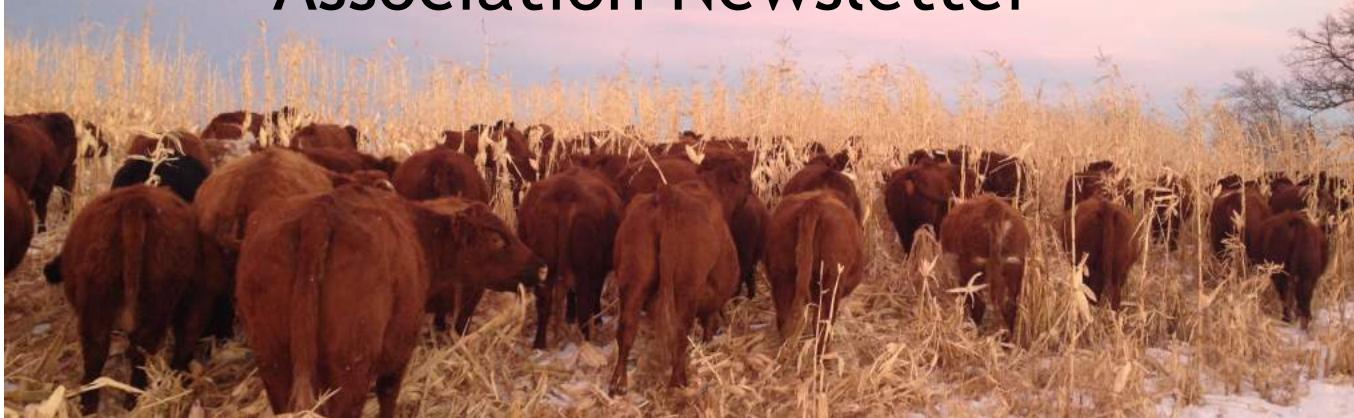


Canadian Luing Cattle Association Newsletter



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Message From The Secretary

Iain Aitken

Welcome to our first Newsletter of 2018. We are enjoying a much less severe winter here in Southern Manitoba than last year and hope that it's the same in your area. Having less snow makes everything a lot easier but we are also conscious that many areas need to recharge very dry soils after last year's drought. We certainly don't want to see a repeat of the tragic fire situations that occurred out west last summer.

Demand for Luing cattle has been strong over the last year with a steady stream of new customer enquiries in addition to many repeat buyers. Unfortunately we do not have enough cattle to supply the current demand, particularly for females. With that in mind I'd urge everyone that has bought purebred Luing breeding stock in the past to consider registering their calves so that we can grow the breed population to meet the rising demand. To encourage this the Luing Association is offering to pay the first year's membership fee and start up registration costs for new breeders.

In addition to demand for purebreds we get many enquiries for Luing cross females so if you have used Luing bulls and have surplus female offspring please let me know so that I can put you in contact with potential customers.

Thanks go out to the following customers who purchased Luing genetics for the first time in 2017:

Jacques Berard, Roseau River, MB
Brian Hatch, Grande Prairie, AB
Harry Neitz, Stettler, AB
Craig and Camille Reesor, Irvine, AB
Henry Reidstra, Elm Creek, MB
Fred Schweigert, Inwood, MB
Keith West, Leduc, AB

New for 2018

With Facebook facilitating more timely information sharing, I post various Luing and other cattle related pictures and topics on my personal Facebook page. You can find this by searching for "IainAitken Luings".

Environmental Adaptation of a Cow Herd

Iain Aitken

In this article I want to share our experience moving our herd 800 miles from Rimbey, in central Alberta, to southwest Manitoba. It has been an educational process that has given me a greater understanding of the impact of the natural environment on domesticated cattle.

My initial thoughts were that we were moving to a hotter area and the grass would be different but as we had brought in and fed a wide variety of forages over the years this would not be a large hurdle to overcome. What I didn't appreciate was just how much change was involved - almost every aspect of the cow's environment changed. The negative effects of this change could easily be measured by the number of cows that failed to rebreed and to a lesser extent the growth rate of the young stock.



Cows bunched from bug pressure on a hot day

It is well known that moving cattle south and east, as we did, is a lot harder on cattle than moving them north and west on this continent. In preparation for moving we sold off most of the older cows as we were warned they would have the most difficulty adapting to the change. Based on the few

cows over ten years old that we brought with us this was the correct decision. What surprised me more was how much the first and second calvers struggled. Perhaps that was to be expected given that this age group of cattle are still growing and generally carry less body condition than the mature cows?

Cow comfort during our summer breeding season was the thing I was most worried about due to the heat and humidity in Manitoba. Upon reflection I think more discomfort is caused by the increased fly, horse fly, mosquito and tick populations than anything else. I recall one year at Rimbey when we had a huge mosquito population through August that had the cattle bunched up for a good part of each day resulting in our fattening cattle missing out on almost a month of weight gain. In this part of the world all the cattle are pretty much bunched all summer! I thought I was doing the cows a favour by placing them in bush areas during breeding season for shade and in the first summer they did seem to appreciate it. Now however, like the cattle raised in this area, they prefer to be standing out in the open with no shade and the wind blowing around them as a means to escape the bugs.

Apart from the heat and humidity in summer the other significant weather difference is the amount of wind we get here. It seems to blow almost constantly in Manitoba compared to the sheltered valley we came from and this leads to many more winter days where windchill is a factor. Another difference I notice is that we get a lot more overcast, sunless days in late fall and winter than we did in Alberta which will reduce vitamin D levels which can compromise immune levels and impair bone formation.

I'd heard many stories of cattle being moved in drought years from shortgrass regions of Eastern Alberta to Manitoba that struggled to survive and adapt. They simply lacked the rumen capacity to process the

large volumes of lower quality, washy forages on offer. This hasn't affected us as we actually moved from an area with washy grass to a drier (but not shortgrass) environment.

Upon moving the cattle were confronted with an array of grasses and forbs they had never encountered before including a range of warm season plants. Thankfully the Luing penchant for seeking out forage diversity in their diet proved invaluable in this regard. In addition to different grasses the cows have discovered some additional feed sources in the trees and bushes. Red osier dogwood leaves are a firm favourite and this fall I saw cows eagerly harvesting bunches of ripe hawthorn berries which is no small feat given they are protected by very sharp 3" long thorns!

With higher summer temperatures (we get more days over 30C here than we got over 25C at Rimbey) the grass matures so much faster. A lot of our grass in Alberta headed out around July 10th but we seem to reach the same growth stage a month earlier here. The hot weather in July and August then causes many of these plants to lignify to the point cows won't eat them by September.

Our Manitoba soil ph levels of 8 and above compared to levels of 6 or less in Alberta favours legume growth so our pastures here typically have more alfalfa and higher protein levels. Moving onto clay loam soils versus the light black, sandy soils on our ranch in Alberta would likely change mineral availability and uptake rates. The water the cows are drinking also has a different ph level and mineral analysis. From what I've read all these changes, particularly ph changes, negatively affect the microflora in the cow's rumen which in turn affect the cow's metabolism and whole-body well being.

Another problem which came to light 10 months after we moved - during our first

calving season - was an apparent effect of fetal programming. Although much of the fetal growth comes in the last trimester of pregnancy many important components of the calf's development occur in the first trimester of pregnancy and this is referred to as fetal programming. Given that we moved immediately before breeding season the first trimester of pregnancy coincided with the cows going through their greatest period of upset. Despite calving our cows out on clean banked grass that likely hadn't had cows on it in the spring for 20 years we experienced a terrible outbreak of scours including Rotavirus, Ecoli and Cryptosporidium strains. I breathed a sigh of relief the following spring when our subsequent calving period reverted to our usual trouble-free experience.



Belly high mature grass on June 21st!

Last spring, two years after moving, our herd was looking really well again. They came out of winter in better condition, shed their winter coats faster and showed more vitality - it looks like they have largely adapted to their new environment.

One thing I was pleased to discover throughout this experience was that the cows we consider our best have suffered the least. We had very few of these good cows fail to breed back. Perhaps the lesson here is that selection for the correct type of cattle results in more adaptable cattle?

Although selling open cows came with a financial cost there was some consolation in the fact that we were improving the herd by eliminating the bottom end of them.

The biggest lesson we have learned is that in an ideal world it is probably best not to move breeding females out of the area they were raised in. If you really need to move genetics to a different environment it would be easier and less costly to move semen or bulls. If I had to make a move of this magnitude again I'd do it in early winter as the differences would be less at that time of year and the cows would be mid-pregnancy.



Well insulated cows!

Have Cow/Calf Producers Benefited from Changing Genetics?

Glenn Webber

Recently released data could suggest cow calf producers are not benefiting from the genetic changes that have occurred in beef cattle over the last fifteen years.

A research report from North Dakota presented data on the trends for calf weaning weights collected over a fifteen year period starting in 2003. Weaning weights of calves has essentially stayed the same, as had the average daily gain for calves.

The data was derived from the Cow Herd Appraisal Performance Software program. It involved cow/calf producers from 166 cow herds, almost 15,000 cows exposed to bulls each year and the breeds varied among herds, with Angus, Red Angus, Hereford, Charolais, Limousin, Gelbvieh and Lowline predominating.

Stability Seen in Long-term Trends

Year	Age at Weaning	Weaning Weight	Average Daily Gain	Frame Score
2003	196	558	2.3	5.4
2004	194	556	2.4	5.4
2005	192	558	2.5	5.4
2006	191	562	2.5	5.5
2007	189	561	2.5	5.5
2008	189	560	2.5	5.8
2009	189	567	2.5	5.8
2010	189	565	2.5	5.8
2011	189	563	2.5	5.8
2012	190	563	2.5	5.7
2013	190	558	2.5	5.7
2014	192	556	2.5	5.5
2015	192	555	2.5	5.4
2016	193	553	2.5	5.2
2017	192	554	2.5	5.2

Source: www.ag.ndsu.edu/publications/livestock/2017-north-dakota-beef-report#section-31

The research report is generating considerable discussion. As Justin Sexten, writing recently in the High Plains/ Midwest Ag Journal said "I couldn't miss that summary, well-publicized and pointed out by just about every contact and source I know."

He also reported "The topic came up during a "Bull-Pen Session" at the Range Beef Cow Symposium in Cheyenne, Wyoming,

recently, where the discussion suggested the beef industry has gone astray, utilizing growth genetics while failing to increase weaning weight but driving cow size up."

This static trend in calf weaning weights is in contrast to higher growth EPDs in seed stock herds and the significant increase in carcass weights over the same time period.

So how is it possible to reconcile these apparent contradictory trends? How do weights in one sector level off while growing steadily in another?

One possible explanation is the weaning weight of calves is a reflection of the environment the cows are raised in. Despite having the genetic potential for raising heavier calves, it could be there is simply not enough forage or nutrition for the cow herd to raise heavier calves. When these calves enter the finishing phase where feed is not limited, they are able to grow to their full genetic potential.

Another explanation could be the focus of genetic change was weighted in favour of growth related traits at the expense of traits related to foraging efficiency and conversion that would benefit the cow herd.

The static trend for calf weaning weights is at best neutral and is possibly negative for the cow calf sector. Cow weights have increased over the past fifteen years and as cow weight increases so does their annual feed requirements. The net result can be reduced revenue for cow calf producers as heavier cows results in less pounds of calf raised per acre of land. The static trend is also a reminder to cow calf producers of the need to avoid cow size and weight creep.

Want Increased Performance? Use Poor Quality Forage!

Iain Aitken

I came across some interesting research recently from Utah State University that indicates feeding replacement females high-quality diets, may actually make it harder for them to maintain weight and reproduce on poorer quality feeds.

Given that cow/calf operations often encounter periods where grazing or winter feed is of poor quality (defined here as less than 7% crude protein and 50% TDN) this research shows there are clear advantages to developing young stock to better utilize low quality feed later in life. Apparently exposing young calves, both in utero and soon after birth, to low quality forages greatly influences their ability to perform on these feeds - primarily because they develop larger rumens which allows them to eat more.

An experiment feeding five year old cows on a ration of two thirds ammoniated straw and one third alfalfa saw those that had been exposed to ammoniated straw early in life gain 81lbs between December and March whereas cows without exposure lost 48lbs over the same period. Weight differences between the two groups persisted over the summer and the following November cows experienced at eating ammoniated straw still weighed 48 pounds more than inexperienced cows. In this same study, cows with prior exposure to ammoniated straw also bred back 9 days sooner and produced 20% more milk than cows without exposure. What I found particularly interesting was that the half of the cows in the experiment that had been exposed to the straw when young were raised after weaning on a high quality diet until they were 2 1/2 years old and were not fed the ammoniated straw again until they were 5 years old.

This seems like a powerful preparatory programming tool that we can use in the development of our young stock to help them achieve more from lower quality feeds throughout their lives and ultimately enhance our profits.

One drawback I see however is that it might not be possible for those that calve in June or in the Fall to have cows eating poor quality feed around calving time but for most herds that calve at other times the conditions to make it work could be as simple as always having straw available as part of the cow's diet.



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