Grey Wooded Forage Association

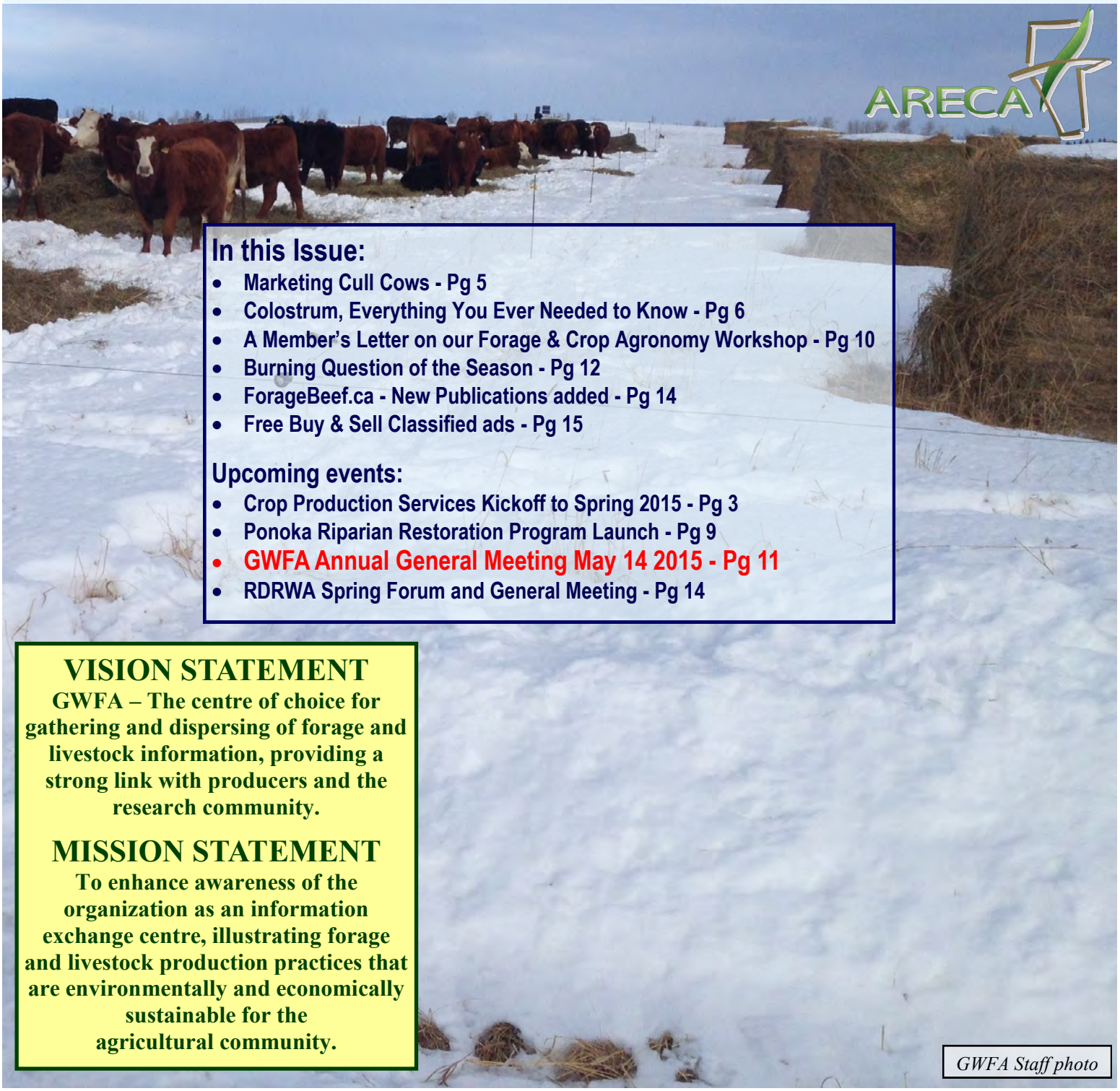
The Blade

"Creating an Awareness of Forages"

ARECA

MARCH 2015

Box 1448, 5039 - 45 Street, Rocky Mountain House, Alberta T4T 1B1,
Phone: 403 844 2645, Fax: 403 844 2642,
Email: Albert: GWFA2@telus.net, or Ginette: GWFA3@telus.net



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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.

GWFA Staff photo

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Lone Star Ranch & Sales

Steve & Marilyn Cannon

Steve & Marilyn Cannon are honoured to have the opportunity to partner with the Grey Wooded Forage Association, and thank the membership for their support.

Steve & Marilyn Cannon moved to Alberta with their two daughters in year 2000 from Texas. In Texas Steve was a Journeyman electrician. They established in Red Deer in year 2000. Steve worked as a sales person selling products for deliquifying gas wells and Marilyn's business is Cannon Industries specializing in promotional products and embroidery. While working at these endeavors, Steve and Marilyn became grain producers and acquired a beef commercial herd as well.

In 2009 they started selling Morand products off the farm. In 2011 they added the Gallagher product line. Steve & Marilyn built their Lone Star Ranch & Sales business going to various trade shows including the Agri-Trade show in Red Deer. As the Morand cattle squeeze w/patented shoulder product line increased they realized a retail space was needed for exposure & continued growth. An opportunity to lease space north of John Deere in Red Deer came available & they have since been in this same location.

In 2012 Lone Star became a Promold dealer carrying calf feeders, sheds, & wind breaks. In 2013 Gallagher approached Steve regarding becoming the Western Canadian repair Centre and he accepted. The Gallagher Miraco livestock waterers were added to the product line in 2014. Currently Lone Star Ranch has added RFID tags to the product line and they are planning to add calving supplies & dangle tags in the near future. Within the next year Lone Star Ranch & Sales is planning to have an online ordering system on their website to facilitate product orders and delivery.

Most products sold at Lone Star Ranch & Sales qualify for government funding through the Growing Forward 2 program. Steve & Marilyn would be pleased to assist you in the submission of the paperwork.

Steve & Marilyn thank the Grey Wooded Forage Association & the membership and plan to continue to collaborate with GWFA in the future.

Best regards, Steve & Marilyn Cannon,

Written by Ginette Boucher (GB)

Crop Production Services

Please visit our Canada website at www.cpsagu.ca

Kickoff to Spring 2015

Open House at CPS, Rimbey, Lunch
11 to 2, March 27th, 2015

Savings

Pre-buy all your Forage needs before April 10th, and receive a 10% discount. ☺

Special Guests

Ginette Boucher & Albert Kuipers

Grey Wooded Forage Association

Manager's Notes:

By Albert Kuipers

Wow! It's March already. Some of you have been calving for a month or so, now. Others are waiting till spring. I heard a guy say recently, that he couldn't be paid enough to go back to winter calving. Spring calving is soooo much easier. I'd say I agree with him on that one.

In his excellent article starting on page 6, Dr. Ritson-Bennett mentions a number of winter calving related issues that affect the amount of colostrum a calf can get in those first hours after birth. I'm sure lots of you have experienced these issues over the years. I know I have.

If you haven't already done so, it's time to get your grazing plans put together for the coming growing season. Some of you have an annual grazing plan that includes banking forages during the growing season, grazing of stockpiled forages, swath grazing and bale grazing, or combinations of the above.

Since we have such a short growing season, there's great value in managing grazing in such a way as to maximize the amount of forage produced in a grazing season, or maybe I should say "optimize" instead. It doesn't pay to maximize production at all costs. Moisture and soil fertility are a couple of things to pay attention to when you're looking at optimizing forage production.

Grazing managing, however, can be the biggest and cheapest factor affecting the amount of forage you can produce on your pastures. I've said it earlier this year and I'll say it again - how much forage you leave behind on that first pass over your pastures has a great impact on your whole year's production. If you graze only 25% of the forage available on that first pass, you can increase your whole season's production by as much as 60%. That's huge. On the other hand, if you graze as much as 50% of what's standing in that first pass, you can decrease your whole season's production by 60%. Yes, that's a 120% spread.

So what does that mean for your pasture management? It means that the time and effort you put into your grazing management in May and June, for most folks in our area, is well worth it. That's not the time to give the livestock a big area of pasture and go on holidays. That can come later when you can slow down and use more of the forage available. The extra time it takes for those extra moves to control the herd's consumption of forage at a high stock density is well worth the effort.

Check out what Neil Dennis is doing in the video "Soil Carbon Cowboys". He's taken his farm from the brink of financial ruin to huge success with his changes to management while avoiding costly inputs. Is it worth it? Well, he's so happy with his results that he's telling everyone who'll listen about his results.

So, please take the time to put a grazing plan together that will help you get better results than you ever had before. Not sure where to start? Give me a call at 403-357-7659 and, one way or another, we'll help you get started.

I'm sure you've noticed that in the last few months we've expanded The Blade to 16 pages and now, also include more paid advertising than we have ever done in the past. While I understand that some of you might not like the increase in ad space, this is one of the ways we can give our sponsors value for the dollars they give us. These dollars are very important in making up the matching requirements of most of our funders. If you have an ad that you would like to put in The Blade, please contact Ginette or myself.

Also, if we can help you with printing of anything from a one page flyer to a 28 page booklet like The Blade, please contact us. I'm sure we can get the job done for you at a very competitive rate.

SOIL CARBON COWBOYS

from Peter Byck

Meet Allen Williams, Gabe Brown and Neil Dennis - heroes and innovators! These ranchers now know how to regenerate their soils while making their animals healthier and their operations more profitable. They are turning ON their soils, enabling rainwater to sink into the earth rather than run off. And these turned ON soils retain that water, so the ranches are much more resilient in drought. It's an amazing story that has just begun.

Watch the video at: https://vimeo.com/80518559

Agriculture Opportunity Fund

Alberta

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

Marketing Cull Cows

Neil Blue, Market Specialist
Alberta Agriculture & Rural Development, Vermilion
Phone: 780-853-8104, Email: neil.blue@gov.ab.ca

Marketing cull cows is an important aspect of a cow-calf operation. Common reasons for culling a cow are that she has either lost her calf or she has been diagnosed open at weaning. Also, cows who have had calving difficulty, whose calves do poorly, or who have a bad disposition could be culled. Other culling factors include physical problems, such as udder or chronic foot trouble.

The benefits of culling cows from a beef herd include higher calf crop percentages and lower health related problems. Weaning is a logical time to cull unproductive cows since it is the end of a production cycle. For spring calving herds, other appropriate culling times for cows failing to calve or losing their calf are the spring or summer.

At culling time, a decision is made either to sell cull cows immediately, leave them with the herd in anticipation of increased cow prices, or separate and feed them a higher grain diet before sale. That decision is based on such factors as expected price changes, feeding costs verses potential weight gain, grade improvement potential and available facilities and time.

Cow prices have a seasonal pattern based on both demand and the number of slaughter cows for sale. November and December cull cow marketings are much higher than the numbers marketed in July and August. Marketings continue to be high in January as many producers delay sales into a new tax year. Marketing volumes typically remain stable from April through August as producers sell open cows or cows that have lost a calf.

Cull cow prices are usually the lowest in November and December when marketing volumes are the highest. Prices typically begin to improve in February, and from April through August, the cull cow price tends to be seasonally high. During this period, cull numbers are lower and demand for hamburger, the primary use of slaughter cow meat, is higher. This usually is the best time to sell cows that have failed to calve, have lost their calf or for any fall calving cows that are open.

The longer term average annual beef cow culling rate is about 11% of the herd. Compared to 2013, 2014 cow slaughter was down about 9% in Canada and down about 14% in the US. Despite the drop in cow slaughter from 2013, Canfax estimates that the 2014 Canadian beef cow culling rate was still about 13%. This implies that Canada's beef cow numbers are likely to be down again in the January 1st cattle inventory report. Because of reduced US cow slaughter, the weak Canadian dollar and continued strong demand for ground beef, cull cow prices are likely to remain historically high near-term. However, it is prudent to keep the seasonal supply and demand factors in mind when making the culling decisions.

Colostrum, Everything You Ever Needed to Know

We have all been at the back of a cow or heifer with chains on a calf's limbs, likely pulling with too much force, seeing a purple tongue and hoping the calf will magically slide out. Sometimes it does sometimes it doesn't, either way we put the calf and the dam through a great deal of stress. Unlike a human baby's skull that will deform when forced through the pelvic canal, a calf's does not. Consider the headache that calf might have or generalized pain it might feel after a difficult pull. Chances are, the calf is not going to be super keen to saddle up alongside mom and get its' first serving of colostrum. At the same time, the dam is not going to be feeling much better herself. Any time that the vigor of the calf or pain level of the dam is in question post calving, interventions should be made.

Interventions can take many forms such as providing warmth and shelter, clean bedding, individual pens and most importantly providing pain control and ensuring adequate colostrum is received. Pain control for the dam will benefit both the dam and the calf as the dam will be more apt to mother and nurse the calf whether there was a Caesarian, hard pull, long birth or prolapse. Any of these events warrant pain mitigation for the dam. New studies are suggesting that providing pain control for the calf is beneficial as well, as the calf will be more likely to nurse and thus receive sufficient levels of colostrum in the first six hours of life (There is no label indication for administration of pain control products ie. meloxicam or flunixin meglumine, for newborn calves, thus it is off-label so talk to your vet for advice!).

With pain control taken care of, we now have to decide whether we think that the calf and cow will both do their parts to ensure the calf gets colostrum. It has been shown that colostrum serves three major purposes **1) providing the calf with antibodies to be absorbed into the bloodstream to help prevent disease for the first 3+ months of life, 2) supplying a much needed energy and fat source and 3) providing growth factors important for development of lifelong productivity and perhaps even reproductive performance.** Unfortunately, a calf that survived a hard pull or prolonged calving will most likely be "acidotic" as well. Without getting too technical, all you need to know is that acidotic calves will also not physically absorb as many antibodies from colostrum as a normally delivered healthy calf would. When a calf does not attain a certain level of antibodies in its' blood due to not receiving adequate volumes of colostrum, receiving colostrum of poor quality, or cannot physically absorb enough antibodies from the colostrum, whether it be due to acidosis or timing of administration, it is referred to as **failure of passive transfer (FPT).** Unlike human babies in the womb, calves do not receive antibodies through the placenta and thus are born naïve to disease pathogens such as those that cause scours or navel infections. We certainly know that calves that do not receive adequate colostrum are likely to be the ones to succumb to scours, septicemia (blood infection), joint or naval ill. Of great importance is the timing of receiving colostrum. Colostrum has to be absorbed across the intestinal wall and to facilitate this, the intestinal wall is permeable to antibodies and other components of colostrum for the first 24 hours of life. However the amount which is absorbed across the intestinal wall greatly decreases as time progresses and it is suggested **<u>that calves should receive at least 2 liters of high quality colostrum within the first 6 hours of life and 4 liters by 10 hours.</u>** Failure to achieve this often results in FPT.

Photo by Iain Aitken

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facebook

Risk factors for FPT include:

- **Cold stress**

Calves are not born with a lot of energy reserves and when delivered into a cold environment those energy stores are quickly used up to keep the body core warm. Thus cold stress can lead to weak calves that will lack the energy to nurse who then do not get colostrum in time. The colostrum from the dam will provide a special kind of fat molecule only found in colostrum which is brown fat. This fat is metabolized differently and actually produces more heat for the body when metabolized versus regular fat molecules, which on some cold winter nights can make a big difference in calf survival.

- **Being born to a first calf heifer**

Not only do first calf heifers produce less volume of colostrum, the quantity or concentration of antibodies (immunoglobulins) is less as well. Quite often calves born to heifers will be at risk for FPT because of this. In many dairies it is standard practise that all calves born to first calf heifers receive colostrum from mature cows rather than their actual mothers to prevent FPT. This is actually another good reason why heifers should be calved out first and separated from the main herd as their calves will be less protected against disease than that of the older cows.

- **Poor dam nutrition (including lack of mineral/ vitamin program)**

Colostrum is a source of minerals and vitamins for calves. In the case of vitamins, particularly vitamin E, there is very little to NO transfer across the placental wall in utero, therefore the first place a calf gets important vitamins is in the first milk. These vitamins and minerals at the first feeding are critical to calf immunity in conjunction with the antibodies the calf receives in the colostrum. Having a balanced and appropriate mineral program is important throughout the different stages of pregnancy, but remember that mineral nutrition is a long term commitment. You cannot just feed mineral at critical times of production, you have to take a long term approach to set the cow up for success.

Proper nutrition is essential for antibody production and response to vaccination, which impacts the quality of the colostrum. Malnourished animals will not respond to vaccines effectively and thus the colostrum quality will suffer. We vaccinate with scour vaccines in our cow herd, so that those antibodies will be passed on in the colostrum to the calf. Stored forages (ensiled, swath grazed and bailed feed) basically have negligible levels of vitamins A, D and E and can be deficient in certain minerals. These vitamins and minerals play a critical role in the cows' immune response to vaccination and thus a good mineral/ vitamin program will produce better quality colostrum and better quality milk throughout lactation.

- **Poor teat or udder conformation**

Have you ever tried eating chicken noodle soup off the floor? How successful was that? Enough said.

- **Twin calves**

Sometimes there simply is not enough groceries to go around. Did you ever have older siblings who taught you about the tax system by constantly pilfering food off your plate?

- **Little or no colostrum produced (premature calves)**

These dams will come into milk quite readily but if the calf is quite early and the dam has hardly bagged up, chances are there will not be sufficient antibody sequestration into the milk in time to prevent FPT.

- **Dopey calf**

Quite often the result of a hard pull, malnourished dam or genetics. If it looks like it is going to live but needs some help, it is better to start it off right then to struggle with it for a few days to weeks only to have it die later due to scours or septicemia.

- **Poor mothering instinct**

Cow is a good candidate to send to market in fall or maybe she is just a heifer. If you have any doubts about whether this dam can do her job, best to supplement the calf.

- **Udders leaking colostrum continually prior to calving**

The body begins storing antibodies in the udder upwards of 6 week prior to calving, what is lost onto the ground from a leaking udder is not easily or adequately replenished.

Now that we have gone over all of the indications for supplementing colostrum let's touch on the quality of colostrum and possible sources.

- **On Farm Colostrum**

This is your best source of colostrum as the antibodies will be specific to bugs and viruses present in your herd. Be aware however that there will be variation in quality even between adult animals, and some cows even though mature and well vaccinated, do not produce good colostrum. On farm colostrum can be frozen for months or kept in the fridge in a clean container for a few days. It should always be thawed slowly in warm water and not microwaved. Purchased bred heifers or cows for that matter, will not have a colostrum antibody profile that completely matches the bacteria and virus profile of your herd. The calves from these animals will thus be at a disadvantage as they will not be as protected as calves from cows and heifers from your herd. There are instruments available to measure the concentration of antibodies in colostrum so that you can be sure the colostrum is of high enough quality.

- **Neighboring Dairy Farm**

It is plentiful and the price and convenience are ideal but again the antibodies are specific for the dairy herd, not yours. Also, an even greater problem is the risk of bringing in nasty diseases such as Johnes or BVD which can be transmitted through the colostrum as well as many other scour producing agents. Dairy colostrum is best left at the dairy.

- **Commercially Derived Colostrum**

Commercially derived colostrum products are convenient, easily stored, readily available, generally safe and historically have been an absolute pain in the butt to mix. If you choose this route I strongly recommend you steal the electric blender from your wife's kitchen or do yourself a favor and go buy a cheap one for colostrum purposes. Apparently newer formulations are on the way or already available that are easier to mix. What is important to know about commercial preparations is that they typically are only equivalent to a half dose. Thus if you have a prolapsed and dying cow, that calf will need two bags to avoid FPT (read the package to be sure, as some actually contain twice the volume). This is where cheating and mixing more water than directed can cause problems. Some products advise only to mix with approximately 600-700 ml of water and there is good reason for this. If we cheat and mix a bag into two liters we will overfill the abomasum and the calf will not be able to take more colostrum on (presumably from the dam) for a while. Thus being that a bag is only a half dose, we can potentially set the calf up for FPT problems by over diluting the commercial products. Again, one bag is meant to be a supplement, not a complete replacement!

Among commercially derived products there are many manufactures who use different production methods and components. Hands down the best colostrum is "Headstart", gold and red bag or "Calfs Choice Total", gold and green bag, produced by The Saskatoon Colostrum Company Ltd, now simply SCCL, which was started by a group of veterinary immunologists from the Western College of Veterinary Medicine in Saskatoon.

Over the years, their team has done vast amounts of research into all aspects of bovine colostrum, be it effects on neonatal health, disease prevention, dam production, commercial production and quality control. The protocols they use in production are such that they heat treat the product sufficiently to kill all potential bovine pathogens present (most importantly Mycobacterium *avium* subspecies *paratuberculosis* which is the causative agent of Johnes). The quality control is impeccable and every batch of colostrum produced is rigorously tested leaving no doubt that the product is indeed safe and of the highest quality in terms of antibodies, growth factors, mineral and vitamins as well as other naturally occurring enzymes. Their production does not take anything away or add anything to the product, they simply sterilize and freeze-dry colostrum sourced from specifically selected dairy herds across Canada.

Photo by Iain Aitken

Other colostrum companies will often remove fat from their products and add vegetable oil, other ingredients often include whey or eggs. As mentioned earlier brown fat is an important part of colostrum and vegetable oils and other products are not as readily digested and certainly do not provide the heat production needed to help maintain body temperature. Often SCCL colostrum will be priced menially higher but the difference is well worth the confidence in knowing that the product is far superior.

One thing to consider whether you use on farm derived colostrum or commercially prepared colostrum is sanitation of the mixing and feeding equipment. The SCCL webpage (www.saskatooncolostrum.com) has a 6 step procedure for cleaning which is very much geared to dairy producers. I asked one of the founding members of SCCL what was most important for beef producers as there is no way most of us would ever follow the six step procedure and the answer was use very hot water as well as scrub the instruments be it the blender, bottle, nipple or stomach tube drencher. Colostrum is a great source of nutrition for calves and an even better source of nutrition for all sorts of nasty bacteria that can grow inside your equipment.

As always, poor management can always defeat our efforts. Vaccines can only do so much, as is the same with colostrum. Antibodies from colostrum are an ever depleting commodity in the blood stream. Levels decrease by half every 3 weeks. They are not regenerated and are actually used up when calves are exposed to pathogens. If pathogen exposure is consistently high or prolonged then the antibodies will be used up faster thus leaving the calf susceptible to infection. For example, dirty soiled bedding, standing water where fecal pathogens can be shed and subsequently slurped up and a mouthful of feces off a teat with every feeding can quite easily overcome the defences of a good vaccination and colostrum management program.

Regardless of what calf prices are, supplementing high risk FPT calves with colostrum is always economical and often it is convenient. Do you really want to hang around the barn and make sure that the calf that was pulled out via C-section goes to nursing at 3 AM, or would you rather simply have your vet give it a bag of colostrum immediately or perhaps when you get home? Sleep during calving season is golden so do your high risk calves a favor, give them some of the golden stuff and go to sleep knowing they got a good portion of what they need. And if they go to nursing mom later that night, there is absolutely no harm done, the calf is off to a good start.

Dr. Andrew Ritson-Bennett
Innisfail Veterinary Services

Sources: www.saskatooncolostrum.com

Dr. Andrew & son, Liam

For all your animal nutrition needs
contact Kristen Ritson-Bennett
Blue Rock Animal Nutrition
403-358-1674

Save the Date!

Ponoka Riparian Restoration Program Launch

Thursday, April 9, 4:30-8:30pm, Kinsmen Community Centre Meeting Room, Ponoka, AB. Supper will be provided!

Join the Battle River Watershed Alliance and partners as we launch the Ponoka Riparian Restoration Program. This program is all about improving the health of the Battle River and its tributary streams in Ponoka County and the Town of Ponoka. We're interested in working with local landowners to make this happen, and are able to provide funding to support individual landowner projects that benefit riparian health, fish and fish habitat, and water quality improvement. Attend the program launch to learn more about the program and how you can get involved. All are welcome.

Battle River Watershed Alliance - *Connecting people to place for action.*

1-888-672-0276

www.battleriverwatershed.ca Join us on Facebook and Twitter!

A Letter From a Member who Attended the Forage & Crop Agronomy for Profit Workshop

Dear Albert,

I wanted to take a moment to thank you for hosting the "Forage and Crop Agronomy" workshop on February 17, 2015. It was a most informative day and the speakers were excellent.

I thought I would make reference to some of the things I picked up at this seminar as many other grazers and crop production individuals who were unable to attend may want to contact you or the speakers to do some follow up.

First of all I had no idea of the extent of how the overuse of glysophate has resulted in the emergence of many resistant weed species. Although the problem is at a critical stage in the United States, we are seeing the same trends right here in Central Alberta. It shocked me to discover that over 50% of our fields in this part of the province have wild oat plants that are resistant to this chemical. The fact that no new modes of chemical action have been introduced in the past 10-15 years (if my notes are correct) means that wild oat control requires at least two modes of action, that is, chemicals from two distinct groups in order to be effective. Although chemical companies will have no problem in recommending this, it will hit the pocket book for producers.

As for other weeds, it was a surprise for me that when a field is put into forage production for 3-4 years, the survival of these weed seeds is almost negligible.

The break from the cereal-canola rotation into alfalfa/grass, as well as adding nitrogen to the soil also helps in slowing down the weed resistance process in our fields.

Another very interesting session was on knowing how to interpret soil test data. Perhaps even more revealing was how the soil test itself is actually taken. For years I have been pretty consistent in having the soil tested and have followed pretty closely the recommended rate for yield goal. Each spring that I requested a soil test someone would come out, drive over the fields, collect a handful of samples and send them off to the lab for analysis. Usually it was a different fellow doing the tests each year and he would generally take random samples from various parts of the field. I am not saying this was necessarily a bad practice, but after the seminar I have decided to change the way this is done.

There are generally four different ways to take samples.

1. Composite Sampling- here 15-20 core samples are taken randomly, avoiding high and low areas of the field
2. Landscape sampling- the field is broken up into zones to separate the high land - the low land-mid field areas. More expensive as you get three reports back per field and relies somewhat on variable rate application.
3. Grid sampling-the field is broken up into 10-40 acre grids depending on field size and each grid is sampled, again more expensive and variable rate application may be needed.
4. Benchmark sampling- 3-4 location in the field are selected and GPS. These same locations are used each succeeding year in order to establish crop usage from the previous year and to give consistent measure of soil fertility in the same location.

The type of sampling one chooses depends a lot on the kind of equipment you have for application. What it important here is to get consistent samples so that field fertility becomes more of a science than just being a benchmark.

The other interesting aspect of soil testing is that we generally test the top six inches of our fields and allow the labs to extrapolate what may lie in the six to twenty inch zone. Generally they use a mathematical factor of 1.0 to 1.5 depending on the organic matter to get this data. I was convinced after hearing this presentation that it is well worth the money to have the soil tested at both the 1-6 inch level and the 6-20 inch level. Knowing that nitrogen and sulphate are very mobile in the soil and can be flushed well beyond the six inch depth and still be effective, (barley plants at the 3-leaf stage show roots in some cases to 18 inches) it makes sense both practically and economically to know what is down there.

Some other good data I picked up:

- Wheat needs about 2 ¼ lbs of N per bushel yield (plus other product).
- Canola needs about 3 lbs of N and 1 lb of P per bushel yield (plus sulphur).

So do the math and figure out your yield goals. Soil tests tell you what you have and what you need to hit your target yield. Overall the day was very productive and provided great information for both forage and grain producers. Thanks again for organizing event. It was well attended and I am sure I share with the other producers who were there a growing appreciation of good soil management practises.

Thanks Rollie!
AK & GB

By Rollie Comeau

Forage & Crop Agronomy for Profit @ Forshee Hall

On behalf of the Grey Wooded Forage Association we would like to express a special thanks to our guest speakers, Jack Payne, Neil Harker, & Ted Nibourg for the outstanding information delivery & contribution to a very successful event. The comments received on our evaluation forms for the event were first-rate. Overall the event attendees were pleased with the delivery of the information and would like GWFA to continue with their outstanding program delivery. Additionally we would like to express our appreciation to Jolene Bjarnason of Complete Catering for the exceptional catered meal with very short notice. We would also like to give a special thank you to our event sponsors Steffen Olsen of Brix Construction Ltd in Rimbey and Beth Weleschuk of AFSC (Agriculture Financial Services Corporation) in Ponoka for their substantial financial contribution to our event. Also, thank you to all who came out to attend the workshop. In closing we would to express our sincere gratitude to our Corporate Sponsors, Lonestar Ranch & Sales, Rocky Co-op, HighBrix Manufacturing, Crop Production Services & Bunch Welding for their continued support in the delivery of our program.

GB

Save the Date!

Grey Wooded Forage Association

"Creating an Awareness of Forages"

The Grey Wooded Forage Association Annual General Meeting will be held on May 14, 2015!

Watch for more information in April!

General Inquiries:

Alberta Agriculture & Rural Development

Toll free help line: 310-FARM (3276)

or Email: Info@Albertaefp.com

Alberta

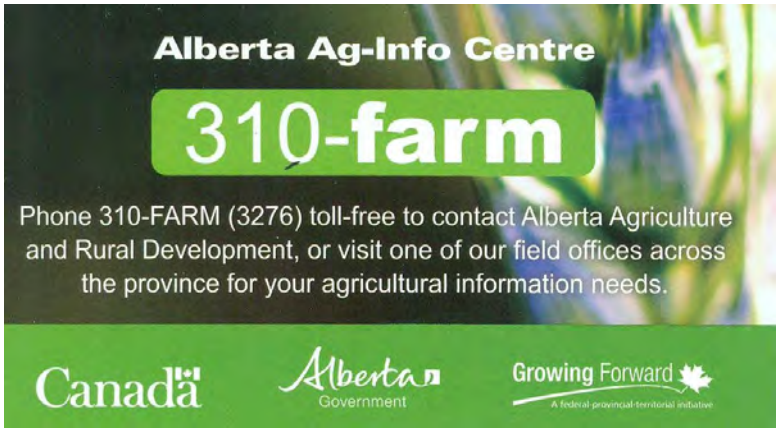
Canada

For more information contact the ARECA office:

Phone: 780-612-9712 or Email: steeple@areca.ab.ca

Growing Forward 2

A federal-provincial-territorial initiative



ARECA

Agricultural Research and Extension Council of Alberta

www.areca.ab.ca

Burning Question of the Season!

Q. Is there a reasonably simple formula to use to calculate pasture rental/custom grazing pasture rates?

*We found a good article on this subject online in the form of an extension factsheet (FR-8-06) from the Ohio State University in the US. It's entitled "**Establishing a Fair Pasture Rental Rate**" by Jeff Fisher, Extension Educator; Agriculture and Natural Resources, Pike County and David Mangione, Extension Educator; Agriculture and Natural Resources, Ross County. We hope this will help those of you who rent pastures out and those of you seeking rental pastures come up with fair deals.*

Please 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.*

Determining Rental Rates

Questions often arise as to what constitutes a fair rental price. Since there is not a commercial market for pasture, determining the price often becomes a matter of bargaining. Supply and demand is probably the most important factor in determining the price. If there is a large quantity of pasture available in a given area and very few farmers needing extra pasture, rents may be low. Likewise, if there were little pasture acreage for rent but many farmers needing extra pasture, rents may be bid higher.

Pasture rental prices are also influenced by alternative land uses. If the same acreage could be planted to corn or soybeans, the price for the pasture would have to be competitive with the rental rate for corn and bean land. If the land is not suited for production of row crops but could produce hay, the return to pasture would also have to be competitive with the return to hay ground.

Livestock facilities and their condition as well as the quality of the pasture and availability of water all have an effect on pasture rental rate.

Division of responsibilities between the landowner and the livestock owner need to be considered when negotiating rental price. In most cases, the renter is responsible for production activities, including checking livestock; providing fly control, salt, and minerals; checking water supply. Land-related activities, such as repairing fence, weed and brush control, and fertilizing and reseeding pastures, are typically negotiable. However, in most cases, it is the responsibility of the renter to repair fences with the landowner providing the necessary materials.

Landowner Considerations

The landowner should cover the real estate taxes, cost of fence repairs, insurance, and interest on his/her investment. However, since pastureland typically sells for a higher price than its earnings can support, the landowner may be only able to cover his out-of-pocket expenses.

Livestock Owner Considerations

The renter should calculate what he/she could afford to pay for rent. All the guidelines and estimates are just that guidelines and estimates. The livestock owner needs to know what price he/she can profitably pay according to his/her projected budgets and returns. Additional responsibilities in the rental agreement, such as fixing fences, fertilizing, and mowing, need to be reflected by making the appropriate adjustments to the rent.

Pasture Rental Rate Methods

Several rule-of-thumb formulas have been developed for determining pasture rental rates on an animal-unit-per- month (A.U.M.) basis or on a per-acre basis. Animal Unit Month is defined as the amount of forage or feed required to feed 1,000 pounds of animal weight for 30 days. Calculating pasture rents on an A.U.M. basis addresses animal consumption requirements and grazing months, based on forage quality and quantity. Pasture rent formulas may be more precise when details on land capability and forage yield can be included. Animal performance may also be used to value pasture based on average daily gain.

Pasture Rent Formulas:

I. Pasture Rent Formulas by Animal Unit Methods:

- Hay value and pasture quality. Number of animal units times the average hay price out of the field per ton times pasture quality factor = rate per head per month.

A. Number of animals units (A.U).
B. Hay price per ton.
C. Pasture Quality Factor.

Factor	Description
0.12	Unimproved, poor condition
0.15	Fair to good permanent pasture
0.18	Very good permanent pasture
0.20	Excellent meadow - grass and legumes
0.22	Lush legume pasture

A x B x C = Pasture charge per head per month

As an example, consider a 1,500-pound cow with a 400 pound calf grazing fair to good pasture when the hay price is $80 per ton: 1.9 animal units x $80/T x 0.15 quality factor = $22.80 per month.

- **Hay value per ton divided by 8.5?** (rule-of-thumb forage equivalent) **multiplied by the animal unit = rate per animal unit per month.** Using the same cow-calf pair and the same hay price as previously: $80/8.5 x 1.9 = $17.88/cow-calf pair per month.
- **Grain value per bushel multiplied by 2.2** (rule of thumb forage equivalent) **multiplied by the animal unit = rate per month.** Using the same cow-calf pair as before: $2.25/bu. x 2.2 x 1.9 AU = $9.41/cow-calf per month.

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II. Pasture Rent Formulas - Per Acre Methods:

- **Rent per acre per season.** Quality of pasture, supply, and demand are the main factors for determining rental rate.
- **Percentage of cropland value.** This varies by region. On average, pasture ground values are nearly 70% of cropland values in Ohio. Pasture rent is then figured at the same percentage of comparable cropland rents.
- **Percent of land value.** Another rule of thumb that has been used is that seasonal rental rate should be equivalent to **3.5 to 6% of current market value** of the pasture land. If the estimated land value is $1,800 per acre: 4% of $1,800 = $72 per acre for the grazing season.

III. **Pasture Rent - Utilizing Yields and Land Capability from the Soil Survey:** All soils in Ohio and most other states have been assigned values for yield and A.U.M. (animal-unit-month): the amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days. The productivity and suitability of soil for grazing can be found for Ohio soils in the county soil surveys.

Here is an example of how we might utilize this information to establish a pasture charge based on yield. The values we will assign:

A. Comparable hay value. We will price pasture at half of the hay value.
B. Annual yield in tons.

C.The number of animal-unit-days (AUD/30 = AUM) the pasture is utilized as a portion of the total grazing season.

A x B = Seasonal Cost

Value of comparable hay: $80/Ton; Pasture Value = $40/Ton
Soil Survey Annual Yield: 2.8 Ton/A.

Seasonal Cost = $40/T x 2.8 T/A = $112/A.

If a stock density can be determined, then a cost per AUM and/or animal can be derived. If the Soil Survey indicates pasture can be utilized for 150 AUD (5AUM) per season, and it is used for 60 days, then the **Grazing Period Cost = A x B x C**

Grazing Period Cost = $40/T x 2.8 T/A x 60/150 = $44.80

If the assigned stocking rate is one animal unit per acre, then the cost per head = AUM charge/number of animals.

For someone grazing a breeding flock in the previous example (five ewes = 1.0 A.U.):

Cost per head = $33.60/AUM x 1 AU/5 head = $7.72/head for the grazing period which equates to $3.36/ewe/month.

IV. Pasture Rent Based on Gain for Stockers and Heifers:

When establishing pasture rents based on gain, the tenant and landlord must establish base values for per head/per month, number of grazing months, expected gain, and cost of gain.

A. Pasture charge per head per month
B. Grazing Season - number of months
C. Reasonable expected gain during grazing period (lbs)

To illustrate how this might work, one of the previous examples might formulate a pasture charge for a yearling steer at $10 per head per month.

A x B = Seasonal Cost $10 x 6 = $60 per head

The cost of gain calculation is based upon an expected gain during the grazing season.

(A x B) / C = Cost of Gain $60 / 200 lbs. = $0.30 per pound of gain

Instead of charging $10 per head per month, the owner of the pasture could charge $0.30 per pound of gain which might be considered a break-even price. If the gain turned out to be above the expected gain, say 250 pounds, then the landowner would receive $75 per head per season.

On the other hand, if grass is short and gain is only 150 pounds, the landlord would receive $45 per head per season. Feeding grain increases the average daily gain and may allow increased stocking rates, but it also increases the cost of gain and a new charge should be figured.

In Summary

Many factors affect the price paid for pasture rental, with supply and demand being the most important. Pasture quality, water availability, condition of fences and facilities are also important. The livestock owner needs to know his or her cost of production to calculate what he/she can profitably pay for the rental of pasture.

In turn, the landowner needs to know his/her ownership costs. An agreement that is fair to both parties can be negotiated when risk and responsibilities are understood.

GWFA Staff photo

Foragebeef.ca Technical Information for the Canadian Forage Beef Industry

New publications added in February!

Good day forage and beef people from across Canada! Note the following fine works by the finest of the bunch!

Brought to us by Roy Arnott, Farm Management Specialist with Manitoba Agriculture, Food and Rural Development, Foragebeef.ca has added the Manitoba Cost of Production for Beef and forage production. This work has been posted in both the Beef Cow Calf Economics and Harvested Crop and Pasture Economics folder.

The video built by Sarah Sommerfeld, Regional Forage Specialist with the Saskatchewan Ministry of Agriculture, "Alfalfa Weevil in Saskatchewan - Web video" has been placed into the Alfalfa Insects and Diseases folder.

Written by W. Majak, Agriculture and Agri-Food Canada, Kamloops, T. A. McAllister, Agriculture and Agri-Food Canada, Lethbridge, AB, D. McCartney, Agriculture and Agri-Food Canada, Lacombe, K. Stanford, Alberta Agriculture, Food and Rural Development, Lethbridge, and K-J Cheng of the University of British Columbia, Vancouver, BC, Bloat in Cattle has been placed in the Bloat in Pastures folder.

The work done by Y. Li of the College of Ecology and Environment Science, Inner Mongolia Agricultural University, Huhhot, China, and also from the Semiarid Prairie Agricultural Research Centre, Agriculture and Agri-Food Canada, Swift Current, Saskatchewan, A. D. Iwaasa of the Semiarid Prairie Agricultural Research Centre, Agriculture and Agri-Food Canada, Swift Current, Saskatchewan, Y. Wang and L. Jin of the Lethbridge Research Center, Agriculture and Agri-Food Canada, Lethbridge, G. Han and M. Zhao of the College of Ecology and Environment Science, Inner Mongolia Agricultural University, Huhhot, China and published in the Can. J. Plant Sci. 94: 817-826, Condensed tannins concentration of selected prairie legume forages as affected by phenological stages during two consecutive growth seasons in western Canada has been placed into the Species-Legumes Folder folder.

The work done by N. B. Alber, Gaylord Nelson Institute for Environmental Studies, University of Wisconsin-Madison, Wisconsin, USA and G. E. Brink, and R. D. Jackson and published in the Can. J. Plant Sci. 94: 827_833, Temperate grass response to extent and timing of grazing has been placed into the Pasture Management – Grazing Management folder.

If you've found these works interesting, feel free to pass them on to your friends! If you would like enhanced exposure to the work that you've done, feel free to pass them on to Foragebeef.ca and we'll post them.

Alberta

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