

## How much variation in structure is present?

- Plenty in front feet shape
- Plenty in front feet angle
- Plenty in rear legs hind view

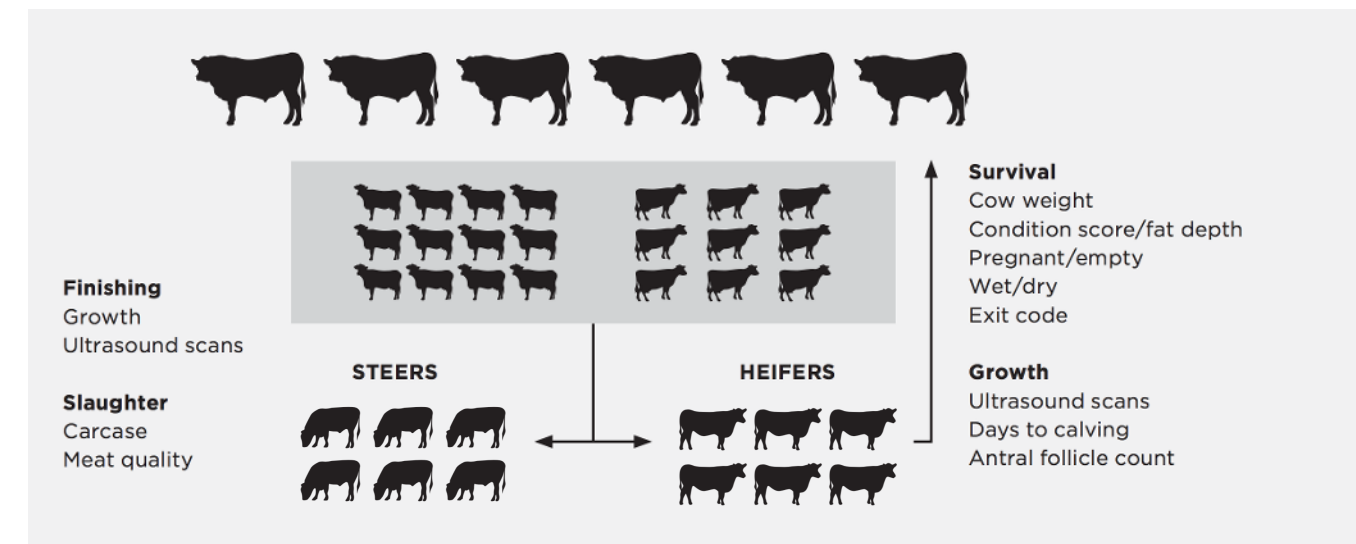
Plenty of it is about the bull

Trait	Key	Scoring Range	
Dolcility	D	① 2 3 4 ⑤	1. Docile 3. Restless 5. Aggressive
Front Feet Claw Set Rear Feet Claw Set	FC RC	1 2 3 4 5 6 7 8 9	1. Open/Divergent 5. Good 9. Scissor Claw
Front Feet Angle Rear Feet Angle	FA RA	1 2 3 4 5 6 7 8 9	1. Stubbed Toe 5. Good 9. Shallow Heel
Rear Legs Side View	RS	1 2 3 4 5 6 7 8 9	1. Straight 5. Good 9. Sickle Hocked
Rear Legs Hind View	RH	1 2 3 4 5 6 7 8 9	1. Bow Legged 5. Good 9. Cow Hocked
Front Legs Front View	FF	1 2 3 4 5 6 7 8 9	1. Bow Legged 5. Good 9. Knocked Knee
Udder Evenness	UE	1 2 3 4 5 6 7 8 9	1. Dropped Fore Qtr. 5. Good Balance 9. Dropped Rear Qtr.
Teat Size and Shape	TZ	1 2 3 4 5 6 7 8 9	1. Very Small/Thin 5. Good 9. Very Large/Bulbous
Sheath & Navel Score	SN	① 2 3 4 ⑤	1. Pendulous 3. Good 5. Clean/Tight
Capacity	CP	① 2 3 4 ⑤	1. Lacking Capacity 3. Medium 5. Large Volume
Muscle Score	LM	A B C D E	A. Very Heavy C. Medium E. Light

## GENETICS: THE BEEF INDUSTRY'S CASH COW

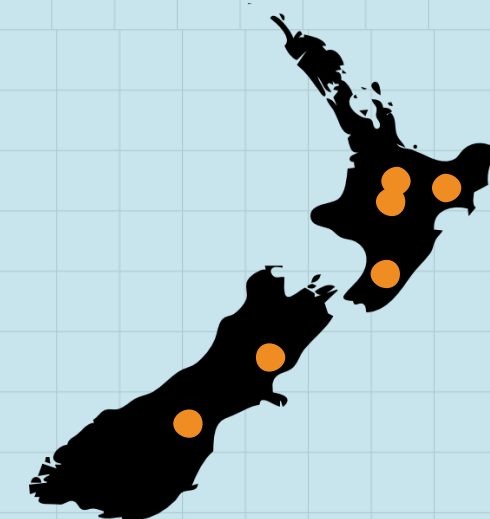
### Adding money to your beef bottom line

#### Evaluating finishing and/or maternal performance



The Beef Progeny Test (BPT) compares bulls under New Zealand commercial farming conditions. B+LNZ Genetics also oversees a Dairy-Beef Progeny Test which is looking at how more beef genetics can be used in the dairy industry, to benefit both the dairy and beef farmers.

#### Progeny Test sites - locations



#### Project Objectives

1. Quantify value of genetics
2. Demonstrate tools available for genetic gain
3. Improve the tool kit

On commercial New Zealand beef farms

#### Stats

- 50 Bulls used annually across farms
- 3500 beef and dairy females fixed time AI annually
- 11 breeds used in Cohort 5 (2018)
- A mix of internationally-sourced and New Zealand semen
- Six large scale commercial properties (5 beef farms, 1 dairy farm)

## Key messages from the Field Day

1. \$198/calf - want it? Or can't afford not to
2. Buy a bull above the breed average - buy a bull that makes you more money
3. \$80/carcase - want it? Or just need a few tricks
4. If you don't know where you're at, how do you know where you're going?

Funding partners of the B+LNZ Genetics Beef Progeny Test are Focus Genetics and Simmental New Zealand.



## Project Timeline

2014	2015	2016	2017	2018	2019	2020
Monitor cows AI	Monitor cows Cohort 1 calves born AI	Monitor cows Cohort 1 calves grown, heifers mated Cohort 2 calves born	Monitor cows Cohort 1 steers killed, heifers calving Cohort 2 calves grown, heifers mated	Monitor cows Monitor Cohort 1 females Cohort 2 steers killed, heifers calving	Monitor cows Monitor Cohort 1 & 2 females Cohort 3 steers killed, heifers calving	Monitor cows Monitor Cohort 1, 2 & 3 females Cohort 4 steers killed, heifers calving

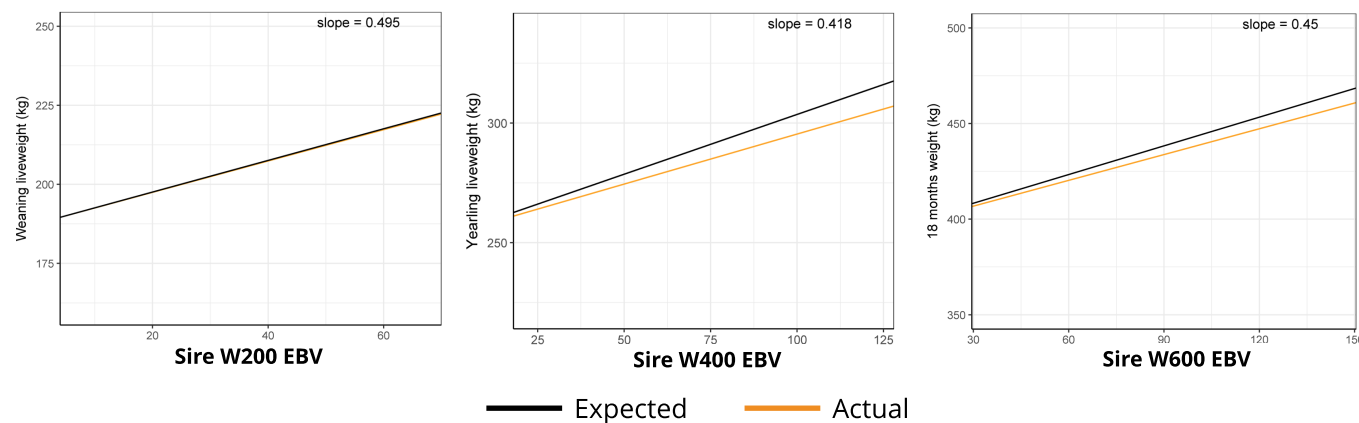
# Beef Progeny Test Results

## Proving Growth

	Expectation	Reality	Result	% of EBV turned into calf performance	So why bother?
<b>200 Day Weight EBV</b>	1kg in Bull EBV = 0.5kg in calf weight	1kg in Bull EBV = 0.49kg in calf weight	Strong	99%	The heaviest sire's calves had an extra 19kg at weaning. At \$4/kg* that's worth an extra \$76 per calf
<b>400 Day Weight EBV</b>	1kg in Bull EBV = 0.5kg in calf weight	1kg in Bull EBV = 0.41kg in calf weight	Strong	82%	The heaviest sire's calves had an extra 43kg as yearlings. At \$3/kg* that's worth an extra \$129 per calf
<b>600 Day Weight EBV</b>	1kg in Bull EBV = 0.5kg in calf weight	1kg in Bull EBV = 0.45kg in calf weight	Strong	90%	The heaviest sire's calves had an extra 66kg at 18 months. At \$3/kg* that's worth an extra \$198 per calf

\*Beef + Lamb NZ Economic Service 2018

## Matching EBVs to actual calf weight



- 73% of the sires EBVs (that we looked at) turned into actual calf performance.
- If you use improved EBVs you will get improved calves. No matter the farm, no matter the breed (on low and high accuracy bulls)

**Better EBVs = Better Calves = Better Money**

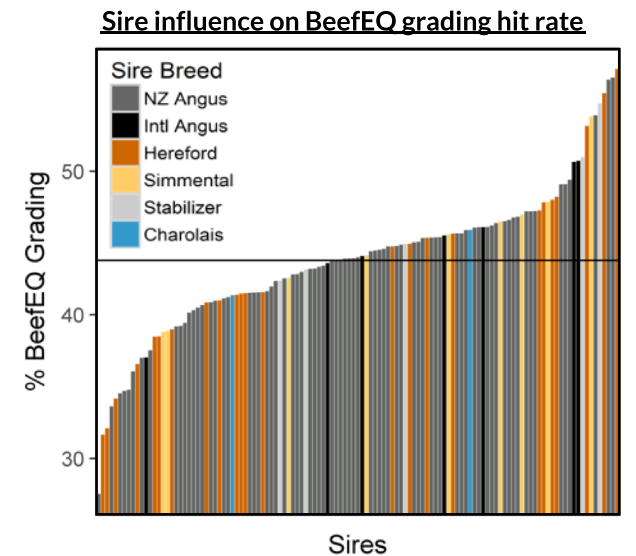
## Silver Fern Farms Beef EQ grading: Up to 35% range between sires of grading outcomes

### Features of the high hit rate kills

- Good carcass weights (about 300kg)
- Good fat cover (6 mm +)
- Good marbling (350 +)

### Managing for high hit rates

- Sort out pH via management, in the 2-4 weeks prior to slaughter
- Kill to a finish (not grass curve)
- Heavier carcass weights help grading *do this by increasing growth to a given age, don't want 4 y/o bullocks*



## Breeding for high hit rates

Bull selection will influence your hit rates.

Bull selection can influence	
✓	Carcass weight and ossification
✓	Eye Muscle Area (yield)
✓	Dressing Percentage
✓	Marbling
✓	Fat Depth

Bull selection can't influence	
✗	pH
✗	Fat colour
✗	Meat colour

## Better condition cows at mating have better conception rates

Body Condition Score (BCS) is becoming a common management tool on farm in sheep, but B+LNZ Genetics believes it could be used to a greater extent to manage feed and improve reproduction in cattle.

Analysis of the project's pregnancy data against BCS reinforces what we already know - that better condition score is important for re-breeding. But, more importantly, it quantifies the improvements against the scores and gives some target condition scores to aim for.

For reproductive success, a minimum score of 6 at mating is recommended, but greater than 7 is optimal.

