



National Breeding Objective Review 2025

Findings from industry consultation

Key points

- There is reasonably widespread support for separate indices for seasonal pasture-based systems and hotter regions. In contrast, there was also a strong message to ‘keep it simple’.
- There is not a strong demand for a Jersey-specific index
- Views about the value of a TMR-specific index are polarised with some TMR farmers indicating they would prefer to use overseas indices.

The initial industry consultation phase for the review of the National Breeding Objective (see box) involved:

- An online survey
- In-depth interviews with farmers
- Discussions with industry stakeholders.

The appendix provides more details of the methodology.

Key findings

This fact sheet summaries the collective findings from various consultation activities (see appendix). The statistics reported are from the online survey.

Use of Australian indices

Australian indices have been widely adopted by the industry. When selecting AI sires, 9 in 10 dairy farmer and HI respondents reported using either the BPI, HWI, ASI or other ABVs to inform their decision making.

The BPI was the most-commonly used and influenced bull selection for 8 in 10 farmer and 9 in 10 HI industry respondents. Smaller proportions used the HWI and SI and these indices were more likely to have a little rather than a lot of influence and were typically used in combination with the BPI.

The ASI or other ABVs were used by about 8 in 10 farmer and 9 in 10 HI industry respondents, but results suggest they were typically used in collaboration with other Australian indices to guide bull selection rather than in isolation.

The small group of respondents not using Australian indices reported a preference for overseas indices

National Breeding Objective review

The National Breeding Objective (NBO) describes an agreed group of desirable traits, providing breeding direction for both bull and cow breeding across the country. Australia’s NBO is aimed at increasing net farm profit. It is expressed through the three breeding indices – Balanced Performance Index (BPI), Health Weighted Index (HWI) and Sustainability Index (SI).

The NBO is reviewed every five years, to ensure it keeps pace with the evolving needs of dairy businesses, new knowledge and breeding technologies.

The purpose of the 2024/25NBO review is:

- To check that the National Breeding Objective as expressed through the BPI reflects farmer needs for breeding sustainable and profitable herds over the next 10 years.
- To develop indices based on strong scientific principles which are in line with farmer preferences and meet the agreed NBO.
- To inform the future direction of research priorities.

Review process

The NBO review is overseen by DataGene’s Genetic Evaluation Standing Committee who determine the key themes for the review. The process for the 2025 NBO review involves three main stages:

- Consultation – identify industry needs and discuss proposed options (May – August 24)
- Analysis and development of options (May – Jan 25)
- Implementation (build and test) – changes to the genetic evaluation system (July – Dec 25) for rollout with the December 2025 ABV release.

and/or belief data was not an indication of their herd quality.

Most respondents were satisfied that Australian indices are calculated on the traits they perceived to be important, and results suggest that incorporating feed conversion in the indices was viewed as beneficial. Only a small group of respondents believed that additional traits should be included in the indices or that weightings needed adjusting.

While a large proportion of HI industry respondents were concerned with inbreeding associated with AI, this perception was polarised among farmers.

Indices for specific systems

Seasonal pasture index: There appeared to be reasonably widespread demand for a seasonal pasture-based index, particularly among respondents feeding pasture and less than 1.5 tonne of grain.

Hot region Index: Views about the need for an index for hotter regions (northern Australia) index were polarised, with fewer than 4 in 10 farmer and HI respondents believing a specific index was required for northern Australia. However, a significantly greater proportion of Subtropical Dairy region respondents considered it a priority compared with all other regions.

Index for TMR herds: Respondents with TMR fed herds were polarised in their opinion regarding the necessity and potential use of a TMR specific Index. Among those likely to use the Index, there was recognition of the unique requirements of housed systems, particularly traits relating to the system's intensive nature such as mammary, fertility, health, high milk and component production and longevity. These traits were considered key to index's relevance and there was perceived benefit in having a TMR specific index for comparison with overseas equivalents. However, some TMR owners and managers indicated they would likely continue relying on overseas indices and AI companies due to perception they are more suitable than Australian indices for housed systems and have a larger, more reliable dataset and some expressed the view that a good cow would perform in any system, provided they are fed appropriately.

Jersey-specific index

Most respondents with mainly Jersey herds agreed mildly (not strongly) that the current Australian indices met their needs.

When in-depth interview respondents were asked whether a Jersey specific index was required, half felt it would be beneficial, but none viewed it a core requirement and all said they would use it in conjunction with the BPI and/or HWI. The consultation

with the breed society confirmed that no specific index is required for Jersey.

Trait preferences

When selecting AI sires, dairy farmers rated the emphasis placed on 11 out of the 16 traits. Mammary system, daughter fertility were the two highest priority traits for both farmers and HI industry respondents, followed by protein and overall type among dairy farmers and protein and fat among HI industry respondents.

Animal health, calf vitality, lameness and beef-on-dairy were perceived key issues that genetics could assist farmers within the future. However, seasonal and operating conditions may affect perceptions in the future.

Inbreeding

Many HI industry personnel were concerned about inbreeding in clients' herds. However, dairy farmer respondents were polarised and further research would be required to determine whether indices should include an inbreeding penalty.

Next steps

The findings from the consultation phase have informed the analysis and modelling process. The independent genetics consultancy, AbacusBio, has been briefed to undertake this analysis in conjunction with DataGene. An output of this process will be economic values for several indices. The results will be presented in an options paper early in 2025.

More information

[Fact Sheet: NBO review 2024/25](#)

[Discussion paper: NBO review 2024/25](#)

Contact us

DataGene

Ph 1800 841 848 E: enquiries@datagene.com.au

October 2024

Acknowledgement

DataGene is an initiative of Dairy Australia and the herd improvement industry. DairyBio provides the research pipeline to develop and maintain Australian Breeding Values.

Appendix: Methodology

Online survey

An online survey was one of the first steps in the consultation process for the 2024/25 review of the National Breeding Objective (NBO) – see box.

The survey was designed to gain insights into the views of farmers and herd improvement industry people around the following themes:

- Use of Australian indices and Australian Breeding Values
- Attitudes towards breeding indices for specific systems
- Meeting the needs of Jersey farmers
- Future animal-related issues
- Priority breeding traits
- Updating the base.

The survey, conducted by Down to Earth Research on behalf of DataGene, was open between late June and early July 2024. Complete responses were received from 217 dairy farmers and 38 industry people (255 in total).

Given the online format, there is likely some bias towards respondents with an interest in breeding and genetics.

In-depth interviews

Following on from the online survey two series of in-depth interviews were conducted with dairy farmers.

1. Ten in-depth interviews were conducted to gain further insights into some of the issues covered in the survey.

2. The online survey findings were inconclusive regarding the need for an index specific for intensive systems. To gain further insights, a series of 10 in depth interviews were undertaken with TMR farmers who had not previously completed the online survey.

Discussions with industry stakeholders

A series of discussion meetings were held with industry stakeholders. Although most were held online, some were face-to-face. They included a presentation of the findings from consultation activities to date with plenty of time for questions, discussion. All up, 28 sessions were held, attended by 138 people. Organisations involved included: bull companies, resellers, genomic service providers, farmers (with large herds or multiple herds) and researchers with an interest in herd improvement or genetics.