Canadian Luing Cattle Association Newsletter

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Message From The Secretary

Iain Aitken

Welcome to our first Newsletter of 2017 from a snowy southern Manitoba. After enjoying a near perfect growing season last year, in contrast to many across the prairies, December brought over three feet of snow, high winds and lots of drifts. As you can see from the header picture our herd was grazing corn this winter - a first for the breed as far as I know. With the deep snow and bitter cold the conditions have been challenging but these cows are foragers and coped well despite still having their calves suckling.

In my article on the colors of Luing I mention the prejudices of the marketplace and this also applies to hair coat. As most of us run cattle in areas that see temperatures fall to -40C in winter it seems strange we should be penalized in the marketplace for having cattle that are better able to withstand these cold conditions, saving feed and money in the process!

I'd like to thank our many repeat buyers as well as the following customers who purchased Luing genetics for the first time in 2016.

Ron Apostle, Gilbert Plains, MB
Jordan Kealy, Cecil Lake, BC
Dave Livingstone, Pine River, MB
Kalevi Lustig, Outlook, SK
Merlinds Farms, Burdett, AB
Riedbow Dairy, Elm Creek, MB
Barry Schorr, Moosomin, SK
George Tegart, Brisco, BC
Ernest Wiebe, La Crete, AB

Luings currently for sale

A good selection of rising two year old Luing bulls for sale from the Medicine River and Greywood herds. Located Belmont, Manitoba. Please check the website www.luingcattle.com or feel free to call me at (204) 537 2620 for further information.

One rising 5 year old herd bull (horned genetics) located at Castor, Alberta. Please contact Ian Griebel at (403) 430 0160.

The Colors of Luing

Iain Aitken

In this article I want to describe the colors that occur in the Luing breed backed up with illustrations throughout the Newsletter. I have found that my customers are sometimes confused by my color descriptions when buying cattle sight unseen. This is not an attempt to explain the genetics of coat color rather it is based on my observations of the breed over thirty years. As with horn genetics in the Luing breed the color genetics are complex as they are based on a merging of the Beef Shorthorn and Scottish Highland breeds originally.

Luing cattle can be any color that exists within the Shorthorn or Highland breeds. However the colors represented in herds tend to be influenced by breeder selections, driven either by personal preference or more often the magnitude of color discount handed out at the local auction mart for "off type" cattle. Most Luings are solid patterned with the predominant color being red. This ranges from a very dark red, to pale red to cattle I would call yellow. The dividing line between pale red and yellow is the one I have most difficulty discerning as calves often lighten as they age and some adults seasonally exhibit different hues. There are more yellow Luings in Canada than there were in Scotland, partly I assume, because of the Snowlander influence here given that they were 50% Highland blood versus 37.5% in the Scottish Luing. Selection has also played it's part as in Scotland there is prejudice against yellows as they look "too Highland" and Highland influence is discounted in the feeder cattle market

Dark Red

Demonstrating their Shorthorn ancestry, broken color patterns within the breed include animals that are red with white feet and often white on the forehead. In my experience this color pattern seems to generally be heavier milking. The other broken color pattern is of course roan. Many Luings have white underlines and flecks of roan on their tail but we don't have many true roans like the one pictured below.

Again this is perhaps due to prejudice based selection as roan purebred Luings often top the market in Scotland whereas roan cattle seem to get penalized in Canadian feeder markets due to perceived failings of genetic direction within the current Shorthorn breed. On rare occasions a yellow roan shows up.

Roan cattle in the herd usually result in a small percentage of white Luings. I have generally avoided keeping whites as they do suffer the same “white heifer disease” genetic condition that occurs in the Shorthorn breed. In my experience this results in about 25% of white females being sterile.

Pale Red Steer

Although I said you can get any color that occurs in the Highland or Shorthorn breeds one color that we don’t get is black. There are of course black Highland cattle but it appears that none of these black genetics were included in the Shorthorn/Highland cross cattle the Cadzows’ built the breed from. My guess is that the black highlands would be largely confined to the Outer Hebrides islands at that time but have more recently been introduced across the Scottish mainland. On very rare occasions a brindle Luing can occur - that is to say red with black streaks similar to some Longhorn and Jersey cattle.

It is interesting that in the creation of the Luing breed the Cadzows’ selection methodology ignored color completely which lends weight to the old saying that a “good beast is never the wrong color”.

The Advantage of Cross Bred Cattle

Iain Aitken

January seems to herald the start of the “breed promotion” season as our mailboxes and cattle magazines are full of glossy adverts. I am disappointed that so much of the advertising is of the generic “buy the X breed - it’s the only one” type. While it’s the role of breed associations to promote their cattle there is often an exaggeration of the importance of breed genetics to overall farm/ranch profitability. In most cases more immediate and substantial returns on investment are achieved by improvements to pasture management, extending the grazing season and reducing cow wintering costs. One important factor in cow herd profitability that is often overlooked is the contribution of effective crossbreeding systems.

Breeding a bull from one breed of cattle to a cow of a different breed is termed cross breeding and results in cross bred progeny. Research has shown the performance of these first generation of cross bred animals is better than either of their parents. The increased performance is attributed to a genetic phenomena termed heterozygosity, which is also called hybrid vigor. In its simplest form, the combination of genes from distinctly different parents results in a genetic combination that produces cattle with superior growth, longevity and fertility. While there is an extremely complicated genetic explanation of how heterozygosity works, cattlemen can use straightforward approaches to take advantage of the benefits of cross bred cattle.

Pure bred cattle are considered genetically homozygous (the opposite of heterozygous) on the basis of the similarity of the genes within the breed. The first cross between two different breeds of cattle is called an F1 cross and the genetic makeup of the animal is considered heterozygous as it is the result of the mixing of two different sets of genes. Due to their enhanced performance and uniformity the F1 offspring are particularly suitable as slaughter stock or to produce cows to be crossed with a third breed of cattle. Breeding F1 cows to a bull of a third breed captures the maximum amount of heterosis of any cross breeding system.It is also important to note crossing F1 cattle with other F1 cattle does not produce offspring that have equal or better performance than their F1 parents.

The most successful cross bred cattle are produced by using breeds that are as genetically different as possible as this increases levels of heterosis. Luing cattle are well suited for this purpose as the Luing gene pool is distinctly different from all the common cattle breeds in Canada.

With that in mind I'd like to provide some suggestions as to how Luing genetics can be used most effectively and profitably by ranchers.

Luing were developed as a maternal breed and that is obviously where their greatest potential contribution lies. One of the simplest and most effective uses of Luing cattle would be a herd of pure cows bred to a terminal sire with all calves sold and all replacement females bought. This would allow you to benefit from a maternally efficient cow herd while greatly increasing sale weight and market appeal of your calves. One downside of this system is that the replacement heifers are not born on your ranch so they will have to adapt to your conditions and management.

Another option for the breed, particularly given the shortage of straight bred Luing females on the market currently, is to use Luing bulls on other maternal type cows like Red Angus. This allows you to benefit from hybrid vigor as well as breed complementarity to create F1 offspring either for sale or home use. Good F1 steers sell well in the marketplace and the F1 females from a good breeding program are always in high demand. A further option is to retain the F1 females to breed to a terminal sire which maximizes heterosis but this can require more complex breeding pasture arrangements and best suits larger herds.

Yellow Cow

The way I personally use Luings - bred pure for the seed-stock market is something that I'd only recommend if you are actively registering and marketing them as such. Breeding pure to supply the commodity market is a poor choice as you lose out on growth and the feeder market appeal of crossbred cattle.

Other than these maternal focused roles for Luings there are a couple of other uses that are worth mentioning. Calving ease is one of the breed's real strong points and as a result they have been widely used in Canada on first calf heifers. This is a role where the Luing has excelled due to a combination of calf size and shape. A downside is these heifer's calves, being

smaller at birth, will generally be smaller throughout their lives. I know some other breeds promote their bulls as siring 70lb birth weights and 700lb weaning weights but that's biologically unlikely to put it mildly.

A few ranchers have started to use Luing bulls in a terminal role despite them lacking the rapid growth rates and large mature size of a true terminal breed. Their goal is to utilize the breed's unique beef quality traits in niche grass-fed beef markets. Well fattened Luing beef is fine grained and tender which has earned it recognition as a premium product with consumers. Depending on the cow herd this might provide the opportunity to use the steers for beef and still retain heifers for replacements.

Hopefully this provides some guidance as to how our breed could be most profitably used. I would never claim we have a "wonder breed" or a breed for every purpose. However used in the right situation, as a component part of a successful cross-breeding program, the Luing has a lot to offer.

Shorthorn Pattern

Does Temperment Play a Role in Breeding Success

Glenn Webber

Many cattle producers routinely cull cattle on the basis of poor temperament. Cows or heifers that are difficult to deal with in the alleyways or squeezes or those that present a safety risk to producers viewing, treating or tagging calves are often the reason for removing animals from the herd. There may be an additional reason to cull cows and heifers that exhibit a high level of aggression or stress.

Recent research has established a link between docility and rebreeding success. Researchers at Kansas State University looked at the effect of cattle disposition on the probability of pregnancy. While calmer dispositions have previously been correlated with higher meat quality, there is now reason to believe that disposition may have an effect on reproductive success.

Physiological responses associated with temperament can influence the probability of cows becoming pregnant because stress hormones in the bloodstream can negatively affect the release of reproductive hormones. Cattle with "calm" temperaments had lower serum cortisol and epinephrine concentrations than animals classified as "temperamental" in previous research. One of the objectives of the study was to see if there was a correlation between blood cortisol levels and disposition.

The study involved rating heifers for docility when being processed in a squeeze chute, and then correlating the levels of blood cortisol to resulting pregnancy rates. A chute score from 1 to 5 was used with calm animals assigned a 1 and the animals with the poorest temperament were scored a 5. A total of 337 yearling heifers from 3 different ranches were used in this study.

An increase in chute score (more active/more vocal) significantly reduced the odds of pregnancy in one of the three cooperative herds in this study. This herd had more animals with higher chute scores than the other two herds. Not surprisingly the ranches with greater numbers of docile cattle did not have significant reductions in pregnancy rates.

While there are many factors that contribute to high cattle pregnancy rates, managing for calmer, quieter cattle can contribute to improved pregnancy rates in a cow herd. The results may also show an additional benefit in using low stress handling techniques when working with cattle.

Canadian Luing Cattle Association

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