

# The Blade

"Creating an Awareness of Forages"



## **APRIL 2015**

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Photo by Jasmine Boucher

Call for
Nominations for GWFA
Director for the AGM!
See Page 9



#### In this Issue:

- Sustainable and Profitable? Pg 5
- Blocks, Tubs, Mineral or Supplement: What's the Best Choice? Pg 7
- Extending Your Grazing Season Starts in Spring Pg 9
- The Scourge of the Cattle Producer SCOURS! Pg 12

#### **Upcoming events:**

- GWFA Annual General Meeting May 14 2015 Pg 3
- A Holistic Management Overview with Don Campbell Pg 14

#### **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.





#### Grey Wooded Forage Association Announcement

#### Membership fees are due!

The Blade will not be mailed if the membership fees are not received by May 14, 2015. We will not be invoicing for membership.

Please advise us if you would prefer a digital copy and provide a current email address.

Please contact gwfa3@telus.net to update your email address

# 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
- Farm calls and consulting on grazing management and any other forage production questions.
- Receive The Blade monthly-printed and mailed, or via a link sent to you by email each month.
- · 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 to: Grey Wooded Forage Association Box 1448, Rocky Mountain House, AB, T4T 1B1

| Name<br>Company Name                                 | Phone<br>Mobile Phone                                 |
|--|---|
| Address  |   |
|  | ProvEmail   |
|  | Confirm Email   |
| Please give us an idea of                            | what area of forage production you are interested in: |
|  | ture Management:                                      |
|  | for Extended Grazing or Swath Grazing:                |
|  | for Silage or Greenfeed:                              |
| Growing Hay:   | Ration Balancing:                                     |
| Soil Biology:  | Pasture Rejuvenation or Renovation:                   |
| Low Cost Cow/calf Produ                              | action:   |
| Environmental Sustainab                              | rility: Economical Sustainability:                    |
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## Grey Wooded Forage Association

"Creating an Awareness of Forages"

# Annual General Meeting

May 14/2015
Leslieville Community Hall

4:30 pm: Trade Show opens

5:30 pm: Roast beef supper

& Trade Show

6:30 pm: Annual business meeting followed by guest speaker

Ben Wilson from FarmOn

www.farmOn.com

Silent auction throughout the evening Silent Auction items are needed Please call to donate items

Call 403-844-2645 or email gwfa3@telus.net for more information or to register.



on or before May 8th: \$25.00

after May 8th: \$30.00











#### Manager's Notes:

By Albert Kuipers

#### Greetings, GWFA members and friends!

Well, it looks like winter and spring are dukin' it out. Hopefully spring wins out. All you guys who moved your calving season to

get out of winter sure will be happy if we get some nice, warm spring weather now.

Looks like we have an excellent AGM and tradeshow coming together for May 14th. The **tradeshow** will start at 4:30 PM and will stay open till the annual business meeting starts. This is great time to visit with our friends and supporters who provide products and services to our industry. A **silent auction** will be open all evening with the successful purchases to be announced at the end of the evening.

As usual, the Leslieville Community Centre will be providing us with a **roast beef dinner** that's second to none. Anyone who's attended events at the Leslieville Community Centre will agree that they always put on an awesome meal.

After we're totally fed up, we'll be holding our **annual business meeting**. The Board of Directors is proposing a couple of bylaw changes as announced below. The first is to add some flexibility to the terms a Director can serve. For some, a two year term of office might be preferable. Others would love to stay on the Board longer, so re-election for a second two year term will accommodate that.

The second bylaw change is to streamline paying of bills. Getting two signatures on each cheque requires a lot of juggling when signatories are spread out over several counties. The Board will be developing policies to ensure sufficient checks are in place to protect the organization, its Board of directors and its staff.

The Board will also be asking for your approval for new, simplified vision and mission statements for our organization. Here are the draft mission and vision statements the Board will be proposing.

#### **Draft Mission Statement:**

"To promote environmental & economically sustainable forage and agricultural practices"

#### **Draft Vision Statement:**

"The Association is engaged in regenerative agricultural production practices"

As at every GWFA AGM, we will be holding elections for new Directors for our organization. This year we have four positions to fill. If you have a burning desire to contribute by helping to guide our organization in delivering valuable information to the agricultural community in the six counties we serve, please let your name stand for election at the AGM. If you know someone who such a burning desire, please confirm his, or her willingness to serve, and bring forth your nomination.

Last, but not least, we are having **Ben Wilson** from the **FarmOn Foundation** talk with us about how their organization works with GWFA and other organizations to tell the world the good news stories in agriculture today, from the point of view of young, and young at heart farmers. Besides being an excellent advocate for our industry, the FarmOn Foundation makes a wide variety of training programs and products available to you online, including grazing management and electric fencing videos in collaboration with yours truly.

#### **BIG BEAR SERVICES**

#### **David Patenaude**

(403) 638-6763 Didsbury, AB. email: bubbabert@telus.net website: www.tajfun.com







## **Announcement: Proposed Bylaw Amendments GWFA Annual General Meeting on May 14, 2015**

Bylaw 5 B The Board of Directors and Officers

If you have any questions regarding these proposed bylaw changes please call our Chair, Victor Penner at 403-846-5343

#### Current wording:

One third of the directors shall be elected each year for a 3-year term, after which they must step down for 1 year before being eligible for re-election.

#### Suggested amendment:

One third of the directors shall be elected each year for a 2-year term and can serve two consecutive terms, after which they must step down for 1 year before being eligible for re-election.

Bylaw 6G Duties of the Directors and Officers of the Board

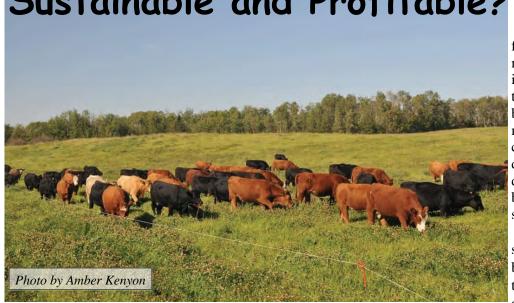
#### **Current wording:**

The chair, vice-chair, secretary, treasurer and manager shall have signing authority. Any 2 signatures shall be valid on cheques, except that the manager shall not sign cheques to the staff.

#### Suggested amendment:

The chair, vice-chair, secretary, treasurer and manager shall have signing authority. Any 1 signature shall be valid on cheques, except that the manager shall not sign cheques to the staff. Where appropriate, electronic banking will be used.

## Sustainable and Profitable? greenerpasturesranching.com



After attending numerous conferences this past winter, one common theme stood out; marketing for sustainability. We are continuously being reminded that major corporations such as A&W, McDonald's and Walmart are working towards sustainable resources, and with that, we are being reminded that this is one of the things consumers are considering when purchasing products. What does this mean for us as farmers? If we want our products to be marketable, we may need to adhere to the trend and to the standards that the consumers are beginning to demand.

One of the big worries among producers when considering progressing towards a more environmentally sustainable method of farming, is the costs associated with such change. Can we really still make a profit, while being sustainable?

At Greener Pastures Ranching, the family farm that my husband and I run out of Busby, Alberta, our mission statement is "Economic and Environmental Sustainability for Generations". We truly believe that it is possible to be both sustainable and profitable, but it requires business skills and people power. The most important part of our business is the people, human resources. This includes us, our cattle owners, our land owners, the semi-truck driver that hauls the cattle for us, the farmer down the road that produces hay, our accountant, our neighbours, and everyone else that we might come into contact with as we operate our business. Without the people our ranch couldn't run. The human resources side of the ranch is also one of the main determining factors on any changes that we might consider implementing.

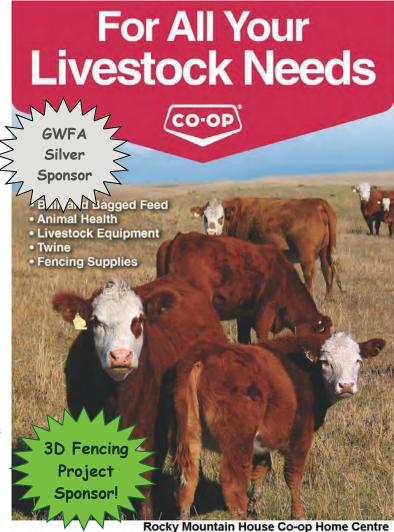
The other determining factor is the economics and finances behind any possible changes. Ranching for us is first and foremost a business, and businesses need money to stabilize and grow.

To figure out the numbers, we take our business as a whole and break it down into smaller pieces. In order to make good decisions we need to know exactly where we're making money, and where we might be losing it.

On our farm we have multiple profit centers. We raise and direct market all natural, pasture raised pork, we have a custom grazing business on leased land, we have started selling stinging nettle tea and we direct market grass fed beef for a friend of ours. It sounds like we should be making money, but there is no way of knowing until we break each of those profit centers down and see what the actual numbers behind them are. When we do our gross margin analysis, we always make sure to include our labour, our equipment costs, our depreciation and our opportunity costs. We don't believe in unpaid labour. We want to be able to feed our family and yours while still keeping our business viable.

All of that being said, can we also be sustainable? To the point where the land will be in better condition for our grandchildren than it is right now? When we have a good and realistic grasp of where our farms stand

economically, we can start making changes towards sustainability. We have found that it is actually more economically feasible to run a sustainable farm, than it is to run a traditional one.



Toll Free: 1-855-845-4166

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When you can reduce or completely negate the expensive inputs, such as fertilizer, pesticides, herbicides, de-wormers and such, you can cut your costs by large amounts. You can then cut mals by ensuring that the cattle are consistently receiving clean your costs down further when you can find ways around running expensive machinery. This process often needs one to look a little 'outside of the box' however. I see more and more farmers coming up with economical and sustainable ways of maintaining or increasing their production, all while cutting their day to day costs of operation. They get very creative with it and it works.

Rotational grazing of cattle is a huge step in the right direction, and when it's properly put into practice, it can do wonders for the land and the animals. We have seen fantastic weed control on our farm, our soil continues to improve year after year, our pests are well controlled due to a healthy natural cycle, and we don't need to treat for parasites. We also work to protect our riparian areas.

By putting up fences and installing water systems, we allow for animals like ducks, geese, bugs and plants such as duck weed to have a natural habitat. These water systems not only

restore the natural water cycle, but they cut down on the costs of treating for things like footrot. They also make for healthier aniwater.

These are just a few of the things that we have put into practice on our farm to ensure that we are holding true to our mission statement. We are constantly on the lookout for new information, whether it be through schools, conferences, books or networking. Here at Greener Pastures we believe that it is more than possible to be both economical and sustainable. If the

trends and public opinions continue in the same direction as they're headed right now, sustainability may not just be a possibility, but a necessity.

Amber Kenyon Greener Pastures Ranching Ltd. www.greenerpasturesranching.com





**Crop Production Services (CPS)** fed over 80 guests at their Rimbey facility. Seed sales were good, and a great opportunity to fellowship.

Grey Wooded Forage Association staff Albert Kuipers and Ginette Boucher met old acquaintances, developed new ones and distributed many issues of the Blade to create awareness in Ponoka County.

The bbq meal was excellent, and to top it off it was a beautiful warm sunny day. Thanks you CPS for the invitation and we look forward to building a strong relationship in the future. GB



## Blocks, Tubs, Mineral or Supplement: What is the Best Choice?

After talking to various retailers, one comment comes out loud and clear. Sales of lick tubs, molasses blocks, mineral products and protein supplement sales are way up from previous years. One would question: Is the product or products used the proper choice for the type of animal fed and the feeds that are in the feeding program. Is the product or products used a cost effective method to supply additional nutrients to a feeding program? Do these products have the capability to supply the nutrients that are required?



There are three things needed before a decision can be made whether or not any added products are required. Are the feeds tested? What are the weights of the animals you are feeding? And how much of each feed is supplied daily (ie: do you know the weights of the bales)? Without answers to these questions, any attempt to provide a balanced ration by experience or guess and by golly can lead to big problems. If the quality of the feeds is not known there is no way to know if the tub, block, mineral or supplement is actually needed. If there is no defined starting point in the process it is difficult to know if the actions taken are helping or hurting the situation.

Over the last year, the value of cows and calves has increased dramatically. It is understandable that farm and ranch owners or managers are trying to maximize the number of healthy calves born this year. They also require a high reproductive efficiency for the upcoming breeding season. This is sound management. It is well understood that nutrition has a big part to play in calving and re-breeding success. Good management also involves achieving the objectives as efficiently as possible. This includes minimizing the costs when feeding and supplementing cows. Harlan Hughes, a beef economist in North Dakota, stated in the mid 1990's, that reducing winter feeding costs by one dollar (\$1) increases overall profitability of the operation by \$2.48.

Typically, supplementation programs supply energy, protein, minerals, vitamins or a combination of the four. Does the product of choice meet requirements? In the first situation let us assume that the ration is short of protein and one pound of a 20% protein block (\$385 / tonne, or 17.5 cents a pound) is required. How does this cost compare to adding wheat distillers grains (WDG) with solubles at 10 cents a pound which has 48% protein. To provide the same amount of protein, the WDG should be fed at 0.4 pounds at a cost of four cents per head per day. The WDG needs to be fed with grain or pellets. The cost of processing and delivering the grain needs to be calculated into the total cost. With the grain and WDG feeding plan, it is relatively safe to assume that every animal will receive some grain with added protein every feeding. When feeding tubs, blocks, supplements or mineral free choice; there is no way to know how much product an animal is consuming and at what interval. The free choice system has the greatest risk of not achieving the intake that is needed.

In the above example, a 1400 pound cow in late pregnancy requires a 9% protein diet (dry basis) or roughly 1020 grams of protein per day. Adding one pound of a 20% block or supplement increases protein content in the ration by 90 grams. The protein content of the diet increases by 0.5% on a dry matter basis. If the supplied ration is at 8%, adding one pound of a 20% product improves the situation, but it does not meet requirements. Without feed test results, the ration could easily be 12% protein and there is a protein supplementation cost of 17 cents a day per cow that is

not required. This is hard earned money that does not need to be spent.

When feeding cereal silage, greenfeed or swath grazing to pregnant cows, the largest problem associated with these feeds is a lack of calcium and magnesium. In this situation an added product should have more calcium than phosphorus. Most block and tub products along with some minerals have equal amounts of calcium and phosphorus or generally a 2:1 calcium to phosphorus ratio. In many situations the calcium to phosphorus ration in a mineral product may need to be 8:1 or higher (similar to a feedlot type mineral) to bring calcium and phosphorus levels into line.

Tub or block products have lower calcium and phosphorus levels compared to a dry mineral. It is difficult to have minerals stay in suspension during the manufacturing process. To successfully register a feed product the Canadian Food Inspection Agency requires that the nutrient content in the first block must be the same as what is found in the last block in a batch. Calcium and phosphorus are difficult to keep in solution during the mixing and manufacturing phase; thus the lower concentration in the final product. It is generally more efficient and more





In a swath grazing situation where the feed contains 0.32% calcium and 0.2% phosphorus and the calcium content in the tub or block is 4.7% calcium and 1.75% phosphorus; it would require 3.9 pounds of the block product to achieve a 2:1 calcium to phosphorus ratio in the final feeding program. Cost would be \$0.63 per head per day (at 17.5 cents a pound). There would be other nutritional problems if this feeding program was followed. Some nutrients would be excessive and it could cause a reduction in performance. A second option would to be to feed 0.067 pounds (30 grams) of limestone (38 % calcium) to achieve the 2:1 ratio. The cost would be one to two cents per head per day. If a feedlot type mineral with 24% calcium and 8% phosphorus is used and fed at 0.25 pounds a day, the cost would be roughly 8 cents per head per day. The key is to minimize expense but provide a proper ration.

Every farm or ranch is different and there are many possible feed combinations to provide a balanced ration. Unfortunately, there is no single answer that will fit all situations. Adopting a feeding practice must fit your management style and operation. It is not acceptable to copy what a neighbor is doing because it seems to be a reasonable thing to do. Use a pencil and paper or computer to figure out costs. If necessary, consult with a nutritionist to balance the ration or if you are comfortable; use a ration balancing program such as CowBytes to do the work yourself.

Barry Yaremcio, Beef and Forage Specialist Alberta Agriculture & Rural Development Ag-Info Centre, Stettler. 3D Fencing
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Canadä'





# Extending Your Grazing Season Starts in Spring GWFA Staff photo

So you want to extend your grazing season. Great! Extending your grazing season is a fine way to reduce the annual feeding costs of your cow herd.

Now, there are a few different ways to look at extending the grazing season. Some see any system that has the feed out in the field and eliminates operating feeding equipment as an extended grazing system. Others see extended grazing as a system in which standing forage is saved for fall, winter and early spring grazing.

Swath grazing is an extended grazing system that has become widely used in Western Canada. Swath grazing has been shown to reduce feeding costs of cows by about half, depending on yield and efficiency of use.

Bale grazing is another popular extended grazing system. Bale grazing is not so much a winter "grazing" system, but rather, a winter feeding system that is often used to get nutrients and organic materials onto a pasture.

My focus for this article is on saving standing forage for fall, winter and spring grazing. Many wonder how this is even possible. At best, many Albertan's experience a growing season of less than four months. How is it possible then, to extend the grazing season to eight, ten, or even twelve months in some areas of Alberta.

It's quite understandable that many choose swath grazing and bale grazing instead of grazing "stockpiled" forages in winter. "Stockpiled forage", or "banked grass" are terms that are often used when referring to standing forages saved for dormant season grazing.

Now to the "how to" question. Obviously, pastures are used primarily for grazing during the growing season.

How can standing forage be saved for the dormant season at the same time? In most cases certain pastures are designated for dormant season grazing. To ensure that the forages in these pastures are of sufficient quality for later grazing, they are usually grazed only in spring and early summer, and then left to regrow till fall.

Another way to bank grass for dormant season use is to stockpile a large amount of quality forage while you're grazing the same pastures you're using in the growing season. This starts with some good planning when you're developing your grazing plan and the first graze of your pastures in spring is of utmost importance in making this even possible.

The goal of your first graze is stimulate increased forage density without slowing plant growth. To accomplish this you must graze no more than 25% of the forages available. Over the years I've often suggested to move very fast over the pastures, leaving most of the forage there. If it looks like they've eaten almost nothing you'd be within that 25% utilization.

Stock density is very important as well. If you turn a small herd into a large pasture (low stock density), you will likely see some areas grazed severely and other areas not touched. This will not accomplish your goal for that first graze.

You need to get the stock density up to the point where

#### **Grey Wooded Forage Association**

Annual General Meeting Announcement May 14/2015

We are looking for 4 new Directors for the coming election.

Please consider letting your name stand for a board position, or nominate a willing friend. You are needed!

This is your opportunity to make a difference!

GB

Most Directors say they gain much more than they contribute.



the livestock graze uniformly, the herd moving across the pasture like one big machine. If you watch them grazing you'll see they're grazing with gusto and taking mostly the tops of the forage plants. This will accomplish your goal, if you make sure you move the herd to the next paddock before they've grazed 25% of what's there.

Back in the day, I accomplished this with a stock density of 50 to 60 animal units per acre, animal units being 1,000 lbs. of critter. That's 25 to 30 fifteen hundred pound cows with calves weighing about five hundred pounds. At this rate I could still get away with once a day moves.

At greater stock densities you can achieve more uniform grazing, which is desirable. To achieve higher stock densities and still graze less than 25% of the standing forage, you'll have to move the herd more than once a day.

Just last year I came upon a quote from a fellow by the name of Lee Manske, a range scientist at North Dakota State University's Dickinson Research Extension Center. Lee states, "When 25% of the grass tillers leaf area is removed during the first grazing period, the quantity of secondary tillers increases 38% during that same growing season and increases 64% to 173% during the second growing season. When 50% of the grass tiller leaf area is removed during the first grazing period, the quantity of secondary tillers decreases 53% that same growing season and decreases 63% to 144% during the second growing season."

I got really excited when I saw this statement because it put numbers to the grazing strategy I used myself and suggested to many. This shows that the first graze of your pastures has a huge impact on your pasture's productivity, making grazing management a very large contributor to pasture productivity and profitability.

OK, let's move on to your second round of grazing your pastures. By now you're more than likely to be in about mid to late June and you should have about twice the amount of forage than you had in the first round.

If your goal is to stockpile, or bank forages for winter use, you still want to take only 25% of what's there. However, with twice the forage available, 25% is twice as much forage than in the first round. That means you can slow down, so you'll take about twice as long to move over your pastures.

I accomplished this by reducing the size of the area grazed each day to half of what it was in the first round. Stock density was doubled, so there was also a corresponding improvement in uniformity of grazing. While forage re-growth

was slower than in early June, it was not slowed down much by grazing.

By late August you should have gained back what you grazed in the second round and maybe a bit more. Most of your pastures should have enough forage standing to last you well into winter and maybe, with some planning, for early spring grazing as well.

Now, over the years I've had guys tell me that's just too much work. I'd say, though, that the time you put into grazing management in this way will net you far more profit than any other input you could put into your pastures.

By the way, this system of gazing management is also an excellent drought proofing strategy for your pastures. Grazing no more than 25% preserves and builds large root systems that can access lots of water and nutrients in the soil.

This system also keeps a dense blanket of forages covering the soil, keeping it cool and keeping it from drying out. I remember one time in the drought of 2002, I walked a friend's pasture in late July. The areas near where the cattle watered was dry, weedy and swarmed with grasshoppers. At the far corner of the pasture the forage covered the ground heavily. The soil surface was cool and virtually no grasshoppers were to be seen.

If you want to learn how to manage your pastures in this way, give me a call at 403-357-7659. I'd be happy to help you get started.

Albert Kuipers





#### New publications added in March!

Good day forage and beef people from across Canada! Note the following fine works by the finest of the bunch! Foragebeef.ca has added the following factsheets and research papers for your review and benefit.

<u>AgriProfit\$ - Corn Grazing</u> and <u>Annual Total Corn Heat Units</u> (1971-2000) - <u>Alberta</u> into the Extended Grazing <u>Using Corn</u> folder.

Online detection and quantification of ergot bodies in cereals using near infrared hyperspectral imaging and Validation and transferability study on a method based on hyperspectral imaging for the detection and quantification of ergot bodies in cereals into the Health and Disease Ergot folder.

Effect of development system on growth and reproductive performance of beef heifers into the Reproduction folder.

<u>Calling on More Troops – New Beetles Help Degrade Dung on</u>
<u>Canadian Pastures</u> and <u>Common dung beetles on pasture</u> into
the <u>Nutrient Management</u> and <u>Soil Biology</u> folders

<u>Biological Survey of Canada</u> - a not-for-profit organization that helps to coordinate research on the Canadian biota and

<u>GoForages,ca</u> - a University of Guelph website offering links to Canadian and American forage and livestock websites is also placed into the <u>Links -Other Sites of Interest</u> folder.

PM Cutting with Wide Swathing: An Option Compatible with Silage in a Day is placed into the Silage Management folder.

If you've found these works valuable, feel free to pass them on to your friends! If you would like enhanced exposure to the work you've completed, feel free to pass it on to <a href="Foragebeef.ca">Foragebeef.ca</a> and we'll post it.





### General Inquiries:

Alberta Agriculture & Rural Development

Toll free help line: 310-FARM (3276)

or Email: Info@Albertaefp.com



For more information contact the ARECA office:

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





## The Scourge of the Cattle Producer - SCOURS



Now I know this isn't forage related, but it is pretty relevant to most cattle producers at this time of year...so give me a little leeway!

Here we are! Spring has sprung and so have baby calves, rapid run-off, mud/fecal puddles, standing water and calf scours. Calf scours is something that all cattle producers have encountered and

dealt with. They can have a huge financial impact on your operation between cost of drugs, veterinary visits, labour in treatment and monitoring. Even after all that effort we sometimes do not win the battle with scours. When cattle prices are where they are we feel the loss of calves that much more. Often when you hear of producers swapping stories on "a wreck", they are referring to a terrible calving season where most of their time was spent treating scouring calves. Losses can be as high as 50% in a severe scours outbreak.

While some calves recover from treatment, there is a long term effect on the economics of your operation. Research shows that affected calves weigh as much as 35lbs less at weaning than healthy calves. At today's prices that can amount to a

loss of \$100 per calf at weaning!

#### So what exactly is scours?

Calf scours are characterized by diarrhea which can prevent the absorption or cause the loss of fluids and nutri-



ents from the intestines. This leads to dehydration and lethargic, acidotic calves that do not nurse. The loss of fluids is also accompanied by the loss of critical electrolytes such as sodium, potassium, chloride and bicarbonate ions which are essential for normal cell function and regulation of pH in the body. The intestines often end up with permanent damage, hence the overall decrease in weight gain over the birth to weaning period.

#### What happens when my calf ends up with scours?

The primary damage in the intestines comes from infectious agents but death occurs from a combination of dehydration, acidosis and loss of electrolytes. The identification of the agent causing the scours can go a long way in helping us determine appropriate treatment for infected calves. Below is a chart that help to identify the infectious agent, age of calves infected, transmission and primary fecal signs.

| Infectious                        | Age of Affected                                  | Method of  | SIGNS   |  |
|-----------------------------------|--|--|---|--|
| Agent                             | Calves   | Transmission   |   |  |
| BACTERIAL                         |  |  |   |  |
| E. Coli                           | newborn calves typi-<br>cally less than 5 days,  | Fecal/Oral   | Effortless passing of yellow or white feces                 |  |
| Salmonella                        | Usually 2-6 weeks<br>but can be any age          | Fecal/Oral Colos-<br>trum/Milk<br>Saliva/Nasal<br>In-utero | Yellow to white Feces                                       |  |
| Clostridium<br>perfringens type C | 5-10 days but can be in up to 2 month old calves | Fecal/Oral   | Severe dark bloody<br>diarrhea. Rapid dete-<br>rioration    |  |
| <u>VIRAL</u>                      |  |  |   |  |
| Rota virus                        | 7-14 days  | Fecal Oral   | Watery brown to light green feces, blood and mucus          |  |
| Corona virus                      | Newborn to 1 month                               | Fecal/Oral   | Watery, Yellow Fe-<br>ces                                   |  |
| PROTOZOAL                         |  |  |   |  |
| Coccidiosis                       | 3 weeks to 6 months                              | Fecal/Oral   | Blood tinged Feces<br>sometimes with in-<br>testinal lining |  |
| Cryptospridium                    | 5 days to one month                              | Fecal/Oral   | Blood tinged Feces 12                                       |  |

Treatment options for all of these infectious agents can be different, but let's start with prevention and then talk about treatment.

#### PREVENTION IS THE BEST MEDICINE!

These are the **top 5 things** you can do to prevent scours from occurring and reduce the chances of transmission.

- 1. **Reduce exposure** of newborn calves to infectious agents that are present in the environment
  - Clean and disinfect all calving areas before the calving season has started. Some of these agents naturally live in the environment
  - Minimize confined calving/high stocking density if possible
  - One-way flow of cows that are calving: Pre-calving > Calving/Maternity > post-calving > Turn out with older healthy pairs
  - Calving and calf creep areas need to have good clean bedding and be well drained. Fecal/Oral is the most common transmission, so cleanliness is key!
  - Remove sick cow/calf pairs from the healthy group
  - Avoid standing/ stagnant pools of water, do not calve downstream of wintering sites (run-off)
  - SANITIZE equipment, boots and hands between treatment of sick calves
  - Calve heifers first so their calves are older before the environment becomes heavily contaminated with scour agents later into the season (heifer colostrum is typically not as high quality as a mature cow)
  - BVD virus shed from Persistently Infected (PI) calves will immunosuppress calves making them more susceptible to scour agents

#### 2. Keep stress to a minimum

- Assist with calving when needed
- Keep animal dry, clean and provide wind shelter
- Have cows in a body condition score of 2.5-3 for optimal calving
- 3. **Ensure adequate colostrum** intake by calves
  - Nurse as soon as possible after calving
  - Supplement if necessary this was well covered by Dr. Ritson-Bennett in the February edition of The Blade
  - Maternal nutrition is very important in producing high quality colostrum for high passive transfer of antibodies.
- 4. Have a **scour vaccination** protocol in place
  - Helps to provide protection to the calf through the colostrum
  - There is no such thing as a universal protocol. **Talk to your veterinarian** to implement the most appropriate vaccination

protocol for your operation. It is possible to vaccinate against rota virus, corona virus, E. coli and Clostridium perfingens.

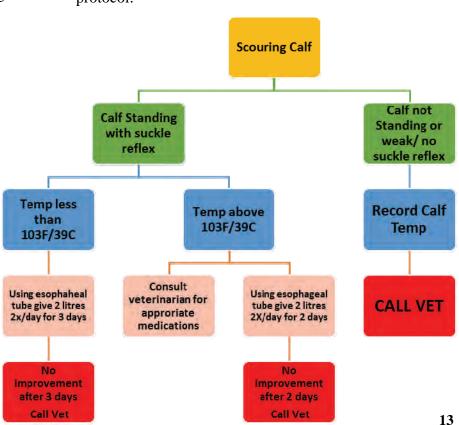
#### 5. Feed a **coccidiostat**

- Coccidiosis is a common source of scours and plays a role in immune response
- Can be included in a mineral/feed program: decoquinate (Deccox®), lasalocid (Bovatec®), monensin (Rumensin®), or for individual treatment Amprol or Baycox®. Discuss with a nutritionist or veterinarian to determine the most effective coccidiostat for your program.
- Although some cost is associated, it will always pay you back in improved gains and reduced labour costs associated with treatment (Keep that extra \$60-100 at weaning in mind!)

#### **Treatment:**

Even after implementing all the prevention measures listed, the pathogens can still be present in the environment. At the very least you have reduced the number of cases you will have to treat. The sooner you recognize that a calf is scouring the better the chance you have at saving it and reducing your costs associated with scouring. A calf that is lethargic, isolated, dehydrated (skin tents when pinched and eyes sunken), had watery/bloody/discolored feces and a high or low body temp (normal being 37.8-38.9 degrees C or 100-102 degrees F) should be closely monitored.

Below is a flow chart for easy decision making. Time is key for these critters, so take action following this protocol:



#### **Principles of Treatment:**

- 1. Calf comfort
  - Keep calf warm and dry isolate from healthy calves.
- 2. Rehydration
  - Use the appropriate electrolyte for the situation.
  - Bicarbonate containing electrolytes may promote bacterial growth by increasing pH, **do not add baking soda or table sugar**. This environment is ideal for salmonella and E. coli proliferation.
  - Ask your vet how to tube a calf if you do not already know.
  - Calf-Lyte II®, REVIBE HE® only use commercially manufactured electrolytes. They are specially formulated to deal with dehydrated calves.







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- 1. Do NOT withhold milk for longer than 12 hours
  - Oral electrolyte treatments do not contain enough energy to sustain calves and withholding can exacerbate problems
- 2. Re-evaluate regularly
  - Hydration, demeanour, suck reflex, feces
  - Take appropriate actions

Overall focus should be on prevention and management, NOT products or interventions. We have covered the causes of scours, the prevention of scours and the treatment of scours. The primary reasons for scours outbreaks are poor dam nutrition causing a failure of passive transfer of antibodies in colostrum, unsanitary calf housing and bedding, overcrowding and improper cleaning of areas where sick calves have been. Tackling a few prevention measures can go a long way in reducing your costs associated with calf scours on your farm and keeping that extra \$100/calf in your pocket.

References: wcabp 2014 Dr. Geof Smith DVM, North Dakota State University

By Kristen Ritson-Bennett 403-358-1674









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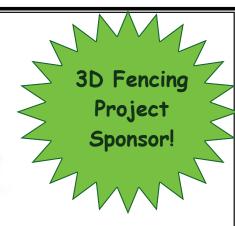
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