

AGGY

History of the Lynch Lineback Cattle of Canada

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### Introduction

The “Lineback” pattern has been seen on cattle for millennia. Cave paintings in Lascaux in southern Europe show images of *Bos Primigenius*, better known as the Arus or Auroch, which is believed to be the ancestor to most of today’s cattle. These images are 25’000-30’000 years old and show the Auroch, it was a dark animal with a white stripe running the length of its back, and a white underline. This pattern is known as the “lineback” pattern on today’s cattle. The lineback pattern has been seen on many breeds of cattle around the world, such as the Telemark from Norway, Witrik cattle from Holland, the English Longhorn and the Irish Moiled just to name a few. More modern breeds have been developed over the years from the older lineback breeds, like the Randall lineback of America, the Pinzeguars of Austria, and the Lynch Lineback cattle of Canada.

Lynch Lineback cattle are a landrace breed, meaning that they are a native breed that has been developed to suit our Canadian climate. They are a triple purpose animal; the cows yield high quality milk, while the steers yield well marbled meat with a nice flavour. Steers can also be trained for the use of oxen and used as draft animals. Lynch Linebacks have been bred to perform on forage diets alone and do very well on native pastures. They are a hardy animal that can with stand the cold and thrive on stony and or wet pastures. They are a medium weight cow, with strong legs and black feet that keep lameness at a minimum. With little lameness and their systems not being bushed with high protein grain diets, the cows live very long lives. In one case a cow by the name of LynchLine Lois lived and milked till she was 22 years old and was then put down before she suffered from natural causes.

Lynch Lineback cows give a bought 40-60 pounds of milk a day depending on their age. Linebacks have a flat lactation curve, meaning that they reach their peak production early and stay at their peak till late in their lactation (Lactation is the 305 days that a cow milks after she calves). Unlike other breeds which reach their

peak production early in their lactation and only stay there for a short time. Lineback cows are suspected to have a higher than average butterfat and protein.

Lineback cattle were at one time quite numerous in eastern Ontario and contended with the other local dairy breeds. However in the latter half of the 1900's the use of artificial insemination became very popular. Farmers started to breed their cows to the more popular breeds like Holsteins, Ayrshire's and Jerseys. With no herd book or breed association to help out and no bulls on the artificial insemination units the linebacks almost went extinct in Canada.

#### The Domestication of Cattle

*Bos Primigenius* (the Aurochs), was the original wild stock from which the entire bovine race has been bred from. The aurochs was a massive animal which was largely feared by man. The bulls stood two meters at the shoulders, weighed over 1000kg and had horns spanning over ten feet and had a large variety of colours and colour patterns, including the Lineback pattern. They were best known for their aggressive temperament. The Aurochs was hunted for meat but a great deal of the hunt was for sport. It was thought to kill such a fierce animal would amuse the Gods.

Over centuries of hunting the most aggressive Aurochs bulls and cows, man had unknowingly culled the worst of the aggressive animals out of the wild herds. The size of the animals had also decreased, for the more aggressive animals were also some of the biggest. Eventually the Aurochs became a more manageable animal and was easily domesticated. The last wild Aurochs cow was killed at age 17 by a hunter in the Jaktorowaka Forest in Poland in 1627.

Mesopotamia (near the Persian Gulf) is thought to be the area where most farm livestock was first domesticated. Records show that Mesopotamia had live stock as early as the third millennium B.C., the cattle here were likely offspring of the wild Auroch. From here the improved strains of livestock were spread mainly by nomadic tribes and military conquests. Cattle eventually made their way through Africa, Asia and Europe and then later to North America. Most of the domesticated cattle today can trace their origins back to Mesopotamia.

#### Start of Breeds

Cattle moved through the world with humans. Humans began to develop different cultures and costumes. Cattle were a big part of human life and they began to evolve with the different cultures. Mankind started to get selective about what bulls would breed what cows. Different bloodlines of cattle were starting to be created. Mankind was breeding his animals to suit whatever niche (meat, milk or work) was needed of them at that time. As man began to settle on islands and in mountain valleys and became less nomadic the different niches and needs began to stay the same. Mankind became even more selective with the traits he was looking for in his cattle so they could better fill his needs. Different bloodlines of cattle became more distinctive and improved to fill these niches efficiently. Culture also played a big role in breeding programs around the world, some cattle were only meant to be worshipped. Over time people had perfected their breeding programs. Eventually different groups of animals started to consistently produce offspring that looked and produced the same from one generation to the next. Thus different breeds were born.

In some cases breeding became more of a fashion statement. Breeds like the Scottish Highland and the English Long Horn were kept for their ability to produce beef on mountainous terrain as well as for their long horns. There was a great deal of pride to be known as the breeder of the bull or cow with the longest horns. However this would become the downfall for both of the breeds in the latter half of the twentieth century when beef producers started breeding for hornless cattle that were easier to handle and feed in hay feeders. Other fashion statements were the colour patterns of different breeds, such as the belts on breeds like the Belted Galloway or the now extinct Old Lakenfelder and the Sheeted breed of Somersetshire. Colour and colour patterns played a big role in the breeding of cattle. The Lineback pattern was another favourite of old cattle breeders and appears on many breeds worldwide.

In some cases the lineback pattern is not a product of eccentric breeding programs, but just a product of a very old but strong gene that has been around for millennia. The lineback pattern still appears on cattle of different breeds that don't normally breed for any particular colour such as the Texas Longhorn, and even in breeds of African cattle like the Nguni.

## The Lineback Pattern

The lineback pattern starts with a solid coloured animal, usually black or dark mahogany and sometimes red. A white stripe generally starts at the base of the animal's neck and runs the length of the back to an all white tail, the white stripe is usually 4-12 inches in width and sometimes wider on mature cows. The bottom of the animal's belly is also white which runs between the back legs of the animal and up the inside of the thighs to the base of the tail. Most cows and heifers have a black vulva. Cows have a white udder and generally have black teats. At the top of the each leg there should be a white garter 4-8 inches in width and sometimes wider in mature cows. Most linebacks have solid coloured hoofs and legs. Coloured hoofs are often harder than white hoofs and are less likely to suffer from stone bruises.

One can only guess why this pattern has developed naturally in the wild. It is thought that white animals attract less sunlight in the summer and stay cooler. On the other hand it is thought that darker coloured animals attracted more sun light keeping them warmer in the winter. The back (over top of the kidneys), the belly and the top of the legs are often the areas where most animals expel most of their excess body heat to help regulate their body temperature. These are also the areas of the animal that are white in colour on the linebacks. Presumably the white colouring does not attract the hot summer sun when the body is trying to release extra body heat in these areas and maybe helps to keep the animal cooler in the summer. The dark sides of the animal attract the heat from the sun and help to keep the animal warmer in the winter. Thus giving the animal the best of both worlds while living in a part of the world that has both hot and cold weather. The black vulvae and teats might help to protect these sensitive areas from sunburn, because dark skin is less susceptible to sunburn than pale skin. Please keep in mind that these are not proven facts, but only keen observations.

## The Lineback cattle of Gloucestershire and Glamorganshire

Gloucester cattle originated in Gloucestershire, England around the thirteenth century, they were a medium sized mahogany coloured lineback cow, and they were valued for their meat and milk. They were also well known to produce strong draft oxen. The Gloucester cow reached its peak popularity about 1750. The Gloucester breed was known from Devon to Essex and to the Welsh coast. Gloucester cows were highly valued for their high quality milk. Gloucester milk was used to make the famous Double Gloucester cheese. There was success in 1796 when the Gloucester cow Blossom provided the first anti-smallpox serum to Sir Edward Jenner as he noticed that the milk maids were free of smallpox. In the 1900s the Gloucester numbers dropped as low as 27 head but have grown back to over 700 head. The Gloucester is now used mostly as a beef breed in England. The Glamorgan cow of Glamorganshire, England shared much history with the Gloucester cow. Some historians argue that they were the same breed. Although the two breeds were sometimes crossed to each other to prevent inbreeding they still remained two different breeds. The Dukes of Beaufort developed the Gloucester to be more on the dairy side of a triple purpose breed, while the Glamorgan's remain a true triple purpose animal. The Glamorgan's were well known for their rich yellow cream and strong draft oxen that could be butchered later in life and still produce great tasting beef.

Unfortunately at the end of the 18th century most farm work had switched from oxen to draft horse eliminating one third of the Glamorgan's purpose. Overall neglect led to the breed's degeneration. Dr William Price was virtually the last pure breeder of Glamorgan cattle. He passed away in 1893 and his remaining 9 cattle were crossed to other breeds.

There are reports of both, the Glamorgan and the Gloucester, being sent by ship to the new world. They are thought to be the origins of today's Lynch Lineback cattle.

## The first cows in Canada

The first cows in the new world were brought to the Canadian Maritimes by Vikings about 1004 A.D. However the attempted settlement failed within a year leaving it up to Columbus to bring in the first bovine settlers. Columbus landed his tough and rangy cattle on the island of Hispaniola in 1492.

Cattle moved through North America with the settlers. Settlers were coming from all over Europe and everyone was bringing livestock with them. This meant that there were many different breeds that arrived here in Canada, from France, England, Holland and Germany. None of the cows or bulls brought to the new colonies was registered purebreds, since the idea of purebreds or herd books for cattle would not be invented until the

ninetieth century.

There are early records of cattle being imported from Gloucestershire. The cows were loaded onto ships in the port of Gloucestershire, most of these cows were likely Gloucester's and their cousins the Glamorgan's. It is speculated that these cattle are the ancestors of the Lynch Linebacks.

Whatever improvements were being made overseas to fill certain niches came to a halt here in Canada. The new settlers were far too busy clearing land, starting communities and raising their families in the new world that little attention was paid to what their cattle were. The simple fact that cattle were there to be milked, eaten and pull a plough was good enough for them. North America became a mix master of breeds. North American cattle were distinguishable by their lack of distinction.

The start of Canadian Herd Books

The first herd book in Canada was formed in Québec in 1895 to help preserve the French Canadian cow (now known as the Canadian). The purpose of a herd book is to record the entire national herd. The only animals allowed in to a herd book are animals that fit the breed association's requirements. Each breed association has their own set of rules and requirements. The association also helps keep track of all breeders nationwide and helps to unite them. A herd book helps to ensure that cattle stay true to one breed.

To start a herd book, breeders must come together from across the nation and work together with one common goal. Together the breeders must develop a breed standard and only allow the animals that fit this standard to be allowed in to the herd book. Starting a herd book is an enormous task that needs a network of people and associations to support it. Between 1895 and 1905 herd books were established in Canada for dairy breeds such as Ayrshire's, Holsteins, Jerseys, Canadians and Guernsey's.

In the early 1940s most herd books had been operating for almost 40 years. The breeds were improving well already having a number of generations of pure breeding behind them. Associations supporting each breed had grown and were doing great work promoting their individual breeds making these breeds much more fashionable. At this time there were still a small number of farmers milking small herds of hardy unregistered lineback coloured cows. They were likely descendants of cattle imported from the port town of Gloucestershire (The Old Gloucester cow).

These herds were mainly in Grenville and Leeds county Ontario. Farms in this region were small 5 to 10 cow operations. The land here is high and rocky or low and boggy. Most of the year cows were turned out to graze on whatever native forages they could find on the rugged terrain. Any good workable land was used for grain crops and hay to feed livestock in the winter. The cattle here had to be as rugged as the land they pastured in order to survive. The farmers here were like their farm land and their cattle; hardy and humble! They saw no need at the time in extra paper work to tell them what their cattle were or how they should be breeding them. However all the extra work involved in keeping purebreds was paying off. The breeds were improving and becoming more productive as well as more fashionable. Overtime all the small herds of unregistered cattle either sold out or switched over to the more common breeds. If these farmers had of come together back then to start a herd book and promoted the Linebacks there is no telling where the Linebacks would be to day, for they originate from the same beginnings as Canada's Holsteins Jerseys and Ayrshires.

Robert Lynch

John Robert Lynch was born October 26th 1932 near Malorytown Ontario. He grew up helping his father Augustine Lynch on their family farm. Augustine was a cattle dealer, cows came and went. Robert saw every type of cow imaginable, with all the small herds in their region selling out or switching to purebreds a lot of non-registered hardy little cows came their way, some were Linebacks. Augustine bought these cows and hand milked them and sold the milk. If a farmer came along and was short of milk and was in need of a cow Augustine was happy to sell him one or two. Sometimes Augustine would buy cattle off some of the many islands in the St. Lawrence; these cattle would be bought and then would be pushed into the water and would swim to the main land where they would then be driven on foot to the Lynch farm.

Robert has documentation of lineback cattle in his family dating back to October 1894. In his grandfather's (Hugh Charles Lynch) daily journal there is a reference to a big lineback cow that was owned by Michael Hadigan. Michael Hadigan was Robert's grandmother's father, Robert's great grandfather. There is also a reference to linebacks in an 1890 record book that belonged to Robert's grandfather stating that he had three heifers out

on pasture, one of which was a lineback.

Robert grew up and started to farm on his own in the early 1960s. He realised that the Lineback cattle he use to milk by hand for his father when he was a boy were disappearing. Because he milked by hand he knew just how much milk those old cows gave in comparison to some of the other more improved breeds that were in the same herd at the same time. He also knew that they where a very mild tempered cow and somewhat stubborn compared to most. Robert marvelled over how hardy the rugged little cows were, they were practically indestructible. In an attempt to save the Linebacks, Robert kept whatever Lineback cattle he had and did not cross them to any other breed of cattle.

By the time the milk quota system came into effect in Canada Robert had stopped selling his milk as his main source of income. Later he opened Lynch`s Slaughterhouse with his nephew Bert Lynch. He kept his Linebacks and let the calves suck the milk from their mothers like beef cattle would do. If a cow had too much milk for one calf Robert would get stealer calves to suck the extra milk. He would also hand milk the odd cow here and there to have milk for the house. To this day Robert still keeps his own bulls for breeding. If bulls do not qualify to be used for breeding they are steered and butchered. Robert is not shy about butchering heifers if he thinks that they are not up to the breed standards that he has in his mind.

The breed standards that Robert has in his mind to this day are that of the old timers that he grow up around who owned Linebacks themselves. The Linebacks then were compact cows with tuff black feet and strong legs to carry themselves over rocky pasture in the summer, and on long icy walks to springs for a drink of water in the winter. They where cows that kept their body condition on well into the long cold winters with little more than first cut hay to eat. The cows also maintained their milk production in the heat of the summer; even when there were long droughts and little grass to eat they still kept producing. The bulls where mild mannered rarely causing any problems with people. The calves where almost always born without assistance and would hurry to get to their feet and start to nurse from their mothers. The bull calves were steered and fattened on pasture. Over all the old Linebacks where easy keepers.

For almost 40 years John Robert Lynch was the only breeder of Lineback cattle left in Canada. With his harsh culling system he improved his herd but still kept their ability to thrive in the harsh Canadian climate. Now his cattle consistently produce offspring that look and produced the same from one generation to the next. In USA the Randall family has successfully achieved the same results with another variation of the lineback pattern otherwise known as colour sided cattle. These are now known as the Randall Lineback, a black or blue and sometimes red cow with white speckles and a white back. It is thought that these colour sided cattle originate from the Dutch Witrik cattle. Meanwhile in 1985 in the northeast USA dairy farmers came together and started the American Lineback Cattle Registry. However this registry only records cattle of the lineback or colour sided colour patterns. These cattle are often crossbreds or in some cases purebred Holsteins. The American Linebacks vary largely in conformation colour and production.

What Robert Lynch has developed is a breed of cattle, which maintains a colour pattern that dates back as far as the wild Auroch, as well as the ruggedness of our native cattle. He has helped to preserve a small piece of Canadian agricultural history. The Lineback cow is a window to the past, to a time before vaccines and antibiotics. Back to a time when farms where ran by families that where passionate about providing food for their local communities. Rare breeds Canada recognizes Roberts`s cattle as a landrace breed and has named them the Lynch Lineback. Robert Lynch still breeds his Lineback cattle today. All of the Lynch Linebacks that are in Canada today can be traced back to Roberts herd.

#### Conclusion

The Lynch Lineback cattle today cannot compete with the modern Holsteins or Jerseys; after all they have over 100 years of improved breeding behind them. If a herd book could be started for Lynch Linebacks with today`s technology in artificial insemination, embryo transfer and genomic testing we would be a couple of steps ahead of where the Holsteins and Jerseys were 100 years ago.

However I do not believe that the Lynch Linebacks have to play a game of catch up and be as productive as the more modern breeds, they just need to be efficient. A small handful of farmers have milked Roberts cows and have said that they are efficient. The Lynch Linebacks might not produce as much milk per day as a

Holstein. However when we consider a flatter lactation curve keeping cows at their peak production longer into their lactation they have acutely produced more per lactation than you might first thought. They also eat less feed and develop less problems resulting in smaller vet bills and cow longevity. All considered they are more efficient than they first appear.

Interest is starting to be shown in the Lynch Lineback cattle once again. Farmers are starting to look for cows that can produce on low inputs. In some cases Holsteins have been bred with Lineback seaman and have produced wonderful commercial dairy cows. With more and more farms switching to organic dairying they need cattle that can perform on forage diets and are hardy disease resistant animals. Overall the dairy industry is looking toward breeding hardier cows that live longer productive lives.

Even some beef breeders have seen great results crossing the Linebacks into their commercial herds. The females are kept for their great maternal traits while the steers are often fattened for grass fed beef.

Today there are only a few true Lynch Linebacks left and are owned by a handful of breeders spread out between western Quebec and eastern Ontario. It is necessary that the few breeders that do exist unite and work together. All of the herds of Lynch Linebacks are still too small to make a difference on their own. All of the breeders need to work together to create awareness for the breed and work to preserve this great piece of Canadian agricultural history.

Currently there is no herd book for the Lynch Lineback and the breed is not under the Animal Pedigree Act. I encourage all breeders of Lynch Linebacks to record all of your animals in the Canadian Identification Project through the Canadian Livestock Records Corporation. Only cattle of pure Lynch Lineback breeding should be recorded as Canadian Lynch Linebacks, any cross bred animals (if recorded) should be recorded as such. It is very important that any cross bred animals be managed carefully and do not get mixed up with the pure genetics. It is the breeder's responsibility to record their animals and to ensure that only pure bred animals are the focus of their breeding programs. Our genetic population is far too small and therefore too fragile to handle any such mix up. The recording of animals in the Canadian Identification Project will help breeders manage and protect this small breed from slipping away completely and help to ensure that the remaining animals stay true to breed. These records will also be of great help in the future. The records will be a great foundation when the time comes to start a herd book. The records will also be evidence that the Lynch Linebacks are far more than a group of mixed up cattle that obtain the lineback pattern, but a genetic population of cattle that have been kept pure for consecutive generations. This information will be of great use when it comes time for the breed to be considered for the Animal Pedigree Act.

At age 17 I purchased my first Linebacks from Robert Lynch in the summer of 2007. That was the start of a great friendship between me and Robert. The last couple of years I have spent working with my cattle and listening to stories from Robert's past. Owning my own small herd of cattle and listening to old stories of other farmers has helped me realize my passion for agriculture. In the fall of 2009 I went back to school and attended classes at the University of Guelph Kemptville Campus, and in the spring of 2011 I graduated with a diploma in agriculture. My herd of Lynch Lineback cattle had at one point grown to 15 bred females and 2 bulls. However due to me leaving for school and not being home on the farm to look after them and the rising cost of feed I have reduced the size of my herd to just 4 bred females, a bull and 6 heifer calves. Now that I am out of school my intentions are to hopefully obtain some quota and become a milk producer.

I hope this literature helps shed some light on the history of the Lynch Lineback cow. Coming from a family with a background of breeding Holstein, Jersey, Ayrshire and Belted Galloway cattle as well as a large variety of poultry, water fowl and many other species of livestock, I had a hard time to comprehend lack of written information on this breed of cattle. Over the last couple of years I have enjoyed working with my Linebacks and have shared many visits and telephone conversations with Robert Lynch. I have learned that there might be a lack of written information on the Lynch Linebacks, but there is an abundant amount of information out there to be obtained. The information that I have compiled in this article is information I have put together from reading many books and talking to Mr. Lynch himself as well as my own personal experiences working with livestock. I am certain that I have missed many facts that are of importance to the breed and hopefully over time they will come to light and be spliced into this information to more accurately tell the story of this wonderful

rare breed of cattle. At this point I would like to apologise for any mistakes or inaccurate information that might be in this article or has been used in the wrong context. If anybody reading this has any corrections or thoughts that they would like to share I would like to hear from you.

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