



Wirruna Poll Hereford Stud (est. 1949)

WIRRUNA NEWS

Newsletter
Summer 2003/04

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Droughts are part of our rural scene, drought planning, therefore, should be part of on-going management

Dates for Diary:

- **Beef Week Field Day**
Wednesday 28th Jan 2004
- **Wirruna Bull Sale**
Thursday 19th Feb 2004

EDITORIAL – REFLECTIONS ON THE DROUGHT

Like many of you, I am not really sorry to see the end of 2003. It will remain imprinted as the big drought year. NFF have estimated the 2002-03 drought impacted on more than 70 per cent of the country's productive zones. I am mindful that for some areas the challenges of drought still exist and I sincerely hope that for you relief is around the corner.

At Holbrook, our drought began with a failed Spring in 2002 and we began feeding in sacrifice paddocks in November given we had received 50% of our growing season rainfall. We continued to feed into July 2003 following good, albeit distressingly late rains. Now that good feed conditions have returned it is important to review your drought strategy and again explore strategies to enhance the drought resilience of your business. The major strategies that were adopted in our business included:

- Maintaining all core breeding stock
 - * early sale of all non-breeding stock
 - * Get back to full production quickly
- Wean calves early (3-4 months old)
 - * Turn the breeding cow into a dry low maintenance unit
- Use sacrifice paddocks
 - * Feedlot sheep and weaner calves
 - * Spread dry cattle over the balance of country (Cattle cost more to feed than sheep)
 - * Sacrifice some, protect most, pastures. The cost of replacing pastures is often underestimated
- Understand protein & energy requirements of various livestock classes.
 - * Growing & lactating stock need protein
- We fed long term silage (stored) and grain (bought in).

We recently formed a Beefcheque group in the Holbrook area and our first meeting was assessing the costs of this drought. With consultant, David Sackett from Holmes Sackett & Associates based in Wagga, the group took an open book approach to their short & long term costs of the drought. There were a number of key messages that are worth thinking about when considering the next drought (in better rainfall country).

1. The total costs of the drought within the group of livestock enterprises ranged from \$5 to \$35/dse. This huge range reflects the equally large range of drought strategies one can adopt and the potential benefits of having a well-planned strategy.
2. Holmes & Sackett benchmarking data revealed that those who were closer to their "potential" stocking rate going into the drought fared better than those at lower stocking rates. The key message hidden in this being that the cost of the drought is more driven by management rather than whether you start with a high or low stocking rate.
3. Those with large stores of 'cheap' fodder (eg underground silage or grain secured at low cost) had a great advantage over those purchasing feeds during the drought price spike.
4. Those who planned early, assessed and enacted their drought strategy fully once the drought became eminent and didn't stray from their drought strategy were rewarded. A common mistake was feeding stock for most of the drought, only to sell them, at drought prices, in the later months of the drought. The original decision to feed should be based on a worst-case scenario, costed and enacted through to the other side of the drought.
5. The response from well fertilized pastures going into and out of the drought showed a large benefit.

Drought planning should be part of on-going management so that the financial burden can be spread over the good seasons as well as the bad. With your breeding herd there can be one positive concealed beneath all the negatives of the drought, that being that the drought screens out often unwanted and less fertile animals. Leaving you with a core of genetics that are more fertile and better able to forage efficiently (in any season). Both these attributes are requirements of low cost beef herds.

All the Locke family take this opportunity to wish you a very Merry Christmas and a Prosperous New Year and we look forward to your continued support throughout the year 2004.
Ian Locke

Key points:

- Multi-breed EBV's allows across breed comparisons
- This development is an important step on our way to a single EBV base across all breeds
- When comparing genetic growth, there is far more variation within each breed than there is between them.

Website:

www.breedplan.une.edu.au
 ▶ Education & Technical

Wirruna Benchmarking Service

Do you wish to better understand what drives Profit in commercial beef herds?

Are you interested to join our Benchmarking group?

Benchmarking completed by Holmes Sackett & Associates.

Participants benefit from Group Benchmarking activities including a bus trip to high profit beef enterprises planned for February 2004.

For further information contact Ian Locke.
(02) 6036 2877

EBV TALK – MULTIBREED EBV'S

For those of you with involvement in the prime lamb industry you would have seen a large increase in the rate of adoption of Lambplan®, and the Lambplan® related market driven indicies that many prime lamb producers rely on for selecting ram genetics. In establishing Lambplan®, the clever move was to begin with an across-breed analysis, this enables EBV's of any breed or mix of breeds to be compared to alternative breeds of sheep eg. Poll Dorsets can be directly compared to Suffocks on the same base. This has kept their breed societies separate from the performance recording of sheep and as such doesn't tangle performance with breed politics. Selling the benefits of using Lambplan® has been far easier than experienced with beef cattle and Breedplan® as the single base for comparison is far less complicated to the un-initiated.

In the beef cattle industry, the use of Breedplan and EBV's has only been for the comparison within a breed. Group Breedplan EBV's of a Hereford can only be compared to another Hereford, but not to a Shorthorn or Angus.

Many commercial breeders are now wanting to make comparisons across breeds to better rationalise their bull buying decision. The challenge is for breed societies, who have invested heavily in retailing Breedplan to their members, to make a once only change to their genetic bases so that EBV's for each breed can be directly compared. Clearly, the task of convincing the breed societies to put the interests of the beef industry above breed rivalry will be the issue.

The first step towards the development of an across-breed EBV's for beef cattle is development of Multi-breed EBV's, released in Autumn 2003. These EBV's allow direct comparison of animals for growth traits between the Angus, Hereford/Poll Hereford, Limousin & Simmental breeds. It is expected that other breeds and traits will follow. A large amount of data still needs to be collected and science to be done to calculate meaningful across-breed EBV's and this should be a key objective for our industry. MLA has recently agreed to fund further research to add maternal data and should enable Shorthorn and Charolais breeds to be added for comparison.

Table 1. compares the four breeds using their own within breed 'breed average' EBV's. This is then adjusted using the Multi-breed adjustment factor to give a Multi-breed EBV (using Hereford as the base). This EBV is then compared to the Hereford percentile table to establish where the EBV sits in comparison to the Hereford dataset.

The lessons from the multi-breed EBV comparison on breed difference offers no real surprises. The genetic growth of Herefords and Angus are pretty similar with Simmental having far more growth. The fact that only 5% of Herefords exhibit genetic birthweight lower than the Angus average highlights the importance for our breed to place a far greater selection pressure on birthweight and **underpins Wirruna's strong commitment to calving ease.**

Table 1. Comparing Breeds using Multi-breed EBV Adjustments

		Hereford	Angus	Limousin	Simmental
Gest. Length	Breed Average EBV	+0.0	-1.3	-0.5	-0.2
	Adjustment factor	+0.0	-1.1	+8.1	+5.3
	Multibreed EBV	+0.0	-2.4	+7.6	+5.1
	Hereford %-tile	50%	5%	100%	99%
Birth Wt	Breed Average EBV	+4.0	+4.0	+1.3	+1.7
	Adjustment factor	+0.0	-2.8	+3.6	+5.9
	Multibreed EBV	+4.0	+1.2	+4.9	+7.6
	Hereford %-tile	50%	5%	75%	99%
200 day Wt	Breed Average EBV	+21	+28	+12	+14
	Adjustment factor	+0	-9	+4	+22
	Multibreed EBV	+21	+19	+16	+36
	Hereford %-tile	50%	60%	80%	1%
400 day Wt	Breed Average EBV	+33	+52	+19	+23
	Adjustment factor	+0	-21	+4	+42
	Multibreed EBV	+33	+31	+23	+65
	Hereford %-tile	50%	60%	90%	1%
600 day Wt	Breed Average EBV	+48	+67	+25	+24
	Adjustment factor	+0	-16	+1	+55
	Multibreed EBV	+48	+51	+26	+79
	Hereford %-tile	50%	40%	95%	1%



Key points:

- Muscle score a better indicator of muscle than Butt shape
- Well established fact that premiums exist for better muscled animals
- Scope exists to improve muscling in British breed herds before detrimental effects on cow herd efficiency

BREEDING FOR MUSCLE

Wirruna assess muscle of sale bulls using two methods. The visual muscle score (independently assessed by a Vet) and ultrasound scanning (accredited assessor, Jim Green). By scanning all heifers and bulls each year, we are able to provide carcass EBV's. The measurement taken over the eye muscle at the 12th Rib gives us the Eye Muscle Area EBV (EMA) expressed in cm². The size of this one muscle is representative of the carcass as a whole.

Live muscle score is a three dimensional evaluation of the thickness and convexity of the animal, relative to its size, discounting for subcutaneous fat. Butt Profile, on the other hand, is a shape index developed by Aus-meat in Australia to describe the shape of a carcass butt. It is a two dimensional view of the carcass as seen from the side. It is significantly affected by carcass fatness and is of little use in evaluating carcass worth. Muscle score is mainly based on a view of the hindquarter.

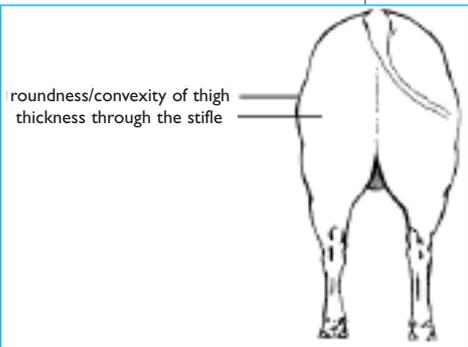
lines over Hereford cows research at Camden support that there were no detrimental effects from increasing muscling, within herd, on calving ease, birth weight or growth to weaning, slaughter or maturity.

We hear it said that more-muscular females are less productive in terms of milk production and fertility. This is not our experience and a strong negative corelationship is yet to be proven. It is also important to consider the 'type' of muscling. Smooth and evenly distributed muscling is far preferred to extreme and lumpy muscle patterns.

It is easier to go outside the breed, for example to a European bull, to lift muscling in steer progeny. This is often a good idea using a bull terminally over poorer muscled cows (& keep no replacements). However, where the objective is to increase the amount of beef produced per Hectare for less pasture consumed, crossbreeding systems with European genes where replacements are kept rarely meet this objective. Where optimum stocking rates are being approached, often fertility suffers in tight years as animals require higher maintenance to support their larger frame, muscle & growth.

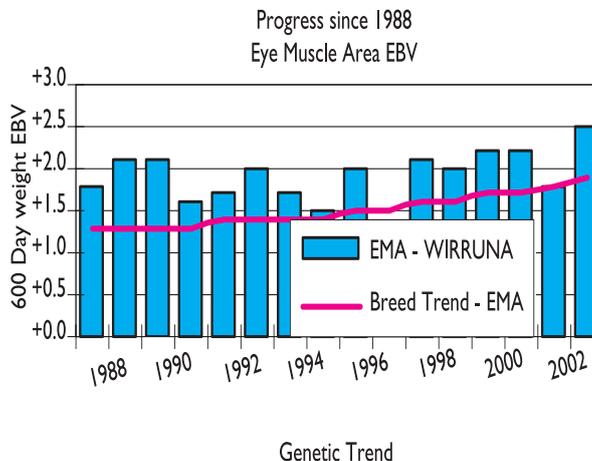
It should always be reinforced that single trait selection is not advisable. It could be expected that extremes of muscularity will have an adverse impact on reproductive efficiency of the cow herd. Nevertheless, we believe that there is plenty of room to increase muscularity within most British breed herds before extreme muscularity becomes a problem. If you aim to improve muscling it is ideal to use both the visual muscle score and EMA EBV.

As indicated in the following graph Wirruna genetics are above breed average for muscling.



Over the years there has been a lot of research on the value of increasing the value of the carcass through increased muscle. Research by Bill McKiernan and Sandy Yeates et.al. NSW Agriculture, had shown that well muscled steers attract a premium over lesser muscled steers. A study of saleyard prices showed an average premium of \$80 was received for B muscled steers over C muscled. Furthermore, animals with a higher muscle score have a high proportion of their carcasses made up with hindquarter cuts and have more even fat distribution requiring less fat trim. As muscle score increases, so too does dressing percentage and carcass yield, thus offering even greater benefits to the processors and/or retailers.

We lack sound scientific information on what effect selection for muscling has on other productive characteristics of beef production. Research work in 1995 indicated no adverse relationship between growth rate and increased muscle when muscle selection was carried out in combination with weight selection. This research also showed no adverse reaction from using high-muscled bulls, of the same breed, on heifers for their first calf. The indications are that weight of calf is the culprit for increasing dystocia and not muscle shape. More recently, the NSW Agriculture Muscling selection



Key points:

- Genetic corelationships have been estimated from the Hereford database.
- They rate the positive or negative influence that one trait has over another.
- Understanding these corelationships is important for balancing antagonisms in the beef production system.
- Some individuals are outliers and defy the genetic trend. With common sense, these offer opportunities to make genetic progress.

CRC Results:

Preliminary results from the CRC's Crossbreeding Project in Northern Queensland shows that a strong relationship exists between the onset of puberty in Bos Indicus cattle and backfat. This demonstrates what most astute cattlemen of all cattle breeds already perceive.

Consider entering our benchmarking program for this year

GENETIC RELATIONSHIPS BETWEEN TRAITS

Successful beef producers have an understanding of how to balance their breeding objectives between the end-product emphasis of the market place with the need to maintain and improve on-farm productivity in their breeding herd. It is helpful to have an understanding of the genetic and non-genetic (environmental) trade-offs that occur in the beef production system, particularly where extremes in one component of the system can be antagonistic to other areas.

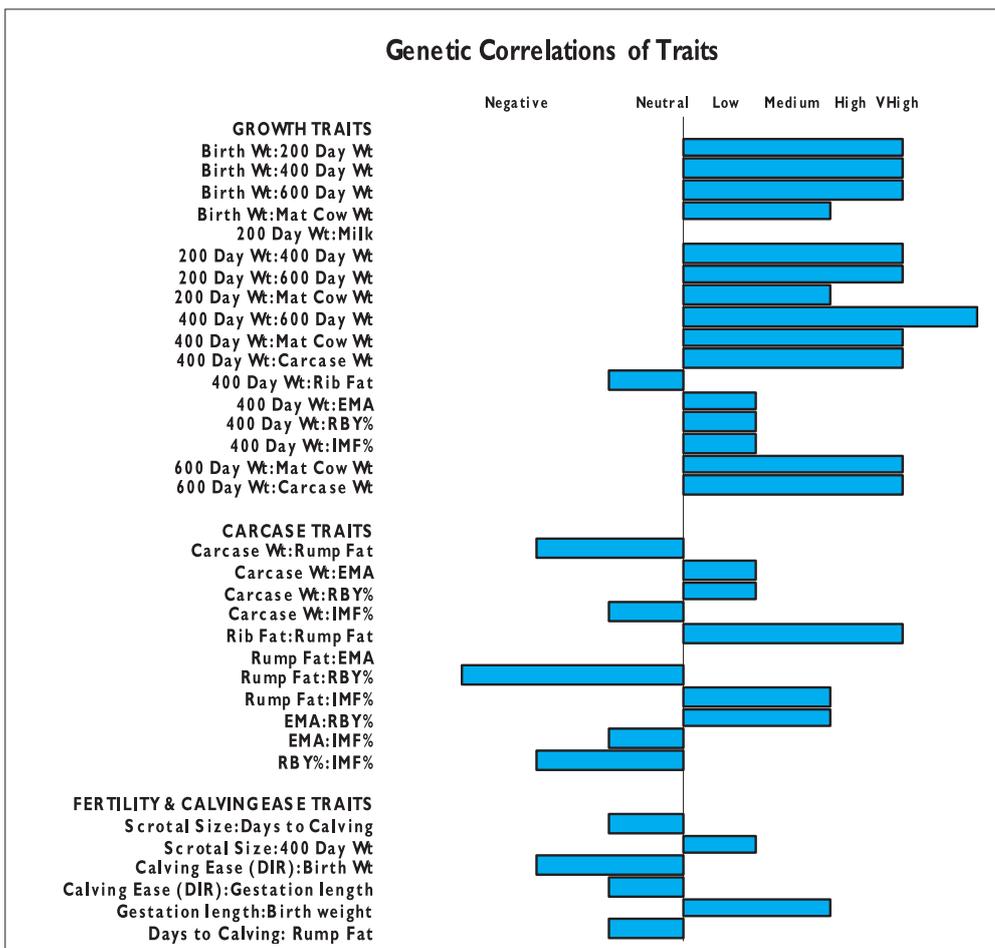
Group Breedplan EBV's and the \$Index calculations take into account the relationships (correlations) between the various traits. The following graph shows some of the key genetic correlations out of the many available. This information was kindly provided by David Johnston, Beef genetics project leader at AGBU, and have been estimated from Poll Hereford/Hereford data and other research data such as from the Beef CRC. As additional data and research results are obtained these relationships are recalculated.

The graphs show either a positive or negative corelationship. Eg. 600 Day weight has a high positive corelationship to Mature Cow weight. This means that the bigger the 600 Day weight also increases Mature Cow weight genetics.

Rump fat is negatively correlated to Retail Beef Yield. Obviously, the higher Rump Fat genetics is associated with reduced Retail Beef Yield. Milk is considered to be genetically independent of all other genetic traits.

One way that us seedstock producers get our kicks, is by searching for individuals in the genetic population that defy the normal genetic relationships. Mature Cow weight has a high correlation to growth, yet sires exist that can increase average growth without costly penalties through increased cow size. Likewise Birthweight is highly correlated to growth, yet sires exist that give growth without unacceptable birthweights. These sires are harder to breed and are often rare, nevertheless, we now have the tools to make genetic progress in these areas.

Genetic Correlations of Traits



STRUCTURAL ASSESSMENT By Dr Reon Holmes B.V.Sc.



The Beef Class Structural Assessment System scores a range of physical attributes of cattle. All Wirruna catalogued bulls are presented with this structural assessment information, independently examined and scored on the clients behalf.

The scoring system is simple, where a score of 5 is ideal, 4 & 6 show slight variation from ideal, 3 & 7 are acceptable for most commercial operations, but seedstock producers should be wary; 2 & 8 are low scoring and require careful consideration and 1 & 9 are culls.

For the sheath score, 5 is best and 1 is worst. The sheath score is an assessment of the degree of attachment of the penis to the underline of the bull. Bulls with a score of 4 or 5 have a very good attachment.



A score of 3 is moderate attachment and 1 & 2 have poor attachment (i.e. loose sheathed).



The incidence of loosely attached sheaths has increased in some bos taurus breeds (including Poll Hereford) over the past 10-15 years. This has possibly occurred with the introduction of North American genetics.

If all other attributes are equal select bulls with good sheath attachment.

Beef Week Field Day Herd Number 197

Date: Wednesday, January 28, 2004
(Day 1)

Time: 9 am to 6 pm

All welcome to take this opportunity to visit our herd and talk to us about ours and your breeding program and your requirements.

Sale bulls and most of our breeding herd will be available for inspection.

Bull sale catalogues will be available on the day.

"There seems to be enough field information to suggest that the incidence of penile and prepuce injuries increases as the degree of attachment weakens".

Free Bull Agistment!

The Wirruna herd calves in Spring and sells 18 month old bulls each Autumn.

As a service to clients who also calve in Spring and consequently do not require their new bull straight away, Wirruna offer payment and delivery arrangements that may assist your program.

Our offer is for any bull/s purchased at our Helmsman sale you may;

**25% down-
payment**

Pay 25% of the purchase price up front

and

**75% at
delivery**

Pay a further 75% of the purchase price upon delivery before your next Spring joining.

We look after your bulls for 6 months or so and cover insurance while they are at "Spring Valley". We will then arrange delivery at a time that suits you.

**Catalogue on
the Web
www.
pollhereford.
com.au**



Contact Details:

Wirruna Poll Hereford Stud
"Spring Valley"
HOLBROOK
NSW 2644

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2004 Bull Sale - 19 February 2004

There will be 45 bulls offered at our 'buyer friendly' Helmsman sale on **Thursday 19th February 2004.**

This year's catalogue includes used Wirruna sires, specialist heifer bulls, carcass bulls, growth bulls and balanced trait bulls. If you don't normally receive a catalogue and would like one please either ring Ian or fill out the cut-out slip provided to fax or mail to us.

Should you be unable to attend our sale, we do have arrangements such as telephone bidding and placement of pre-sale orders. We are very interested to discuss these arrangements and any other requirements that you may have.

Ian & Richard Locke

WIRRUNA FAX: (02) 6036 3060
Wirruna Poll Hereford Stud
"Spring Valley"
HOLBROOK
NSW 2644

Please send me a bull sale catalogue:

Name: _____

Address: _____

Phone No. ()

Fax No. ()

RELUCTANT DISPERSAL OF MONARO POLL HEREFORD HERD The Sharman Family

January 29 will see the on farm dispersal of the Old Bolaro commercial Poll Hereford herd at Adaminaby near Cooma. The herd is being dispersed to dissolve a partnership and the Sharmans have purchased a cattle property at Cooktown in far North Queensland.

350 cows with 5 month old calves at foot and 180 heifers will be offered. All have been depastured to Wirruna and South Bukalong bulls for nine weeks. The cattle are being presented in prime condition with sappy calves.



The herd has been the pride of Ian Sharman since the Sharman and Rayner families established the herd more than 30 years ago. The herd was established on Wirruna and South Bukalong bloodlines from its commencement with the first Wirruna bull being purchased 30 years ago while the stud was still at Borambola.

The Sharmans chose Performance Plus Breeders for bulls because of their strong emphasis on commercial values. The highest priority over the years has been high fertility and ease of calving with an overall balance between frame size, structure, eyes and growth being part of the bull selection process.

The herd is highly fertile as every heifer has been expected to deliver a live calf by 2 years of age and any heifer or cow that does not rear a calf is culled. The cattle are hardy and highly productive.

The Sharmans wish to express their appreciation to the Locke family for their wonderful bulls, their incredible attention to detail, their personal interest in our herd and their friendship.

The sale details are available from Ian Sharman Ph 02 6454 2329.