



Grey
Wooded
Forage
Association

The Blade

"Creating an Awareness of Forages"

OCTOBER 2014

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VISION STATEMENT

GWFA – The centre of choice for gathering and dispersing of forage and livestock information, providing a strong link with producers and the research community.

MISSION STATEMENT

To enhance awareness of the organization as an information exchange centre, illustrating forage and livestock production practices that are environmentally and economically sustainable for the agricultural community.

Approved May 2012

GWFA Staff photo

Director's Corner

Hi

I am the GWFA representative to ARECA. I think it is important for GWFA to have a presence and to be active at the provincial level. This keeps us in touch with what's going on across the province and also lets us collaborate with other associations to host events like the Jim Gerrish pasture walk, or the Western Canadian Grazing Conference.

A lot has happened at the ARECA level in the past few years.

- A lot of time has been spent on restructuring the ARECA board to help it better serve its membership.
- ARECA is now responsible for the Environmental Farm Plan delivery across Alberta.



- A new Executive Director, Janette McDonald was hired this spring.
- Over the last few years ARECA has been very busy advocating to increase the Agriculture Opportunity Fund. This summer an announcement was made by Agriculture Minister Olson that the fund is now doubled.
- ARECA organized a series of strategic planning events led by David Irvine to help the associations across the province plan for the future. It is felt that with the increase in funding available all the associations need to revisit their future plans.

Many opportunities and challenges await GWFA and I look forward to working with the board to help make GWFA a leader in agriculture extension.

Herman Wyering

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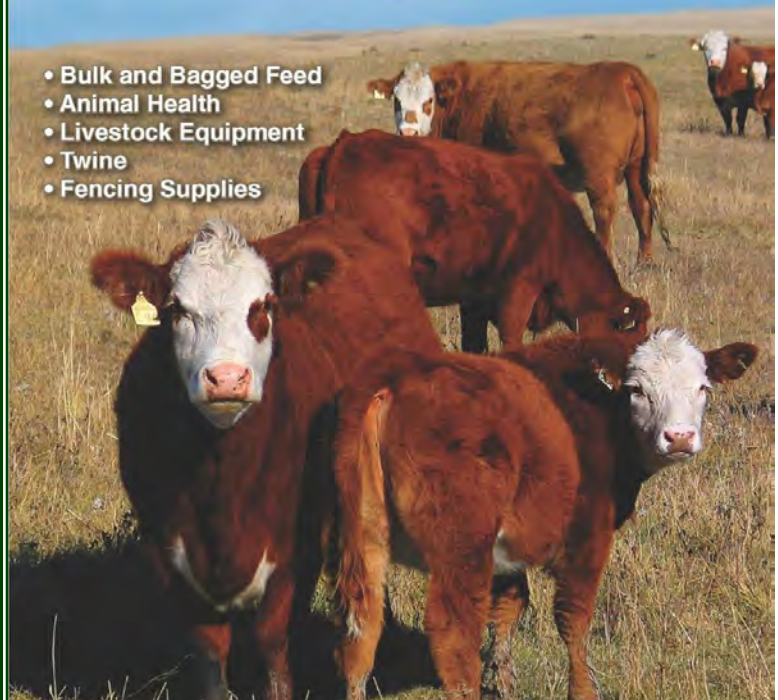
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Manager's Notes:

By Albert Kuipers

This morning, while on my way to the office, I was thinking about what to write for my Manager's notes this month. Shortly after arriving there that became quite clear. A long time member and friend dropped by to ask me where to send feed samples for feed quality testing? There was also a message from another friend and Board member of GWFA looking for the same information. That about clinched it.

So, with that burning question in mind we, that's all three of us at the office, got doing a little research. We came up with three options that any of you can use to get your feed quality analysis done.

I decided to call Walter Pitz at Parkland Laboratories. I learned that he had moved his lab to Chilliwack, BC. He told me that he is open for business as usual, we just have to send samples to the lab in Chilliwack now. That can be done quite easily by X-post, or courier.

To keep the shipping costs down, Walter suggested that anyone wanting feed analysis done, send no more than a pint sized sample to the lab. That's about half a litre (500cc) for all you folks who converted to metric way back in the seventies. You can get that easily into a 5" (127mm) X 7" (177.8mm) Zip-lock bag. The sender just has to make sure that pint size sample is sufficiently representative.

Walter went on to say that grinding mills that labs use are only designed to handle pint sized samples, so when larger samples are submitted, lab staff have to try to get the best representative sample out of it.

To do that you would first take multiple samples from your feed supply as randomly as possible. For baled forages and straw this can be done with one of quite a variety of bale sampling probes. We have one we lend out to members. Sampling probes are available for sampling silage in a pit, or pile as well. For standing "stockpiled" forages, or forages in swaths for swath grazing, take grab samples that closely represent what your livestock would eat.

Fifteen to twenty samples are usually sufficient to get decent representation of the average of a feed, or field. Then thoroughly mix these samples as one representative sample and take the pint sized sample from that.

This way the lab can grind up the whole sample you submitted, reducing the risk of error by laboratory staff. This leaves the farmer responsible for sending in samples that represent his, or her feeds accurately.



Now, as you might remember, Parkland Laboratory has always done wet chemistry analysis for all feed quality testing. Wet Chemistry analysis is the best way to accurately assess feed values, especially if there's something unique about your feed, and is the only way to accurately test for mineral content in feeds. Full wet chemistry analysis is the most time consuming and expensive feed testing method, but if an accurate analysis of your unique sample is what you want, this is the way to go.

For full wet chemistry analysis of feed or forage, you can send your samples to Parkland Laboratories. For more information please call Walter at **604-819-4488**, or visit www.parklandlabs.com.

For a few years now, **near infrared reflectance spectroscopy (NIRS)** has become available for grain and forage analysis and is fast and somewhat less expensive than wet chemistry feed analysis. NIRS has been found to be reasonably accurate for protein and energy, but has shown to be inaccurate for mineral values. You can, however, get feed analysis done by labs who will do NIRS analysis for protein and energy, and then use wet chemistry analysis for the minerals. In most cases this combination would be quite sufficient and economical for most producers doing ration balancing for their livestock. Regardless of which analysis system you choose to go with, the previously mentioned sampling and sample size information applies.

If you think the combination of NIRS and wet chemistry analysis would work for you, give Kristen a call at Blue Rock Animal Nutrition (**403-358-1674**). Kristen can help you out with that, as well as with your ration balancing and even put together a custom mineral mix to match your feeds and livestock needs.



Photo credit: Star Quality Samplers.

I just learned from Jack Payne, an agronomy instructor at Olds College, about another lab that's based in Lethbridge Alberta. **Down to Earth Labs Inc.** does a whole lot of agriculture related analysis, including feed testing, soil testing and water testing. Lots of farmers and livestock operations in southern Alberta use their services regularly. Information on all there services can be found online at www.downtoearthlabs.com, or phone them at **403-328-1133**.

GWFA members can also bring samples to the office, or get them to Ginette, or me to be forwarded to the appropriate lab, depending on your needs. We might even be able to help you with getting your samples.



Burning Questions of the Season!

Q: *Should I be concerned about ergot poisoning?*

A: Ergot is a fungal infection found in grasses and cereals including rye, triticale, wheat and barley. **The cool moist conditions experienced this spring and early summer were ideal for ergot** and as a result we are seeing high levels of ergot in feed grain and in mature pastures and hay land. Recently Dr. Blakeley at the University of Saskatchewan found that the western Canadian ergot has a higher concentration of toxic alkaloids and as a result the allowable amount of ergot in feed grain has been reduced. It is unclear if the levels of ergot in pastures and hay-land pose any threat to grazing animals. Research continues and we hope to have clear guidelines for using feeds with ergot in the future.

Q: *How much ergot is too much?*

A: The upper feeding limit of ergot in older, non-pregnant cattle is **0.1%** by weight of feed consumed. However, ergot could still have a negative impact on cattle health at this level. Pregnant, breeding and lactating animals are the most sensitive to ergot and should not be fed any ergot.



Q: *Can bale net wrap cause an obstruction in cattle rumen?*

A: Yes, The newer plastic net wrap or plastic twine will not be digested within the rumen. It will remain intact.

The net wrap may be more likely to be ingested in large enough segments to actually block the outflow of the rumen, even to the point of causing death.

Producers who use net wrap on their bales may want to consider removing it or at least making sure their bale processor is doing a good job of shredding the net wrap into small segments.



Q: *What do you make of all these high calf prices this fall?*

A: Cow calf owners are beyond belief of the current calf prices this fall. Their question today relates to the risk associated to keeping extra heifer calves for either herd building or for selling next year as bred heifers. With today's high prices, the initial cost of the animal is by far the highest part of the investment. Any unforeseen drop in the cattle markets would render bred heifer enterprises into the red. The possibilities are attractive but the risks are extra high this year. Their conclusion will determine whether these females will be kept for breeding or fattening.

Q: *Do I need to worry about nitrates in Greenfeed?*

A: **Barry Yaremcio says** "Nitrate accumulation in cereal crops occurs after physical injury to the crop. A hail storm or light frost will cause damage to the plants.

Nitrate levels increase and peak at 4 to 5 days after the hail storm or frost. **IF** the crop is able to recover and start to re-grow, the nitrate levels will be back to "normal" 12 to 14 days after the injury.

If you are cutting the crop for silage or greenfeed, get into the stand as soon as possible and cut within 1 to 2 days after the storm. If the fields are too wet, then you will need to wait the 12 to 14 days."



You can email questions to Albert at gwfa2@telus.net, or to Ginette at gwfa3@telus.net. If emailing doesn't cut it for you, you can phone us with your questions, or drop in at the office if you're in the neighborhood.

Thanks, *Albert*.

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Cow-Calfenomics

Seizing Opportunities in the Alberta Cow-Calf Sector

Date	Location	Venue	Time
November 25, 2014	Medicine Hat	Medicine Hat Exhibition & Stampede Company	9:00 a.m. coffee and registration, session 9:30 a.m. - 3:30 p.m.
November 26, 2014	Lethbridge	Lethbridge College D.A. Electric Barn	9:00 a.m. coffee and registration, session 9:30 a.m. - 3:30 p.m.
November 27, 2014	Olds	Pomeroy Inn & Suites	8:30 a.m. coffee and registration, session 9:00 a.m. - 3:00 p.m.

The agenda this year will cover:

- Meat and Cattle Fundamentals for Herd Planning- Opportunities and Threats to Expanding the Cow Herd
- Linking Pasture Systems to Optimize Beef Performance and Profit
- Transition Tactics
- The Cost of Bred Heifers
- Managing Prosperity in the Beef Industry
- A Helping Hand; HR strategies for the ranch
- A producer's perspective; Innovative business models

For more information go to agriculture.alberta.ca/cowcalfenomics

How to Register

All participants are requested to register prior to Wednesday, November 19, 2014. The registration fee is \$25.00 and includes lunch. **Registration for students is free** and compliments of Alberta Beef Producers. To register please call the Ag-Info Center at 1-800-387-6030.



Fall-applied Fertilizers

Upon completion of harvest there is an opportunity for producers to begin to plan for next year's crop. One aspect of crop production that can be considered is the fall application of fertilizers. Advantages of applying fertilizer in the fall include: (1) reducing the spring workload (2) an economic advantage that occurs when fall fertilizer products have a favourable price as compared to spring priced products. In order to benefit from these advantages there are several factors that should be considered to ensure the application of fall fertilizers will be effective.

Fertilizer products: The most common fertilizer nutrient that is fall applied is nitrogen (N). Since nitrogen makes up the biggest volume of applied fertilizer, a fall application will enhance efficiencies during spring seeding. The most common approach for applying fall nitrogen fertilizer is to band either urea (46-0-0) or anhydrous ammonia (82-0-0). It is preferable to band urea as compared to broadcasting because the banded fertilizer is less susceptible to over-winter losses. Another product that can be beneficial to apply in the fall is elemental sulphur (eg. 0-0-0-90). Although it is not a major component of most nutrient plans, a fall broadcast application will aid in making it more effective. Elemental sulphur needs to physically degrade and exposure to freeze/thaw cycles in the fall will aid the degradation. In the spring the sulphur product can be incorporated and converted to plant available sulphate sulphur by soil microbes. For plant nutrients such as phosphorus and potassium, which are typically seed-placed, there is no real advantage to applying these fertilizer products in the fall.

Timing of application: For nitrogen applications in the fall, the decision to apply fertilizer is based on soil temperature. Fall nitrogen fertilizer applications can be made once soil temperatures are below 10 degrees Celsius. Applying urea or anhydrous ammonia fertilizer at cooler soil temperatures will help maintain nitrogen in the ammonium (NH_4^+) form. The ammonium form of nitrogen is preferred as it will be protected from losses that can occur as a result of denitrification or leaching that can occur in the spring. If nitrogen fertilizers are applied to warm soils in the fall, fertilizer nitrogen can be converted to a nitrate (NO_3^-) form and this pool of plant available nitrogen will be susceptible to losses in the early spring.



Amounts to be applied: If a producer has collected soil samples and is certain of their cropping plans applying all of their required nitrogen in the fall is an option. If producers want to be more conservative due to concerns about potential over-winter nitrogen losses or spring soil moisture conditions they could consider applying less than the full rate of nitrogen. For example, a producer could apply two thirds of their required nitrogen in the fall and then apply additional nitrogen in the spring during seeding.

Fall applications of fertilizers can provide an economic benefit and make spring seeding more efficient. In order to gain from these benefits producers need to consider the type of fertilizer product being applied, timing of the application and amounts to be applied.

Please contact the Ag-Info Centre for more information on fall applied fertilizers.

*Mark Cutts, Crop Specialist
Ag-Info-Centre, Stettler*



Alberta Ag-Info Centre

310-farm

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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Agricultural Research and
Extension Council of Alberta
www.areca.ab.ca

Should I Soil Test my Forages?

Absolutely! With the high precipitation we received this summer some very large forage yields came off fields. Forage production removes the whole crop, which takes up much more plant nutrients than a cash crop only grown for seed. Replacement and build up of soil nutrients is important for quick forage re-growth and high yields next spring.

What Levels of Nutrients are Removed?

Forage crops can remove large amounts of nutrients from the soil. If these are not replaced or recycled to the soil, a negative nutrient balance can occur. The following are approximate nutrient removal rates for different forages:

Alfalfa removal per ton of dry hay: 55lbs of N per ton
15lbs of P per ton
60lbs of K per ton

Grass removal per ton of dry hay: 33lbs of N per ton
6lbs of P per ton
24lbs of K per ton

Barley Silage per ton of moist silage: 30lbs of N per ton
10lbs of P per ton
24lbs of K per ton

Notice that forage crops remove almost as much potassium (K) as they do nitrogen. At Olds College we harvest a great deal of forage to feed our livestock. We found that potassium levels dropped after several years in some of our fields and this nutrient was more limiting than nitrogen.

When Should I Soil Test?

Early October to freeze up is an ideal time to soil sample. Once soil temperatures fall to 10 – 5 degrees C you can soil sample. Soil processes such as mineralization cease when the soil gets to about 5 degrees and nutrient levels will not change until next spring.

Should I apply Nitrogen Fertilizer in the Fall or Winter?

In some cases growers like to apply fertilizer in the late fall or winter. It helps spread out the workload and can take advantage of lower fertilizer prices. Another consideration is the type of nitrogen fertilizer you are applying. If you are applying

a product which uses a polymer coating or has a urease inhibitor to reduce volatilization of gassing off losses this can be a good strategy. You must remember that these products have a higher cost than using traditional urea.

If you choose to use urea as a nitrogen source, long term research indicates that grass hay produced the highest yields and the highest protein levels when fertilizer was applied in early spring. The following is a summary of some work done by Dr. Malhi in the Eckville area.

Fertilizer Application Time	Dry Matter Yield (t/ha)	Protein Yield Increase (kg/ha)
Early fall	3.36	378
Late fall	2.95	346
Early winter	2.76	296
Early spring	3.47	414
Late spring	3.20	384

Source: Adapted from: Malhi 1997. *Nutrient Cycling Agroecosystems* 46: 241-247

Increased nutrient management of your forages will put dollars in your pocket and keep nutrients in your soil bank for the future.

J.C. (Jack) Payne P.Ag.
Agronomy Instructor
Olds College



This publication is made possible by funding from Alberta Agriculture & Rural Development & Alberta Environment and Water via the Agriculture Opportunities Fund (AOF).



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Grazing Stubble Fields

Turning cows out onto stubble fields is a good way to utilize forage resources. They will pick and choose what they eat from the straw, chaff, weed seeds in the stubble, slough hay from the low areas and mature hay growing along the fences and headlands. Quality of what they eat can be variable depending on the type of crop grown, fertility program and stage of maturity when the crop was cut or harvested. The combine setting – the amount of light grain and weed seeds thrown out onto the ground will impact what the cows eat as well.

Straw, chaff, and over mature grass hays typically have low amounts of protein, energy, calcium and magnesium. These feeds are also high in Neutral Detergent Fibre (which can reduce total feed intake) and relatively high in phosphorus. Grains and weed seeds are also high in phosphorus and have higher energy and protein content than the grasses, straw and chaff.

Cow calf pairs that are turned into stubble fields have different mineral supplementation requirements compared to when they were on a mixed alfalfa – grass pasture. The lack of calcium and magnesium in the straw and forages can cause two problems: 1) a diet that is low in calcium and higher in phosphorus can reduce phosphorus absorption. Phosphorus is the driver of all metabolic functions. When phosphorus is not absorbed, feed intake is reduced which in turn reduces milk production and weight gain on the calves. Cows can also start to lose weight. If the imbalance continues, it can impair reproductive performance – with cows taking longer to cycle and conceive a calf next year. 2) a calcium / magnesium deficiency can cause cows to go down and it generally requires a veterinarian to treat animals in this situation.

A mineral supplementation program should contain additional calcium and magnesium. When it comes to calcium, in many cases; a 2:1 mineral does not provide enough calcium to remedy the situation. A feedlot mineral with a 3:1 or 4:1 calcium to phosphorus ratio is preferred. If a 1:1 or 2:1 mineral is left over from the summer, mix 1 bag of limestone (38% calcium) with 1 bag of mineral and 1 bag of fortified trace mineral



Photo credit: Cloverleaf Cattle Co.

salt (with selenium). This mixture (roughly 165 pounds) should be consumed by 100 cow calf pairs in 5 to 6 days. If consumption is too low, add dried molasses to improve consumption. Add 8 to 10 pounds of dried molasses to the entire mix and adjust to get the proper intake.

If feeding a straight mineral; magnesium content should be in the 3 to 5% range if the recommended intake is between 70 and 100 grams per day. The added magnesium along with the calcium reduces the risk of downer cows. If magnesium is not present in the mineral, it can be purchased as an individual product from some feed stores or feed mills.

Feeds that are over mature or crop aftermath are usually low in protein. A lactating cow requires 11% protein (minimum on a dry basis) to maintain feed intake and milk production. Dry cows can manage on 8% protein. Supplementing protein on pasture is troublesome. Protein tubs or blocks will help solve the problem, but the mineral and vitamin supplementation should still continue as described above. Feeding 3 to 4 pounds of grain every third day along with a protein supplement is another option. Putting weaned cows onto these fields is an option to reduce protein requirements.

If the energy and protein requirements of the cow are not met, the cow will not be producing much milk. This will reduce calf gains. To offset the loss of calf performance, creep feeding the calves with a ration that is between 14 and 16% protein will improve average daily gains. If feeding straight oats, which has 10 to 11% protein on average, the calves will put down fat rather than lean growth and they could possibly not frame out properly resulting in fat dumpy butterballs that will be discounted at auction. A mixture of 1/3 peas and 2/3 oats or barley by weight will provide a creep ration that meets protein and energy requirements. With lower grain prices and high calf prices creep feeding will pay very well in the long run.

*Barry Yaremcio, Beef and Forage Specialist
Alberta Agriculture and Rural Development*



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Technical Information
for the Canadian
Forage Beef Industry



Red Deer River Watershed Alliance's (RDRWA) Fall Forum & General Meeting

Please join us for this afternoon /evening event as we explore topics that are relevant to the Red Deer River Basin.

Tuesday October 28, 2014

**Canalta Jurassic Hotel & Cretaceous Conference
Center (1103 Highway 9 South Drumheller, AB)**

2:00pm until 7:00pm



**ATCO Power Sheerness
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Deer River Watershed**



**Sundre Forest Products
will present on the role of
the forestry industry
within the watershed**

Dickson Dam Presentation.

**Rick Friedl, Director
Central/North Region
Operations Infrastructure
Branch (ESRD) will
provide an overview
of Provincially owned water
management infrastructure,
including an overview
of Dickson Dam**

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- * Flood & Drought management**
- * River Forecasting**



To Register go to:

www.rdrwa.ca/events/calendar or Call

RDRWA 403-340-7379

**Cost: \$25.00 includes all presentations and a
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**The Next Watershed Ambassador Breakfast is on Friday, October 17, 2014!
7:30 AM to 8:45 AM at the RDRWA Office 4918-59 Street, Red Deer!
Only \$15/person!**

Please call 403-340-7379 or email ambassador@rdrwa.ca to register!

Grazing Crop Re-growth



Photo credit: West Central Forage Association

With the amount of moisture received this summer and fall, there are fields that were cut for greenfeed or silage that have substantial amounts of re-growth. This may also be the case if the crop was hailed earlier this summer. Many of these fields have perimeter fence, or can quickly be fenced in with electrified smooth wire. Is it worth putting the cows or cow calf pairs out on this forage and take advantage of the extra feed that is available?

If crop re-growth yields 250 pounds of dry matter per inch of growth; a crop that is 12 inches tall could yield 3,000 pounds per acre. An 80 acre field with this amount of re-growth would have enough forage to feed 100 cows for 40 days (allowing for 15% waste).

Young or immature forage is typically high quality. If the canola or cereal plants are in the early bloom (canola) or flag leaf to heading stage (cereals) it is not uncommon to have 13 to 16% protein - which is comparable to good quality first cut alfalfa grass hay and an energy content of 62 to 65% TDN. The nutrient levels are sufficient for lactating cows, growing calves on the cow, weaned calves and yearlings. This forage is excellent to feed to thin cows that need to put on 100 to 250 pounds before winter.

The comments made below about individual crops are with the assumption that the initial growth of the crop was good to excellent; which would have used up most of the available nitrogen from the soil and that nitrate accumulation is not an issue.

Canola re-growth prior to loss of flowers has the highest nutritional quality. Cows will readily consume this forage. Land that is planted to canola generally has higher levels of sulfur applied. If sulfur levels in the total diet exceed 0.4%, rumen pH drops and the microbes that produce thiamine are destroyed. There is a chance of polio developing in this situation. Experience from the 1988 and 2002 droughts when cows were turned into canola salvage crops, the occurrence of polio was ex-

tremely rare.

Flax re-growth should not be used as grazing material. Green flax plants can contain high levels of beta glycosides which are converted into prussic acid by rumen bacteria. Prussic acid is also formed in the plant after a frost. At very low levels, prussic acid can kill animals within minutes.

Concerns when introducing re-growth material:

When moving the cows from their current pasture to the re-growth; ensure that the animals are full before they are turned in. It does not hurt to feed supplemental hay to the herd the morning that the cows are to be moved. Turn the cows into the re-growth in early afternoon. This reduces the risk of digestive related problems. Switching cattle from a dry pasture to lush growth could in a few occasions cause acute bovine pulmonary emphysema and edema in cows 5 to 10 days after moving animals to the lush pasture. Nursing calves are not affected.

*Barry Yaremicio, Beef and Forage Specialist,
Ag-Info Centre, Stettler.*



GWFA Staff photo

BUILDING SOIL - CREATING LAND



DR. CHRISTINE JONES

INTERNATIONALLY RENOWNED GROUNDCOVER & SOILS ECOLOGIST

Jones works with landowners to implement regenerative land management practises that enhance biodiversity, maximize photosynthesis, increase soil biological activity, sequester carbon, activate soil nutrient cycles, improve water holding capacity and infiltration, increase productivity and create new topsoil.

“Organic carbon is the basic building block for all life on and in the earth. We cannot live without it. Neither can our soils.

Rebuilding carbon-rich agricultural soils is the only real productive permanent solution to taking excess carbon dioxide from the atmosphere.”

OLDS COLLEGE

Lecture Theatre in Land Sciences Bldg. (Rm 1027)

TUESDAY, NOV 4

2:30 PM - 8:00 PM

Please register by October 28 by contacting FFGA @

403-652-4900 or email

cassie@foothillsforage.com

COST includes supper:

\$30/ per person

\$50/ per farm unit

\$15/ student

AGENDA:

2:30 pm

Coffee & Registration (Atrium)

3:00 pm

Soil Carbon:

Getting the basics right

4:00 pm

Linking Carbon, Nitrogen & Water Cycles

5:00 pm - Supper (Atrium)

6:00 pm

Re-activating Soil Forming Processes

8:00 pm

Wrap up

Also joining us is AFSC for a presentation on their products & services!

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Christine will also be presenting at:

RYCROFT AG CENTRE

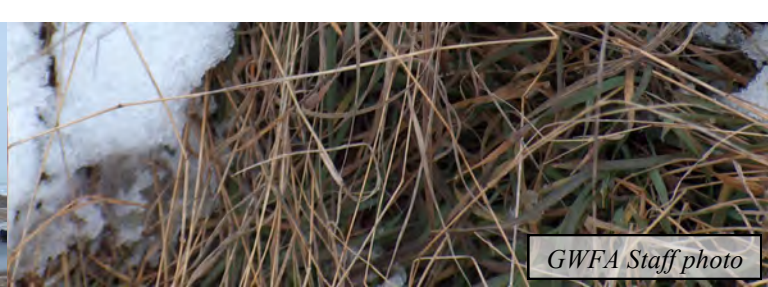
MONDAY, NOV 3

9:30 AM - 4:00 PM

If this location is more convenient for you, please register by contacting NPARA @ 780-836-3354/nora@npara.ca or PCBFA @ 780-523-4033/mbenoit@gprc.ab.ca

Fall Grazing

Utilization of the brown stuff - stockpiled grass



Hello Grey Wooded folks! You are likely all familiar with fall grazing practises but are maybe unsure of grass species selection, timing of grazing and rest periods and nutrient content of your stockpiled feed. Grazing stockpiled pasture is a great way to increase nutrient cycling on your land, reduce labour and integrate a low cost feeding system for the fall. The limiting factor that can affect us using this method in the fall is snow depth. As long as the snow stays away we can usually integrate this management method well into November and also the spring in Central Alberta. So what about nutrients?? Producers often ask me what the nutrient loss is in these pastures after a good hard frost and if we can maintain a cow in early/mid gestation without supplementation. This is where species selection, grazing and rest periods in the summer grazing season and management of the land over time must be considered when implementing stockpiled grazing into our winter feeding plan.

In Central Alberta re-growth from pastures that have been grazed at least once if not twice over the grazing season is often best for stockpiled grazing in the fall. Of course this is moisture and heat dependent over the summer. Around the Innisfail area we had lots of moisture and did not see a rapid decline in grass growth unlike other areas such as Rimbey and north that lacked moisture. Therefore emphasis is placed on flexibility and working with what you have. The first or second re-growth is often higher in quality in the fall than that of the coarse/fibrous grass from the first rapid growth in the spring.

With respect to grass/legume species, this is an area that many in the association know A LOT about. So I am giving you a small picture of species selection, please ask Albert for more information on this topic. In general the species you want are grasses that re-grow rapidly following grazing or cutting to ensure you have adequate volume, plants that can maintain quality following heavy frost, and species that are taller so that it can still be utilized if snow cover comes earlier than we want.

Grass Species:

With fall grazing we are targeting a dry pregnant cow to either maintain condition or lose a little excess fat she picked up over the summer grazing season. To maintain a 1,350 lb mature DRY beef cow that is in a good body condition will require a minimum of 6.5% crude protein and 50% TDN (total digestible nutrients) for maintenance which is often attainable and some seasons they may even gain weight. *Note these are average val-*

ues – feed testing can be a valuable tool to determine if supplementation is necessary.

- **Tall Fescue** – One of the higher quality grass species that can be utilized. Similar in nutrient spec to grass hay (without the baling equipment and diesel fuel). TDN: 52%, Protein: 8.5%
- **Kentucky Blue Grass and Creeping Red Fescue** – Ideal for single grazing systems and retains quality as it matures. Palatable through the grazing season. TDN: 51% Protein: 7%.
- **Smooth and meadow brome grass** – High yielding with adequate moisture. Smooth brome is best for fall grazing over spring stockpiled grazing as it tends to have a high winter dry matter loss. Meadow brome is more suited to spring grazing as it does not lose dry matter as readily. Generally has a low acid detergent fibre content so can have a higher digestibility and energy than that of grass hay. TDN: 55%, Protein: 6%.
- **Orchard Grass and timothy** – High yielding with adequate moisture. Loses dry matter over winter, well suited for fall grazing. Timothy nutrient specs TDN: 57%, Protein: 5%

Legumes Species:

Alfalfa, red and alsike clovers, cicer milkvetch and sainfoin to a lesser extent are species that are adapted and bred for utilization in our area that can all be used in a stockpiling grass system.

Alfalfa that has been either cut or grazed can have an expected similar yielding re-growth in 7-8 weeks provided that moisture and heat are present. So if we let accumulation occur after August 1st, we can expect good volume if you were to start fall grazing by October 1st. In general we will have had at least one good killing frost by this point and can reduce our chances of winter kill on the alfalfa stand and bloat in our cattle. The biggest limiting factor when utilizing legumes is leaf loss after freezing so nutrition values can drop very quickly with high legume stands. Dry matter loss can be as higher than 10%, significantly affecting energy and protein levels. It is recommended that you graze the legume stand in early fall. Of the four species mentioned, cicer milkvetch would be the best for leaf retention, but again cannot maintain leaves till the spring.

The quality of these grasses and legumes are affected by quality pre-frost. Grass quality in the summer is not always under our control. It is dependent on soil moisture, heat units and previous nutrient cycling on the land. If frost can hit the pasture at peak quality in late summer/fall season, it will maintain protein and digestible sugars that are high enough to maintain a dry pregnant cow without supplementation. Keep in mind that vitamin levels and some of the trace minerals drop off significantly after a killing frost, being one of the reasons we start implementing mineral programs in the fall.

Continued on page 13

Free Buy & Sell Classified Ads

FOR SALE:

2 tonne capacity feed mixer with weigh scale cells. 3 phase motor, but can be converted if necessary. In good shape. Motivated to sell - Must go. Contact Kristen **403-358-1674** for more information. Located in Innisfail.

Hand-spinners! RARE WOOL

AVAILABLE! We have some beautiful Black Welsh Mountain Sheep wool for sale. \$40/Fleece.

Contact Kristen **403 358 1674** or email ritson.bennett@gmail.com.

1964 IHC 1600 grain truck needs tune up to run. Box unusable. Good 14' hoist & tires. Cab is straight. V8 motor 4 speed transmission, 2 speed axle. Reasonable offers. **403-556-2282**.

Horses for sale. Contact Doug or Merv Cooper at **403-722-2605**.

Reg Cox feed mixer wagon - 1316 TMR Dairy Master by Renn in good condition. Call **403-638-4173**.

Square bale accumulator by Kuelker (Didsbury). Call **403-638-4173**.

Hay for sale: Markerville 1st cut and 2nd cut put up dry, high quality. 50:50 alfalfa grass hay. Feed tests available. 1st cut 6 cents/lb, 2nd cut 7 cents/lb in the field. We can load you. No delivery. Call Andrew evenings **403 350 9299**.

Hay for sale: Innisfail 2nd cut rained on. 3.5 cents/lb in the field. No delivery. Call Andrew evenings **403 350 9299**.

WANTED:

Two year old hay for roughage in the Caroline area. Also looking for a Jersey milk cow. Contact Doug or Merv Cooper at **403-722-2605**.

Looking for an '04 to '09 Chevy 1 ton dually diesel truck. **403-728-3992**.

JD 3600 or Kverneland plow, 5 or 6 bottom c/w all coulters variable width, trip beam, auto reset if possible. **403-895-1722**.

Hay (Yr old hay OK) for range cow feed & a 5 yard tractor pulled scraper. Near Bearberry / Mountain View County. **403-638-2718**.

Mole or gopher traps. Call Dan at **403-638-2387**.

Wood Stove in good condition. **403-638-1503**.

Gas dryer (older model ok) & a small deep-freeze. Both in good repair please. **403-507-5478**.

You can now submit ads of up to 150 characters in length to our FREE Buy & Sell section of The Blade. To submit an ad, call Ginette at 403-507-5478 or email it to her at gwfa3@telus.net

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Utilization of stockpiled pastures:

Ideally we would like to see stockpiled grasses utilized in the fall. There can be significant nutritive value loss and yield decrease due to leaf loss over the winter months if pastures are stockpiled for the spring. We are also often dealing with a lactating cow with a calf at side that has higher energy and protein requirements in the spring so supplementation is necessary if utilizing stockpiled grasses. In many cases grazing of stockpiled grass in the fall can result in small gains in beef cows if all the conditions are right. This gives us some cushion when it comes to weather changes. A cow's energy requirement can increase by 10% if temperatures drop from 0°C to -15°C.

Now you are asking, when should the rest period for preparation of stock piled pastures start? This is a hard question to answer as the conditions throughout the province are different. In general if you start the rest period too early the leaf material dies and fibre content increases therefore decreasing quality. If you start the rest period too late you risk having low volume and possibly causing winter kill if there are not enough sugars in the root of the plant. You know your pastures better than anyone, look at your grazing records and try to determine optimal timing based off of that information. If you don't have records, start keeping them, you have no idea how valuable record

keeping is! By now you are likely thinking this information is too little too late..... but it is never too early to start planning for next year!

With that, get grazing! By the time this publication comes out we will be well into October! Utilize your grass before the white stuff shows up in dump-fulls!

Kristen Ritson-Bennett
Blue Rock Animal Nutrition
403-358-1674

References:

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex10353](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex10353)
<http://www.omafr.gov.on.ca/english/livestock/beef/news/vbn0804a6.htm>
[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex12422](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex12422)
[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex12422/\\$file/420_56-4.pdf?OpenElement](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex12422/$file/420_56-4.pdf?OpenElement)

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!!GWFA Argentina Agricultural Tour!!



Leader Tours Inc.

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**Agricultural Tour & optional Iguazú Falls Tour:
Feb 20th to March 6th, 2015**



You will visit:

- the Argentine Cooperatives Association (ACA) Headquarters for a description and discussion about the Agricultural Industry in Argentina followed by a visit to the Canadian Embassy – overview of doing business in Argentina.
- LA PASTORIZA - A large 4000 cow ranching operation and several other cattle ranches.
- the Farmers and cattlemen Association of Las Flores.
- the Town of Tandil, known for their cheese and cured meats and an agricultural cooperative.
- the Martinez & Staneck Agricultural Machinery factory.
- Cabaña Santa Ana, a ranch where they raise the Argentinian "Criollos Horse".
- the Instituto Nacional de Tecnología Agropecuaria (INTA) to learn about the beef cattle situation in Argentina and visit the INTA experimental farm.
- the School of Agriculture of the University of Mar del Plata.
- a traditional Gaucho Party.
- Liniers Livestock Market, the largest cattle market in the world.

The optional Iguazú Falls Tour includes:

- Boating tour across the Paraná and Iguazú rivers with live music on board.
- a full day visit to the Iguazú Water Falls (Argentinean Side)
- a full day visiting the Ruins of Saint Ignacio and the Wanda Mines

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