

THE VISION FOR NEW ZEALAND'S BEEF INDUSTRY

Q1: If New Zealand's beef industry could design the perfect system to evaluate its genetics, what would it look like?

- Those genetics would be tested on New Zealand commercial farms – from growth rates through to carcass quality and replacement heifer performance.
- This information would then be fed-back to breeders and their clients, to continually improve the on-farm commercial performance of bulls.

Q2: How do we make that happen?

Three key elements are needed:

1. A new way of assessing bulls' genetic performance on commercial farms.
2. A genetic evaluation to evaluate the resulting performance data alongside breeding herd data and report results back to breeders and farmers.
3. Easy-to-use tools that help farmers select the best bull/s for their specific environment and breeding objectives.

Q3: Can we simplify the current industry situation that has different evaluations for different breeds?

- Ideally, there would be a single evaluation across all breeds – just as there is in New Zealand's sheep and dairy industries. Enabling commercial farmers to pick the best bull for their system – irrespective of breed.

Q4: What about future innovations in beef genetics?

While productivity will always be the main driver, New Zealand's beef industry needs a platform that allows for:

- New data sources to be linked in (e.g. dairy-beef data).
- Development of new traits that address current and future issues, such as social licence, environmental emissions and animal welfare.
- Innovation amongst bull breeders.

ABOUT THE INFORMING NEW ZEALAND BEEF PROGRAMME

Informing New Zealand Beef (INZB) is a future focused seven-year programme (2021 – 2027) designed to generate more income for beef producers and the economy while protecting the environment.

Building on skills and knowledge that already exist in New Zealand – courtesy of our world-leading sheep genetic evaluation and previous work such as the B+LNZ Genetics Beef Progeny Test – this is the industry's response to evolving consumer expectations around food quality and how it is produced.

INZB will focus on breeding objectives, and resulting traits, important to New Zealand farmers. Providing a single genetic evaluation for comparing bulls of different breeds. Development of tools will enable commercial farmers to quickly and easily select the right genetics for their farm system and environment.



PROGRAMME OUTLINE

INZB involves four components

1. Progeny test herds

Fundamental to an across-breed genetic evaluation is linkage and the ability to make adjustments for hybrid vigour. Industry-good Beef Progeny Test sites will provide those linkages and provide New Zealand collected data to accurately predict hybrid vigour.

INZB goes a step further and will work with farmers to establish Next Generation herds within existing commercial operations. These herds will feed critical information back into the system:

1. Performance data collected in commercial environments.
2. Genomic data calibrated against commercial reality.
3. Female replacement selection data.
4. Carcase data.

2. Develop breeding objectives and indexes

Based on consultation with industry to determine trait priorities, New Zealand-specific indexes can be developed. With the potential to simplify how genetic information (e.g. Breeding Values and Indexes) is presented to occasional users, such as commercial farmers purchasing bulls, while still making detailed information available to breeders and advanced users.

3. Build a genetic evaluation

1. Core productivity traits will be established, based on existing genetic and performance data.
2. Next, new traits will be developed, as identified by sector stakeholders.
3. Building of a multi-breed evaluation will follow.
4. Finally, importing international breeding values will be explored.

4. Data infrastructure

This is the programme's "backend" computing power, where data flows in and out, seamlessly and for maximum benefit to individuals (breeders and farmers) and the national beef herd.

OPPORTUNITIES FOR BREEDERS

Progeny test sires

Expressions of interest in nominating bulls for the across-breed progeny test will be sought annually.

Next Generation herds

Interest will be sought for Next Generation herds. Breeders may see this as an opportunity to work closely with a small number of key clients in a breeding alliance.

Breeders providing bulls to these herds (under commercial arrangements) would receive feedback on bull performance, including carcase and maternal performance, and enhanced genomic accuracy.

nProve for beef

Once the evaluation is operational, breeders will be able to record data on B+LNZ Genetics' nProve database. Breeders will own their data, and B+LNZ Genetics will create and facilitate pipelines to other databases and evaluations, as and where needed.

Participation in New Zealand beef genetics across-breed evaluation.

As part of this evaluation, breeders will be able to benchmark their bulls across breeds used in the commercial New Zealand industry.

Any New Zealand Indexes or new traits developed will provide more NZ-centric information on their animals.

New innovations

Breeders with an interest in specific new traits will be able to collaborate in trait development programmes.