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EDITORIAL

Welcome to the New Year and our first newsletter for 2018. I hope you have had a relaxing and enjoyable Christmas and are looking forward to the coming year. I hope most other countries, at least, are experiencing some better weather conditions. Fortunately, here in Australia we have had some useful rains earlier in the season for some of our northern and eastern grazing areas, more so than is usual and this has given a promising start to the year.

Without wanting to be too cynical or critical, I have to question the direction that the industry has taken in identifying meat quality over many years. It is obvious that not too many practical, experienced, down to earth cattle producers have ever been allowed much input into how we select for quality and how producers are actually paid to produce a quality product.

It is gratifying that, at last, a semblance of sensible practicality is gradually creeping into the industry. Finally, there are some questions being asked about three of the key determinants of carcase payment to producers and quality. These are age, fat depth and saleable meat yield. For too long the industry standard, and particularly those to do with producer payments have been controlled by processors and out of touch researchers researching the wrong parameters in the wrong places and the wrong way.

Of course, processors are in the business of making money and if the need for high quality gets in the way of this, then too bad. It has allowed processors to blame meat quality for their own productivity inefficiencies. It is gratifying to note now, however, that there are processors starting to value the need to be better at what they do and in some cases are at the forefront of these proposed changes. What we should not do is be taking in by the industry publicity machine that is telling us that change to these assessment tools are new and revolutionary for the industry. If they are, it is only because the industry has been turning a blind eye to the need for these changes for too many years. It is not something they should be complimenting themselves on when it only highlights their inefficiencies and lack of direction over too longer period of time that has cost producers untold millions of dollars.

WHAT'S (BEEN) HAPPENING

* I will plan to be visiting Central Qld. early in the New Year weather permitting as well as New South Wales to catch up on some herd evaluations there and possibly hold a couple of field days especially in Southern NSW.

* 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. We would like to be as flexible as possible in our future planning and would welcome and appreciate any input that you can provide for us in this regard.

* I have had several enquiries about when we will hold another 5 day course and whilst we plan to hold more of these in the future, there are some challenges, especially in getting a minimum of 10 people to attend in one area. Unfortunately, the enquiries I have received have come from at least 3 states and we don't really want people to have to travel too far to attend. We have had a couple of generous offers from people to use their facilities for both 1 day and 5 day courses and we are grateful to those people and hopefully can accept their offers in the not too distant future. The main requirements for us when we are holding these days are yard/crush facilities plus a building suitable for catering and running a power point presentation.

*We now have linear measuring callipers available for sale for \$100.00 plus freight so if you are interested, please let me know. If possible, I will deliver them during my travels.

*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 or on our website. We are also adding a link to our website that will put prospective buyers and sellers in contact with each other.

* We have an outdoor site booked for Beef Week from May 7th. to 11th. incl. and look forward to catching up to as many of you as possible. We hope to be demonstrating linear measuring on site as well as bone ultra sound scanning. I will advise you of our site number in our next newsletter.

*The bi-annual Coodardie (Northern Territory) bull sale will be held on Wed. August 15th. 2018. If any other clients are having sales etc. and

would like me to put them in the newsletter, please let me know the details.

BREED OF THE QUARTER SANTA GERTRUDIS

Santa Gertrudis cattle are a tropical beef breed of cattle developed in southern Texas on the King Ranch. They were named for the Spanish land grant where Captain Richard King originally established the King Ranch. This breed was officially recognized by the United States Department of Agriculture in 1940, becoming the first beef breed formed in the United States. The breed was developed by using Brahman bulls and Shorthorn cows with the final composition being about three-eighths Brahman and five-eighths Shorthorn. In 1918, the King Ranch purchased 52 bulls of three-quarters to seven-eighths Bos indicus breeding to mate with 2500 pure-bred Shorthorn cows on the ranch. At this time, the American Brahman breed as such did not exist, nor were purebred Bos indicus cattle available in the United States.

A bull called Monkey, who was born in 1920 by one of the bulls purchased by the King ranch became the foundation sire for the breed. With the birth of Monkey and a decision to **line-breed** came a very uniform and hearty breed of beef cattle. In 1950, the Santa Gertrudis Breeders International Association was formed at Kingsville, Texas.

Santa Gertrudis cattle are known the world over for their ability to adapt to harsh climates. They were exported to Australia around 1951 and have been subjected to inspection and classification since then. The Santa Gertrudis Breeders (Australia) Association was established in 1954.

These cattle are red in color, display a blend of *Bos indicus* and *Bos taurus* attributes, and may be polled or horned. Other characteristics include good milking ability, good beef production, excellent mothering ability, ease of calving, high heat tolerance and parasite resistance, and an ability to market or harvest a steer at just about any age. The steers also show good weights for their age, as well as good weight gains whether on pasture or in a feedlot.

The Santa Gertrudis coat is light or dark red with occasional white markings on the underline. They

have a short, smooth, slick coat, one of several of the Bos indicus characteristics they show. Their hide is loose and they have neck and navel folds with the male exhibiting a small Zebu-type hump. Their ears are medium to large and individuals are horned or polled. The female is noted for ease of calving and milking ability. They are also noted for their heat tolerance as well as tick and bloat resistance. Carcases from very young cattle develop a large eye muscle of meat with little or no waste fat. Older steers yield well, with minimum fat cover acceptable to premium world markets. Santa Gertrudis cattle are generally the heaviest of the beef breeds. The cows are usually calve easily and are also protective of their calves and have good mothering instincts. The calves usually weigh only 36kg at birth, which helps the dams pass them through their pelvis. However, they usually weigh nearly 30kg more than their counterparts at weaning age. They have a thick skin that assists in reducing the risk of parasitic infestation, and their active sweat glands allow them to stay cool, meaning their nutritional needs are not affected too much by extreme conditions. However, that thick skin can also keep them wellinsulated in cold climates. Mature bulls weigh from 900 kg. Mature cows weigh 630-725 kg.



THE HEINZ VARIETY OF BREEDING

I touched briefly on the state of our stud breeding industry in our last newsletter and would like to just expand on that a little more now and in particular, what the implications of the behaviour of some of the world's stud stock breeders will mean in the future. Whilst I am focusing on the stud stock breeders here, all breeders in the industry need to take some responsibility for the direction the breeding industry is heading. Commercial breeders make certain demands of specific types of cattle they want and so the stud stock breeders tend to follow their needs and breed accordingly.

I have already also expressed my concerns about the number of breeds that we have in the world today, bearing in mind that many of them are really only cross breeds. I consider true breeds to be those that have developed in a specific geographic area with its own unique environment and climate over several centuries. With the discovery of countries in the western world in recent centuries where cattle are not native species such as Australia and the USA, I could forgive a little flexibility in developing a breed to suit any environment different to that where cattle have been raised traditionally. However, it would be difficult to find generalised climatic conditions in these untraditional cattle countries that don't have a very similar climate in traditional cattle breeding countries. That is where we should be looking to source our cattle to suit a matching climate in a new breeding country.

There is still plenty of scope within older traditional breeds for genetic improvement without having to spend time and resources in trying to develop a new perfect breed for a new area.

What I really want to discuss hear though is what is happening to some of our traditional breeds that have had infusions of other breeds into their genetic pool that has not been acknowledged. In other words, these cattle are still being sold as pure breeds. I repeat what has happened with one well known breed where DNA tests have revealed that so called stud animals were tested to be only 87% pure. If this is happening with one breed, then it is almost certainly happening in others. As a breeder, if I pay top dollar for a stud animal then I would certainly expect it to be 100% pure. In the light of these recent findings, it seems that the dedicated breeders in the industry need to start demanding a DNA purity test along with EBV's and other evaluation criteria before they purchase an animal.

I believe that the results of these recent tests place the responsibility to prove breed purity squarely back on the shoulders of stud societies and their registration process and with stud breeders. They are, after all, the ones trusted with maintaining the integrity and honesty of their particular breeds.

These test results have huge implications for the whole industry and certainly ask a lot of questions about the current state of the industry. Unsuspecting commercial breeders, in particular, who have an understanding of breeding and are aiming to tighten their herd gene pool so they can get guaranteed consistency in their herd, are going to wonder how they can ever achieve their goals if they are starting behind the eight ball so to speak, by having to choose a bull, for example, who already has a large gene pool and is only going to add inconsistency to a herd. Breed societies should, if they haven't already, be looking closely at the legal implications of having animals registered as pure when they are not.

The other concern that I would like to add to this discussion centres round what all the current breeding philosophies is going to have on the industry in the long term. Certainly, it may take a century or a little longer, but if we keep going at the current rate of cross breeding including using it to try to develop new breeds, I can see us having to refer to all cattle just as that, cattle, because the breeds have become so intermingled that it will be next to, if not impossible, to distinguish between breeds by physical traits or for that matter, genome testing. Maybe we will still have a little variation between Bos Indicus and Bos Taurus species, but apart from that, there may well be little to distinguish what were once easily identifiable breeds. There could also be a little difference between beef and dairy breeds as well, though to the credit of the dairy industry, they have not been obsessed with cross breeding and have stayed with the same 6 - 8 main dairy breeds. They have focused more on improving

performances within the individual breeds rather than be side tracked with the pursuit of the elusive pot of gold at the end of the breeding rainbow. Having said that, some questions need to be asked of the dairy industry about their quest of quantity at the expense of quality in the last half of last century and early this century. Fortunately, that trend has lessened in recent years and there is now more emphasis on quality. You may well say that this will never happen and I hope you are right, but just have a look at how the breed ethics and philosophies have changed over the last 100 years, or just in our lifetimes even. From that, you can see what has happened with breed direction and the increase with things like inconsistency and lack of repeatability.

It could also be likely that we could get back to the original method of naming breeds i.e. by their place of origin. With all of this cross breeding we currently have, the old breeds will disappear and we will end up with a lot of new breed names indicating their location of origin. This means we could end up with breeds such as New England, Riverina, Gippsland, North Queensland etc. in Australia or Wyoming, Texan, Virginian etc. in the USA and so on around the rest of the world.

I have been travelling around Australia for various reasons for the last 40 years and have noticed the change in herds that I have observed during that time. Most breeders used to have one breed, but today when I drive past a herd in a paddock, it consists of an array of colours, at least, as well as a greater variety of shapes and sizes.

Fortunately, there are still plenty of breeders who do have an understanding of true breeding principals so all is not lost yet. Let's hope that these breeders can continue to develop and grow their herds so that the industry can maintain its integrity and uniqueness.

TRIVIAL PURSUIT

I thought I would just add a few more bits of cattle trivia this newsletter that may be of interest to some of you. Some of this I have already talked about in our newsletters, but there may be a few more little things here that I haven't mentioned recently or talked about at field days etc. I haven't proven some of these things so I am hoping that those of you who enjoy observing your animals may be able to see how much of the following provides some useful guidance to reading your cattle.

- The facial whorl: Some research has been done in the USA on this topic. This research indicates that there could be a correlation between the position of this whorl, the pineal whorl and temperament with cattle with a worse temperament having a higher whorl. My personal observations in recent years is that generally when an animal has a less than amicable temperament, the whorl is likely to be off centre more than higher. Certainly, I think that this whorl needs to be oval in shape as an elongated whorl is an indication of infertility. Another point is that this whorl usually forms at the same time as the testes and ovaries and the closer to the centre of the face, the more productive the animal will be.
- A heifer will usually grow a very tiny ring on her hooves every time she cycles. Rings will stop once she gets pregnant and if she aborts she will cycle again and the rings will start showing up again. Horns of a cow will tell you if she has aborted in a similar way just like periods of infertility in a bull will show up as a lighter coloured ring.
- As the cow's gestation period progresses, the pancreas whorl will move forward and upwards on the cows flank.
- Progesterone causes the pelvis to widen.
- The width from shoulder blade to shoulder blade needs to be 4 8 inches and this is a good indicator of a bigger rib eye.
- Hip height and rump width always grow in proportion to one another.
- An early forming crest in a bull calf (6 months approx. or younger) will be a positive indicator of wide shoulders and high testosterone.
- A bull's testicles should be 32 cm. or greater at one year (34-36 for herd sires) in most breeds. However, watch out for bulls that are above 40cm because this could be a sign the extra size is due to fat in the scrotum which can lead to

infertility, especially in hot months. We still maintain that the presence of prominent, acorn shaped epididymis is the best indicator of fertility.

- Primary infertility indicators include a flank girth that is smaller than the heart girth and a rump width that is 2" or less than the rump length. In a bull, hair standing up on the top knot and fine softer hair on the head and neck are also good indicators. Also beware of heifers that look like steers i.e. lack femininity.
- For every inch the shoulders of bull are wider than his rump length at one year of age, his daughters will average 2.5 fewer days of gestation.
- Single trait selection is the kiss of death for long term breeding because the key factor is balance between all traits.
- A 280 day gestation can mean up to 4 kg. less birth weight of a calf than a 285 day gestation i.e. 5 extra days in the womb can equal an extra 4kg. at birth.
- The difference between shoulder width and rump length can influence the length of gestation. If the shoulder width is 2 inches greater than the rump length, the gestation period will be average, but if it is 4 inches wider, then the gestation period can be up to 5 - 7 days less.
- The front of the stifle bone on a bull needs to be directly under the hook bone to ensure that the bull carries his weight evenly on his back legs when he is serving a cow and doesn't put too much weight on the cow.
- A large stifle muscle, i.e. the muscle on the front of the hind leg is a good indicator of a good saleable meat yield.
- The Adrenal whorl is a sign of high butterfat as well as adrenal activity and overall hormonal activity.
- The hair in the middle of this whorl will stand up from about the 4th. month of pregnancy and when the cow is in season.
- A high chine, hips and tail setting is a sign of nutritional lack and starvation during growth development. Are calves born with a high chine?

- The prepuce should not be below a line from the knees to the hocks in a bull.
- Aim for both bulls and cows with the least amount of daylight between a line from the knees to the hocks and the underbelly. This is a sign of body capacity and large heart girth
- A triangle from the shoulders, along the back and down to the hocks should equal a triangle from the shoulders to the knees to the hocks.
- The cheapest and most sustainable way to get nutrition right is to get the soil right first and then see what is missing in the animal's diet and add that as a supplement.
- Getting locked into a supplementary nutritional program that could at least be partly solved by increasing soil microbiological activity is just putting money into chemical company's pockets that could be staying in your own.
- The muscle or skin attachment at the back of the scrotum, when prominent should be between the testes and not on one side or the other. This affects the suspensory ligament in cows.
- There should not be a seam on the scrotum at the rear between the testes okay in the front. Wrinkles on the scrotum, especially the bottom, indicate that the testes are undersize for that particular bull and he is not maximising the full volume of the scrotum.
- The cow's udder should be free of hair from at least a quarter of the way up the udder for good butterfat. It should also have fine hair in the escutcheon, especially directly about the centre of the udder.
- If a calf is "starved" or suffers nutritional stress in its first 18mths then it will always be a high maintenance animal regardless of the quality of its genetics that it may have and pass on.

LEGALLY ASKING

To finish this issue of our newsletter, I would just like to comment a little more on the advances in genomic testing that I have commented on previously. I don't want to overdo this topic and I won't mention it in the future without some very significant additions to the situation. However, the implications for the whole breeding industry cannot be ignored and I have already mentioned some of the issues earlier in this newsletter and in our October edition.

I want to focus briefly on some of the questions raised by a legal firm who have studied the implications of herd book registered animals testing as less than pure in any particular breed.

As the managers of herd books throughout the world, breed societies have an obligation and responsibility to ensure that their records are legally correct and reflect the historical genetic heritage of the breed they are representing.

I recently happened on a report from a legal firm who had studied the liabilities that a herd society and consequently a stud breeder could face if they had an animal that did not test as 100% pure for the breed. This report stated that if a complaint is lodged that an animal is not pure after DNA testing then it is not an option for the breed society to do nothing. To do nothing would mean that the breed society would be in breach of its constitution/rules/by-laws as well as engaging in misleading conduct under Australian Consumer Law.

This report emphasises the need for breed societies and breeders to be much more vigilant when recording the genetic history of their animals. Breed societies are now facing the dilemma of testing all the animals in their herd books with the latest DNA technology for breed purity or changing their constitution and by-laws to allow some flexibility in their interpretation of the level of purity that they will accept. If they do nothing now that this technology is available will mean that it is only a matter of time before a breeder who purchased an animal in good faith thinking that it was 100% pure will take legal action and rightfully so.

If we are to have any chance of avoiding the situation with breeding in the future which I have described in the earlier article in this edition and maintain purity in our individual breeds on a long term basis, then it must become mandatory that all animals in a herd book are DNA tested and only 100% pure animals registered.

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 BOOK. WE WELCOME PRODUCER INPUT AND INTEREST AND WANT TO INVOLVE YOU IN WHAT WE ARE DOING.

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