

8/11/2023

TERMS OF REFERENCE FOR INDUSTRY WORKING GROUP (IWG) - FINAL

1. Why and for whom the evaluation is being done
2. What it intends to accomplish
3. How it will be accomplished
4. Who will be involved in the evaluation
5. When milestones will be reached and when the evaluation will be completed
6. What resources are available to conduct the evaluation.

Overview: Reason for the IWG and who should benefit from the Review.

1. IWG Purpose:

- The purpose for convening the IWG is to provide an objective evaluation of the current state of genetic improvement in the NZ dairy sector relative to other advanced dairy industries, whether this can be substantially improved, and if so to recommend how this can best be done to protect and enhance our competitive position in the global market.

2. Necessity for an Independent Review

- As context, it is taken as given that genetic gain in animals is of critical importance to the ongoing competitiveness and sustainability of New Zealand's dairy sector.
- NZAEL (a subsidiary of DairyNZ, the industry-good body) has a mandate to provide the national breeding objective (NBO) and the national animal evaluation index (BW)¹.
- NZAEL considers that in order to meet this mandate it should provide a world class Animal Evaluation function to the sector it must update its approach to include genomic data, and to undertake other changes that will improve the accuracy of the index.
- There is support for a single BW index for bulls and cows, and on the importance of genomic selection in increasing rates of genetic gain.
- However, following several years of discussion and a formal consultation process:
 - o There continue to be different views between NZAEL and the main commercial AB companies on whether the current rate of genetic gain is equivalent to other advanced dairy industries, is sufficient to meet the future needs of New Zealand dairy farmers, and by implication whether the current situation and industry structures are fit for purpose.
 - o There continue to be different views between current participants on the accessibility of commercially held genotypes for industry-good purposes, and on the distribution and use of the outputs of animal evaluation for bulls and cows.
- The opinion of NZAEL is that a resolution to this impasse is required, with a constructive way forward over the next decade (at least), as it deems the opportunity cost to the dairy farming sector to be in the order of \$100 million/year.

3. Beneficiaries

- The intended primary beneficiaries of the Review are New Zealand dairy farmers.

¹ The mandate and rights of NZAEL to provide the NBO and AE Indices are provided in the Formal Agreement between DairyNZ and LIC.

Objectives: what we want this review to deliver.

- The IWG should deliver a Review of the NZ Dairy Genetics Sector that states:
 - whether or not the current New Zealand system for genetic gain is fit-for-purpose, including whether New Zealand's rates of genetic gain in important production, functional and environmental traits are similar to other advanced dairy industries around the world (and, if not, why not);
 - the extent of the productive and environmental sustainability losses associated with any difference between NZ rates of genetic gain and those of comparable industries;
 - the reasons for this state of the sector including demographics (e.g. farming systems, herd size and breed composition), the industry's history and evolution, structure, conduct, contractual arrangements and precedents², IP ownership, investment, supporting regulations or other factors; and
 - feasible and pragmatic recommendations to sustain optimal genetic gain in the NZ dairy sector (including a path to implementation).

- A further important approach to this undertaking should be the engagement of key stakeholders such that they are party to the process and its conclusions.
- NZAEL recognises its own role as an interested stakeholder, and the necessity of being committed to the IWG process and conclusions.
- The involvement of key stakeholders also includes the Ministry for Primary Industries (MPI).
- The IWG will engage with MPI in the course of the Review and any recommendations regarding changes to regulation (or other interventions of a similar nature) will be worked through with MPI to determine actions that may be possible and how timely and pragmatic they may be.

- The suggested scope, therefore, includes:
 - The deliverables as per above, i.e.
 - assessment of whether NZ's system for genetic gain is fit for purpose including how our rate of genetic gain in important production, functional, and environmental traits compare to those of other advanced dairy industries;
 - the nature and extent of any problem(s) to be resolved and identification of contributory causes; and
 - recommendations to resolve these and achieve optimal rates of genetic gain.

- Informed by:
 - DairyNZ/NZAEL mandates for the NBO and BW;
 - Agreements between NZAEL/DairyNZ and commercial participants (mainly LIC and CRV) regarding IP and data supply;
 - Existing regulations, and their adequacy (e.g., The Herd Testing Regulations: particularly the definition of Core Data therein);
 - Dairy database standards (including the Herd Testing Standards);
 - Commercial incentives and restraints, both current and potential, particularly in respect to Animal Evaluation and Animal Breeding;
 - The role of related parties (e.g., breed societies, genotyping service providers, Research providers);
 - Other contractual arrangements related to animal evaluation and animal breeding (and fulfilment of these obligations)
 - Relevant international examples; and

² Noting that some of the information is currently confidential and/or privileged. Protections will be put in place to protect the holder/s of these rights.

- Any other information the IWG considers relevant to the purpose and deliverables of this Review.

Process and Approach: How the Review will be undertaken.

The IWG are expected to undertake the process in a consultative and fact-based manner, drawing on the best expertise available to form objective conclusions.

Each of the major participants and stakeholders (see below) should be invited to contribute their perspective on the key issues in a manner that IWG determines best meets the objectives of the Review. The IWG will consider these perspectives, form hypotheses and evaluate the data objectively. The main stakeholders should be engaged in the evaluation process.

The IWG will form conclusions that follow from the analysis and provide a feasible pathway for achieving the objective (and thereby benefitting dairy farmers).

Stakeholders: Who will be involved in the Review.

The stakeholders in the Review include:

- MPI
- LIC
- Other AB Companies (Semex, Worldwide Sires, Samen/ABS, ST Genetics)
- Breed Societies (Holstein, Jerseys NZ)
- Dairy Women's Network
- NZIPIM
- DairyNZ and NZAEL
- CRV
- Other commercial providers in relevant genetics, information. or genotyping businesses.
- Federated Farmers
- DCANZ (and member companies)
- Farmers and Bull breeders

Milestones: When the Review Deliverables are Expected.

- IWG convened (September 2023)
- Briefing from NZAEL (November 2023)
- Briefing from Key Stakeholders (November – January 2023)
- Form and Test Initial Conclusions (December – February 2024).
- Stakeholder and MPI engagement (February – April 2024)
- Publish Recommendations, ideally with MPI endorsement (May 2024)

Resources: Funding and Expertise.

The review itself is to be conducted by the Industry Working Group comprising highly knowledgeable and respected individuals in their personal capacities, without conflicts vis-à-vis the sector participants:

- Colin Glass (chair)
- John Penno
- John Roche
- Nicola Shadbolt
- Steve Allen

The IWG will be supported by a secretariat and administrative resource.

The IWG will also be able to commission additional expert opinion as required.

DairyNZ undertakes to fund the IWG in its endeavours, according to these terms of reference, and without prejudice.