2018 ARCBA scholarship

US study tour report

Report by: Brad Cavanagh

The 2018 Australian Registered Cattle Breeders Association Scholarship was fulfilled from the 30th of May through till the 26th of June.

US Premium Beef

As intended the study tour included a supply chain study over several days. US Premium Beef (USPB) was selected as a company of interest. It is a vertically integrated company participating in the beef supply chain and I spent 3 days researching this company. Research included visiting head office, a key custom feed yard and a Seedstock producer involved in USPB.

US Premium Beef is based in Kansas City, Missouri. It is a producer owned company which owns a 15% shareholding in National BEEF, America's fourth largest meat packer. USPB does not own any livestock or beef; they purely facilitate the process.

The US Premium Beef business model was developed following a loss of confidence in the US beef industry by a group of proactive producers. In the late 90's cattle producers were being paid on a cents per kg live weight basis for grain finished cattle. There was no economic incentive for the production of choice and prime graded carcases. These producers were mainly smaller scale and were frustrated with restricted market access compared to larger scale producers in addition to a reluctance for meat packers to provide carcase feedback down the supply chain.

A group of like-minded cattlemen raised capital to purchase a 15% share in what is now known as National Beef. This 15% shareholding gave USPB a seat on the board of directors and input into the value based grid formulation. Mark Gardiner, owner of Gardiner's Angus Ranch, said "we want to be paid the most for cattle that make the packer the most money" - a simple concept that was the cornerstone of the USPB business model. In addition to grid input, USPB shareholders are guaranteed carcase feedback.

USPB has two classes of shareholders. "A class shareholders" have delivery rights to the USPB value based grid. Owning one share gives the shareholder the delivery rights to one animal each year. A class A share can be leased to another USPB associate annually. In addition to delivery rights a class A shareholder has 10% stake in any dividend paid by USPB.

"Class B shareholders" have no delivery rights and a 90% dividend stake in the company.

The rights of shareholders detailed above allowed smaller scale producers delivery rights and market access not previously available. Although the USPB model is exclusive to shareholders and those who lease delivery rights, it is inclusive to all beef breeds of cattle. This was an important aspect when rallying support for the concept in the early days. The value based incentives push producers towards whichever genetics are driving premiums and adding value to the supply chain.

USPB has a list of qualified seedstock suppliers and custom feed yards. All of these are shareholders in USPB, many from the inception of the company. Seedstock suppliers can offer delivery rights to their bull customers, allowing their customers to realise the value based premiums or discounts for their livestock. The qualified seedstock suppliers are striving to produce genetics tailored towards high marbling, high grade carcases where premiums can be realised. The USPB qualified custom

feeders are also continually striving to provide the conditions where livestock under their stewardship have the best chance of realising the highest meat grade and yield grade possible.

The USPB business model is designed to allow grass roots producers at the bottom of the supply chain the opportunity to retain ownership of their cattle and realise the end point merit of the breeding decisions. This has been further supported by Method Genetics who are now providing a Retained Ownership Income (ROI) index as part of their two genetic evaluation products.

The US Premium Beef business model offers points of difference to many other vertically integrated supply chains. The producers who own the company have remained focused on their core competency of producing high quality beef. Shareholders are exposed to a dividend share from National Beef in addition to having board input in the operation of National Beef. It was a great experience getting to know the US Premium Beef business.

Beef Improvement Federation Conference

The Beef Improvement Federation (BIF) Conference in Loveland, Colorado was a major part of the study tour. This conference is a significant meeting place for academia, extension and all members of the beef supply chain. BIF covered many topics in varying degrees of complexity, from complicated mathematical equations involved in creating Single Step to hands on practical applications aimed at improving management and genetic decisions on farms.

Some key topics covered over the four day conference included;

- Focus on Meat Quality to drive product demand
- Balanced breeding program design focusing on traits not considered
- Technology driving Technology

Mark McCully from Certified Angus Beef gave a notable presentation on how meat quality is driving consumer demand for beef. The consumer satisfaction data reported by Emerson in 2013 showed that when consumers eat USDA Prime graded beef which has slightly abundant to moderately abundant amount of marbling there is a 99% chance of having a positive eating experience. If we look at the top two thirds of USDA Choice which has a moderate amount of marbling the chance of having a positive eating experience is over 80%.

The production data from 2007 to 2017 shows a 23% increase in production of USDA Choice and USDA Prime graded beef. During this time the price spread between USDA Select and USDA Choice has remained stable at $40/hd. The significant increase in production of higher grade beef has been embraced by the consumer. If there is a economic incentive to produce higher grade beef, the supply chain will react and produce it.

Dorian Garrick then challenged the audience to focus on traits currently not considered in some of the popular genetic evaluation indexes across many different genetic evaluations. He presented data from the American Angus population on how indexes work to move the genetic pool of possible selection candidates in a population, described as a cloud of genetics. However in trying to move particular traits in a certain direction other non-considered traits can creep in a less profitable direction.

Between 1980 and 2017 the average $B value of an Angus steer has increased $103/hd. Throughout the same period the mature cow weight on average has increase 10 pounds or 4.5kg/head/year. This has led to increased cow maintenance cost of $57/cow. The common topic of the entire study tour

was “how does each link of the supply chain realise the economic value of the genetic progression of the industry?” This information provided a great example of, if the cow calf producer is turning off his progeny as weaners in the local sale yard he may not be realising the added carcase value which is received at slaughter. In addition, he is carrying cows that on average are costing an additional $57/year in maintenance compared to 1980. This was a take home message from BIF for me; breeding programs need to be balanced and allow each part of the supply chain to receive their share of the genetic improvement in the Beef industry. The business model of US Premium Beef attempts to alleviate this issue.

Technology driving technology was a key topic of the BIF. Speakers including Mark Allen from TransOva and Matt Barten from Embruon, who gave exciting presentations on cutting edge genetic technologies of today.

Advances in genomic analysis has seen large amounts of data flowing in allowing further technological advancements. TransOva is now doing IVF on 47,000 donors each year which has seen an uptake in technologies such as Embryo Biopsies used to do genomic analysis of an animal at negative 9 months of age. Cells can be removed from the embryo then amplified allowing a cellular DNA analysis. Genomic enhanced EBV’s at this early age provide a great tool to differentiate full siblings. The costs of running recipient cows is extremely expensive. If, as producers, we can sort through embryos with Genomic enhanced EBV’s so that embryos can be marketed or retained based upon specific breeding or marketing objectives, this can be a great tool. The sex of the embryo can also be distinguished which can be useful. The opportunities in this space are endless and only restricted by public acceptance and regulation.

<u>On farm visits</u>

Meeting registered cattle producers was a key component to the study tour itinerary. Creating personal relationships with members of the US seedstock industry plays an important role in information transfer. Two weeks of the study tour was spent meeting producers and researching genetics.

More and more the producers from the US are searching for Australian genetics to incorporate into their programs. The Australian cattle population is admired for their structural correctness and commercial nature of our production systems.

The US seedstock industry is segmented in a very similar way to the Australian seedstock industry. A diverse range of breeding goals are represented, much of the differentiation is a result of varying environmental and market conditions. Overall there is a trend towards end-point carcase merit amongst the industry similar to Australia.

The Australian Registered Cattle Breeders Association scholarship has been the highlight of my career to date. The overview of the US beef industry I received throughout the study tour will be of great assistance to my career, which I hope I can pass onto my peers. I would like to thank the ARCBA Executive for making this study tour possible. If I can offer any further assistance to ARCBA please do not hesitate to contact me.

Many thanks

Brad Cavanagh