



January 2009

Director's Note

Happy New Year Folks!

There's no use looking back too much on 2009 as it wasn't a year to admire or simulate for most beef producers. So as a Chinese Proverb says; "If we don't change direction, we are likely to end up where we are headed." It looks like Mother Nature is making a slight change in the weather as the New Year gets underway; today it is 7°C outside and last week it was -30°C at one point. Should make for an interesting calving season!



As one of the newest board members on the Foothills Forage & Grazing Association I would have to say that it is an exciting and worthwhile organization that has been bringing a great deal of value to producers who are committed to growing their livestock business - sustainably and economically.

I think you will be interested in what the Foothills Forage & Grazing Association has to offer in 2010! We meet as a board every month to brainstorm, plan and execute a series of valuable workshops, seminars and informational trails throughout the year.



CRAPPY CALVING

This February 24th we will begin with some power-packed marketing information at our event in High River with Andy Sirski and Meyers Norris Penny. Our Annual General Meeting (AGM) will be held on March 18th featuring Brenda Schoepp - A MUST SEE! Spring and summer will be filled with great trials and tours for everyone. And this fall is your chance to go to BRAZIL on our premier Farm & Ranch tour. What an opportunity to see and learn about one of our biggest competitors in the world beef market. We encourage you to come and join us. *For more information contact Laura (403) 652-4900.*

As we get rolling on a new year I'd like to challenge you as a cattle producer to make one or two resolutions for your business; try writing it down...why, when and how. Maybe its to get better feed utilization...or to understand livestock nutrition better or to just understand the markets better. I'm confident that the FFGA can help inspire a change for the better in 2010!

In Health,

Rick Kohut

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Foothills Forage & Grazing Association

MISSION STATEMENT

The foothills Forage & Grazing Association encourages a profitable and sustainable forage industry by providing an information network for Southern Alberta forage producers.

Utilizing Annual Cereals for Livestock Feed

Producers may find it necessary to feed more animals than anticipated during times of drought and resulting feed shortages. In such situations, additional feed requirements may partially be met by the harvesting of annual crops to supplement current hay production and carryover stocks.

Points to consider when using annual cereals as forages for livestock:

- Feed test forages, grains and straw prior to the start of the feeding period. Develop balanced rations to prevent production and reproduction problems, optimize the use of feeds available and to minimize costs. If help is required to balance rations, talk to a qualified nutritionist. Young animals are fed to grow and development. Mature stock is fed to maintain condition over winter and to provide a live calf next spring. The winter feeding program this year can dramatically affect reproductive efficiency for next year's calf crop.
- Feeding cereal forage is different than feeding mixed alfalfa grass hay. Calcium, magnesium and potassium levels are different. A 1: 1 mineral may not work in these situations. Feeding additional limestone and magnesium in the ration is often required to prevent problems with downer cows, milk fever, and winter tetany.
- Rough awned barley and foxtail barley have barbed awns. When consumed, the awns can become lodged in the gums or between the teeth and gums or in the cheeks creating abscesses and "lump jaw". If rough awned material is part of the feed supply, provide breaks in the feeding period where alternate feeds are provided to the animals. A two or three day rotation between the rough awned feeds and other feeds will allow time for injuries to heal. This may help reduce the severity of the problem. If problems do occur, consult with your local veterinarian for treatment.
- Under drought conditions, annual crops may contain high levels of nitrate in early to mid summer. Drought stress reduces the plant's ability to grow and utilize nitrogen normally. Test the forage for nitrate levels to determine what level is present. Cows can adjust and adapt to higher nitrates in feed over a period of time. The concentration of rumen bacteria that degrade nitrate increase over 4 to 7 days. This short term adaptation, along with the development of more red blood cells to transport oxygen to the tissues over 14 to 21 days, improves the ability of the animal to withstand higher nitrate feeds. Providing feeds with high starch content such a grain or pellets help detoxify nitrates. Consult with a livestock specialist or nutritionist to resolve potential problems.

- Breeding efficiency, or the ability of the cow to conceive a calf, can be compromised if cows are turned in to graze crops that were heavily fertilized with nitrogen fertilizer or manure. As animals consume forages with high protein levels, blood urea levels (BUN) also increase. The high BUN levels interfere with the implanting of the fertilized egg onto the uterine wall. This problem occurs when the overall protein content of the ration is in excess of 20 to 22% on a dry matter basis. Cows will appear to settle, but come back into heat 3 to 4 months later. Provide straw or other low quality forage on a free choice basis to reduce overall protein consumption.
- Moving cattle abruptly from a drought stressed grazed pasture with minimal forage available to a lush salvage crop or pasture can cause Atypical Interstitial Pneumonia. The disease occurs within 10 days of movement onto the improved forage. Affected animals emit a grunting noise when breathing and do not want to walk. If sick animals are forced to move, they may collapse and die.
- Forages mature more quickly in a drought year compared to a normal year. Quality is reduced as the forage matures. When making silage or greenfeed, cut forages one to three weeks earlier than normal to maintain quality. Plants that have turned white during the heat will not have adequate moisture to develop a proper fermentation. The crop will have a reduced sugar content compared to a normal year and will take longer to ensile. Diligence is required to maintain proper moisture content during the harvesting period, chop length, adequate packing and covering with plastic. Round bales must be placed in a tube or wrap within 12 hours of baling. Otherwise the fermentation process will be impaired by unwanted microbes. The nutrition topics addressed above can be evaluated by using a ration balancing program. Producers can develop their own rations at home. A useful computer program is the "Cowbytes" ration balancing program available from Alberta Agriculture and Rural Development. A [demo version](#) is available on Ropin' the Web.

For more information contact:
Ag-Info Centre at 310-3276 (Farm)



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Looking Forward



Knowing Your Options Workshop

Wednesday February 24, 2010

Guest Speakers:

Andy Sirski & Meyers Norris Penny



Topics:

- * Marketing Options & Tips
- * Off Farm Investing
- * Farm Transfer
- * Farming & Taxes
- * Risk Management



Location:

Highwood Memorial Center
128 5 Ave W, High River AB

Time:

9:30am - 3:30pm

Price:

\$30.00/member,
\$40.00/non-member

**To Register call Laura at (403) 652-4900
Please Register by Friday February 19**

Andy Sirski

Is no stranger to farmers in western Canada. He worked with Grainews for 26 years and during those years he spoke with thousands of farmers, wrote hundreds of articles and helped many readers understand taxes, investments and how to farm better and how to build wealth. He invented the financial plan he lovingly calls The 5-legged Stool which has served his family and many farm families well. When Andy retired from Grainews he started his own investment newsletter called StockTalk where he explains in detail what he does with his investments in bear and bull markets. And he teaches his readers who to do the same.

Meyers Norris Penny

Farm/Ranch Risk Management

Meyers Norris Penny will discuss the way risk can be defined and what the key criteria are in managing risk - probability and impact and how you can measure those. We will also describe the strategic planning and management system known as the "Balanced Scorecard" and how this approach can be applied to risk management on farms/ranches - this will lead us into a discussion about the four main areas of risk on the farm.

Aaron Honess

Farm Management Consultant

R. A. West International Inc.

Invites you to a Seminar on

Manure Management

February 9, 2010

Guest speaker

Gerald L. Anderson, P. Ag.

With

AgAd Venture Agronomy Consulting

*RSVP By February
4th, 2010*

To gai@rawest.com

or (403)485-1998

TF: 888-972-9378

Location:

R.A. WEST Office
285 Service Road, Vulcan AB

Time:

10:00am - 3:00pm

**Coffee, juice, pastries and lunch will be provided*

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Looking Forward

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Foothills Forage & Grazing Association Annual General Meeting

As another year has wrapped up it is coming up to that time again to have our Annual General Meeting. This is a time to review the past year and look ahead to the coming one!

The AGM will be held on Thursday March 18 at the Highwood Auction Mart. The meeting will begin at 10:00am sharp, so please come a bit early for coffee and refreshments. Following the meeting will be speakers to discuss the Alberta Beef and Forage Industry. We would like to welcome Brenda Schoepp, market specialist with Beef Link, who will be discussing markets, marketing, grazing strategies and opportunities for cattle producers moving ahead. Other speakers to be announced.

There are currently 10 board members on the FFGA Board of Directors. This year Doug Wray will be stepping down as he has served two 3 year terms. The board also has room to grow by one more director, so there are 2 spots available on the

board. If you are interested yourself or would like to nominate someone please contact either Graeme Finn (403) 312-2240 or Laura LaBrash to let them know ahead of time.

Please have your membership renewals paid on or before the AGM to be entered into a draw for a 7-L Mini Power Reel donated by Director Michael Monner and producer by 7-L Livestock Equipment Ltd. Worth \$160.00.

We hope to see you there as we move into another busy year!

Price: \$30.00

Please Register By March 12

Laura LaBrash (403) 652-4900



\$25, FEBRUARY 11TH, 2010

8:45-4:15 Olds College- Alumni Centre

* Lunch will be provided

* Registration deadline - February 5th, 2010

To register or for more information contact:

Katie Roxburgh at Red Deer County

Ph: 403.350.2165 or

KRoxburgh@reddeercounty.ab.ca

Make cheque's payable to Red Deer County 38106 Range Road 275,
Red Deer County T4S 2L9 Attn: Katie Roxburgh

CONFERENCE AGENDA

- CanFax 2010 Market Outlook
 - Livestock Handling
- Young Ranchers - Panel Discussion
 - Water in Alberta

Make sure to check out the tradeshow during breaks!

BREAK-OUT SESSIONS: (afternoon)

Choose your own sessions, you will have access to Agricultural Specialists, Alberta Agriculture and Industry

- Alberta Agriculture Growing Forward
 - Risk Management (AFSC)
 - Water Well Information
 - Private Banking Options
 - Shelterbelt/Tree Care
 - Pasture Management
 - Record Management
 - Tax Deferral
 - FCC - Loans



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RANCHING OPPORTUNITIES

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Looking Forward



EXTENDING THE GRAZING SEASON
GRAZING MANAGEMENT SEMINAR
February 16, 2010
Featuring
Grant Lastiwka, Forage/Grazing/Beef Specialist
Alberta Agriculture

A course designed to explore alternative grazing strategies for cattle producers such as: swath grazing, bale grazing and rotational grazing strategies with one of Alberta Agriculture's leading grazing specialists. Learn new and innovative strategies to extend the length of your grazing season, reduce your workload and costs and utilize available government funding to help fund your projects.

Supper will be included.

Contact: Holly White for more information
(403) 362-2772 or whiteh@countyofnewell.ab.ca

RSVP by February 12, 2010



Living in the Natural Environment Friday February 5, 2010

Those living in a rural community are constantly facing new challenges. Living in the Natural Environment is an annual forum that brings together the rural population of agricultural and non-agricultural residents, and the urban population to discuss topics of interest.



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Paulsmithphoto.com

**Climate Change and the Implications for
Southern Alberta** Dr. Dave Sauchyn - Senior Re-
search Scientist at PARC, U of R

We all know about the variability of the weather in Southern Alberta, floods, droughts, hail, extreme temperature changes. Now imagine that amplified and you have the potential outcome of climate change. The impacts can be managed by adapting policy, practices and structures, but only if the rates of human caused climate change are kept within reasonable limits.

**Counting Grizzly Bears in Alberta-Too Many
or Not Enough** Gord Stenhouse – Carnivore Biolo-
gist & Program Lead Grizzly Bear Program, Foothills
Research Institute

What techniques are being used to determine current population levels? What do the results of extensive surveys mean in context to the human use of grizzly bear habitat? This, along with futures directions and trends in the grizzly bear populations in Alberta will all be part of this fascinating presentation..

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So Who Takes Care of the Calf

So, who takes care of the calf?

The short, simple answer to this question is of course, the cow. That's her job. The role of the cow specifically, and cow/calf production systems in general, is to profitably turn forage (plant matter) into beef (animal protein) through the production of calves. As cattlemen, taking care of the cow is our job. The real question is how do we care for the cow? The answer to *that* is neither short nor simple.

Our entire management effort centers on providing the inputs required for the cow to do her job. Not providing these inputs diminishes her chances of successfully playing her role in the cow/calf production system. As cattle producers, our responsibility is to ensure that the fundamental inputs of water and forage are provided along with supplemental nutrition, sound animal husbandry and management that prevents disease and promotes herd health.

Like every living thing, the cow needs water—which is the most important nutrient. Water is essential to maintaining all bodily functions and, if limited, results in lower productivity and performance. Clean water should be provided without restriction. Production systems that rely on surface water are at the mercy of adequate runoff from rainfall to provide the cow's drinking water. The quality of surface water can vary greatly, especially during times when the quantity is limited. As surface water evaporates and is not replenished, as in a drought or extended dry period, elements in the water become more concentrated and could reach dangerously high levels. It is important to understand surface water quality through occasional testing. Well water should also be tested at least once every few years for elements that can cause health or nutritional issues. Sulfur, iron, nitrates, sodium and heavy metals are examples of elements found in water that, if excessive, may contribute to health or nutritional problems.

The nutritional status of the cow throughout the year is critical for success. Grazed forage provides the majority of the cows' nutrients and is the most economical source of energy. Therefore an entire management plan

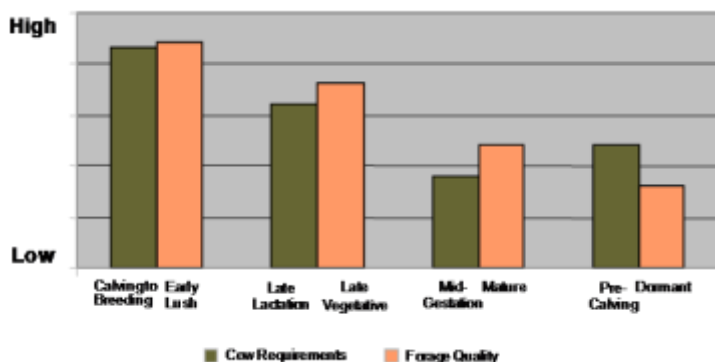
should focus on providing a sufficient quantity of grazed forage of a quality closest to the cows' requirements.

The cow's requirements vary throughout the year as she moves through the four phases of production; calving to breeding, late lactation, mid-gestation, and pre-calving. Likewise, the quality of the forage and level of nutrients available to the cow varies throughout the year and are categorized into four growth stages; early vegetative, late vegetative, mature, and dormant. From a nutritional perspective we manage cattle to ensure that when the cow's requirements are highest, calving to breeding, she has the highest quality forage, the early vegetative stage, available to her. Therefore the timing of calving is critical in providing the needed nutrients at the lowest cost to meet the cow's requirements and ultimately care for the calf.

One way to measure the nutrition status of the cow is through body condition scoring (BCS). Higher body condition (BCS 5 and 6) at calving provides energy for milk production and results in higher reproductive performance than cows with lower scores (BCS 4 or less).

Milk constitutes nearly all of the calf's nutrient supply for the first four months of its life. Cows genetically capable of supplying high quantities of milk mobilize body fat to ensure that the milk production is adequate, even when high quality forage is available to them. Managing body condition is how we assess the amount of body fat available for mobilization during early lactation and how we begin taking care of the calf even before it's born. During mid-gestation the cow's nutritional requirements are at their lowest of the production cycle. This is the most opportune time to replace body condition lost during lactation before the cow's requirements increase substantially in the pre-calving phase. The pre-calving phase—the sixty days prior to calving—is when approximately 70 percent of fetal development occurs. By ensuring that the cows are in good body condition and that the diet meets their increasing nutritional requirements, we're indirectly taking care of the prenatal calf. The calf's neonatal vigor, the ability to quickly rise and nurse, and health status are impacted by the nutritional status of the cow during the pre-calving phase.

Recommended herd health and vaccination programs are regionally specific. Vaccination protocols are best outlined by local veterinarians. The nutritional



So Who Takes Care of the Calf

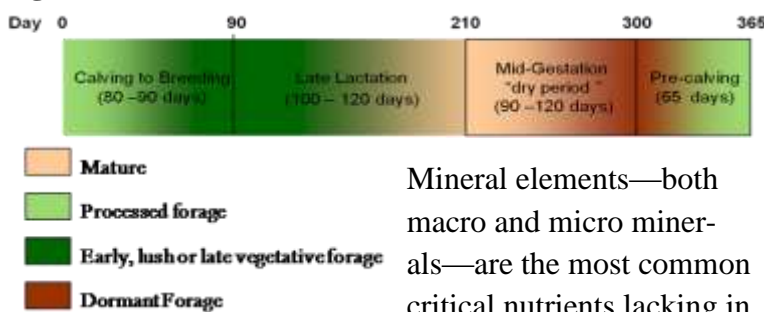
status of the cow pre-calving, along with a complete cow vaccination program, determines the quality of colostrum or first milk provided to the calf. Colostrum provides the sole source of antibodies, providing passive immunity from pathogens until the calf's active immune system begins functioning. The health of the neonate calf is entirely dependent on how well we take care of the cow pre- and post-calving.

The first time we routinely directly intervene in the care of the calf is when we vaccinate to prevent common infectious disease. These vaccinations are administered after the calf develops a functioning immune system, about three months of age, and before weaning. By three months of age the passive immunity provided by the colostrum is no longer providing immunity.

Putting it all together

The way we manage nutritional inputs begins with the establishment of the production calendar. The calendar for the herd begins with the birth of the first calf, which in most cases should be about thirty, but not more than sixty days before forage is in the early vegetative stage of growth. The cow's nutrient requirements are highest in the third month after calving, coinciding with her peak milk production. Maximum forage quality and quantity begins about a month after first green up. Cows calving thirty days before green up are peaking in their milk production at the time when the forage is most capable of meeting the higher protein and energy requirements, and the calf is of sufficient size to handle the volume of milk.

Figure 2. Aligning the production calendar with forage resources



Mineral elements—both macro and micro minerals—are the most common critical nutrients lacking in the forage during lush veg

tation. The best choice is a high quality, weatherized, loose mineral designed for the region and offered free-choice. This is essential in filling the mineral shortcomings in the forage. Mineral supplementation should continue through the grazing season.

After weaning, the cow's nutrient requirements drop to the lowest levels during the production cycle. Even though the mature forage is of relatively lower quality than earlier in the season, this is the best opportunity for the cow to regain body condition. Late season, mature forage is often capable of meeting the cow's protein and energy requirements, while dormant forage is more often marginal. If the grazed forage contains a minimum of seven percent crude protein and 45 – 48 percent total digestible nutrients (TDN) the only supplementation required is mineral until about 60 days prior to calving. The testing of late season pasture forage is highly recommended to determine if the quality is sufficient to meet the cows' requirements.

The cow's nutrient requirements increase substantially during the pre-calving period, driven by the developing fetus and associated tissues. It is important to make sure we are meeting the cow's requirements during this period to ensure proper fetal growth, maintain the cow's body condition and promote the production of high quality colostrum. Dormant standing or lower quality forages won't meet the requirements during this period. Replacement forage or supplemental feed is often required through the pre-calving phase and until there is sufficient new crop forage. A high quality, free-choice mineral is essential. As the cows calve, the entire process begins anew.

A quality water source, adequate nutrition based on the cow's changing requirements and a solid understanding of managing BCS—these form the foundation of a cost effective cow calf operation. Our job is to build that foundation and effectively align the production calendar to the forage resources available to meet the needs of the cows. So, who takes care of the calf? If we do a good job of taking care of the cow, meeting her needs pre- and post-calving,



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Cattle Feeding: Late Gestation

The increase in nutrient requirements during the late gestation period is significant. Depending upon the mature weight of the cow, crude protein (CP) requirements increase approximately 28 to 30%, while total digestible nutrient (TDN) requirements increase approximately 15 to 17% between month 7 and month 9.

Nutrient deficiency during this period can result in weak calves that are more susceptible to environmental stresses, and cows that are slow to breed back. Failing to provide late gestation cows with a ration that meets their nutrient requirements will negatively impact the potential profitability of the cow/calf operation. Thus, the cattle manager must prepare for those increased nutrient needs. Preparation involves knowing the weight and nutritional status of the cow, knowing the diet nutrient requirements and knowing the nutrient content of the feedstuffs that are being used.

Nutrient requirements of cattle, as provided by the National Research Council (NRC) subcommittee on beef cattle, vary depending upon the mature weight of the animal, the age of the animal and the production stage of the animal. Large frame heavier animals have higher daily nutrient requirements than smaller frame, lighter animals. Pregnant replacement heifers and two year old cows all have higher nutrient requirements than mature cattle at similar production stages. Examples of CP and TDN nutrient requirements for the last 60 days of gestation (months 8-9) for mature and growing cattle are provided in the following table to illustrate this point. The nutrient density requirements are based on a dry matter intake of approximately 2% of the animal's body weight.

Cow Type	Nutrient Density		Daily Nutrients		Nutrient Density		Daily Nutrients	
	Month 8		Month 8		Month 9		Month 9	
	CP%	TDN%	CP (lbs)	TDN (lbs)	CP%	TDN%	CP (lbs)	TDN (lbs)
Mature 1200 lbs	7.7	52.3	1.86	12.6	8.8	56.2	2.16	13.8
Mature 1300 lbs	7.8	52.5	1.99	13.4	8.9	56.5	2.31	14.7
2-yr old, 1200 lbs	8.5	55.9	1.93	12.7	9.4	59.7	2.23	14.1
2-yr old, 1300 lbs	8.5	56.2	2.06	13.7	9.5	60.0	2.40	15.1
Pregnant heifer, 1200 lbs*	8.5	56.2	2.02	13.3	9.6	59.9	2.35	14.6
Pregnant heifer, 1300 lbs*	8.5	56.0	2.13	14.1	9.5	59.5	2.45	15.4

1996 NRC for Beef Cattle
* Projected mature weight

Several observations can be made from studying the table:

- The nutrient density requirement of the diet does not vary greatly between weight classes of similar aged animals but nutrient density requirements are higher for younger animals that are still growing. This reflects the relationship between body weight and a dry matter intake based on a percentage of body weight.
- The total amount of nutrients (lbs/day) that are required increases as animal body weight increases for both mature and growing animals.
- Both the nutrient density and the amount of nutrients (lbs/day) increase as gestation advances.

The take-home management message is that the mature weight of the cow should be known to insure adequate nutrients are being



Thank you to the Southern Alberta Livestock Exchange and all of the folks at the Highwood Auction Mart for our office space.

provided. Although many cattlemen think they have 1200 lb (or less) cows, there are many 1400-1500 pound cows out in the country-side. I remember hearing at a meeting a couple of years ago a speaker say that most 1200 lb cows weighed 1500 lbs and most 1000 lb round bales weighed 750 lbs. You have to measure and weight if you want to do a good job of managing.



Feeding to meet the needs of a mature cow will put the younger growing cows and heifers in a nutrient deficient state. On the other hand, feeding to meet the needs of the younger cows and heifers will mean that mature cows are being overfed. Both situations are costly. Grouping cows according to age and production stage would allow more targeted feeding and better economical use of feed resources.

In practice, particularly with smaller herds, I see farmers feeding hay free choice to the entire herd. If the hay is close to the required nutrient density, cattle will often eat more than the 2% of body weight figure. This may allow the younger growing animals to meet their daily pounds of nutrients needed, but it means the older animals are over eating.

Besides knowing your cow weights and nutrient requirements, preparation for late gestation involves knowing the nutrient content of the hay, stockpiled forage or other feedstuffs that may be used. It's very hard to economically match nutrient needs without this information.

The eye of experience and close detail to body condition can help managers make good feeding decisions. When used with knowledge of animal weights, nutrient requirements and feedstuff nutrient analysis, the combination can be increased profitability.

Source: Rory Lewandowski, OSU Extension Educator, Agriculture and Natural Resources

This Publication is made possible by funding from our major sponsor: the Agriculture Opportunity Fund.

