

SHORTHORNS.

You deserve the Best!



... a better bottom line!



CONTENTS

SHORTHORNS	1	SHORTHORNS ARE KING FOR WONGI	10
<i>The Shorthorn community is a dynamic and exciting place to be.</i>		SHORTHORNS TICK THE BOXES ON DROMORE STATION	12
SHORTHORN PRODUCTION	2	SHORTHORNS SHINE AT JERICHO	14
<i>The breed that built Australia.</i>		SHORTHORN F1 WEANERS POPULAR IN CQ	15
SHORTHORN PURE	3	KILCOY PASTORAL COMPANY	16
<i>Stand out from the Crowd.</i>		SHORTHORN PROPOSAL	17
SHORTHORN PERFORMANCE	4	GLOSSARY	17
<i>Aren't you tired of the lamb breeders bragging!</i>			
SHORTHORN PASTORAL	6		
<i>We love a sunburnt country, a land of sweeping plains!</i>			
SHORTHORN PREDICTION	7		
<i>We put our breed to the test!</i>			
SHORTHORN PROFIT	8		
<i>Because we all need proof.</i>			



SHORTHORNS

The Shorthorn community is a dynamic and exciting place to be.

Backed by an innovative and professional approach to solving the needs of today's challenging production environment, Shorthorn breeders believe in the continuing development of the breed and strive to ensure that the breed continues to deliver for producers.

The Shorthorn community created one of Australia's first, large scale, progeny test programs, the Durham Research and Development program, driving genetic gain and progress within the breed.

Whether you are looking for solutions to increase your bottom line, or would like to feel as though you are part of something bigger, the Shorthorn community prides itself on being a great community to be part of.

COWS ARE THE CORNERSTONE

Maternal efficiency is one of the greatest profit drivers in any cattle breeding business, and the Shorthorn breed excels in efficient and effective production.

Whether you are using Shorthorns in a purebred or crossbred herd, Shorthorns enjoy a reputation as one of the most efficient and functional production breeds in the world.

Australia is a country of extreme seasonal variation. Shorthorn cattle are extremely Feed Efficient, allowing them to retain high fertility levels and high production records, even under tough seasonal conditions.

For cross breeding herds, Shorthorns genetics balance out all the traits of economic importance, however, Shorthorns are also one of the most complimentary breeds in the world, having formed the basis of over 40 breeds worldwide.

With an ideal temperament and increased longevity, Shorthorn females are in demand. For purebred herds they retain your capital value for longer than other breeds, for crossbred herds they allow you to capture both maternal heterosis and genetic gain with one of the world's most complimentary breeds.

BECAUSE THE CUSTOMER IS ALWAYS RIGHT

Shorthorn breeders understand that they are one link in the Beef Supply Chain. More than understand it, they respect it.

Quality or quantity, always the big question for any production system. So why target just one category?

Shorthorn cattle have excellent marbling traits, and combine these with high yield percentages. They are also extremely efficient converters of feed.

What does this mean for you?

Shorthorn cattle deliver high compliance rates and extremely consistent performance across a variety of market specifications, whilst requiring less feed to achieve it. This is why Shorthorns are in high demand today.

Whether you are targeting early turnoff or premium markets and whether your system demands grain-fed or grass-fed performance, Shorthorn cattle deliver a better bottom line.

CAN YOU AFFORD NOT TO!

It is a tough job to stand out in today's marketplace.

We are constantly told to increase production, increase compliance, decrease risk and differentiate ourselves from other producers.

Shorthorns allow you to do that!

Best of all, the Shorthorn production model is safe, without the higher risks that usually come with higher returns.

As costs keep rising, the business model of today is always under pressure from the demands of tomorrow.

When you add Shorthorns to your current production system, you have the ability to increase fertility and production, retain maternal heterosis and genetic gain, increase feed efficiency, increase compliance rates, maintain market versatility, improve temperament and longevity and create a cow herd you can be proud of whilst producing a product that is in demand.

Adding Shorthorn won't diminish the capital value or performance of your cowherd and you begin to enjoy the benefits of differentiating yourself in the market place.

Ask anyone who is currently using Shorthorn genetics in their program why they do it and they will tell you.

"They can't afford not to!"



SHORTHORN PRODUCTION

The breed that built Australia

Shorthorn cattle are bred to solve problems, not create them.

Everything we do is for you, because our success is dependant on your profitability.

We strive to produce Shorthorn cattle that allow you to maximise your ability to create profit through genetic input.

The modern Shorthorn has come a long way, and has made tremendous leaps to become a truly market oriented, customer focused animal. Providing genetics and cattle that maximise your profit is our responsibility. In order to assist you to maximise your profitability, it is important that we make it easy to understand the benefits, and be able to access the benefits, that are available to you through utilising Shorthorn genetics.

SHORTHORN COMPARATIVE ADVANTAGE

The things that Shorthorns do really well

The Shorthorn breed offers balanced, multi trait excellence, designed to increase productivity by impacting all areas of economic importance, not just a few.

Maternal Excellence

Efficient production, it is the cornerstone of a profitable beef herd.

Shorthorn cattle have long been renowned for their maternal efficiency and their ability to perform across varied environments without sacrificing fertility and performance.

Shorthorn females excel at

- *Calving Ease*
- *Carcass Quality*
- *Fertility*
- *Feed Efficiency*
- *Kilograms weaned*
- *Temperament*
- *Longevity*

Australia is a nation of varying seasons and climatic extremes, which provides unique challenges to Australian beef producers. Shorthorn females are extremely adaptable, across a wide variety of environments, and maintain production and fertility under seasonal adversity.

Kilograms Weaned

Efficient production must also be effective.

Shorthorn cattle exhibit excellent growth rates from pre weaning, to post weaning, to backgrounding and feedlot Average Daily Gain.

The MRC Project M112 results from 4594 calves on feed showed, that Shorthorn cattle were **No.1** on average, as a breed, for Average Daily Gain, both through the Backgrounding phase and Feedlot phase.

In the USDA MARC Germplasm IV evaluation, progeny from the Shorthorn cross females in the group posted the highest 200-day calf weights of any British bred cattle and the second highest 400-day calf weights of any breed.

Yet Shorthorn and Shorthorn cross cattle display balanced maturity patterns, with Domestic market compliance and excellent fertility and calf rearing capabilities exhibited in first calving females.

Feed Efficiency

Feed Conversion ratios below 6:1 are largely considered to be better than average and more efficient.

Across 3 feedlots through central USA over 11 years, Shorthorn cattle posted Feed Conversion ratios of 5.22:1.

In a joint OSU/KSU study, 217 Shorthorn steers posted Feed Conversion ratios of 5.58:1

In the NCBA Carcass Merit Project, Shorthorn steers posted Feed Conversion ratios of 5.81:1.

These amazing figures explain in part the Shorthorn females ability to remain productive and fertile despite seasonal variations.

Carcass Quality

Because the customer is always right.

Marbling contributes to a greater eating experience for consumers. Marble Score 2 Beef or higher is a prerequisite for many Australian Premium markets.

Results from the M112 project confirmed the Shorthorn breeds carcass merit.

In the Southern Trial, from 4594 calves, Shorthorns posted the highest purebred average **Carcass Weight**, the second highest purebred average **EMA** and the highest average **Marble** score. Most significantly, Shorthorns also displayed the least variation in marble score of any breed.

In the Northern trial, 7,748 calves, Shorthorns again posted the highest average **Marble** score with compliance a staggering **13%** higher than the next best group of steers.

Complementing your program with Shorthorn genetics will increase your productivity, efficiency and effectiveness.

And Shorthorn and Shorthorn cross cattle are in demand.



SHORTHORN PURE

Stand out from the Crowd

And have a herd to be proud of.

Shorthorn females influence profit like no other because they balance all traits of economic importance, not just a few.

- Calving Ease
- Fertility
- Kilograms weaned
- Carcass Quality
- Feed Efficiency
- Temperament
- Longevity

The Southern Beef Situational Analysis, 2014, prepared by Holmes and Sackett for MLA showed that,

“The most efficient and profitable beef producers have a combination of higher productivity and a lower cost of production.”

Maternal efficiency, Kilograms weaned and consistent Carcass quality is your key to profitable beef production.

Shorthorn females turn the key for you, providing efficiency through maternal excellence, lifting kilograms weaned and creating consistent, predictable performance in the feedlot and on the rail.

The USDA MARC is largely regarded as providing the largest, unbiased, breed based evaluation of beef cattle in the world. Data from the MARC Germplasm IV report proved the value of the Shorthorn cow.

CALVING EASE

More live calves on the ground means more money for you.

In the USDA MARC Germplasm Evaluation IV, British breed females bred to Shorthorn bulls finished No.1 and calved 99.8% UNASSISTED.

Shorthorn cross females in the same study calved UNASSISTED 98% of the time.

Shorthorn steers processed for Coles at 11 months

Full Weight	ADG-Feedlot	Fat P8	Return \$/HD
497	1.95	6.3	1081.19

MORE KILOGRAMS WEANED

More live calves that grow faster.

In the same MARC study, Shorthorn cross females posted the highest 200 Day Calf average weight of any British breed and the second highest 400 Day Calf average weight of all breeds.

FERTILITY

Age at puberty and kilograms weaned per hectare are key indicators of efficient production and desirable maturity patterns.

Shorthorn heifers also proved to have the second highest percentage reaching puberty at 360 days and the Shorthorn cross females recorded the highest percentage of calf crop weaned.

CAPITAL VALUE

How long does it take a female to recover her costs.

It ranges from herd to herd, however a female has to last long enough to return the cost of carrying her into production.

Improved structure, temperament, fertility and maternal capacity are traits the Shorthorn breed is renowned for.

Allowing you to keep her in your herd, long enough to make a profit from her, and market her as a breeder, not just a cull.

TEMPERAMENT

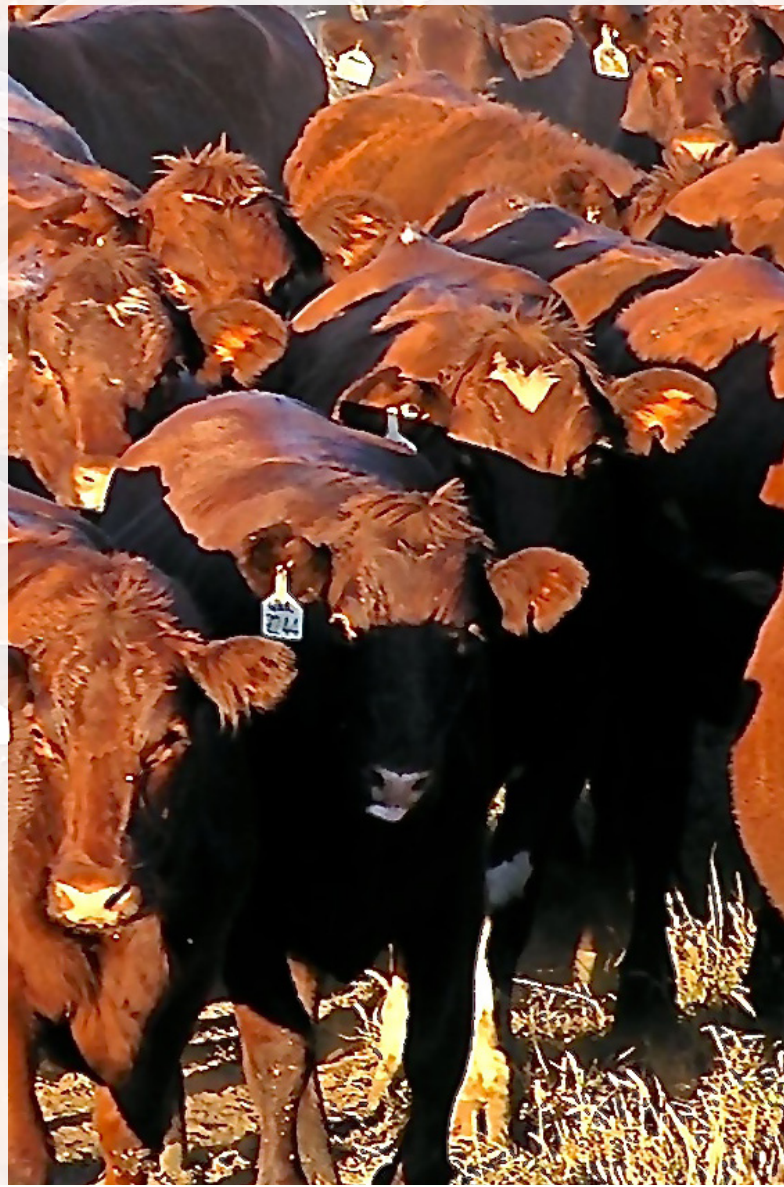
Because quiet cattle are more profitable.

The OSU study by Cooke et al. showed that females with poor temperament had increased Cortisol levels, dramatically affecting their ability to settle in calf.

In a US study involving thousands of cattle, research showed that cattle with a Disposition score of 3 or higher (Scale 1-6) returned on average a \$62/head loss in performance. Shorthorn cattle in the trial averaged **1.8**.

Holmes and Sackett measured labour costs amongst beef herds at 40% of production costs.

Shorthorn cattle have an improved temperament, reducing your labour requirements, increasing weight gain and reproductive performance.



SHORTHORN PERFORMANCE

Aren't you tired of the lamb breeders bragging!

The lamb industry is leaving us behind, with quoted rates of genetic gain, 2 times higher than the beef industry.

Understanding Maternal Heterosis holds your key to catching up.

We've all heard the figures, **23%** increase in production, but it sounds too good to be true. And what about the downside and will anyone want the progeny. It all seems too hard. It'll rain and the beef market will kick, right!!

The 4 key points to understanding Heterosis and unlocking profit.

1. Individual versus Maternal Heterosis.

So how do they get the **23%** figure?

Individual heterosis refers to the increase in performance from the cross bred individual and equates to approximately **8%**.

Maternal heterosis refers to the increase in performance from the cross bred female and equates to approximately **15%**.

Only maternal heterosis allows you to unlock the maximum profit.

Why is it so?

2. Heterosis and Heritability.

The lower the heritability of a trait the larger the amount of heterosis you get. It just works that way.

Mature weight and Carcass Quality are highly heritable. Weight gain and Milk are moderately heritable. Fertility and Maternal Capacity are low heritability traits and so they receive the greatest impact from Heterosis.

Trait	Heritability	Heterosis
Fertility, Mothering Ability, Calf Survival	Low	High
Birth Weight, growth, Milk	Moderate	Moderate
Carcass Traits	High	Low

3. Heterosis and Genetic gain.

By now you're thinking I have seen crossbred calves give more than an 8% increase. The extra difference is genetic gain. With carcass traits and mature cow weights highly heritable, it is important that the breeds you choose each carry a high genetic capacity for premium carcass performance and efficient maternal production. However, be careful of the downside to genetically extreme growth rates.

4. Breed Complementarity

What about the inconsistency issue?

This is where the last 3 come together. To capture the full effect you need to capture maternal heterosis AND genetic gain by using breeds that are **complementary** to each other. Breeds that are superior maternally but balance out each other's strengths combine enough similarity to reduce inconsistency but still capture maternal heterosis and genetic gain.

This is science, not marketing. Ask a lamb breeder, it really is that simple!

Shorthorn cattle are arguably the most complementary cattle in the world; they form the basis of over 40 breeds worldwide.

And they are in demand.

Shorthorn cattle are renowned for their carcass quality. In the MRC M112B project in Australia, 12,342 calves were fed; **Shorthorns finished No.1** for marbling and had the least variation in marble score of any breed. They also posted the highest ADG of any breed for backgrounding and feedlot gain.

Your current purebred system is good, right? No doubt, it's certainly easy, but with maternal efficiency having a low heritability, selection pressure alone takes a long time to impact it. Adding Shorthorn genetics, and breeding from the replacement females, will boost your production system like no other. You will wean more calves that will weigh heavier and are in demand. And you will do it more efficiently.

That's the science.

So why doesn't everyone do it now?

Holmes and Sackett listed in their Southern Beef Situation Analysis 2014, that

“Crossbreeding systems have the potential to increase weaning weights by 23%. This is not well understood within the industry.”

The Shorthorn breed lives by the philosophy,

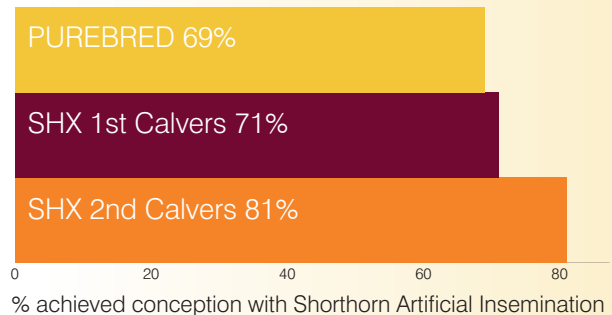
“That Shorthorn cattle are bred to solve problems, not create them.”

Shorthorn breeders are backed by the science and understand the need to unlock your profit through increased productivity and efficient production.

As one breeder found, using AI, the purebred Angus cows achieved 69% conception, the Shorthorn cross first calves achieved 71% and the Shorthorn cross heifers achieved 81%.

They now turn off 500kg plus weaners at 12 – 14 months,

“With nothing to eat but what's in the paddock.”



As to the consistency issue, “We’ve found the cross really improves the temperament, do-ability and the capacity to turn off steers quickly. Even the tail ends made it easily.”

They currently enjoy nearly 100% compliance.

That's maternal heterosis and complementarity at work.

HETEROSIS IMPROVES

- Calving Ease
- Fertility
- Kilograms weaned
- ADG
- Cow Longevity
- Lifetime Cow Productivity

SHORTHORN COMPLEMENTARITY IMPROVES

- Maternal Efficiency
- ADG
- Market Suitability
- Consistency
- Marbling
- Temperament

With less dependence on HGP, the industry will require cattle that can meet specifications naturally, putting greater pressure onto breeders. And with MSA grading, cattle are being judged increasingly on performance, not breed, making it hard to hide behind coat colour rather than performance.

Using Shorthorn genetics to unlock maternal heterosis and complementarity provides you with the easiest and safest way to meet these challenges and increase margins.

Improving your bottom line is what we are all about.

Let's look at some other findings from the 2014 Southern Beef Situational Analysis

“There are widely acknowledged benefits to be gained by efficient use of cross breeding to capture hybrid vigour. The advantages of various cross breeding programs are well documented. Often though, these programs are discarded due to the complexity involved in some systems. Simple systems... of crossbreeding are effective in increasing productivity in herds with no change to costs.”

Simply complementing Shorthorn genetics with your existing program, and retaining the females, will allow you to capture maternal heterosis, genetic gain and retain capital value.

“The top 20% group....produce more kilograms of beef per hectare at a lower cost of production but sell at a similar price to the average.”

TOTAL REVENUE = PRICE * QUANTITY

So price received is important, but not the only precondition for your profitability.

Shorthorn genetics carry extremely consistent, premium carcass characteristics, allowing you to maintain performance within the top end markets.

However, how much you sell, and how much it cost you to produce it, are key determinants to unlocking greater profitability.

NET INCOME = TOTAL REVENUE – TOTAL COSTS

“The variation in profits seen annually suggests that, for most beef producers, there is greater opportunity in improving efficiency within the enterprise than moving to another.”

We have a great opportunity within the beef industry to improve profitability; efficiently and simply.

Capturing Maternal Heterosis, by complementing your existing program with Shorthorn genetics, will impact your profitability positively, without increasing your risk, or complicating your production model.

Just ask a breeder who has already complemented their program with Shorthorns and ask them why they do it, they'll tell you.

“We can't afford not to!”



Shorthorn cross breeder at Devon Park, Victoria.

SHORTHORN PASTORAL

We love a sunburnt country, a land of sweeping plains!

The challenges for pastoral production have never been more real.

Australia is a land of variable climates and seasons', remaining productive when things are tough, is critical for businesses operating in Australia's pastoral landscape. So is making sure that turnoff hits the desired market specifications.

Cattle that are well suited to high rainfall, temperate zones, don't always suit pastoral production. Cattle must be able to work to walk, they must be efficient converters and they must hold some condition to manage seasonal variation. They also must remain quiet with minimal handling and super vision.

Shorthorns have long been renowned for their maternal efficiency. Excellent Feed Conversion also allows Shorthorn cattle to be extremely adaptable to varied seasons and climates.

"Population genetics is all about identifying superior performing animals within your environment and multiplying them, the Shorthorn breed has been doing this for longer than any other breed in Australia."

FEED CONVERSION

Where a little goes a long way

Cattle that convert feed easily cost less to maintain as breeders and less feed requirements to finish.

That means more efficient production for you and happier customers.

Across 3 feedlots in the US with data captured over 11 years, Shorthorn cattle posted average Feed Conversion rates of 5.2:1.

In a joint OSU/KSU study, 217 Shorthorn steers posted average Feed Conversion rates of 5.58:1.

In the NCBA Carcass Merit Project Shorthorn cattle again posted average Feed Conversion rates of 5.81:1.



TEMPERAMENT

Because quiet cattle are more profitable.

The OSU study by Cooke et al. showed that females with poor temperament had increased Cortisol levels, dramatically affecting their ability to settle in calf.

In a US study involving thousands of cattle, research showed that cattle with a Disposition score of 3 or higher (Scale 1-6) returned on average a \$62/head loss in performance. Shorthorn cattle in the trial averaged 1.8.

Shorthorn cattle are also proven performers in key markets.

EU MARKET

The EU market is a lucrative market, well suited to pastoral production.

Cattle are required to be HGP free and can be grassfed, however to satisfy requirements for High Quality Beef (HQB) supply, must be fed a minimum 100 days on grain.

Without the aid of HGP, cattle must have efficient growth rates, to maximise returns for feedlots.

Shorthorn performance, EU HQB market.

Trait	Other breeds	Shorthorn
Fat P8	13.59	16.7
HSCW	308.7	350.7
EMA	108	112
Marble Score	1.59	1.71

MSA COMPLIANCE

Where they must make the grade.

3.7 million head of cattle were graded MSA in Australia in 2014 and the trend is rising. Increasingly, brand managers are using MSA to underscore their programs, so compliance and a good score becomes increasingly important..

Key factors affecting the MSA Index are

- Marble score
- Hump height
- HGP
- Ossification

Shorthorn cattle deliver excellent Marble scores, but also more consistently than most breeds.

M112B Trial	No. Head	Marble Score	Marble Score Consistency
Southern Trial	4594	1st	1st
Northern Trial	7748	1st	1st

Lowering Ossification requires cattle to meet target weights at an early age, yet still provide adequate shape, muscle and marbling scores. They must also do this consistently.

This is what the modern Shorthorn is renowned for, Shorthorn genetics today give you the opportunity to maximise your MSA Index compliance, consistently.

Shorthorns are also arguably the most complementary breed in the world, as well as providing the added heat tolerance that comes with red and white coated cattle.

For increased maternal function and adaptability, efficient growth rates, effective carcass quality added to superior breed complementarity, temperament and heat tolerance, Shorthorn cattle are the profit breed for today's pastoral producers.

SHORTHORN PREDICTION

We put our breed to the test!

In 2000, Shorthorn Beef commenced a progeny test program, called Durham Research and Development.

The first program of its type in the world, DRD produced progeny from 2001-2010. Performance records from DRD were used to develop EBV's for the Shorthorn breed, and others, as well as improve accuracies.

Innovative and revolutionary, Durham tested sires, flowed back through the Shorthorn breed, driving genetic gain within the Shorthorn breed.

In the 10-year period prior to Durham, 1991 to 2000, the average change in the Export Maternal Index value was \$0.21 per cow mated per year. Following the introduction of Durham, from 2001 to 2010, **the rate of genetic progress in the Shorthorn breed increased fivefold to \$1.07 per cow mated per year.**

DRD increased accuracy of Shorthorn EBV's and indexes and reduced variation in EBV's reported, particularly Carcass EBV's, including Marbling. Marbling accuracy increased by 11.6% while EMA accuracy increased by 9.3%, ensuring that Shorthorn bulls deliver reliable and repeatable performance for commercial breeders.

Importantly, DRD demonstrated that Shorthorn Indexes worked in the real world. Actual \$ values from progeny processed increased sharply in line with the index values for each individual.

Today's Shorthorn breeders have access to a two-tiered system to evaluate young sires.

The Shorthorn Elite Progeny test program is designed to provide comprehensive data measurement of Elite young sires in the Shorthorn breed, ensuring they are fully evaluated from a young age.

The Shorthorn Commercial Progeny Test program provides structures for Commercial breeders and Seed stock breeders to evaluate Shorthorn sires utilising standard management practices as a benchmark for data collection points. Underpinned by innovative Software program which allows breeders to automate data collection, the Shorthorn Commercial Progeny Test program builds on the Shorthorn breeds history for innovative and cutting edge solutions to ensure that the Shorthorn breed delivers maximum value, as described, for commercial breeders.

What's a sire worth?

A good eye for cattle is a great and valuable thing. Complimenting your visual selection by utilising EBV's is better. Shorthorn EBV's give you the ability to ensure that the animals you have selected, also deliver the necessary performance, in the traits you require, to enhance your program and tailor production to suit your markets.

Shorthorn breeders understand the need to ensure that accessing the benefits of Shorthorn genetics is easy. To assist you, the Shorthorn breed has invested heavily into Shorthorn Group Breedplan and Shorthorn EBV's.

To fully utilise Shorthorn EBV's, it is important to understand that EBV's cannot be compared across breeds, only within a breed. Comparatively, Shorthorn cattle have actual marbling performance equivalent to any British breed. Whilst comparative to some other breeds, the Shorthorn EBV value may seem lower; the problem lies in the word comparative. There is no comparison in EBV's between breeds.

To utilise Shorthorn EBV's, like any other breed, you must first understand the Shorthorn breed average which is available on the Shorthorn Beef website.

Importantly, EBV's are not an indication of which breed is best for you. The traits that are inherent to, and developed within each breed, determine that breeds' relevance to your program. EBV's allow you to then tailor the performance of the animals within that breed to best suit your requirements.

Shorthorn EBV's are adjusted to a 300kg Carcass weight, (others are adjusted to a 400kg weight). This ensures that Shorthorn cattle suit a variety of markets, while Shorthorn females remain fertile, functional and efficient.

SHORTHORN INDEXES

Shorthorn Indexes are tailored towards three key markets, Domestic, Export and Northern production. Durham Research demonstrated clearly that Shorthorn Indexes generate real increases in profitability for commercial breeders.

Importantly, Shorthorn Indexes are described as Maternal indexes and are underpinned by key maternal production factors.

This ensures that Index selection will contribute to increases in your overall productivity and performance.



SHORTHORN PROFIT

Because we all need proof.

MRC Project M112b

In 1996, the Meat Research Corporation released the findings of the M112B Project, a large scale, breed evaluation scheme, the largest undertaking of its kind, was designed to assess breed suitability for competition within the growing grain fed beef market.

The project was split into two sections, the first being a trial of 4,594 steers sourced and fed in Southern feedlots. The second trial involved 7,748 steers sourced from NT, QLD and Northern NSW.

Shorthorn Averages - Southern Trial

Backgrounding ADG	1st
Feedlot ADG	1st
Purebred EMA	2nd
Purebred Carcass Weight	1st
Marbling	1st
P8 Fat Depth	2nd

Shorthorn cattle also had the least variation of any breed for Marble Score.

In the Northern trial, Shorthorn cattle again had the highest marble score with 84% compliance, 13% higher than the next best breed.

FEED CONVERSION

Where a little goes a long way.

Shorthorn cattle are proven as efficient converters of feed.

What does that mean to you?

Cattle that convert feed easily cost less to maintain as breeders and less feed requirements to finish.

That means more efficient production for you and happier customers.

Across 3 feedlots in the US with data captured over 11 years, Shorthorn cattle posted average Feed Conversion rates of 5.2:1.

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In the NCBA Carcass Merit Project Shorthorn cattle again posted average Feed Conversion rates of 5.81:1.

When added to the Shorthorn ability for high ADG and Marbling compliance, Shorthorns grow quickly, feed cheaply and meet the market specifications, *Shorthorns grow quickly, feed cheaply and meet the market specifications.*

RNA PADDOCK TO PALATE TRIALS 2012

The RNA Paddock to Palate trial is largely considered the most industry relevant trial of its type in Australia.

Under an independent panel of judges, Shorthorns again displayed their dominance for carcass quality.

Shorthorn and Shorthorn Cross Results

MSA Eating Quality	1st
	2nd
	3rd
	4th
	5th
Taste Testing	2nd
	4th
Overall Winners	1st
	2nd
	3rd
Champion Carcass	1st
	2nd



2013 PRIMEX MSA & EU COMPETITIONS

Shorthorns have proven themselves in both the MSA and the EU markets with outstanding performance in both the feedlot and carcass sections.

Purebred Shorthorn Results Both Competitions

Feedlot Performance	1st
	1st
	2nd
MSA Eating Quality	1st
	1st
	3rd
	3rd
Carcass Performance	2nd
	3rd
Overall Winners	1st
	2nd
	3rd



2014 SYDNEY ROYAL BEEF CHALLENGE TASTE TESTS

From 15 teams of Shorthorn or Shorthorn cross cattle entered, the breed achieved 4 Silver medals and 8 bronze medals from the independent panel of Judges.

SHORTHORN COMPLIANCE.

Compliance data from a large group of 100-day grain fed cattle, fed over several intakes, showed Shorthorn cattle delivered superior performance.

Trait	Other breeds	Shorthorn
Fat P8	13.59	16.7
HSCW	308.7	350.7
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Marble Score	1.59	1.71

In another study, Speers et. al. found that Shorthorns lifted performance across the board. Steers were fed for 192 days at Beef City.

Breed	LWG	Dress%	P8 Fat	Marble	Marble % >1
Simmental	1.51	57	14.5	1.5	54.5
SH/Simm	1.57	57.2	19.9	2	81.3
SH/Char	1.56	57.9	16.9	1.7	58.3
SH/ Santa	1.54	57.3	22.5	1.95	70.9

Shorthorn genetics, through hybrid vigour and genetic gain, have the capacity to increase growth rates, without diminishing carcass quality, allowing you to achieve maximum performance and compliance.

This performance level is why Shorthorns enjoy price parity and access to all mainstream markets in Australia, except CAAB markets.

Underpinned by science and the Durham Research and Development progeny test program, commercial breeders can access one of Australia's most innovative solutions to increase productivity and profit.

MATERNAL PROFIT

The foundation for any profitable breeding herd.

Research has shown that the value of Maternal productivity to your business is significantly greater than growth or carcass quality.

Whilst growth and Carcass quality is tremendously important, production must also be efficient, maximising your returns from your inputs.

If Carcass quality and Growth comes at the cost of Maternal efficiency, you may receive a premium per unit, but at a greater cost of production, meaning your overall margins will be reduced, diminishing your profitability.

This is the greatest challenge that the Australian Beef industry faces, delivering the best quality article for consumers, whilst building profitable breeding herds.

The Shorthorn breed is driven by the need to provide genetic solutions to achieve this.

CALVING EASE

More live calves on the ground means more money for you.

In the USDA MARC Germplasm Evaluation IV, British breed females bred to Shorthorn bulls finished No.1 and calved 99.8% UNASSISTED.

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MORE KILOGRAMS WEANED

More live calves that grow faster.

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FERTILITY

Age at puberty and kilograms weaned per hectare are key indicators of efficient production and desirable maturity patterns.

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Across 3 feedlots through central USA over 11 years, Shorthorn cattle posted Feed Conversion ratios of 5.22:1.

In a joint OSU/KSU study, 217 Shorthorn steers posted Feed Conversion ratios of 5.58:1

In the NCBA Carcass Merit Project, Shorthorn steers posted Feed Conversion ratios of 5.81:1.

These are amazing figures that explain in part the Shorthorn females ability to remain productive and fertile despite seasonal variations.

If you find yourself doing all the right things, creating a tremendous product for consumers, yet struggling to maintain profitability, then consider if your current herd is maximising your inputs.

For pure bred or cross bred production, Shorthorn females deliver a balanced solution to increase your productivity.



SHORTHORNS ARE KING FOR WONGI

The Clemons family, Wongi Pastoral Co on King Island, proudly and loudly proclaim the virtues of Shorthorn cattle in their beef cattle enterprise.

Wangi Farm, which trades as Wongi Pastoral Co, is a large holding on Australia's eighth largest island (1098 square km) and part of the state of Tasmania, with 1800 permanent residents.

Roger and Jenny Clemons are the third generation of the family to run Wangi. The eldest of their three sons, Thor (named after his grandfather) has come home and joined them to be the fourth generation to play a part in its operation.

After carving out a farm from the scrub with the use of axe, fire and bullocks, Roger's grandparents introduced Shorthorns in 1914 from mainland Tasmania. The Island's 900mm rainfall and mild temperatures (generally range from 12 C to 20 C) make it an ideal environment for beef cattle production. Consequently beef is now King Island's economic driver and it runs 22% of Tasmania's beef herd.

Most mainland Australian producers would have little concept that the most important focus for a successful beef program could be on a boat! As with most Islanders around the world, freight is the biggest issue. It can be the difference between success and failure.

Wangi currently runs 1000 breeding females including heifers, with 500 of these being pure Shorthorns.

"I inherited the Shorthorn herd, but have stuck with them based on their productivity," Roger said.

"They are the base of our herd. The other half are Shorthorn/Angus composites with these being mated to Herefords in a three breed cross," Roger said.

The soils on Wangi range from a 7 pH on the coastal country down to 5 to 6 on the inland sandy loams. Lime sands from the coastal region are spread on the more acidic soils. The productive pastures are ryegrass and clover dominant, but lucerne and cocksfoot also play a part on the semi-coastal country. About 70% of the rainfall falls in the months of May to October.

Historically there have been two major developments that have impacted positively on the fortunes of King Island producers.

The first of these was the building of a Government owned abattoir in 1955, initially commissioned to kill all species of farmed livestock. In the late 1980s it became a total beef kill abattoir when the second of these developments took place; the launching of the highly successful King Island Beef brand.

Roger explained that it was the success of King Island

branded cheese that was the catalyst for the beef branding, showing that regional branding on consistent and quality controlled product could be very successful.

"Quality control, good management, good marketing and hard work, and perhaps some luck of being in the right place at the right time, was the recipe for this success," Roger said.

Ultimately the abattoir was sold to private enterprise and J B Swift purchased it, no doubt attracted by the success of the Island's branded beef product.

However, the abattoir is now closed which is a very sore point with the Clemons family and many other producers. Private enterprise competition that is supposed to benefit producers ultimately led to the closure.

Roger explained that another Tasmanian processor offered free freight for live cattle to the Tasmanian mainland in order to take trade from Swifts.

"Enough short sighted producers were enticed to take up their offer, which then led to a downturn in throughput to the point the abattoir was unviable and had to close. JBS, to their credit tried to keep it open for as long as possible. Once the abattoir was closed, unsurprisingly the free freight offer was dropped," Roger said.

Now all King Island producers are solely reliant on a weekly ship service to get livestock off the island, just as his grandfather did.

"We've gone backwards in a full circle to where my grandfather started, and I'm not happy about that," Roger said.

That boat is the Sea Road Mersey which travels daily from Melbourne to Devonport and return, but on Sundays travels to King Island on its way to Devonport.

"They offer a fantastic service, but it is expensive and we are so reliant on it. Being only weekly our biggest challenge is to get stock on that boat in an orderly and timely manner. Even with the Tasmanian freight equalisation scheme it costs us \$118/head to get stock to Tasmania. Without that scheme it would be \$156/head," Roger said.

King Island's high and reliable rainfall allows high stocking rates, which makes it even more important to get stock off when they are ready to go.

"If the boat doesn't sail and you miss your booking, the next boat is a week away, but is likely to already be booked out, so you get the concertina effect," Roger said.

Now back to relying on the boat transport, Wangi is lowering the age of the breeding herd to below 10 years.

“Ideally we are heading towards eight years of age being our cut-off point. Older cows can pack up quickly and then won’t handle the boat trip in those circumstances. We are retaining 200 heifers per year with 50% being pure Shorthorns,” Roger said.

The King Island brand is still strong, but it now requires mainland Tasmanian processing. Wongi Pastoral Co calves down their cows in spring; weans in March and the young cattle are then grown out to meet the King Island brand specifications. They are selling mostly in the November to January period, before the later summer drier period sets in and feed quality drops.

This means the property is carrying the breeding herd and an equal number of young stock at any one time. The cows commence calving again after the last of the young stock go. The market age objective is 0-2 teeth, but some 4 tooth cattle are allowed.

“With a branded quality product you need to have continuity of supply. Good forward contracts for winter (August to September) delivery are offered to entice enough producers to provide the extra feed for their young cattle to enable them to meet these contracts,” Roger said.

While many southern cattle producers across the country, including King Island have swung to Angus, the Clemons family has resisted and firmly stuck to Shorthorns as their base.

“Our Shorthorns are consistently meeting the brand specifications. They have wonderful maternal traits and are good as a crossbreeding base breed. We have never made marbling a selection point but Shorthorns have shown their marbling is the equal of any comparative breed, including Angus,” Roger said.

“I really like the red roans, and with crossbreds we get appealing blue roans. Their temperament is second to none and they are wonderful productive cattle to work with. And besides that, I just like them,” Roger concluded.

Story: Ian Turner



SHORTHORNS TICK THE BOXES ON DROMORE STATION

Kim Woods

Tony Bennett doesn't think twice about hopping into his Cessna 177 and flying to the mailbox to collect the mail.

The station he runs with wife Lyndall is of such a scale that checking stock and water supplies from the air each day is a given.

Tony, 73, and Lyndall have spent a lifetime working the 81,000ha Dromore Station, midway between Ivanhoe and Wilcannia, in far western NSW.

Trading as Glenalbyn Proprietors, they run 600 Shorthorn and 350 Poll Hereford cows on native pastures in lightly timbered rangeland country.

Sheep were phased out in the early 1990s to reduce labour costs.

"We run the two cattle breeds side by side to hedge our bets in different markets," Lyndall said.

Dromore is subdivided into 30 paddocks with an average size of 2024ha.

Things most of us take for granted require a bit of planning – a 50km round trip by vehicle to the mailbox, and a six hour round trip to do the grocery shopping.

The enterprise is low input – there is no drenching or vaccination, supplementary feeding, chemical fertilisers or herbicide sprays. The biggest cost is fuel.

"That's the beauty of this country...we do enjoy the lifestyle, the peace and quiet," Lyndall said.

The station sits in a 250mm rainfall zone but has received just 173mm this year.

During the drought, the couple kept their core herd alive by feeding straw, cottonseed and Anipro, driving 1000km a fortnight on the feeding run.

As a result, they now keep the station lightly stocked.

"We've always got feed but if it does run out there is usually no agistment left so we have no option but to hand feed," Lyndall said.

"If we can get eight inches (200mm) at the right time, that's all we need – even if it dries off, it is still good feed."



Lyndall Bennett with eight to 10-year-old cows and their autumn drop calves.

The couple introduced Sprys genetics to their Shorthorn herd in 1998 aiming to breed a moderate framed, early maturing and easy doing female.

They also wanted greater weight-for-age in the steer progeny.

Steers from the original herd were sold at around 18 months weighing 380-480kg as feeders only.

Today, they are sold at 12 months of age, weighing 400-500kg liveweight, into domestic midfed or European Union feeder markets.

The last consignment sold in May to JBS Australia's Riverina Beef feedlot, Yanco, for 210c/kg liveweight.

"Since introducing Sprys genetics not only are the heifers reaching puberty earlier and calving at two years of age, but many cows are going on to be cast-for-age at 10-12 years-old," Lyndall said.

"Due to the harsh environment, care is taken to select bulls to suit.

"They must be structurally sound with good feet so they can cover the country.

"We will not buy show or grainfed animals as that is like building igloos in Alice Springs."

Lyndall said temperament was important, along with carcass shape, a medium frame, and balanced EBVs without high growth.



Eighteen-month-old joined heifers graze native pastures on Dromore.



"The larger framed, later maturing cattle cannot handle our conditions and struggle with fertility and doing ability," she said.

"The right type of mid-maturing animals will be just as heavy and give us market flexibility."

Lyndall has paid up to \$20,000 for quality bulls and counts Sprys TLC Canyon C056 as an impact sire on the herd for weight, carcass and muscle.

She places emphasis on birthweight, 200, 400 and 600 day weights, milk, eye muscle area, rib and rump fat and intramuscular fat.

Bulls are joined both autumn and spring, usually single mated so calves can be sire identified and followed through their lifetime.

Heifers are joined at 14 months for a 10 week period, and with no vet within 300km, receive no special treatment at calving.

"Pregnancy testing is not done unless required for sale purposes but all females are culled, and sold in fat markets if they don't come in with a calf at marking time," Lyndall said.

"They usually weigh 600-700kg and heifers in excess of 500kg."

Surplus Dromore Shorthorn females have topped the Dubbo market for the last three years.

The Dromore herd gained EU accreditation earlier this year, with all EU calves yard weaned for 7-10 days and weighed at six to eight months, or 280-300kg liveweight.

To benchmark the herd's genetic gain, Lyndall entered a team of Shorthorn steers in the 2010 Dubbo Beef Spectacular hoof and hook competition, taking out the carcass section from all breeds and meeting Woolworths domestic specifications.

"Over the last 10 years we have made massive genetic progress within the herd," she said.

Lyndall credits Gerald and Matt Spry with keeping her informed of potential new markets, processors, feedlots, buyers and sellers.

Dromore will publicly offer a truckload of Sprys blood weaner and joined heifers at the end of this year for the first time.

"We have sold females privately in the past and would normally retain these in the herd – it will be an opportunity for commercial producers to obtain EU accredited females," Lyndall said.



Steers walk to water on Dromore Station. Stock rely on water pumped from surface dams as the bore water is salty.

SHORTHORNS SHINE AT JERICHO

A move to incorporate Marellan and Royalla Shorthorn Bulls into their breeding programme is reaping returns for Central Queensland Cattle producers, David & Lynette Keene, along with daughters Ellen and Brianna.

Their 23,000 acre Jericho district property "Mafeking" is a mixture of red sand with Spinifex, Cypress Pine, Iron Bark and some spear grass country. It is desert upland country, or "sand with trees" as David puts it. Lynette describes 'Mafeking' as "very unforgiving country". There is no room for error, the Keene's use a lick 365 days, stock the property conservatively and always try to stay on top of water as it is 100% pumped.

"Mafeking" runs up to 600 breeders, predominately Brahman cows. Bulls are control mated for 3-4 months, and calves weaned at around 6-7 months. Depending on seasonal conditions, the steers are then brought back to an Emerald district property to be grown and fattened. David normally sells straight to the works, preferably at Jap Ox weights with 2-4 teeth. "We need tough cattle, they have to walk 12-15km for branding in the middle of January".

David & Lynette introduced Shorthorn bulls from the Job family into their herd in 2010. They are impressed with how the progeny are fitting in with their harsh environment. They are an ideal cross with the Brahman female. The calves are small born and grow very quickly. "Two of the great things about our Shorthorn Cross steers is that they are giving us access to more markets and we can also sell them at a younger age". They also are ideal feedlot steers, which is great, as it gives the Keene's another option. After viewing the steers, David and Lynette's agent remarked that he could get them a 15c-20c premium for their Shorthorn Cross steers.

It's not just David and Lynette that are excited about the Shorthorn influence in their herd. David's 92 year old grandfather, Hubie Scott is over the moon. Hubie has been encouraging David to use a Shorthorn for years. In his earlier days Hubie drafted cattle up to the killing box at the FJ Walker Meatworks at Maryborough. Hubie has always told me that



David Keene with an outstanding milk tooth Shorthorn X Brahman steer at "Northdown" Gindie.

"some of the biggest and best bullocks he ever saw were Shorthorn." David said.

To keep the Brahman content in their herd the Keene's prefer to use red, polled Brahman bulls. They source high quality red Brahman bulls from the Hills family of NK Brahman at Theodore. Polled calves reduce labour and "we are concerned about potential restrictions in the future" David adds.

The Keene's currently use 13 bulls at 'Mafeking' with 3 of them being Shorthorns. David thinks that about the right mix. The Shorthorn X Brahman females are being joined back to Brahman Bulls. The extra growth of these females is even giving David & Lynette the option of joining these females as yearlings rather than at 2 years.

David and Lynette are very pleased with the way the Marellan and Royalla Shorthorn bulls are handling their environment. All the bulls, both Brahman and Shorthorn, are spike fed prior to joining. The Shorthorn bulls are a little further down in condition than the Brahman, but the proof is definitely in the pudding, 'the Shorthorn X Brahman progeny are great'.

A meaty Shorthorn X Brahman Calf at "Mafeking" Jericho.



SHORTHORN F1 WEANERS POPULAR IN CQ

Story: Kent Ward

The introduction of Shorthorns into a purebred high grade Brahman herd has paid instant and handsome dividends for Queensland producer, Aileen Hobson.

The introduction of Shorthorns into a purebred high grade Brahman herd has paid instant and handsome dividends for Queensland producer, Aileen Hobson.

Aileen, her daughter and son-in-law Gavin and Susan Bawden operate the 1400ha (3500ac) Tyneholme North in the Callide Valley between Banana and Biloela, Queensland.

Aileen and Susan usually market their Shorthorn/Brahman F1 mixed sex weaners through the Biloela Saleyards straight off their mothers at weaning. However, this year the operation realized what a reputation the first crop of calves had created after their sale debut last year. This years wearers didn't make it into the saleyards.

Aileen went onto explain "We had many calls from people who'd seen them at the sale last year, or by seeing them from the road or by driving through the property that we didn't take them into the saleyards, we ended up selling them straight off their mothers direct to fatteners as the demand was there".

"At that time values were depressed compared to the money that is around now, but we still got top dollar for these steer and heifer calves, a bit of a premium if you like".

Located in the 670mm rainfall belt and running on forest and softwood scrub country the mother daughter duo run 350 Brahman breeders and have again turned to Shorthorn for a marketing niche, that of producing and selling F1 wearers straight off their mothers.

"My late husband, Don Hobson first introduced Shorthorns into a group of our Braham cows about 12 years ago, so we're just going back to what was successfully done in the past" Aileen said.

Three years ago the Hobson operation bought a roan bull from the Job family's, Marellan Stud, Cumnock, New South Wales. Since that initial purchase the property is now home to another three roan males, two of which were purchased at the recent Marellan 'Bull Selection Day' at East End, Gindie, outside Emerald.

"The bulls hold up really well here, ticks don't seem to worry them and aren't a huge problem, we use an organic oil in our back rubber in the paddock".

"This year we had around 80 F1 calves and with the introduction of another three bulls in the coming years will see an big increase in the number of calves that we'll have for backgrounders and grass fatteners. It's been a difficult



Susan and Gavin Bawden, Tyneholme North, Biloela with their nephew, Zac Hobson at the recent Marellan 'Bull Selection Day' at 'East End', Gindie, outside Emerald where they purchased two roan bulls. Pic: Courtesy - Queensland Country Life.

year, season wise and even then we had steer caves at 10-months of age weighing up to 375kg".

Aileen commences her annual joining in November and removes bulls in June or July where they are spelled in a fresh paddock. She uses her bulls at a rate of three bulls per hundred females.

"We don't provide supplementary feed for the bulls in that period, all bulls are treated the same and we find that the Shorthorn is as good at adapting to these conditions as our Brahman bulls, their recuperative powers are every bit as good as other breeds and bulls".

The operation has in the past used other terminal sires (Brangus and Charolais). "We've found that the Shorthorn stands up as well and if not better than the Charolais and the F1 Shorthorn weaner progeny are as easy to sell if not a little better than the Charolais/Brahman calves".

Aileen and Susan still retain their purebred Brahman registered herd, the Kelly's Camp prefix. This allows the operation to utilize Brahman females in a self replacing role whereby they are joined to Shorthorn bulls and other males.

When selecting bulls for the programme the women are adamant that temperament is paramount, adding "We have to work cattle the majority of the time by ourselves, the bulls have to be trustworthy and have a great disposition, we prefer roan coloured bulls and only use polls, sound structure to handle the ridge country here and good walking ability".

The operation has experienced no calving problems, bulls are also joined to heifers and the owners are amazed at the growth of the calves adding, "Yes there's a degree of heterosis, but until recently the season was against us, the cows were in fair condition but the calves even though born small really explode and keep growing under even trying conditions".



KILCOY PASTORAL COMPANY

It's safe to say that Kilcoy Pastoral Company has come a long way since its humble beginnings in 1953.

From what was once a local butcher's supply, the company now boasts a presence as one of the largest (beef) processors in the country.

Craig Price, the general manager for livestock, said that the modern-day profile and operation has changed in addition to growing enormously.

He said the major change was that the primary focus is now on processing one hundred percent 100-day grain fed cattle.

"We are now capable of now processing up to 260,000 grain-fed cattle annually (or, about 850 a day) and our exports now end up in about 20 countries worldwide".

"As grain-fed beef specialists, our aim is to supply beef that is of the highest integrity, consistency, and eating quality.

Craig Price himself became involved in the company thirteen years ago. His background, spent among sheep and cattle operations near Glen Innes, gave him the necessary passion and desire to pursue a career in the industry.

"Straight after school an opportunity presented itself to go down the avenue of meat processing, and one thing lead to another. It's been 25 years now since I first got involved in the industry," he said.

As the General Manager, Livestock, at Kilcoy Pastoral Company, Craig says it's a top priority that there is a focus on meeting strict criteria for beef quality and consistency.

The cattle the abattoir brings in are all 100-day grain-fed cattle, forward-contracted for slaughter and, primarily, for export.

And, the majority of the cattle are crossbred.

"We buy according to industry factors at that time which

might include pricing trends, feed, and supply."

"The bonus with cross-bred cattle such as a British Shorthorn cross, means that the customer is securing a heavier animal at a young age. These cattle are usually guaranteed to show better weight-for-age, and will deliver a better meat quality and yield.

"I do think the Shorthorn (cross) industry need to be acknowledged and congratulated, actually. They have improved dramatically over the last twenty years."

"These are cattle with more muscle, and less fat. They show the ability to marble and produce great meat quality."

"The Shorthorns are often a softer looking beast – and in my experience this is also indicative of a better quality of meat."

When it comes to cross-bred cattle, it's pretty simple – you're just chasing the best in a breed, and therefore improving the overall quality by selecting the desirable attributes.

"It seems that the crosses also help remove variation, and produce better (more consistent) carcass across the board.

Craig said it's great to see that the industry is currently in a robust phase.

"We are seeing record prices across the board from weaners to feeder-cattle and grass-fed slaughter-cattle. Optimism is back in the industry and we are in a very good place."

"There are plenty of positives right now."

"Demand is good for export cattle, and supply at the moment is fine – but - the drought is of course an ongoing concern for all."



SHORTHORN PROPOSAL

Nothing stays the same, our industry, like our seasons, is constantly changing.

Today's production systems, must meet tomorrow's challenges, and that means ensuring that they are both productive and profitable.

The modern Shorthorn delivers that through a simple philosophy.

Shorthorn cattle are bred to solve problems, not create them.

Balancing out all the economically important traits for your business, not just a few, means providing you with an easy care, efficient and productive cow base, producing quality steers suited to a wide variety of markets.

Whether for Purebred or Crossbred purposes, utilising Shorthorn Genetics allows breeders to differentiate their programs, and increase their overall productivity and profitability.

The Shorthorn breed today is backed by science, and the world's first of its kind, Durham Research and Development, providing you with confidence that Shorthorn cattle will deliver as described.

Accessing Shorthorn genetics has never been easier. Shorthorn breeders are found Australia wide and Shorthorn genetics and semen are available at attractive commercial rates.

Shorthorn Beef is continuously working with supply chain partners to maintain and increase markets for Shorthorn cattle.

Shorthorn cattle perform extremely well from both grass and grain fed systems. They excel under the MSA indexing system and suit a wide variety of markets including;

- Domestic
- Export
- EU
- Feeder Steer
- PCAS
- Great Southern
- Replacement Breeder markets.

Shorthorn cattle today enjoy price parity into all major Australian markets, except the CAAB markets.

When you feel it's time to consider change, to raise your total productivity and profitability, it is good to know there is a solution.



GLOSSARY OF TERMS

MRC - Meat Research Corporation

USDA - United States Department Agriculture

MARC - Meat Animal Research Centre

OSU - Oklahoma State University

KSU - Kansas State University

NCBA - National Cattleman's Beef Association

EMA - Eye Muscle Area

ADG - Average Daily Gain

AI - Artificial Insemination

SHX - Shorthorn Cross

HGP - Hormone Growth Promotant

EU - European Union

PCAS - Pasture fed Cattle Accreditation Scheme

DRD - Durham Research and Development

NM Index - Shorthorn Northern Maternal Index

EM Index - Shorthorn Export Maternal Index

DM Index - Shorthorn Domestic Maternal Index

EBV - Estimated Breeding Values

MSA - Meat Standards Australia

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shorthorn@shorthornbeef.com.au