NZ Hereford Breeders

Jason Archer

25th March 2026

nProve Aims:

- Commercial farmer audience, use genetic information a couple of times a year
- Make genetic information accessible (understandable)
- Encourage purchasers of genetics towards breeding programs aligned with individual farm goals.
- Support with education

Genetic information for once-a-year users

(Too) Simple

$ index

Is it really this simple?

58 pieces of information!

(Too) Complex

March 2025 TransTasman Angus Cattle Evaluation																		
	ng Ease DIR (%)	Calving Ease DTRS (%)	Gestation Length (days)	Birth Wt. (kg)	200 Day Wt (kg)	400 Day Wt (kg)	600 Day Wt (kg)	Mat Cow Wt (kg)	Milk (kg)	Scrotal Size (cm)	Days to Calving (days)	Carcase Wt (kg)	Eye Muscle Area (sq cm)	Rib Fat (mm)	Rump Fat (mm)	Retail Beef Yield (%)	IMF (%)	Docility
V	**+11.7**	**+9.1**	**-10.4**	+0.4	+37	+71	+92	+85	+13	+1.9	-3.5	+38	+4.8	+1.9	+2.1	-0.2	+2.5	+5
Accuracy	86%	75%	97%	97%	96%	96%	96%	93%	90%	94%	64%	87%	87%	87%	87%	83%	86%	82%
Breed Avg. EBVs for 2023 Born Calves Click for Percentiles																		
EBV	+2.0	+1.3	-4.1	+4.2	+42	+79	+102	+91	+14	+2.1	-4.2	+49	+3.3	+1.2	+1.4	+0.3	+1.0	+23
Traits Analysed: GL,CE,BWT,200WT,400WT,Genomics **Statistics:** Number of Herds: **10**, Progeny Analysed: **336**, Scan Progeny: **165**, Number of Dtrs: **52**																		

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What is this bull good at?

What are the key EBVs I should look at?

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Why?

- Create a *consistent approach* to assist commercial beef producers identify genetics for their farming business.
- Present information at differing levels of complexity
- Ability to incorporate new traits as they are developed.

Key Features

- Breaking down information into components
- Non-linear calving ease
    - Reflects reality
    - Avoids undesirable compromises and consequences
- Non-linear milk
    - Maintain good milk, avoid extreme milk
- Non-linear BCS
    - Currently driven off Rib fat, future direct BCS EBV
- Include Gestation Length into Beef on Dairy

What do I want a bull to do?

3 purposes / production scenarios

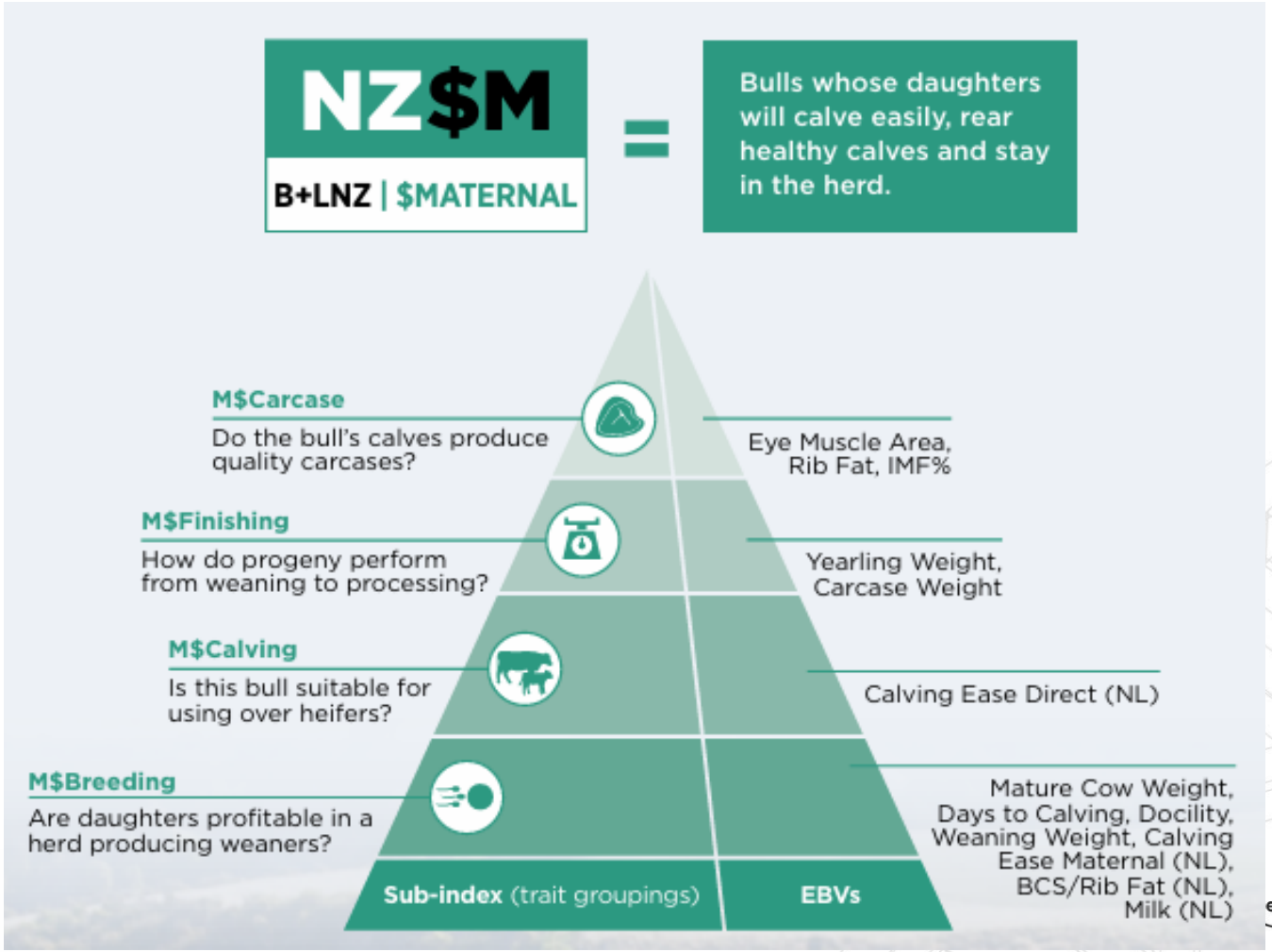
3 overall (total) indexes

Created for the NZ beef system

Terminal sire over beef cows

Self replacing beef cow herd

Terminal sire over dairy cows



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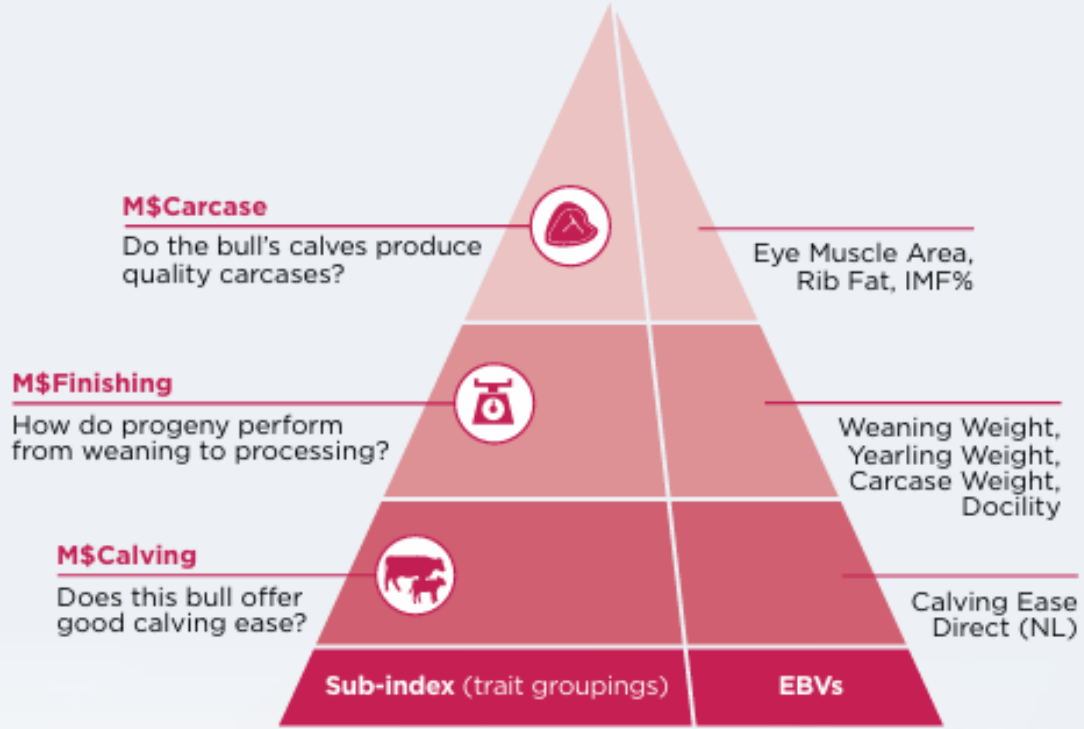
NZ$T

B+LNZ | $TERMINAL

=

Bulls whose calves grow fast, reach target weights sooner, and produce high-quality carcases.

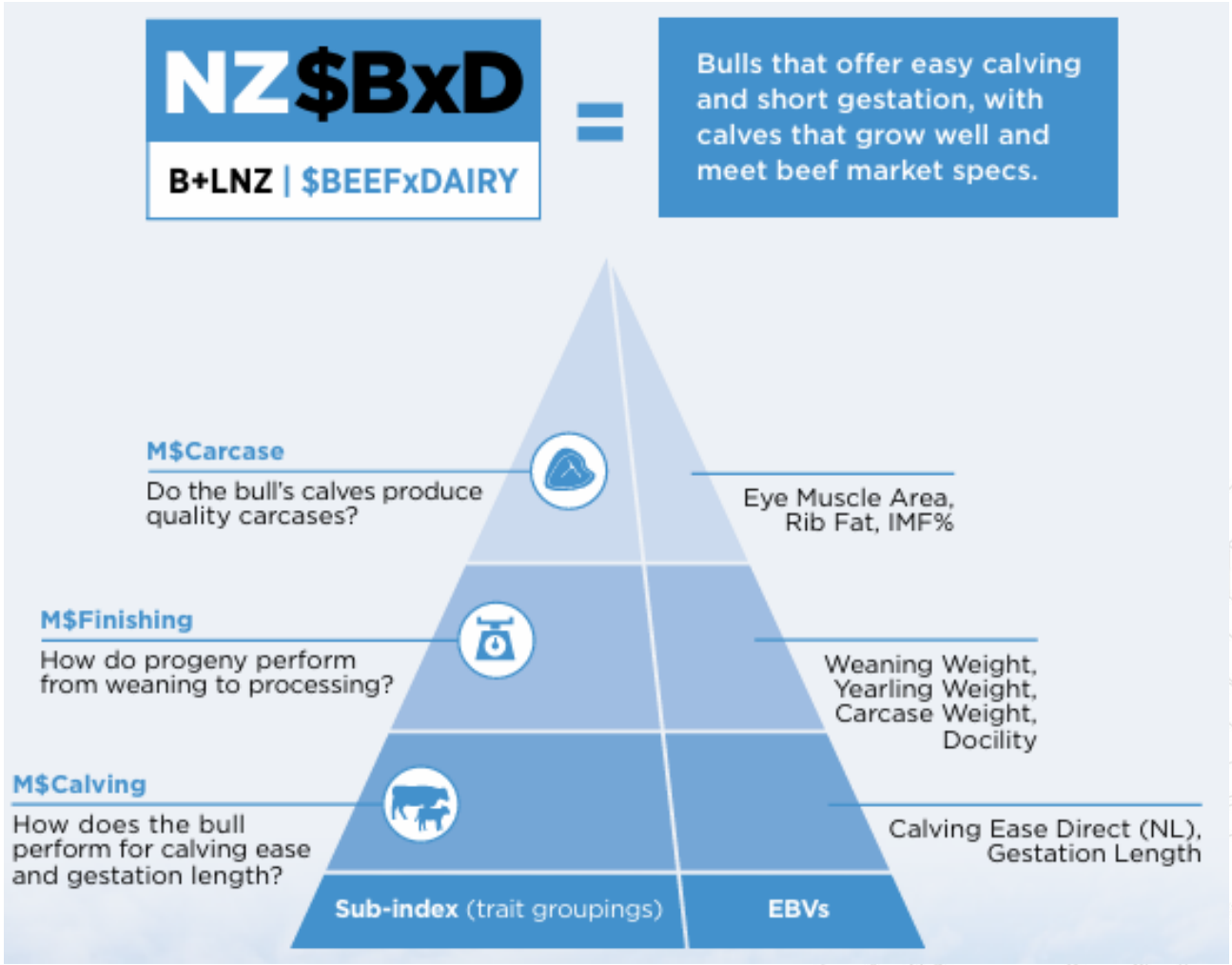


NZ$BxD

B+LNZ | $BEEFxDAIRY

=

Bulls that offer easy calving and short gestation, with calves that grow well and meet beef market specs.



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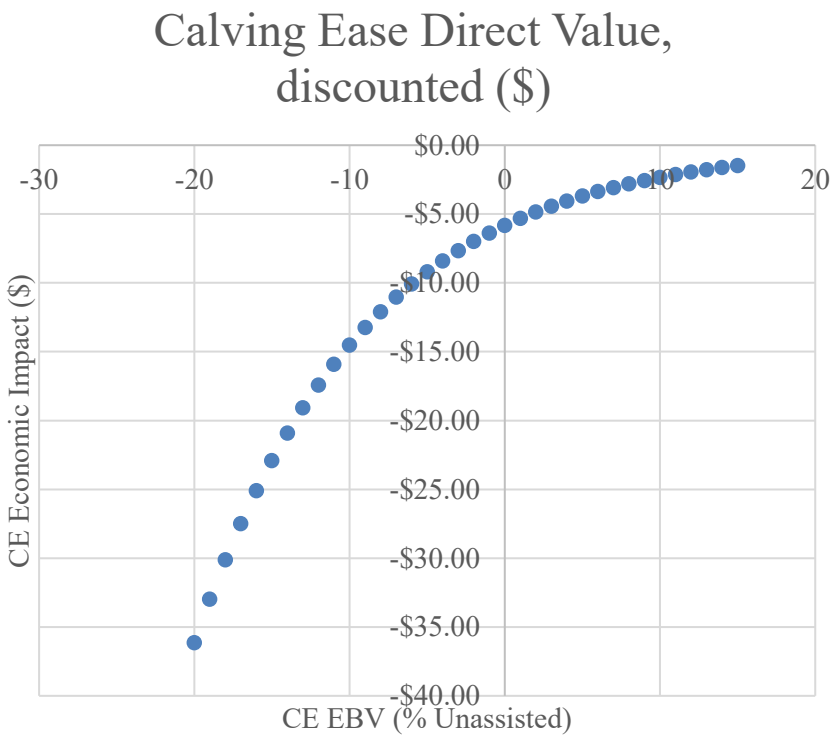
Calving Ease – its not a straight line!



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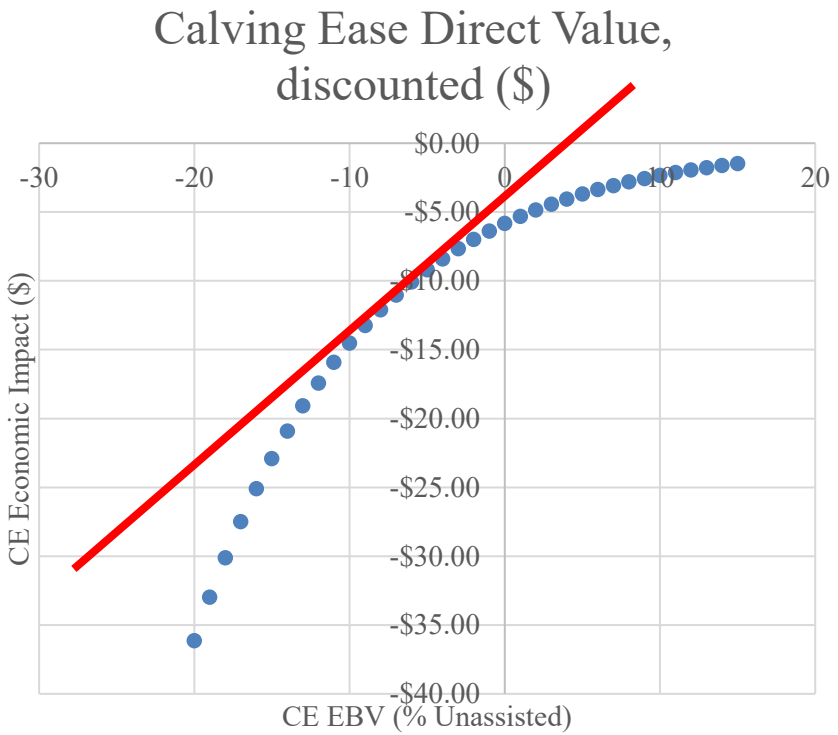
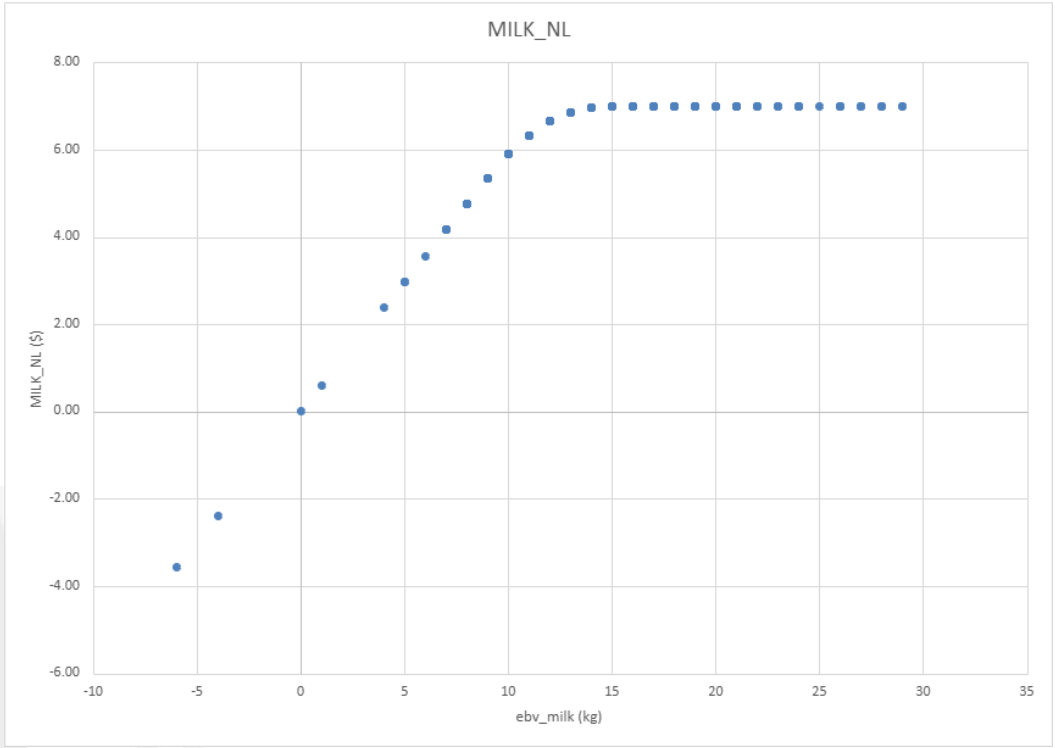
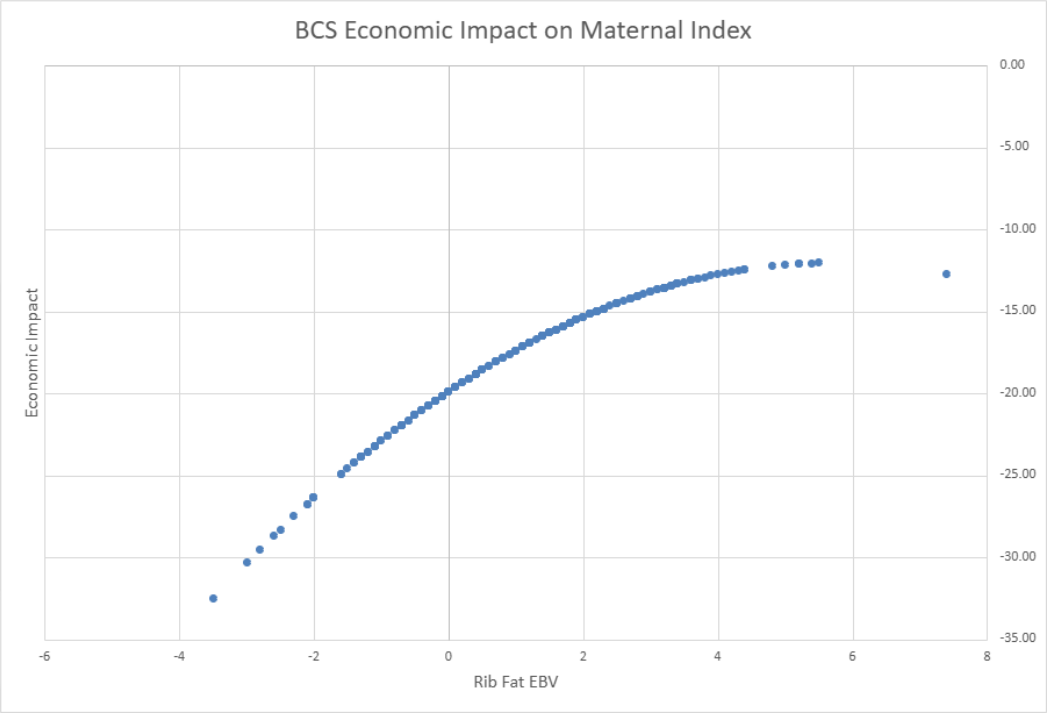


Milk – avoiding selecting for extremes



BCS – currently driven off rib-fat



Direct measurement of BCS is much more sensible – correlation with Rib Fat is only 25%

Interpreting Indexes

1

1. **Pick the index** that best relates to the system you are running (e.g. target market) and the role you will use the bull in (terminal vs self replacing, heifers vs cows).

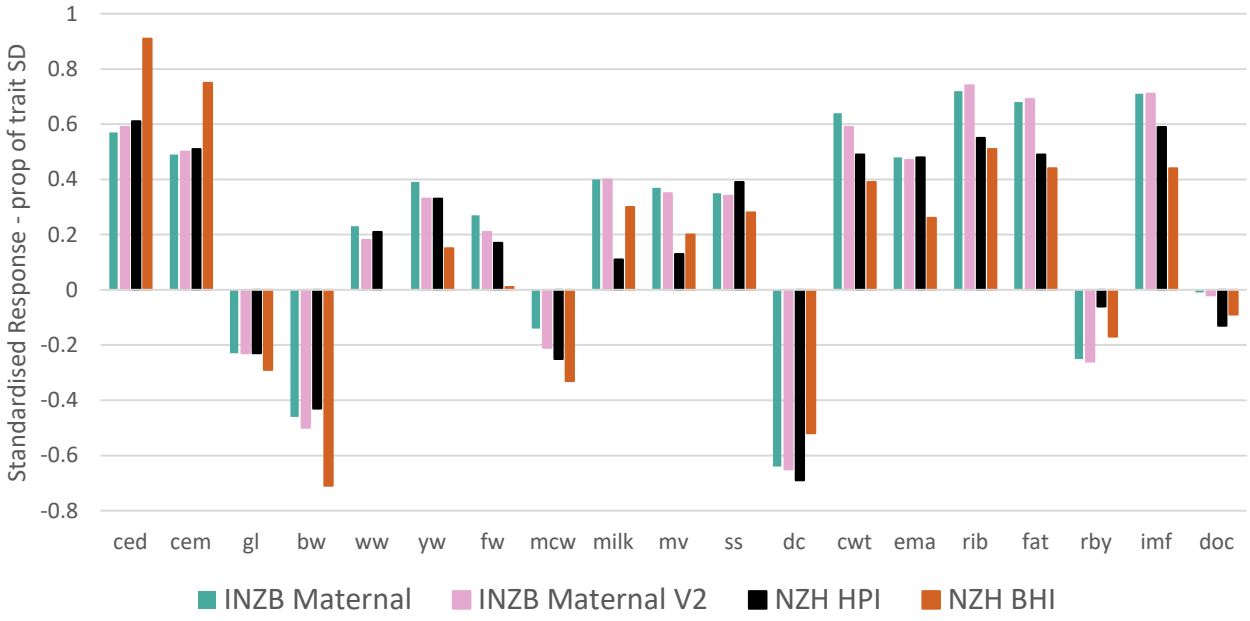
2

2. **Identify the top % of bulls** based on the index (use it to identify your breeder too).Use the index like an EBV (it is an EBV for profit) -

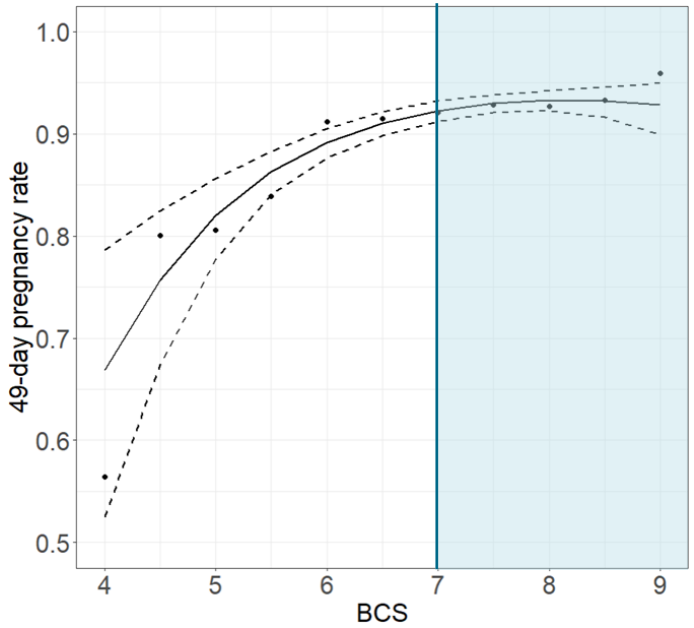
3

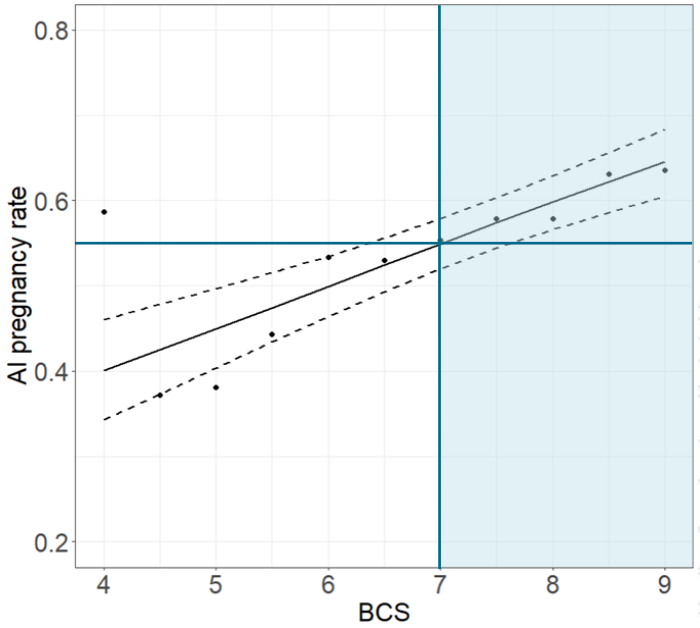
3. Then **look at the bull's EBVs**, to make sure that the bull gets a top index by being strong in the attributes that you want.

Standardised Trait Selection Responses – Maternal Index

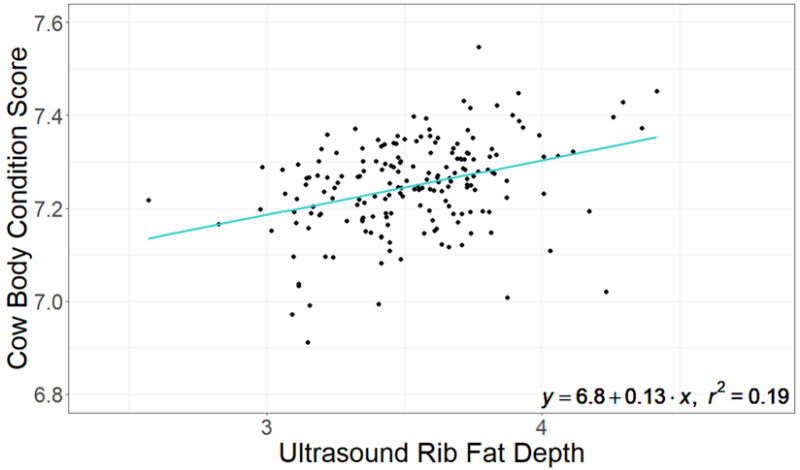


Impact of BCS at mating on reproduction

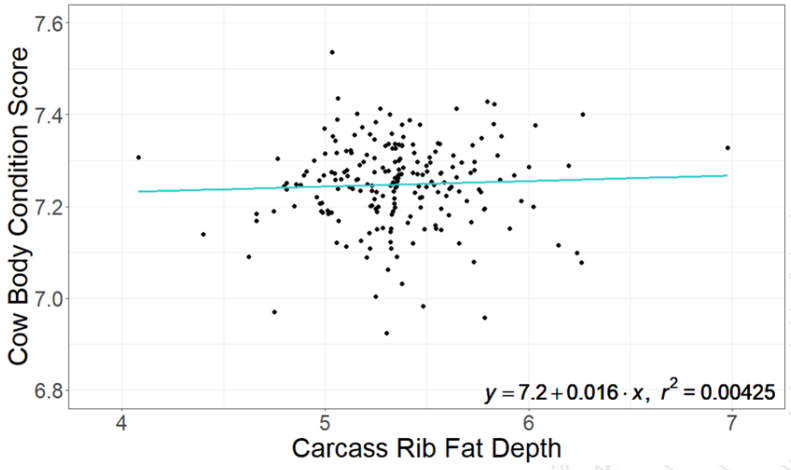




Cow BCS and Rib Fat Depth

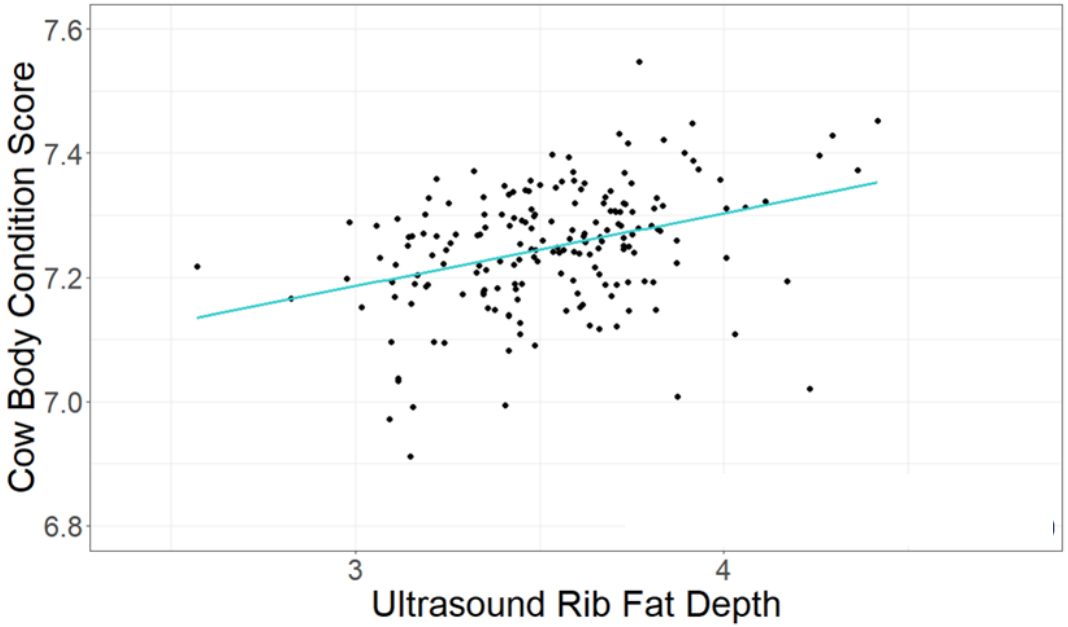


Genetic correlation = 0.27



Genetic correlation = 0.08

Cow BCS and Rib Fat Depth



To shift cow BCS by 0.4 using Rib Fat EBVs

We need to shift Rib Fat EBV by 4.5 mm

Which would increase carcase rib fat by 5.4 mm

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Are we happy to increase fat on carcases to get more BCS on cows?

OR

Should we have an EBV for cow BCS, so that we can select for this independently of fat depth?


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new zealand