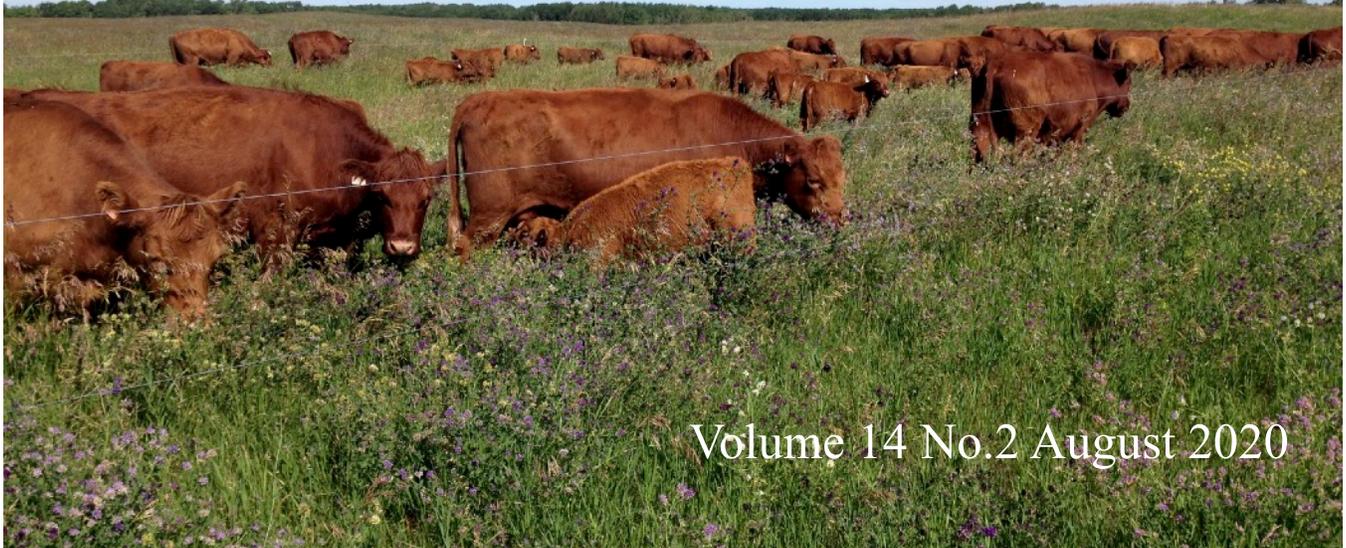


Canadian Luing Cattle Association Newsletter



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Message From The Secretary

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Welcome to our 2020 Summer Newsletter. In this edition I take a step back in time to an article first published in the 1974 Scottish Luing Society Journal. It gives some great advice on how to improve beef production efficiency that sadly, nearly 50 years later, is still being ignored.

Dr Bob Church's article entitled "Current Developments in the Beef Cattle Industry in Western Canada" gives his analysis of the cattle industry at that time as well as some predictions of what would, or what should, happen going forward to build a more efficient cattle industry. What really jumped out at me were the common threads of wisdom shared by Bob, our breed's founders the Cadzow brothers and Larry Leonhardt of

Shoshone Angus. It seems through the ages there have always been a small number of cattle breeders who understood what was needed to make beef production more efficient. I like to call these breeders the visionaries. Unfortunately their teachings have been largely ignored by the masses.

At the time Bob wrote this article North America was at the height of its "exotic" craze - that is to say the importation of the Continental European breeds led by Charolais and Simmental but including everything from Chianina to Tarentaise. It was somewhat of a "gold rush" era in cattle breeding as fortunes were made and lost overnight based on the speculative financial values of the imports based largely on rarity. In addition to the exotic breed imports,

the previous year - 1973 - had marked the first importation of Luings into Canada something that Bob Church himself had facilitated.



Heifers with un-assisted range calving ability

The primary reason for introducing the exotics to Western Canada was to boost growth and efficiency of beef production. The need for this according to Bob *“has come about primarily through a preoccupation by many purebred breeders in establishing and maintaining aesthetic characteristics in their cattle at the expense of economic traits in beef production”*

This echoes perfectly the comments of the Cadzows at the time they started to create the Luing breed as the existing breeds of their day had followed the fads and fashions of the show ring to the detriment of commercial cattle production.

In addition to the larger mature size of the exotic breeds Bob stated *“there was also the factor of increased heterosis from cross-breeding and especially from combining genetic strains with very different metabolic and physiological contributions to*

growth and reproductive performance in the offspring.”

While it is hard to imagine today, the widely accepted practice of cross-breeding and benefitting from heterosis was a relatively new idea in the early 1970s. He continued *“Specific breeds of cattle were originally developed to produce meat or draft animals or dual purpose in a specific environment. In the early days of the cattle industry before rapid transportation each small area of a major cattle producing area developed specific breeds which were uniquely successful in those particular areas.”*

Another idea shared by many of the visionaries was Bob’s assertion that *“future beef production will emphasize the realization that the cow, as a ruminant, can only justify herself on the basis of how efficiently she utilizes roughage”*. He further speculated that *“A renewed interest in the animal conversion of all sorts of roughages will identify the genetic strains of cattle which can efficiently convert this roughage into red meat through low maintenance requirements of the cow.”*

Forty five years on I think the beef cattle industry still grossly undervalues roughage utilization, and the ability of some cattle to perform this task better than others.

The early 1970s were the era when performance testing as we know it today began. This involved measuring individual bull’s growth rates or the comparative growth rates of weaned

calves by different sires/breeds (progeny testing) in a feedlot situation. While this has proven to be a successful way of selecting for growth rate, Bob was concerned that *“Performance tests have not considered the efficiency of food conversion on different roughage/high concentrate rations”*. This would stem from the concern that you couldn't expect to select the most successful roughage converters on a high grain/concentrate ration. This view was also shared by the Cadzows when they issued the decree that *“This breed is essentially a roughage convertor - large quantities of grain and concentrates are not a requisite of its diet - performance testing of the Luig must be done not on a high concentrate ration, but on grass products to show its commercial viability”*. Unfortunately, this advice has been widely ignored throughout the cattle world, and the majority of bulls in all breeds are still raised and fattened on high energy, grain-based diets.

Further to Bob's concern about the methodology of performance testing, he also commented that measuring cow or herd efficiency by relating yield of calf marketed back to the number of cow units exposed was perhaps not the best way. He suggested that a better way would be to compare the total production resources utilized on a ranch in the form of roughages or concentrates and relate this to a total of beef produced. This is another idea that hasn't gained much traction over

the decades - most ranchers still express their herd efficiency by stating how heavy their weaning weights are!



Fertility - a 10 year old consistent breeder.

With the new understanding of heterosis, the search for the “ideal cow” began. Bob said that *“theoretically the crossbred cows had increased fertility, sexual maturity, conception rate, survival of offspring and general mothering ability. Unfortunately this was not borne out in early experimental programmes using exotics since the major problem associated with exotic cross-bred heifers is lack of mothering ability and reproductive capacity in comparison with the Angus or Hereford derived range cows unconsciously selected for their reproductive performance over many years.”*

“With the exotics it soon became apparent that the relative economic value of reproductive characteristics was being overlooked with the emphasis on growth. Many ranchers were finding that although their weaning weights had increased 10-15% with fast growing exotic genetics, the net return to their

operations either remained unchanged or in some cases was reduced through a corresponding decrease in conception, increased losses at calving and early calf mortality. Ranchers were discovering that relative economic value of reproductive characteristics was twenty fold than were many of the growth characteristics.”



Crossbreeding of two biologically different types - Scotland 1990s

This is one area where I think Canadian exotic breeders have done a good job. The early problems with calving difficulty and poor calf survival in breeds like Charolais is something that was quickly overcome by astute selection by breeders. Incidence of calving difficulty due to exotic sires in Canada today is extremely low when compared to the same breeds used in Europe. As Bob correctly predicted if the exotics were going to succeed in Western Canada they would “*need to be able to calve unassisted under range conditions*”.

Realizing the limitations as well as the advantages of the exotic cattle Bob suggested that “*Cattlemen are now*

concerned with the development of a scheme of crossbreeding for each environmental area which utilizes sires that have proven growth rate and carcass merit to combine with crossbred females which have an optimal size with documented mothering characteristics” “We shall then perhaps have sire breeds which are produced for a particular purpose in certain areas and use these in combination with females which have been developed for maximum reproductive efficiency in certain types of management and geographical conditions.”

This idea will be instantly recognizable to anyone familiar with the late Larry Leonhard’s Truline philosophy of complimentary crossbreeding to maximize efficiency of beef production. Unfortunately to this day there has been almost no uptake of such breeding programs despite their obvious merit. Within such breeding programs Bob felt that the potential contribution the Luig breed could make to the Western Canadian beef industry would be through their hardiness and reproductive efficiency. He believed that cow of the future in range areas would be Red Angus-Hereford or Luig-Hereford or Angus crossbred cows bred to a fast growing exotic sire to produce a market animal.

Bob also raised another interesting viewpoint in his article that I have heard mentioned by others - that too much emphasis is put on the milk component of maternal function - he

felt that conception rates and mothering ability were far more important and that too much milk can be a detriment to efficient beef production. This was also something the Cadzows encountered on Luing in the early years which led them to cull some cow families that just had too much milk for their environment - the cows reared some of the biggest calves but they were just too lean going into the following winter as a result.

Bob concluded that *“animal geneticists are not as enthusiastic over lowly heritable traits like reproduction compared to highly heritable traits like growth. Coupled with this is a tremendous amount of propaganda and speculative promotion on rate of growth. This taken to it’s ultimate would mean elephant size cattle in terms of growth rate potential. This is obviously not the most economical way of utilizing our cattle resources in beef production”*.

Looking at the cattle industry today it would appear we are still on track for elephant size cattle with many purebred cows in both traditional and exotic breeds in Western Canada weighing in the region of 1700-2000lb. Selection for growth has led to increased weaning and slaughter cattle weights but has also led to a corresponding increase in mature cow weights. It has been well documented in recent decades that due to feed intakes increasing in tandem with

cattle weights there has been no net increase in efficiency per pound of beef produced. The maximum advantages of cross-breeding to utilize heterosis have not really been captured either. In many cases ranchers continue to run cows and bulls of the same breed. The ranchers that do cross-breed often do it too much and in random fashion thus diluting the benefit of heterosis - none more so than those that use cross-bred “hybrid” bulls on mongrelized cow herds.



Our cows still match the 1974 Luing breed standard for size and weight..

The propaganda and speculative promotion on rate of growth that Bob mentioned has certainly not abated in the interim. It seems to be the default method used by breeders and breed associations to promote their cattle. Meanwhile the most important trait to improve beef production efficiency - fertility - is often sadly neglected. That is unfortunate as it is also the key driver of herd profitability in an industry that has been dogged by long term low margins.



Young bulls being reared on forage to prove their merit.

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