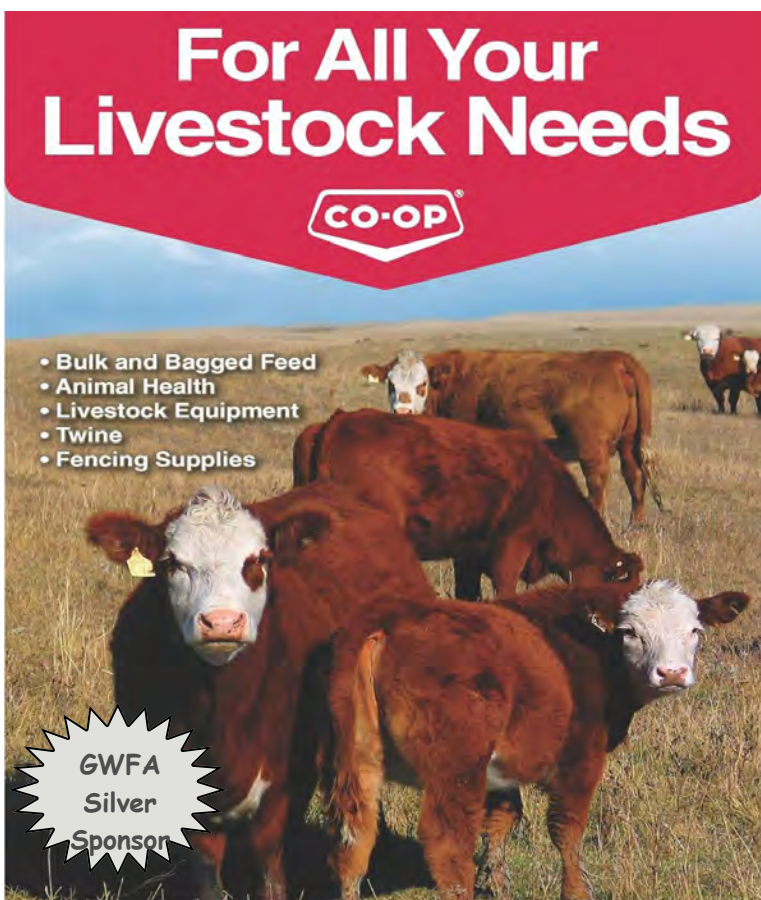
**On-Farm Water Management:** provides technical assistance to agricultural producers to complete a Long-Term Water Management Plan (LTWMP), and shares the cost of related enhancements of their on-farm water supply management. To be eligible for funding, projects must be identified in a LTWMP approved by an AF Water Specialist prior to starting the project.

**Traceability Pilot:** helps producers, agribusinesses and non-profit organizations evaluate and recommend ideal traceability technologies that are practical and cost effective.

**Traceability Technology Adoption:** helps producers implement traceability technologies in their operations. The adoption of practical, cost effective traceability technologies will enhance the integrity of Alberta's traceability system for animal health, public health and food safety purposes.

For more information go to: [growingforward.alberta.ca](http://growingforward.alberta.ca)

Or call: 310-farm (3276)

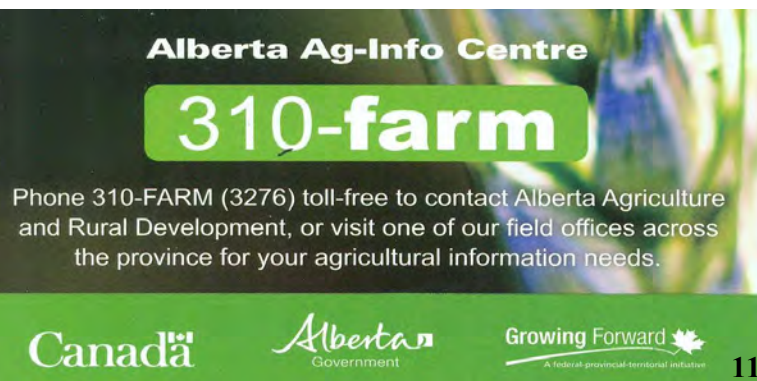


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Phone 310-FARM (3276) toll-free to contact Alberta Agriculture and Rural Development, or visit one of our field offices across the province for your agricultural information needs.

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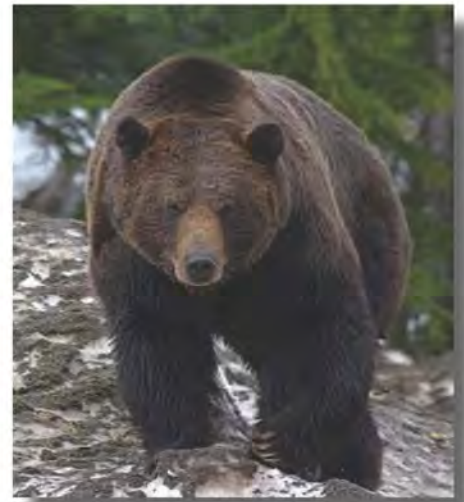




# BEARS

## (and more)

## In Your Backyard



**When:** Wednesday, February 10, 2016

**Time:** 9 a.m. to 4 p.m.

**Where:** Cremona Community Hall

Join us for an interesting and informative session to discuss the future of Grizzly Bears in our province along with the presentation of the draft Grizzly Bear management plan. Learn about the the Grizzly DNA research project from Andrea Morehouse, and view the video "Sharing the Land" put out by the Waterton Biosphere group and learn about their struggles farming and ranching in Grizzly country.



Also featuring presentations on problem wildlife; prevention of damage to feed stores by ungulates; and coyote control measures.

Alberta Environment and Parks Staff (Fish & Wildlife) will also be on hand to answer any questions regarding the topics presented.

There is no charge for the workshop and lunch will be provided, however registration is required by February 5, 2016.

To register contact Carrie by email at [cmabin@mvcountry.com](mailto:cmabin@mvcountry.com) or call 403-335-3311 ext. 204.





# Alberta Environmental Farm Plan and Partners Complete Sustainable Sourcing Study



**Alberta  
Barley**

Alberta Environmental Farm Plan (Alberta EFP) is making changes to better align the program with international sustainable sourcing standards for environmental practices. The changes will streamline the process of certifying on-farm sustainability practices and will better fulfill end-user requirements.

These improvements emerged from a recent comparative study conducted by Alberta EFP, Alberta Wheat Commission (AWC) and Alberta Barley. The study compared Alberta's Environmental Farm Plan (EFP) to three international sustainable sourcing standards including the International Sustainability and Carbon Certification Plus Program, the Sustainable Agriculture Initiative Farmer Self-Assessment and Unilever's Sustainable Agriculture Code. These three programs comprise criteria related to environmental, social and economic issues, and were the same programs used to build the framework for the Alberta Crops Sustainability Certification Pilot project, the first phase of this study.

The results of this study indicate that Alberta's Environmental Farm Plan (EFP) includes most of the environmental criteria outlined in all three international programs, but also demonstrated where change would better align its EFP to meet criteria.

"Overall, our EFP does a good job of covering agro-environmental concerns, regardless of which international standard we are compared to," said Paul Watson, Alberta EFP Director. "There are some criteria identified in these standards such as habitat and species-at-risk protection that could be further developed in Alberta's EFP."

Watson will seek guidance on next steps from Alberta's EFP Stakeholder Advisory Committee, which has representation from ag industry associations and government, when they

meet later this month. "The committee has already indicated that their priority will be to address the gaps found in the environmental criteria," says Watson.

Criteria included in the EFP are developed in consultation with provincial agricultural associations. The comparative study on sustainable sourcing standards is one of the latest initiatives to emerge from these collaborations.

"We were pleased to partner with Alberta EFP on this initiative," said crops representative and Alberta Wheat Commission government relations and policy manager Erin Gowriluk. "We see the importance of sustainably sourced crops growing in the marketplace, and making necessary program improvements to improve the EFP are the next steps in improving that process for farmers."

As demands for sustainable sourcing grow within the agro-food industry, it will become increasingly important to demonstrate that sound environmental practices are followed.

*The Alberta Environmental Farm Plan was developed in 2003 and has been operated by the Agricultural Research and Extension Council of Alberta since 2013. Under this program, producers complete a voluntary self-assessment of the environmental aspects of their operations; more than 8,000 producers have completed a plan.*

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**Alberta EFP**  
ENVIRONMENTAL FARM PLAN

**General Inquiries:**  
Alberta Agriculture & Rural Development  
Toll free help line: 310-FARM (3276)  
or Email: [Info@Albertaefp.com](mailto:Info@Albertaefp.com)

**For more information contact the ARECA office:**  
Phone: 780-612-9712  
or Email: [faye@areca.ab.ca](mailto:faye@areca.ab.ca)



**Alberta** Growing Forward 2  **Canada**  
A federal-provincial-territorial initiative



# RANCHING OPPORTUNITIES

## FEB. 04. 2016

Olds College Alumni Centre  
Registration begins at 8:30  
Free Parking in Lot D!

Follow us on Twitter at:  
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Find us on the web at:  
<http://nirenc4.wix.com/ranchingopportunity>



Contact Carrie at Mountain View County for more information: 403-335-3311 Ext. 204 or [cmabin@mvcounty.com](mailto:cmabin@mvcounty.com)

## Conference Sessions 9:00 AM TO 4:30PM

**Steve  
Kenyon**

**Low Risk Ranching**  
Steve Kenyon, Greener  
Pastures Ranching

### BREAKOUT SESSIONS

1. **Cattle Handling Demonstration**  
Curt Pate Stockmanship
2. **How's Your Beef Hanging?**  
Brad McLeod, Olds College  
Meat Lab\*
3. **FarmOn: A Community of Support**  
Ben Wilson, FarmOn

### PRODUCER PANEL

**Pros and Cons of Winter Feeding**  
Grant Lastiwka, Alberta  
Agriculture & Forestry  
Sean Labrie—Bale Grazing  
Greg Selzler—Straw Chaff  
Bunching  
Glen Stankievich—Corn  
Grazing

**Nick  
Black**

**Alberta Consumers:  
Understanding What  
They Want**  
Nick Black, Intensions  
Consulting—Market Research  
& Strategy

## Ranching in the 21st Century

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\$45 registration fee includes lunch,  
coffee, snacks, and tradeshow

Student registration fee: \$25

\*Registration for "How's Your Beef Hanging" will be first-come, first-serve at the registration table. Please arrive early if you are interested in this breakout session!\*

**Register at:**

<https://2016ranchingopportunities.eventbrite.ca>

Registration closes January 29<sup>th</sup>





# Grey Wooded Forage Association

"Creating an Awareness of Forages"

**2015-2016 Memberships are available now for \$20.00  
and run from April 1, 2015 to March 31, 2016**

**For more information phone 403-844-2645**

Membership is open to anyone interested in forage production and grazing management  
in an economically and environmentally sustainable way.

## Membership benefits:

- Receive discounts on Controlled Grazing Courses, seminars, workshops, tours when discounts are offered.
- Farm calls at \$100/visit and free consulting by phone, email or office visit on grazing management and any other forage production questions, effective immediately.
- Receive **The Blade** monthly via a link sent to you by email each month.
- Receive a printed copy of **The Blade** in the mail monthly for a \$10/year printing and postage fee, in addition to the \$20/year membership fee, effective July 1, 2015
- Receive up-to-date information on GWFA activities via The Blade, the website and by email.

Please mail the portion below with a cheque for \$20.00, or \$30 (\$10 printing & postage fee added) to:

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

PLEASE PRINT CLEARLY: Renewal\_\_\_\_ or New Member\_\_\_\_ Your preference: Canada Post\_\_\_\_ or Email\_\_\_\_  
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Company Name\_\_\_\_ Mobile Phone\_\_\_\_  
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Please give us an idea of what area of forage production you are interested in:

Controlled Grazing & Pasture Management:\_\_\_\_  
Growing Annual Forages for Extended Grazing or Swath Grazing:\_\_\_\_  
Growing Annual Forages for Silage or Greenfeed:\_\_\_\_  
Growing Hay:\_\_\_\_ Ration Balancing:\_\_\_\_  
Soil Biology:\_\_\_\_ Pasture Rejuvenation or Renovation:\_\_\_\_  
Low Cost Cow/calf Production:\_\_\_\_  
Environmental Sustainability:\_\_\_\_ Economical Sustainability:\_\_\_\_

COMMENTS:\_\_\_\_\_  
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