



BREEDING ANGUS IN QUEENSLAND SINCE 1965

HISTORY

The Raff Angus program began in 1965 when David Raff purchased four aged stud cows under the prefix 'Warahgai'. After purchasing his first parcel of land and relocating the herd, it was decided to change the prefix to 'Forres', the property name.

In 1990 a commercial decision was made to sell the Forres stud and prefix. A few cows were retained that were owned by sons Robert and Andrew along with several share cows and embryos. After a short experiment with Red Angus the demand for us to continue to

THE PROPERTY

selling centre in the southern hemisphere.

degrees to a high of 45 degrees.

breed black bulls was driven by our commercial clients. From 1990, under the 'Raff' prefix the growth of the herd has been spectacular, driven entirely by bull demand and the Angus seed-stock breeding passion of David and son Andrew.

The challenge was to retain those inherent qualities of the breed while increasing frame size, growth and improve temperament. By utilizing every possible means available for measuring economically important traits David Raff became an innovator in adapting new technology to make rapid genetic gains in his goal to achieve genetic excellence.

Today, under the management of Andrew Raff and his family, Raff Angus continue to be at the leading edge of innovation with the adoption of genomics where traits are measured at birth by the DNA obtained from a hair follicle - a first for Angus in Australia.

Committed to innovation but driven by the commercial reality of cattle breeding the Raff Angus cattle today are unique in both type and genetics. By resisting using 'trendy' / 'fashionable' genetics Raff Angus are of outcross genetics to mainstream Australian Angus and boast more structural integrity, frame, growth and weight than traditional Angus.

"The success of our business can be attributed to the fact that in its 47 years its owners have been totally involved in all aspects of breeding and managing Angus seed-stock. For the entire period almost 100% of the family income has been derived from Angus cattle. That's why we are so passionate about our business." David Raff



Andrew and Anna Raff with their children Harry, Charlie, Georgina and Olivia.

The Raff Angus herd is run on a 2,678 hectare (6,615 acres) aggregation made up of five adjoining properties. The first purchase 'Mundibulanga' is the

It is situated in the heart of some of the countries leading bull breeding and feedlot enterprises just 120 km east of Roma, home to the second largest cattle

The country comprises of self mulching Brigalow/Belah soils established with improved Bambatsi Grass and Medics combined with native Blue Grass. A large percentage of this open grazing land runs onto Iron Bark red ridge country. At 330 meters above sea level 'Mundibulanga' has a temperate climate with an average annual rainfall of 24 inches and temperatures ranging from a low of -5

business headquarters where all major activities are carried out.

The Raff Angus herd comprises 500 registered cows. Embryo transfer continues to be an important part of our program since its inception in 1982.



THE CATTLE

Raff angus



Walking Working Stud Sires

Bred by cattlemen - not by computers

Raff Distinction D197



Weight 1,268 kg - Hip Height 60 inches His MVP's are exceptional for Rib Eye Area, Net Feed Intake, Birth Weight & Feedlot Daily Gain

Raff Dynamite D345



Weight 1,162 kg - Hip Height 60 inches

Raff Dictator D364



Weight 1,280 kg - Hip Height 64 inches

Raff Duke D367



Weight 1,170 kg - Hip Height 62 inches

Raff Dazzler D353



Weight 1,044 kg - Hip Height 58 inches His MVP's are exceptional for Carcase Weight, Net Feed Intake & Tenderness Sold to R.L & G.M McIntosh Myanga Angus Stud NSW

Raff Dallas D216



Weight 1,260 kg - Hip Height 63 inches

Raff Dakota D85



Weight 1,158 kg - Hip Height 62 inch

Raff Emblem E69



Weight 1,028 kg - Hip Height 61 inches

Walking Working Stud & AI Sires

Bred by cattlemen - not by computers

Raff Exterminator E201



Weight 1,080 kg - Hip Height 62 inches His MVP's are exceptional for Calving Ease Daughters & Yearling Weight

Raff Explosive E108



Weight 1,308 kg - Hip Height 63 inches His MVP's are exceptional for Rib Eye Area, Carcase Weight, Birth Weight & Feedlot Daily Gain

Raff Encore E110



Weight 1,096 kg - Hip Height 62 inches

Hoff Limited Edition SC594



Weight 1,320 kg - Hip Height 62 inches

Raff Enforcer E41



Weight 1,310 kg - Hip Height 62 inches His MVP's are exceptional for Rib Eye Area, Birth Weight & Carcase Weight

Raff Emperor E106



Weight 1,088 kg - Hip Height 61 inches His MVP's are exceptional for Net Feed Intake

J & C Appeal A10



Weight 1,158 kg - Hip Height 62 inch

DMM Shift 78S



Weight 1,210 kg - Hip Height 60 inches

Sons to these sires sell Monday September 24th

WHAT IS THE HD50K FOR ANGUS?

DNA technology in livestock has evolved dramatically in recent times as shown by the release in April 2010 of Pfizer Animal Genetics' first commercial DNA test using a high-density panel with more than 50,000 DNA markers for quantitative traits in black Angus cattle. Molecular Value Predictions (MVPs) are breeding values that predict the genetic potential of an animal based solely on its DNA. The HD 50K for Angus provides MVPs for 16 economically important traits including:

- Calving: (Calving Ease Direct#, Calving Ease Daughters#, Birth Weight#)
- Fertility: (Scrotal Size*)
- Growth: (Weaning Weight#, Milk#, Yearling Weight*, Mature Cow Weight*)
- Feedlot: (Dry Matter Intake‡, Feedlot Daily Gain‡, Net Feed Intake‡)
- Carcase: (Carcase Weight#, Rib Fat#, Eye Muscle Area#, Marbling#, Tenderness‡)

(# traits included in the BREEDPLAN analysis; *traits soon to be included; ‡ traits outside of BREEDPLAN)

As part of the monthly Angus Group BREEDPLAN run, breeders and bull buyers alike are getting a suite of the most advanced selection tools available for any breed anywhere in the world. The addition, since April 2011, of Pfizer's Molecular Value Predictions (MVPs) for 11 traits to the calculation of Angus Group BREEDPLAN EBVs has revolutionized the way that young animals can be selected increasing the rate of genetic gain for the Angus breed in Australia.

HOW WAS THE HD50K FOR ANGUS DEVELOPED AND VALIDATED?

The HD50K for Angus prediction equations were initially developed and validated in a data set with 5.100 genotyped Angus animals with phenotypes and genetic evaluation available for the traits offered. In addition, a significant number of Australian and New Zealand born high accuracy sires were then used to further calibrate these prediction equations. A proprietary strategy, developed by Pfizer Animal Genetics and reviewed by external scientific experts, was used to simultaneously develop the prediction equations for the HD50K for Angus and cross-validate on unrelated subsets of animals. Additionally, a further validation population was put together from a combination of high accuracy sires used in Australia and New Zealand. The MVPs were also supplied to AGBU (Animal Genetics and Breeding Unit) for an independent validation utilising extensive phenotypic data from these animals and their contemporaries and progeny.

KEY APPLICATIONS OF THE HD50K FOR ANGUS

Hard to measure traits

Many of the economically important traits are very difficult and expensive to measure. In addition, many of these traits are not part of the BREEDPLAN genetic evaluation system. HD50K for Angus can provide detailed information on the genetic worth of an individual for these key traits and can provide that information shortly after birth.

Net Feed Intake (NFI) is an increasingly important trait in today's beef industry. With feed being the number one expenditure in any beef cattle operation, and price of feed raising at an astonishing rate, the efficient use of this resource becomes more and more relevant in today's beef industry.

Tenderness has been ranked the most important contributing factor to eating quality by consumers. This trait can only be recorded once an animal has been slaughtered and this DNA test provides us with an objective indication of the genetic merit of an animal on this trait.

Maternal traits: To obtain high levels of accuracy for this group of traits, it will take several generations of recording. DNA came to the rescue and now allows us to obtain accurate information for these traits very early in life.

Replacement Animals

Replacement animals represent the future of the genetics of a herd, therefore to ensure the best possible selection decision are being made while selecting these animals, HD50K for Angus plays a very important role.

Replacement Heifers: There is little information available on the genetic merit of potential replacement heifers. As they haven't had a calf of their own yet, the only data available to predict their genetic merit is based on mid parent value information at best. The HD50K for Angus can provide a comprehensive picture of a candidate replacement heifers' genetic

Donor Dams: Currently the way donor dams are selected, means that they are mature cows before enough is known about them to make a confident selection decision. By doing this, the generation interval of the entire herd increases, reducing the genetic improvement that could be achieved if heifers were selected as donors. The HD50K for Angus can provide the necessary information on young heifers and allow us to select them as donors with confidence.

Yearling/Herd Bulls: Selecting bulls as yearlings, for sale, own use, progeny testing, specific use (i.e. heifer bulls), is a mighty challenge as the information available at this point in their lives is restricted. The HD50K for Angus provides accurate information for economically important traits that will assist in this very crucial task to ensure the genetic improvement of a herd.





THE ROLE OF GENOMICS IN THE RAFF HERD

We are now in our third year of genomic testing using the HD50K for Angus product from Pfizer Animal Genetics.

By the end of this year we will have over 1,000 registered Angus bulls and females tested and MVP's (Molecular Value Predictions) for 16 traits

The reason we chose to invest in genomics was that we were frustrated with traditional genetic evaluation methods which failed to accurately describe our cattle.

The reasons for this are:

- The genetic makeup of our herd is different to mainstream Angus in Australia which gave us poor linkage to 1. 'popular' bulls which in turn gave our data a low accuracy.
- Our northern environment and expansive management made it very difficult to maintain any consistency in nutrition in management groups.
- Because of the systems heavy weighting on pedigree and the lack of variation in our raw data, our raw data is largely 3. ignored by Breedplan.
- 4. In 2006 we purchased four stud cows in USA and imported 300 embryos from them. These cows were 'old' genetics and the bulls we used were 'old' genetics. As a result Breedplan had the resulting progeny at a very low EBV base which certainly did not reflect their true performance.
- 5. We believe there are many breeders who deliberately 'work' the current system to achieve 'good' outcomes.
- 6. We sell yearling bulls which makes it difficult to get data beyond 12 months on our male animals.
- With a big percentage of ET calves born each year, with Breedplan it was difficult to identify the superior animals in a flush at a young age - when we need to retain or market.

WHY HD50K?

- 1. The information is all about the individual animal, not a mid parent estimate based on assumptions.
- 2. It describes the animal virtually at birth and that information is not subject to change over the life of the animal.
- 3. It is not affected by the environment and can not be manipulated by humans.
- 4. It provides valuable information on 'hard to measure traits' such as feed efficiency and tenderness.
- 5. It has the potential to eliminate some of the expensive and dangerous management practices in collecting data, like weighing calves at birth.
- 6. It eliminates the need to wait till the animal has progeny recorded to get accurate information.
- 7. As the system develops more valuable information will become available - without further testing.

HOW WE INTEND USING GENOMICS

We have always said that our preference is to use MVP's as a stand alone product. However our breed society and beef recording organisations have made it mandatory for the reporting of genomic information it has to be in the form of a GE-EBV. This means that we have been left with no option other than to present this information as genomic enhanced estimated breeding values to the public. By doing this Breedplan is failing to report important information on traits that it (Breedplan) does not measure that are available through MVP's, such as Feed Efficiency, Feed Lot Daily Gain & Tenderness

The system, as a stand alone product, suits our management, it reports on hard to measure traits, that Breedplan doesn't, which we feel are important and the information is available virtually at birth.

While MVP's are not yet perfect we have found them to be certainly no less accurate than EBV's. We do not intend to use MVP's as a marketing tool or to compare our cattle with other breeders. It will be used as stand alone information within our herd as a tool to describe our cattle so that we can fine tune our selection while acknowledging that every environment, every management and

every market has a different requirement.

We have tested flush sibs at a young age and at maturity those MVP's largely reflect the subtle differences between flush sibs.

> "We do not intend to chase the 'top 1%' in all traits but rather determine at what point is most sustainable for the various traits. First and foremost we must have a herd of cattle that can thrive, survive and reproduce in our environment. We then need to 'fine tune' that product to an efficient and sustainable animal that can breed animals that produce a body of beef that is profitable for the breeder, the grower, the feeder and the processor and gives an enjoyable eating experience to the consumer. MVP's provide a valuable tool to achieve this." Andrew Raff



Within weeks of being born by simply taking a hair tail sample this calf will have genomic information on 16 traits including Feed Efficiency and Tenderness.

"MVP's are not a marketing tool. They are a tool to describe our cattle. Every environment, every management and every market has a different requirement." Andrew Raff

Raff Empire E269

Australia's most acclaimed show bull.

RAFF EMPIRE E269 is a 10th generation Raff bred bull who traces back to our foundation cow, Sarum Doris 19th purchased in 1965. His 3rd dam is sired by Raff Ultimate U27 who we bred from the great Burnette family that descends directly to the great Forres Burnette A22. We consider Empire to be the greatest bull we have ever produced. He has won eleven Inter-breed Supreme Beef Exhibit titles including Dubbo Beef Spectacular, the Melbourne Royal Angus Feature Show and following on from being the 2011 Sydney Junior Champion he became Senior and Grand Champion Bull then Supreme Angus Exhibit at this year's Sydney Royal Show. Empire is a bull described by Melbourne Angus Feature Show judge David Bondfield, Palgrove Charolais as 'the reason why Australia should be exporting semen to USA not importing it.'

• Weight - 1,170 kg • Hip Height - 60 inches • Scrotal - 42 cm • EMA - 132 cm² • Fat - 11/19 mm • IMF - 6.1%



2011 Sydney Royal Show Junior Champion Angus Bull.



012 Sydney Royal Show Supreme Angus Exhibit.



2011 Melbourne Royal Angus Feature Show Supreme



Raff Empire E269 several weeks after natural servicing 40 Raff Angus females.



2011 Brisbane Royal Show Reserve Senior Champion Angus Bull.



2012 Sydney Royal Show Senior & Grand Champion Angus Bull.



2011 Melbourne Royal Show Supreme Interbreed Exhibit.



Raff Blackbird G306 ~ \$17,000 high selling Empire daughter that sold at the March Raff Angus Female Production Sale this year.

No need to use Black Euros if you are losing growth and yield in your Angus - Raff Angus have comparable growth and yield to any breed or composite - with carcase quality!



Bull Sale

150 Bulls

"Mundibulanga" Drillham Q Monday 24th September 2012 at 12 midday

Open Day

Sunday 23rd September 2012







www.raffangus.com.au