MESSAGE FROM THE SECRETARY

Iain Aitken

Welcome to our 2016 summer newsletter.

I hope you are enjoying a good summer and that your cattle are thriving. Here in Southern Manitoba it has been a year of spectacular abundance as we have been blessed with near perfect growing conditions after a very dry start.

Luing - 50 years On

This summer marks the 50th anniversary of the Luing breed in Scotland. To mark the occasion I have included a brief history of the breed but a more comprehensive article on the development of the Luing breed appeared in the 2011 Fall Newsletter which is available to read on our website www.luingcattle.com

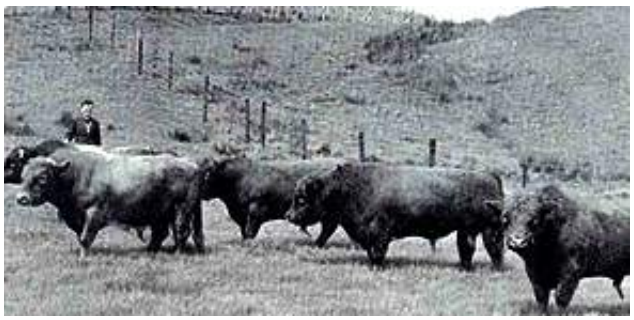
The development of the Luing breed began in 1947 when three brothers Denis, Shane and Ralph Cadzow purchased the island of Luing off the west coast of Scotland. As established grain farmers and cattle fatteners on the rich soils of Scotland's east coast they wanted to build a cow herd to supply their fattening operation. The rugged terrain and poorer, leached soils on the high rainfall west coast island offered an economic opportunity.

When they came to stock the new property they faced a dilemma as the purebred cattle of the day (predominantly Shorthorn and Aberdeen Angus) had followed the "baby beef" fashion and were too small to provide the kind of replacements that were profitable for their fattening operation

The Cadzows felt the following three attributes would be essential to the viability of their cow herd.

Ability to withstand a tough environment.
Ability to produce a calf every year.
Ability to be self sustaining in terms of replacements.

This steered their initial breed choice to the Beef Shorthorn x Scottish Highland, a popular F1 commercial cow that was well suited to their environment. They found this crossbred cow worked well for them but maintaining separate herds of Shorthorns, Highlands and the F1 crosses was logistically complex so their thoughts turned to stabilizing their F1 cattle as a self sustaining cattle population.



Foundation sires of the Luing breed, Scotland 1966

To achieve this they bred an exceptional Shorthorn bull back to their F1 cows and in 1952 they retained two of the resulting 3/4 Shorthorn 1/4 Highland bulls. In time breeding these bulls back to their F1 cows established the 5/8 Shorthorn, 3/8 Highland make-up of the Luing breed as we know it today.

After several generations and rigorous selection they had achieved a recognizable type with predictable performance. By 1964 they had 400 cows of this type and they started to think that their cattle had something to offer the wider industry and perhaps they should pursue the idea of becoming an official “breed”. In May 1965 an open day was held on Luing to showcase their cattle to an invited audience of other breed representatives, industry officials and dignitaries. The Cadzows were great promoters and the day was an outstanding success leaving a great impression on all who attended.

In turn this led to official breed status being granted by the British Parliament to the Luing in July 1966 - the only new breed thus recognized in the 20th century.
As far as I’m aware this is also the only breed ever developed for efficient production of beef in cold or wet climates.

The Luing Cattle Society was set up soon after and followed Denis’s decree that it was to “be a breed like no other” - it was to be a breed for commercial cattlemen, unswayed by the fads or fashions of the show ring. One of the Society rules from the outset was that there was to be no competitive showing of Luing cattle, only demonstrations of the cattle with commercially relevant data supporting their performance. This rule remains in place both in Scotland and in Canada to this day.

Denis Cadzow summed up their new breed’s role when he said “The biggest scarcity in beef production lies not in the terminal bulls, but in finding suitable mates to give these bulls…..” This is the place our breed has booked on the assembly line, and they will be there ready to do their job efficiently” I feel that is as true today as it was 50 years ago.

Early Luing Cows Imported to Canada

Breeder profile - The Van't Westeinde family, Broadview, SK

Iain Aitken

Jacob and Astrid Van't Westeinde moved from the Netherlands to Drayton Valley, Alberta in 2005. I first met them through our local forage association as they had not come from a livestock farming background in Europe and were keen to learn new grazing management skills for their new cattle ranching enterprise.

After a short spell at Drayton Valley it became apparent the scarcity and high price of land in oil-patch country would not allow the expansion they had hoped for. Like many other Alberta ranchers at that time they saw a better opportunity in the underpriced grain land of eastern Saskatchewan. So they packed up their belongings once more and moved to their current property near Broadview. They took with them the small cow herd that they had calved out that spring and their first Luing bull as well as a Red Angus bull.

Until this summer I had not had the opportunity to visit them although they have become my biggest bull customers. We have spoken often on the phone over the years and I have followed with interest the evolution of their new operation. Their land base has grown to 20 quarters of black soil that was previously all farmed with the exception of a few areas of bush and sloughs. Converting this to a grass/cattle operation was a big undertaking as the land first had to be fenced and seeded to grass. Installing a buried 2" pasture pipeline water system was the most important factor, in Jacob's opinion, to effectively utilizing their land base and increasing forage production. These ranch developments and increasing cow numbers were done during the BSE crisis when profitability of established cattle operations were at an all time low. However by utilizing good grazing management, carefully managing costs and grassing their calves through to the yearling stage before selling them, the family survived and have now expanded to running 470 pairs. The latest cow herd expansion came as a result of changing to selling their yearlings in late winter/spring rather than grazing them through to September. Feeding the calves heavier on an oats and roughage diet through the winter has brought them to market sooner and freed up enough pasture to run some extra cows, but more importantly, allows them to extend the grazing season and build more of a drought reserve for the whole herd.

Young Luing Cross Cow

With only Jacob, his wife and 3 children operating this large enterprise they need a well planned but simple system. With as many as 30 calves a day being born at peak times there is no time for pampering individuals or barn calving. Cows calve on grass in May-June and are expected to be trouble free. The grazing land is fenced into 40 acre blocks, the whole herd runs together and is moved every 3 or 4 days into a new pasture depending on the grass stage and quantity. With only one large portable water trough to move and one gate to open it struck me as an incredibly time efficient way to manage these large cattle numbers. To see this size of herd moving as one reminds me of the herds of buffalo that once grazed this land. They are doing a great job of recreating the short duration grazing and high animal impact effects that shaped the tall grass prairie ecosystem.

Winter feed

Initially the Van't Westeindes seeded much of the land to alfalfa which was then hayed and bale grazed in winter. This has been discontinued as they found it difficult to put up hay of sufficient quality to maintain the cows through the harsh Saskatchewan winters. The alfalfa would typically have plenty protein but not enough energy to meet the cows needs.

The focus now is on producing high quality greenfeed from mixtures containing oats, millet, legumes, turnips and radish. Having this diversity of plant categories reduces growing season risk and improves soil health. This greenfeed is limit fed on a daily basis by rolling bales out for the cows while the rest of their ration is made up of ad-lib oat straw. Jacob bales up the straw on surrounding farms and hauls it home to set out in a bale grazing system. This imports valuable nutrients and allows for the beneficial effects of bale grazing but with a cheaper feed source than hay. It also provides somewhere for the cows to bed down when weather conditions are severe.

The Cattle

The initial policy was to buy bred Red Angus commercial cows and breed them to Red Angus or Luing bulls. All the offspring were sold as yearlings after a second season on grass as a means to utilize their large forage production base. The Luings worked well for the Van't Westeindes, proving to be pretty trouble free and giving them yearlings every bit as salable as their Red Angus sired herd mates.
As the BSE crisis receded and bred cow prices started to increase thoughts turned to keeping some of their own replacement Luing cross heifers instead. At the same time we had a conversation about breeding part of the herd to Charolais bulls to increase the sale weights of the yearlings. Although the Luing and Red Angus had worked well in a terminal role, it just made more sense to breed a portion of the herd to a true terminal sire breed (Charolais) and maybe capitalize more on the maternal traits of the Luing breed by retaining heifers. In recent years only Charolais and Luing bulls have been used on the herd with around 60% of the bulls currently being Charolais. This program seems to be working well with the Charolais calves being heavier and of a type that will top any market. Two batches of 80 Luing cross Red Angus replacements have entered the herd and they look very promising as young cows. They have moderated cow size while adding a little more flesh and an enhanced winter hair coat. This 3 way cross of Luing x Angus bred back to Charolais maximizes hybrid vigor - the only "free lunch" in the cattle business!

3 way cross - Luing bull, Luing cross Angus cow and Charolais cross terminal progeny

The downside of retaining heifer replacements in this situation is that it complicates management as it entails running heifers as a separate group both at breeding time (no Charolais bulls), and through the following winter as the young bred heifers would have difficulty competing with mature cows in the large herd situation.

I was particularly pleased to see the eight Luing bulls running with the herd, the youngest of which would be four years old. Despite coming from different cows and different matings over the years the bulls

had matured with great uniformity of type. Seeing that made me feel confident that all of them were likely to sire daughters that would perform well in that system and in that environment.

Credit goes to the Van't Westeinde family for their hard work and dedication - they have come a long way since calving out their first beef cows at Drayton Valley.

Typical mature Luing bull in the Van't Westeinde herd

Are Cows Getting a Bad Rap?

Glenn Webber

There is no shortage of reports and news stories focusing on the environmental impacts of raising cattle. Many of them are critical of the amount of greenhouse gases released by cattle. There are also concerns relating to cattle contributing to soil erosion, overuse of aquifers, contamination of groundwater and utilizing feed grown on arable land capable of producing human food. In combination, these concerns are contributing to campaigns promoting "Eat Something Other Than Beef" and suggestions beef production be further regulated and financial penalties levied.

The effect of cattle is not insignificant when it comes to the effect of trapping solar heat. From what I have read this is the main reason there is increasing focus worldwide on the environmental consequences of cattle. However, are cattle and the people who raise them being fairly criticized?

On one hand, cattle do generate significant amounts of methane and lesser amounts of nitrous oxide, two of the important greenhouse gases. On the other hand, agriculture in total produces roughly 18% of greenhouse gases (GHG) worldwide and cattle are estimated to result in slightly more than half of the agricultural total. If the production of food in total for the world is responsible for 18% of greenhouse gases why is this seen as such a big problem?

This raises some questions. Most of the widely publicized and referenced greenhouse gas emissions numbers date back to 2006. Are they accurate in 2016? What are the trends in greenhouse gas emissions? Are the emissions related to the agricultural sector changing? Some more recent studies are showing a different picture. CO2 combustion and industrial processes contributed about 78 % of the total GHG emissions increase from 1970 to 2010, with a similar percentage contribution for the period 2000–2010. Why are we not hearing about the problems with CO2 and efforts to curb those growing emissions? If there were no cattle in the world, there would still be issues with greenhouse gases. Why single out cattle when they are but one species of the ruminant animals whose digestive process release greenhouses gases? Why are we not hearing about the effects of the large world wide populations of sheep, goats, bison, elk, deer and camels?

I suspect there is a growing bias against cattle and beef production. There was a recent presentation by Tim McAllister, a research scientist with Agriculture Canada at the Canadian Beef Industry Conference in Calgary. He suggests there is a growing anti-beef sentiment.

How valid are the criticisms based on the greenhouse gas emissions of the beef production in North America? It turns out there are significant differences between different continents when it come to greenhouse gases related to cattle. The North American cattle industry is relatively stable in terms of the number of animals and the resultant greenhouse gas emissions. Many of the oft mentioned problems with cattle are not applicable in North America. In other parts of the world the number of cattle are growing, forest and land are being cleared and burned to be able to graze cattle and there are more environmental problems.

Fattening on Grass

Focusing on North America, I think the emission numbers are often presented in absolute numbers and these numbers do not take into account the significant populations of ruminant animals in North America prior to European settlement. There were large populations of bison, elk and deer. Bison alone were estimated at between 30 and 50 million animals. For centuries these animals produced greenhouse gases from eating forages and were part of self sustaining ecosystems. A study conducted at Pennsylvania State University concluded overall, methane emissions from bison, elk, and deer in the pre-settlement period in the contiguous United States were about 70% of the current emissions from farmed ruminants in the U.S. I wonder how many people reading about emissions from cattle in North America realize they are only 30% higher than the sustainable system that exists for thousands of years? I also wonder how many people realize the human population of North America has gone from 26 million people to 352 million people in 2016, an increase of 1,350%.

I think it is easy to be critical of cattle and beef production and overstate the impacts if the analysis focuses mainly on the total contributions of two greenhouse emissions rather than the net contribution and ignore the massive human population growth in North America since 1850 and the impact this continues to have on GHG emissions. Another way to look at cattle is through an environmental sustainability lens. I have yet to come across a study with concerns about greenhouse gases and cattle that considers how beef production compares to other human food sources in terms of potential sustainability in the long term.
A significant part of world food production is based on the use of nonrenewable energy sources. What percentage of the human food in the world would be available if oil and natural gas were not available for fertilizer and fuel for production and transport?

I do not mean to suggest the cattle industry should not be concerned with the amounts of greenhouse gases cattle produce. However it is worth looking at cattle in North America generally and specifically the Canadian prairies from a more holistic point of view. Cattle raised predominantly on forages have the potential to be raised with smaller amounts of nonrenewable resources. While currently a high percentage of cattle destined for slaughter in North America are finished on grain based rations, it is not the only way beef can be produced. It is possible to finish beef on perennial forages. A move to finish more beef on perennial pastures would also reduce some of the current criticisms of North American beef production.

First and foremost, well managed pastures and grasslands have the ability to offset the greenhouse gases produced by burping cattle. These self sustaining grasslands and pastures have the ability to lock up or sequester large amounts of carbon. The criticism on the amount of arable land used to grow cattle feed could be significantly reduced. Perennial pastures or grasslands are often marginal lands incapable of being used for crops leading to human food.

Cattle raised on marginal lands seldom are concentrated to the point where manure management is anything more than part of a self sustaining pasture ecosystem. Cattle raised and finished on pastures are not heavily concentrated and they often use surface waters. They do not result in the drawdown of aquifers seen when high levels of irrigation and confined feeding operations are concentrated in small geographic areas. Properly managed grasslands are also beneficial in controlling erosion and reducing the runoff of rain and snowfall and this results in a higher infiltration of moisture into the soil and the recharge of aquifers.

We should be asking if a larger percentage of beef in Canada or the United States was raised on perennial pastures, how would the resultant greenhouse gases produced compare to the pre-European historic levels. Levels that were sustainable for thousands of years.

In conclusion, the beef industry is receiving significant criticism related to the production of greenhouse gases and their contribution to climate warming. The worldwide beef industry contributes a relatively small percentage of greenhouse gas creation but gets a disproportionate amount of criticism. For the North American beef industry, the criticism is seldom presented in the context of historical levels of greenhouse gases and with little mention of the huge increase in human population and the impact this has had on green house gases production.

Canadian beef producers are going to have to respond to the criticisms or run the risk of a loss of demand for beef by consumers or increasing restrictions and regulation at the local, national and international level. Perhaps the biggest task is to be able to credibly and effectively challenge criticisms of the beef industry. A job where the number of people involved in the industry is very small in relation to the numbers of urban people with limited knowledge of food production and greenhouse gases.

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