



GRASSROOTS NEWS & VIEWS

Photo Credit: Rachel McLean



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March 2017

Manager's Note

Greetings to the FFGA Members!

My name is Jennifer Duckering and I will be covering for Laura Gibney as Manager of the FFGA as she ventures off to explore the joys of motherhood for a second time! Best of luck Laura! Enjoy your family time!

Coincidentally, I am returning from the maternity leave of my second son, Ty Michael, who was born in March 2016. Raising two boys has been a challenging, yet rewarding experience. I love raising my kids in the country along with our chickens, turkeys, broilers, goats, rabbits, horses, dogs, cats, ducks and "piggy sue".

My husband Tom and I are passionate about the agricultural industry; we love the work ethic, the dedication, the science, the sense of family and yes, even those fragrant smells in the spring time. Our small farm is located between High River and Longview, AB.

Last year when we raised our "herd" of three steers, we experienced the reward and sense of achievement in providing close family and friends with a full freezer of meat – a home grown achievement an industry can relate to, no matter the size of the operation. To put it bluntly, we are your biggest fans ... but with a much, much, MUCH smaller budget!

My eldest son, Austin (3) is more interested in tractors and less so about the animals, but that's an interest I can definitely support! He is already a pro at pointing out all the equipment in the fields and on country roads as we drive by. Our long-term dreams are of a slightly different nature as we continue to explore and develop a business plan for raising bison!

Needless to say, the knowledge of how best to manage forage and soil health is crucial to the bison industry too! A fun fact about bison, did you know bison have a digestive system specifically designed to maximize the nutrition of grasses and forages native

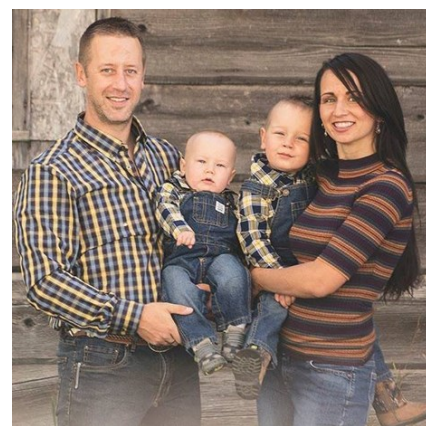
to North America because they evolved in concert with the grassland ecosystem? ... I know, I know ... bison is a tough sell to a crowd of cattlemen!

Over ten years ago I graduated from the University of Alberta with a B.Sc degree in Environmental and Conservation Sciences with a focus on soil science. Employment during that time has included environmental liability management, regulatory compliance, the orphan well program, environmental site assessments, compliance options, emergency spill response, reclamation, remediation and groundwater monitoring.

In closing, I am thrilled to be working in agriculture, an industry I love and respect! I look forward to meeting as many members as I can, hearing your ideas and helping you make the most of your FFGA membership.

Sincerely,

Jennifer Duckering



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Producers Wanted! Pollinator Project

Syngenta & Soil Conservation Council of Canada are looking for producers! While farm landscapes often lack the diversity and abundance of flowers that pollinators require, research has shown this trend can be reversed. To support pollinator communities within agricultural land, wildflower field margins provide a range of foraging habitats, with diverse, pollen and nectar-rich nutrition, as well as nesting and breeding areas.

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- 5.) Be willing to allow access for monitoring and tours
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Swath or standing grazing for cattle, sheep, bison or for wildlife food plots.

Top 7 Habits of Successful Ranchers

An Ipsos study has identified the top seven habits of successful farmers/ranchers. Do you have them?

- 1.) Continuous learning. Farms in the bottom quartile are three times more likely to not seek out new information, training, or learning opportunities.
- 2.) Keep finances current and use software with the latest updates.
- 3.) Use professional advisors and get outside opinions.
- 4.) Make and stick to long term goals.
- 5.) Constantly monitor the cost of production.
- 6.) Assess and manage your risks.
- 7.) Have a financial plan with budget objectives in place.

Several other important habits such as communication, human resource management, and transition planning were also outlined.

"Consider working on one or two items off the list during the less busy times of the seasonal cycle, for example. Even doing one activity can make a difference," she says. "Change doesn't need to be a big and overwhelming task."

By: Lilian Schaer, Grainews

Source: <https://www.grainews.ca/2016/03/24/management-drives-farm-profits/>

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ROCKY VIEW COUNTY
Cultivating Communities

Poison Bait is Not the Only Answer to Gopher Problems

The days are getting longer, the sun feels warmer and the gophers are emerging from their sleepy winter slumber. After nearly eight months underground without feeding, one would think the gophers' first priority would be food, but it's perhaps no coincidence they emerge around Valentine's Day.

"It's difficult to poison the males when they first come out. They're living on body fat and they're fighting for territory until the females come out," says Phil Merrill, an inspector with Alberta Agriculture.

The lovely ladies arrive above ground two weeks after the males, and their appetites are put on the back burner in favour of a little spring romance.

As soon as they are bred and become pregnant they really have a high demand for food and that's the time to bait," Merrill says. "Mid-March until green-up is the time that we suggest you do the best by baiting. **If you spend a weekend at the end of March doing your baiting, you will kill three times as many as if you do it in May.**"

The young begin to emerge in May, which greatly increases the number of animals which need to be culled in order to dampen the population going forward.

FFGA MISSION & VISION STATEMENTS

Mission: Assisting producers in profitably improving their forages and regenerating their soils through innovation and education.

Vision: We envision a global community that respects and values profitable forage production and healthy soils as our legacy for future generations.

Severe gopher infestations tend to happen during periods of drought — when every blade of grass is precious. When the land is dry, there is less vegetation for predators to conceal themselves in and the gophers become an easier lunch. On dry or **overgrazed land**, gophers are able to spot predators much sooner, allowing more of them to retreat to the safety of their burrow to live another day.

Using poison is a last resort, and there are other methods of control with less of an impact on the ecosystem.

"In a normal season, you try and support your predators and leave some tall grass in the headlands and try not to pasture-down too much. You can make a big difference and win on your gopher situation by shooting," says Merrill.

Across the Prairies, it is a time-honoured tradition to get out the .22 for a pre-season cleaning to herald the opening of the gopher season. Spending a couple of hours a day, or a day a week before the beginning of May out in the field can make a world of difference, without the risk of poisoning the food chain.

There are many ways to **support natural predators** of the gopher — and that includes managing gopher numbers rather than eradicating them entirely. Much like the salmon run for the grizzly bear, gophers are a short-term, but critically important food source for many species such as foxes, coyotes, hawks, eagles, and in some areas, even for bears.

Erecting one or two nesting platforms for hawks on each quarter is one strategy to aid predators in gopher control. "We certainly encourage that, and it's way more effective in the east part of the province than it is in the west.



In the east, even two big round bales stuck end on end constitutes a pretty good nesting station and works quite well," says Merrill. A good rule of thumb is to take a look around, and if the prairie is treeless for two or three quarters, nesting platforms can be a sound investment.

If there are any fox dens in the vicinity of a gopher population, poison bait will assure the demise of the local fox family.

Though quite stealthy and not often seen, weasels are the top predator of gophers. Though snakes can make some people squirm, bull snakes and rattlesnakes happily contribute to ground squirrel management.

The males return underground the first of July, with females following two weeks later, and the juveniles joining their parents in August.

Of course, there are always a few individuals having too much fun to make curfew. "If he's out running around in September, he's burning body fat instead of building it and he's not going to make 'er," says Merrill.

By Sheri Monk

Source: www.albertafarmexpress.ca/

Reproduction & Grazing Were Designed for Each Other

For optimum energy utilization, the cows' reproductive cycle should coincide with the grass production cycle.

A study from the United Kingdom shows that **calving or lambing outside of the seasonal cycle of pasture production can increase costs by up to 75% over spring calving** or lambing. In other words if we require our cows to calve in the winter months it is going to cost more than if the herd calves in the spring. As ranchers and farmers go we are a group of people who often would rather be doing the production activities that we love than doing the hard work of bookkeeping and analysis of what pays and what doesn't in our operations. I include myself in this group as I too would rather be checking the grass and cattle, building a fence, riding my horse etc. etc. than working in the office!

I submit to you that we should start to look at this by asking ourselves what business are we really in. When asked what I do for a living I usually respond that I'm in the cattle business. Or I say I'm a rancher 'cause people seem to know what that means. But when it comes right down to it, **we are really in the business of turning energy into cattle.** It's kind of awkward to say that, so I doubt many of us will but for the sake of this discussion about calving in the spring verses calving in winter it is good to recognize that every day we are working at converting some form of energy into cattle that we can sell.

I believe **the benefits from controlled grazing are much greater if the reproductive cycle of a herd is paralleling the natural grass production cycle.** The matching of ones' calving season with the onset of green grass is one of the principle factors to profitability for grass

based farms and ranches. If you match your herds' nutritional requirements with the natural grass production cycle you will have an abundance of high quality grass available when your cow needs it most. This direct harvest of high quality feed through grazing at a time when it is needed most is what makes it more profitable than calving at a time of year when more supplementation is required.

The late Allan Nation, editor of the Stockman/Grass Farmer pointed out the importance of having a breeding herd **"in sync" with nature.** In his book Quality Pasture he points out that matching an animals' breeding and lactation curve to the curve of pasture production is still the "single most important management input in grassland farming and usually the one most resisted by new graziers and quite often the last implemented". He goes on to say that this is a cause for "grazier depression" because people who go to controlled grazing enjoy initial benefits but hamper themselves from significant cost reductions by not lining up their herds' reproductive needs with grass production. In other words they are enjoying some growing season benefits to better pasture management but still have high supplementation costs to calve in the winter and breed while cows require added energy through expensive stored feeds and concentrates. The energy inputs to support a cow for a year are far higher for one that is calving in the winter than one that is calving in the spring.

Energy

Although the energy in feed is one of the major forms of energy involved in producing a calf it is

certainly not the only form. In its' raw form the energy that ends up in feed comes from the sun through photosynthesis, ie solar energy. Other forms of energy used to produce a calf are; fossil, animal and human.

Cowboy Economics, a Comparison of 2 Herds

Let's do some "cowboy economics" and compare two cow herds located in Alberta. We'll compare two identical herds, these herds are the same breed and the same size. In fact imagine they are the same cows on the same ranch. Why not think of your own place and your own cows, let's face it we all have the best cows and no one knows your place like you! The only difference is that herd 1 will begin calving February 1 and herd 2 on May 1.

Feed Energy

It takes a lot of energy to produce a calf every year. **Feed energy is made up of all 4 forms; solar, fossil, animal and human.** Solar to grow the pasture and crops, fossil to harvest and deliver feed, animal energy is spent while grazing, breeding etc. and human energy is spent putting it all together. Of course other nutritional elements are required but for simplicity let's just compare the energy required by the 2 herds.

Gestation

A cows' energy requirement starts to climb as she enters the last trimester of gestation. For the cow calving on February 1 that is November 1, which corresponds with the start of the shortest day length and the coldest weather of the year. Energy requirement really begins to climb in the last 6 weeks pre-calving, mid-December for the February calving herd. Meanwhile the cow calving on May 1 can be

maintained on lower energy feed for these cold months. This cow doesn't enter her last trimester until February 1 when the days are lengthening and temperatures begin to moderate. And when her requirements really start the uphill climb the calendar is at March 15 and winter is on its' way out. As this herds' energy requirements continue to rise the days are rapidly getting longer and warmer. It is easy to see from temperature statistics that energy required for maintenance and fetal growth will be less for the May calving herd. In the last 30 days of pregnancy there is a 17.5 degree average warmer temperature between April and January where I live. In cowboy economic terms the May herd needs less feed to get to calving time than the February herd.

Fat "the hay stack on the back"

Another form of animal energy is fat. **Back fat is a very important form of energy and could be referred to as "the hay stack on the back"**. If a cow is in Body Condition Score 3+ going into winter she requires less energy from feed to stay warm ie she will eat less than her skinnier herd mate. Fat can be used for maintenance, milk production and gestation. However feed energy is the only means for weight gain and therefore a rebuilding of fat reserves. It is easiest for a cow to gain weight before she calves and begins lactation. If the February calving cow needs to gain weight prior to calving she will have to be fed energy in excess of her maintenance and gestation requirement during the coldest time of the year. This will usually require grain added to the diet and be costly. If the May calving cow is grazing reasonable quality stockpiled grass while the pasture is greening up in April, that cow can gain weight very quickly before

she calves. Also they don't all calve on day 1 so cows calving a couple weeks into May can easily improve body condition score from late March to when they calve on "cheap" grass alone.

Calving & Lactation

Immediately following calving, a cows' energy requirement takes another jump as she begins to lactate and her body recovers from calving. **In warm weather a lactating cow needs about 25-30% more energy per day than a non-milking cow. In cold weather that increases to 40-60% over the non-milking cow.** Energy requirements continue to climb through the flushing period and peak about 60 days post calving at peak lactation.

The cow calving on February 1 at Acme is facing an average temperature for the month of -7.1 with daily average lows and highs at -13.9 and -0.3. The May calving herd is looking at an average temperature of 9.6 for the month and 1.8 and 17.4 degrees for monthly average daily lows and highs. This is a significant disadvantage in temperature that the February calving cow and her

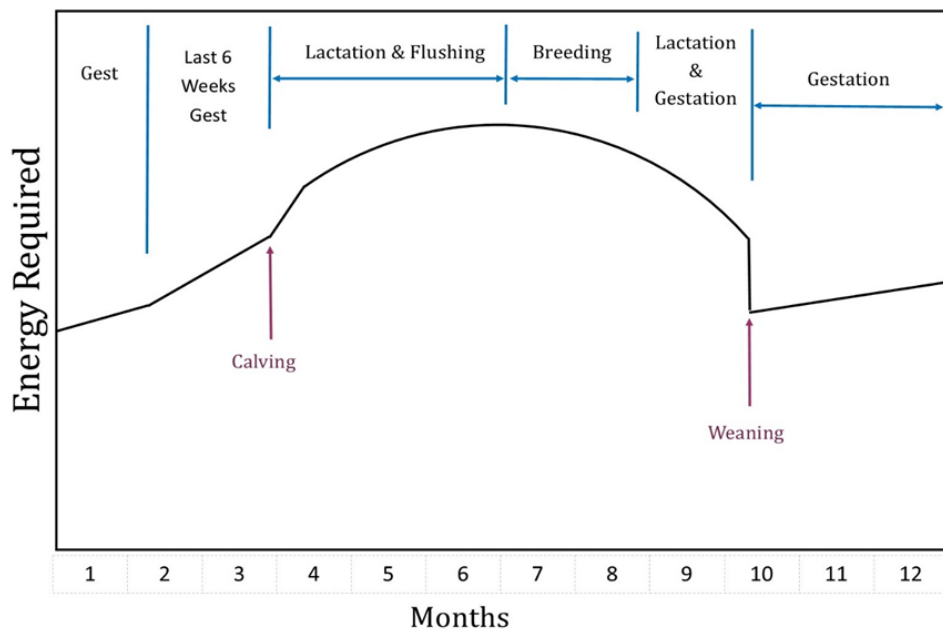
new born calf have to contend with over the May pair.

Besides feed energy and fat there are other forms and amounts of energy required to successfully calve out these two herds.

Human energy: there will be a higher labour cost associated with calving herd 1 due to cold weather. More time and effort spent checking and moving cows and calves in and out of shelter etc. are the norm for winter calving. It doesn't matter in my mind if it is paid labour or unpaid, it will cost more to calve the February herd than the May herd. The added labour cost may only be in your own physical energy draining your "personal" account. Temperature is one thing for the rancher to deal with but another big factor to make life easier is that on February 1 there is only about 8 hours of daylight and on May 1 there is almost 15 hours. Longer days makes caring for the herd easier.

Fossil energy: It is likely that more fuel is used calving the February herd for things like; additional feeding, bedding, heating a calving barn etc.

Annual Energy Requirement of a Beef Cow



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Capital investment will likely be significantly higher for the February herd for buildings, pens, shelters and equipment. This is not to say that the May calving herd doesn't need shelter. **The threat of a spring storm is real and can be devastating.** However this herd is likely calving on pasture with stockpiled growth from the previous year making a nice bed for

newborns. Also well planned calving areas could include natural shelter from bush and the use of portable or permanent windbreaks in the calving areas.

Breeding

Breeding will start about April 25 for herd 1. To achieve high conception rates this herd will need a high plane of nutrition supplied from expensive stored feeds probably including grain. As breeding will start about July 25 for herd 2 its' requirements would be well supplied, from pasture alone, this herd should "flush" nicely with "cheap" grass.

Health

Then there is the question of herd health, such as scours and pneumonia, **a warm dry environment is a good place for a newborn.** Calf sheds and dry bedding are an attempt to supply what nature provides free of charge in the spring. Scours is often referred to as a management disease. We have the knowledge and technology to minimize and treat scours in herd 1 but the real issue is treatment cost, labour and lost performance. A calf that is set back due to illness usually does not perform as well as if it had never gotten sick. Sunshine and dry ground help create a healthy environment for a newborn calf, ultraviolet light from the sun kills E. coli.

Summary

Simply put breeding your herd to calve in February will mean your farm or ranch will need to produce more feed to run the same number of cows or purchase additional forage or grain than if your herd calved in May. The additional costs to raise a calf for herd 1 are in feed, facilities, equipment, fuel, labour and stress on both the animals and the operator. I don't know if all of these factors will add up to the 75% cited in the UK research but **one should recognize these costs as profit thieves and sure signs of inefficient energy conversion.** The best way to lower the cost of raising a calf is to have the cow do as much of its' own forage harvesting as possible. The cowboy economics are improved the more we can replace fossil and human energy with animal energy while harvesting solar energy.

We should strive for year round grazing with beef cows as a goal and supplement during times of bad weather when it is not possible for an animal to graze. With the understanding that "reproduction and grazing were designed for each other" it is possible to align your herds' reproductive cycle with the yearly grass production cycle to become an efficient converter of energy into cattle for more profit.

**Note about the calving start dates. It was not my intention to imply that May 1 was the optimum date to begin calving in Alberta. February and May were only used for comparison to illustrate how the cows' requirements change at different times of the year. If you live in a part of the country that green up comes earlier or later, use that as your guide to when you should consider calving.*



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This Publication is made possible by our two major funders - the Agriculture Opportunity Fund and Alberta Agriculture and Forestry.

By: Jim Bauer



Annual General Meeting Featuring Farm & Food Care Canada's CEO

Crystal Mackay & Nuffield Scholar Tim Smith

CEO of Farm & Food Care Canada, Crystal is a dynamic presenter who has delivered hundreds of presentations to a broad range of audiences from farmers to university students to CEOs across North America and has over 20 years experience. Her topics:



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Through his Nuffield project, **Tim Smith** plans to research the valuation of ecological goods and services provided by cattle ranching. He believes there is much to be studied in how other cultures recognize and value pastoral benefit. His interest is in the development of national support to encourage and improve sustainable habitats, as well as how that support is transferred to the stewards of the land. Tim believes that good stewardship of the land will be increasingly important to the financial health of Canadian cattle country.

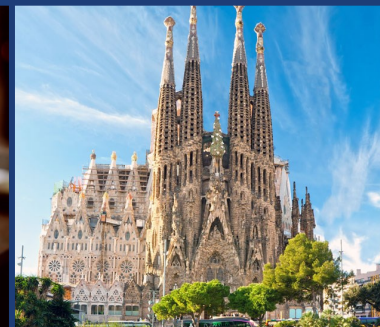
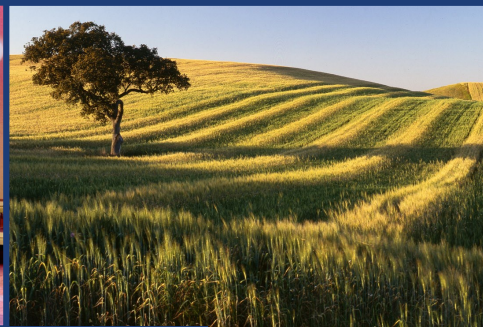
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