# THE HORMONAL MAIL

## THE OFFICIAL QUARTERLY NEWSLETTER OF CLASSIC LIVESTOCK MANAGEMENT SERVICES.

VOLUME 1. NUMBER 39.

#### January 2016



#### **EDITORIAL**

Welcome to another New Year. I hope it brings plenty of prosperity and success to you all and you can move in a positive direction in terms of achieving your breeding and production goals. In many of the larger beef producing countries there has been an upward trend in prices for beef so that is a positive sign. I hope that you are able to take advantage of having a bit more cash on hand to undertake some developments in your businesses. However, let us not forget those producers faced with the environmental challenges of drought or floods. We would hope that things improve soon for those affected so that they can also take advantage of the improved economic climate for beef.

Again, there has been recent publicity about the use of red meat in our diets and the dangers it supposedly can cause to our health. As most of you who are regular readers of our newsletters and have read our book "A Vision Tender", our company has placed a major emphasis on the impact of what we eat on our health and particularly for meat and milk. Red meat has been a part of mankind's diet for as long as history has been recorded and so surely, if it is as detrimental to our health as some "experts" would have us believe now, then why have we survived for so long with it as a major source of our diet? Granted, with the way that we are manipulating our breeding programs today, both with animals and plants, it is quite likely that the food value from particular plants and animals in terms of human dietary needs may change. We have shown this in our work with A2 milk and the variations in omega levels in fat from cattle fed different diets. Certainly another factor that has clouded many of the issues around today's diets is the amount of processing that much of our food undergoes after it leaves the farm gate. In many cases, we just don't know what that does to its nutritional levels and, as in the case of breeding manipulation, it often takes generations for the impact to be felt in the general public arena.

#### WHAT'S (BEEN) HAPPENING

\* We held the planned 5 day evaluator training course from October the 19<sup>th</sup>. to the 23<sup>rd</sup>. at the Nanango Showgrounds. For all intents and purposes it was a successful undertaking and I hope those that attended felt that the investment in time and money that they made was worthwhile. It was a quite intensive few days with a lot of information on a range of topics presented for those who attended to take on board. We had 10 full time participants so for us it was a worthwhile exercise in all ways and we hope to hold more such events in the future. We are considering holding a couple in New South Wales provided we can get the support. We will let you know as soon as we have some dates and places arranged. The Nanango location was a very good site for what we had planned. The showground has some 70 - 80 yards plus races and a crush for the cattle work and there is a pavilion about 200 metres away with all the kitchen and barbeque facilities available.

One of the highlights was a trip to the Maclagan Abattoir to see cattle processed and boned out. Maclagan is about 70 kms. from Nanango so was quite handy for what we wanted to show there. It is only a small abattoir with 3 cattle at a time on the floor, but everyone was able to observe the whole operation comfortably. The owners of the abattoir were very gracious in allowing us to intrude on their business and we are extremely grateful to them for their cooperation. I had evaluated a heifer the week prior to the course and she was processed that week. We were able to see her boned out during the visit and take some samples from her back for a taste test that evening. We also took samples from 2 other bodies along with their last ribs for assessment purposes and included them in the taste test. The taste test results supported the grading that we had given the cattle on their last rib shape though they had all been tender stretched. It would appear on the results of what we experienced and assessed that the tender stretching improves the tenderness by about

0.5 - 1 grade so the heifer that I graded live as being a 3.5 on the jaw and last rib tested as a 2.5 on the taste test. This was also similar for the other two – one was a 4 on the last rib and the other a 3.5 and the results of the taste test survey confirmed that there was a detectable difference between the two 3.5 graded animals and the other one that graded as a 4.

One of the challenges for the course was to obtain a variety of cattle to grade so that those present could experience the differences between beef and dairy cattle and Bos Indicus and Bos Taurus. We were able to do this fairly well with 3 Friesian cows, 3 Brahman bulls, 12 x 15 month old Euro/British cross heifers and a Limousine bull, 6 young Charolais and 2 Charbray bulls. We are indebted to the generosity of the breeders who supplied the cattle for us.

The program went fairly well to plan with the emphasis being on practicing the grading processes. We were also able to spend most of the last day at a small local feedlot grading a mixed breed of young cattle and again we are grateful to the owner of the feedlot for allowing us to use his facilities. This also provided more variety to assist everyone with identifying the subtle differences that occur in individual animals.

The aim of the course was two fold in terms of what those present wanted to achieve. Some were keen to have the time to focus on the traits that we look at and so they can identify these traits more easily in their own herds whilst at least a couple of those present are interested in becoming CLMS Evaluators in the near future. As far as becoming an evaluator for us is concerned, broadly speaking, we need people to complete the training course and then they will work with either Albert Hancock or myself in the field evaluating with us until they become confident and competent in using the system on their own. We would then contract them to evaluate herds for us and ultimately. We will support them by holding field days in their general areas to promote the system and encourage local producers to use their services. From what we saw at the course, those present were all becoming quite competent with the majority of the system and in identifying the main traits to look at for assessment. There is still some work to do with linear measuring. However, that is more up to us to get that incorporated into our system fully than the actual practical application of the measurements.

\*I just wanted to confirm again that the ultrasound machine is up and working for anyone who is interested in having their cattle bone scanned for bone shape re tenderness. We are still waiting for information about when we can get a remote foot control for the unit, but that doesn't prevent us from using it now.

\* We are currently planning to hold another 5 day evaluation course around April 2016 and most likely in New South Wales. If you are interested, please contact us with most suitable dates and venues.

\* We are still very keen to hold more field days in localised areas over the next few months so if you would like one in your area, please let myself, Albert Hancock (0267334666) or other company directors know and we will get it under way.

\* During the next three months I will be heading into Central Qld. to do some evaluations for breeders in that general area as well as visiting New South Wales to meet clients and look at potential venues for more evaluation courses. If any of you know of venues that might be suitable, I would be very happy to hear from you.

\*Unfortunately, we had a computer melt down recently and had to replace the hard drive. This meant that we lost most of the data stored on it. Fortunately, we had most of it saved on other devices so it was only information entered over the last 3 - 4 weeks that was lost. This has meant that I have spent several hours now re-entering our mail lists for the newsletter and other information to be emailed to you. I must apologise if you receive this newsletter more than once or it goes to an old address. I have also searched a few old business cards and field day attendance records for email addresses so if you receive this newsletter and don't wish to be on the mailing list, I apologise for any inconvenience and please advise me and I will remove you from the list.

\*We remain keen to get some marketing of graded cattle going and are happy to advertise for any of our clients here in the newsletter.

\*We also have breeders interested in purchasing well-muscled Red Poll bulls.

#### **ENVIRONMENTAL FACTORS**

One of the biggest challenges, especially in larger countries such as Brazil, Argentina, Canada, USA and Australia, is being able to breed animals that adapt readily to the variety of diverse environmental conditions that occur because of the sheer enormity of the countries themselves. I have already discussed in previous newsletters some of the impacts that this has on the beef industry. We believe it takes at least three generations for cattle to fully adapt from one environment to another and reach their maximum production potential. This is especially the case when you consider that for some of the largest beef producing countries in the world today, cattle are not a native species. This gets back to selecting cattle for those countries from countries or regions in other countries where the climate and vegetation is as similar as possible to where they are going to be bred. Not only do they have to adapt physically to a change of diet because the native species will be different, as a rule, in the new environment they are going into, but they also have to change how they convert this different feed into a form that will allow them to survive and ultimately flourish in their new environment. This ability to adapt and convert feed into a food resource that will allow cows, in particular, to perform at an optimum rate that is comparative with their original traditional environment is a major challenge that needs to be addressed and managed. In many cases we are still seeing that transition in adaption. It affects many productivity constituents such as fertility, calving ease, feed conversion rates, not only in terms of growth, but also in regard to milk quality for offspring as well as overall skeletal and structural development. Certainly, where there are extremes in environmental conditions experienced in one geographic area over a relatively short period of time, it takes excellent management skills to get the best out of your animals.

One of the, if not the most important factor to consider, I believe, to preserve the future of your herd, is to ensure that every calf has access to good quality milk. Ideally, a cow's milk needs to have at least 4% of butterfat. Certainly, this may vary a little given different environmental conditions, but it is one of the points I am making in regard to a particular breeds ability to adapt and convert the available local feed into good quality milk.

I also believe that the ability to produce butterfat is very much a genetic factor and as such, we need to recognise the indicators that the animals provide for us so that we can select these higher butterfat producers. Butterfat is in a similar situation to tenderness as far as it being strongly influenced by genetics. Whilst factors such as food nutrition and availability will affect other traits such as weight gain rates, the amount of milk and meat produced and the quality of fat, these will not have the same impact on tenderness and milk fat as genetic inheritance does. Certainly, whilst the quality and quantity of available food is important to maintain the overall animal condition, it will not greatly affect tenderness or buttermilk fat.

The ability of a cow to produce adequate butterfat will determine the future of her calf. If she lacks butterfat, the calf will struggle to develop a sound skeletal base to produce muscle on. It will develop protruding bone structures at places such as the hooks, the shoulders

and the chine. The dairy industry provides a good example of the skeletal structure defects that occurs when calves are derived of their mother's butterfat at a young age. There is no supplement that will replace it. If you look at today's dairy calves at 3 - 4 months of age, the difference between those calves and ones bred on their mother's milk, e.g. from a beef cow with good butterfat, is easy to see. How many week old calves have you seen with protruding hooks or a very high chine. If calves are derived of good quality milk and they fail to develop fully structurally, it will lead to calving difficulties later in life because the relationship between their hooks, pins and thurl is out of balance as will be the relationship with their rump width, shoulder width and rump length.

Selecting superior animals to breed from will not completely alleviate these problems if their offspring do not receive adequate nutrition in the form of their mother's good quality milk from birth. Certainly, in drought prone areas it is impossible to always be able to leave calves on their mothers for a 9 - 10 months lactation so selecting cows that are most adaptable is also important. In other words, select cows that have adapted best to their environment, particularly in the case of those countries where their breed did not originate from. I also believe that if you are going to introduce supplementary feeding, it is more important to feed the cow to feed the calf rather than weaning the calf, say at 4 -5 months of age and supplementary feeding the calf only. This is especially the case for those cows that are going to provide you with your herd replacement heifers and bulls. In some of the more arid areas of many of our countries that have such a large variation in climatic conditions, cows will not conceive again in very dry times.

Whilst this is again an example of the time it takes a species to a adapt to a change in environment, it is also a law of nature with many species of our native animals that do not breed when there is a

### feed shortage so we need to consider this in terms of our management practices.

Another factor to consider is that cows with lower butter-fat production produce bulls with lower sperm quality and most times irregular shaped testicles. Many bulls with smaller and irregularly shaped testicles do not produce the billions of sperm cells required for the higher pregnancy rate that is required to settle cows. Again, this can in many cases be traced back to early weaning. Only mothers milk fat can and will finish the development for high sperm production and the 9 - 10 month nursing period is critical for this to occur. Where practical, the bull needs to be left on his mother for a minimum of 300 days. Less than 260 days of nursing in Australia, for example, develops a bull capable of breeding 25-30 cows only and those bulls leave cows open and don't bring progressive change to replacement daughters. When a feed shortage occurs, such as in a drought or a severe cold snap, and you have to start weaning calves, plan to leave the cows that are producing your herd replacements on feed for as long as possible. It may mean that you only have a smaller number left to produce your herd replacements, but they will be quality replacements and maintain the standard in your herd to some extent, at least. It will not mean that you have to go back to square one to start your breeding program again. It could mean just feeding 4 - 5 cows with the best bull calves on them through the crisis period and that will probably mean buying in feed, but you will have saved at least some of the genetic history of your breeding herd.

As we have emphasised so often in the past, it is the producer's local knowledge that will ultimately determine his decision making. What we are offering is some food for thought on the topics that we are discussing and maybe inviting you to think creatively when you are planning your breeding programs.

#### **PRODUCTION EFFICIENCIES**

Charles Walters and Gearld Fry in their book, "Reproduction & Animal Health" talk of the most efficient size for a cow to convert grass into meat and milk as being a medium size of 500 to 550kg live weight. This size has been shown to be most efficient because the cow has one of the best endocrine (chemical factory) systems of any grazing animal. A mature cow of 800kg/live weight has the same size chemical factory as the 500kg cow. At a greater size (live weight), it is not as efficient because it cannot work any better than the smaller cow and requires more energy to carry out its normal daily activities such as walking. In fact, on a conversion ratio it is poorer. It would probably be fair to say that in most of our herds today, the cows are considerably heavier than that. Why is this? It is most likely the result of the generalised perception that bigger is better as well as the strong trend over the last 40 -50 years to focus on weight gain as the major priority for breeding beef cattle. This has to a large extent been driven by the feed industry which has focused only on buying the type of animals that are big and therefore perceived as being fast growing and often is if the feed regime can be maintained. What we don't see or hear too much of is the cost factor involved in growing this type of animal. We need to see more work on comparing the gross margins of concentrated feeding with grass feeding.

What does this trend mean to the breeder? It has led to herds of cows that have lost many of their true feminine characteristics, not only from a physical perspective, but also from a reproductive view point. As explained previously, environmental factors have an influence on a cow's reproductive capacity. However, there are many other important factors to consider. If your cows don't produce a calf, then they are not doing their job and unfortunately, through no fault of their own, we have too many cows that are not reproducing effectively today because they do not have the genetic background to do so. We can certainly produce big, fast growing steers, but it is the heifers produced from those herds at the same time that also have similar traits that are causing some of the reproductive issues our herds are facing today.

Having said that, there is a growing number of producers who have also recognised this trend and are taking steps to change direction. The growing recognition by both producers and consumers that there is a large grass fed market for meat that is only just starting to be promoted is testimony to that. The research and trials that have been conducted on grazing management practices in all environments over recent years is definitely encouraging and providing the knowledge and support for those producers who are starting the next generation of grass fed meat production. Apart from anything else, we believe that meat produced from grass is a very compatible source of nutrition for humans and has been since mankind's earliest existence.

There is also always going to be those who doubt the introduction of new ways of doing things and they have every right to their beliefs. Fortunately, there are also those on the opposite end of the scale who are prepared to adapt different, not always better ways of doing things. I have also said many times before that I believe that the most accurate measure of a property's productivity is its gross margin and I urge all producers to take a close look at their own gross margins and see where they can be improved.

I firmly believe that there is a considerable scope for an improvement in gross margins on most cattle properties in Australia. We regularly hear about the concerns that world leaders have about us running out of food in the next 30 - 50 years. In the state of Queensland alone in Australia, this state has the potential to double its beef production in that time frame if producers are prepared to accept the challenge and modify their grazing practices. In many instances, the research and trial work justifies this statement and

what is happening in this area is not being taken up quickly enough by the average producer. We all have a tendency to sit back and accept that these changes will take care of themselves. Unfortunately, this has been a time honoured misconception.

If the topics I have discussed in this quarter's newsletter have stirred you in your comfort zone then they have achieved their aim and I don't apologise. I hope it gives you some positive food for thought as has been the intention.

#### **BREED OF THE QUARTER GUZERAT**

Just because cattle have a hump, it doesn't necessarily mean that it is a Brahman. Misidentification of breeds, particularly with Bos Indicus breeds, can be quite common amongst all but professional Brahman breeders. It is important to identify different Zebu breeds and understand their function, management and use. We have already featured some of the more common Bos Indicus breeds such as Nellore, Sahawil and Gir in this section of earlier newsletters. This quarter, I thought we would have a quick look at the Guzerat.

All cattle can be divided into two basic classifications: *Bos Taurus* (non-humped) and *Bos indicus* (humped). Bos indicus breeds are also called Zebu or Indian cattle, because they mainly originated in south Asia and are generally used for beef production in hot climates.

There are more than 40 different breeds of Zebu cattle. The Guzerat breed is often said to be one of the oldest. It has been identified in prehistoric Pakistan cave drawings as far back as 3,000 B.C. From 1835 to 1906, Guzerat were the most popular Indian breed imported into the United States and South America.

Another school of thought claims that Guzerat cattle are a breed developed in Brazil from the Kankrej cattle imported from India during the time frame from 1875 until 1964. They are also known by the names Guzera, Gujera, Gujrati, Gusera, Guzerath. There are many similarities between the Kankrej and Guzerat with both being tall draft/beef breeds with high horns. On the average, Guzerat are darker, bigger and have longer horns than Kankrej.

They are among the largest cattle of India and are prized as powerful draft animals and are moderate milk producers. Guzerat cattle have short broad faces with long drooping ears and open to the front. They can be recognized by their large horns, broad chest, and upward pointing horns. They are typically a light grey to black colour at maturity, with the barrel generally being lighter in color than the rest of the body. Bulls particularly, start off as being black from the head through the shoulders and then start to lighten in colour behind the shoulders.

The Guzerat breed played an important role in the development of the American Brahman from the 1930s. Guzerat cattle are still maintained as a pure breed in India and Brazil with large numbers, but have been used in the development of other Zebu type breeds in other countries. Guzerat, along with Nelore and Gir breeds have had the most important impact on the development of other breeds including the American Brahman.

Crosses of *Bos indicus* bulls with *Bos taurus* cows result in higher birth weights than the reciprocal cross. Pre weaning growth of Guzerat purebreds is among the highest of the *Bos indicus* breeds but lower than improved *Bos taurus* breeds. The Guzerat adds environmental adaptability to tropical and subtropical conditions, insect tolerance and some disease resistance, longevity, and maternal ability, especially in crosses with *Bos taurus* breeds. The cattle are gentle without a disposition problem and are fertile under adverse conditions.

In India this race is among the most important. Guzerat are among the largest cattle of India and are prized in India as powerful draft animals and are moderate milk producers. In Asia, they are more popular in the northern India region above Mumbai.

In Brazil, this race remains very common, but Nellore is the more dominant breed in beef cattle. Nellore has more than 80% of the Brazilian market for beef cattle. Guzerats must compete with Gir, Indo-Brazilian Canchim, etc. for the 20% of the market left after the Nellore. Some millions of Guzerats are created in Brazil, against more than 100,000,000 of oxen with Nellore blood.

I would welcome any feedback from you on any subject that is discussed in this newsletter. I have had some feedback over the time we have been publishing it and it is most appreciated and helpful. Please keep the feedback and comments coming.

Thank you for your continued interest in our newsletters, our website and our book. Please feel free to order one of our books and become familiar with the CLMS system and the directions we are taking in the overall scheme of animal and food production for human consumption

#### PLEASE FEEL FREE TO CONTACT US ABOUT ANY ITEMS IN THIS NEWSLETTER, ON OUR WEBSITE OR IN OUR NEW MANUAL. WE WELCOME PRODUCER INPUT AND INTEREST AND WANT TO INVOLVE YOU IN WHAT WE ARE DOING.

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