

REGULATORY IMPACT STATEMENT: TRANSFER OF THE DAIRY CORE DATABASE AND HERD IMPROVEMENT REGULATORY REVIEW

AGENCY DISCLOSURE STATEMENT

This Regulatory Impact Statement has been prepared by the Ministry for Primary Industries (MPI). It provides an analysis of whether Livestock Improvement Corporation (LIC), a commercial entity, should continue to be the custodian of the dairy core database and assesses alternative custodians, namely DairyNZ and the government. Other alternatives, such as OSPRI (a not-for-profit company that manages the National Animal Identification and Tracing), were not considered.

The analysis was prompted as a result of a review that was commissioned by DairyNZ in 2009 regarding the New Zealand dairy herd improvement database. The review was undertaken by the Anderson Committee, which proposed that the dairy core database should be transferred to an industry good body. The Committee's proposal has wide-spread industry support. LIC and DairyNZ entered into a formal agreement to transfer the dairy core database in 2013. DairyNZ has invested considerable funds to begin building an industry good database that will contain the dairy core database.

Government is not party to the industry agreements that have been negotiated (or other agreements that may be negotiated in the future). Such agreements can influence access and ownership of data, which affects how the industry functions and whether the New Zealand dairy industry is able to realise optimal genetic gain in the national dairy herd. MPI is satisfied that the risks related to commercial agreements can be managed, including by increasing the scope of existing regulation, if necessary.

A legislative framework exists to regulate the dairy core database and its holder. Non-regulatory options are not applicable. The legislative framework was assessed and consulted on in 2012.

Jarred Mair, Director Sector Policy, Ministry for Primary Industries

EXECUTIVE SUMMARY

There is overwhelming industry support to transfer the dairy core database from Livestock Improvement Corporation (LIC), a commercial entity, to DairyNZ, an industry good body.

The dairy core database is an important dairy industry asset that enables industry participants to identify productive animals that can be selectively bred to improve genetic gain. It provides benefits for individual farmers but also benefits the national dairy herd.

The dairy core database refers to 46 core data fields and is regulated by the Dairy Industry Restructuring Act 2001 (DIRA) and the Dairy Industry (Herd Testing and New Zealand Core Database) Regulations 2001 (Herd Testing Regulations).

The DIRA nominated LIC as the custodian of the dairy core database (the only herd tester in New Zealand at the time). Recognising the industry good characteristics of the core database, and recognising LIC is a dominant commercial entity, DIRA included a number of protections and requirements.

Despite these protections, it is no longer considered desirable for LIC to be the holder of the dairy core database. LIC could restrict competitors' access to the database and can drive decisions about the database to align with its own commercial decisions, rather than the industry's desired outcomes. LIC's competitors may be hesitant to access core data because it may reveal commercially sensitive information.

The industry has started the process to transfer the database to DairyNZ. To formalise the transfer:

- LIC needs the Minister for Primary Industries' consent to change its constitution so it is no longer the holder of the dairy core database (currently expected in September 2014);
- the Minister for Primary Industries needs to give written consent to this change and nominate a new holder; and
- the Herd Testing Regulations and the DIRA need to be amended.

LIC and DairyNZ reached a commercial agreement in 2013 setting out the terms and conditions of transferring the dairy core database. MPI considers that the transfer should have benefits to the industry and be an improvement on the status quo. The impending transfer already appears to be having a positive impact on behaviours in the industry.

There are a number of clauses in the agreement that concern MPI, for example, LIC's ability to withdraw from other specified clauses if certain conditions are not met. However, MPI is satisfied that these concerns can be addressed, including through further regulation, if needed.

In this regulatory impact analysis, MPI considered the costs and benefits of retaining the status quo and of transferring the core database to either DairyNZ or the government. On balance, officials recommend the transfer of the dairy core database to DairyNZ.

A transfer of the database will require some subsequent amendments to legislation and regulations to ensure the regulatory regime remains fit-for-purpose. The legislative amendments are minor, technical and non-controversial and could be changed through the 2015 Statutes Amendment Bill. Alternatively, the amendments could be made as part of changes to the DIRA that might result from the DIRA review commencing mid-2015.

STATUS QUO AND BACKGROUND

Background

1. A dairy industry database is fundamental to the ability of the dairy industry to optimise herd improvement. It enables industry to evaluate animals based on their reproductive worth, supports downstream services such as artificial breeding, and is used for industry good research. These downstream services are vital to the industry to maximise the genetic gain in the national dairy herd, and rely on a well-populated, quality-controlled database. In 2011/12, approximately 74 percent of New Zealand's dairy cows were the result of artificial breeding¹.
2. Herd testing is the analysis of milk production and composition from individual cows. Dairy farmers recognise the importance of herd testing and approximately 70 per cent of the national dairy herd underwent voluntary herd testing in 2011/12.² Industry studies show that the past decade has seen significant growth in milksolids per cow and that about two-thirds of the improvement in cow performance over this period can be attributed to genetic improvement³. Herd testing also enables the dairy industry to work together to remove or minimise any undesirable genetic traits, for example, small calf syndrome and infertility.
3. The dairy core database has distinctive industry good characteristics. Information provided to the database by individual dairy farmers enables all dairy farmers in New Zealand (not just those who provided the information) to improve the genetic makeup of their animals by using the information in the database to selectively breed more productive animals.
4. Moreover, an individual farmer improving the genetic makeup of his or her own animals has long-term spillover benefits for the national herd. The benefits of the data extend beyond any one user of the data. This is known as a positive externality, which tends to imply that, without some form of intervention (regulatory or otherwise), commercial drivers will be insufficient to ensure that the optimal amount of data is collected, maintained, and available for access by other users.

¹ DairyNZ (2012), *Summary of Dairy Statistics 2011-12*

² DairyNZ (2012), *Summary of Dairy Statistics 2011-12*

³ DairyNZ Economic Farm Surveys

Current regulatory regime applying to herd testing

5. Herd testing in New Zealand has been regulated since 1937 to ensure the data collected meets certain quality standards. Prior to 2001, Livestock Improvement Corporation (LIC) was a subsidiary of the New Zealand Dairy Board and the only licensed herd tester in New Zealand. The dairy industry was de-regulated in 2001. As a result the Dairy Board merged with two other dairy companies to form Fonterra and LIC was established as a co-operative and the custodian of the dairy core database.
6. The dairy core database contains 46 data fields and is regulated by the Dairy Industry Restructuring Act 2001 (DIRA) and its subsidiary regulations, the Dairy Industry (Herd Testing and New Zealand Dairy Core Database) Regulations 2001 (the Herd Testing Regulations). Throughout this document, the reference to either the “dairy core database” or “core data” refers to the regulated set of 46 fields.
7. Recognising the industry good characteristics of the dairy core database, and recognising that LIC is a commercial player in herd testing and artificial breeding, the DIRA included a number of protections and requirements. In particular, the DIRA and the Herd Testing Regulations require:
 - LIC to retain and operate the dairy core database⁴ (DIRA, section 47);
 - the dairy core database to revert to the Crown if LIC is wound up, until ongoing arrangements can be made for it to be taken over by a dairy industry body (DIRA, section 68);
 - an access regime centred around an independent Access Panel to ensure that LIC did not gain a commercial advantage over its competitors in the herd testing and artificial breeding markets by restricting access to the dairy core database (DIRA, section 63);
 - LIC, as the holder of the dairy core database, to seek Access Panel approval before sharing core data with third parties (regulation 24 of the Herd Testing Regulations); and
 - The Access Panel to grant access to the dairy core database where it is in the benefit of the New Zealand dairy industry. The panel may grant access where to do so is not harmful to the New Zealand dairy industry (DIRA, section 63).
8. When the DIRA came into force in 2001 these core data fields were considered key for animal evaluation. Animal evaluation has evolved considerably since then and now uses an additional 200 unregulated fields of data.

Industry proposal to transfer the dairy core database from LIC to DairyNZ

9. In 2009, DairyNZ commissioned the Anderson Committee to review the New Zealand dairy herd improvement database. The Committee recommended that the database should be transferred to a dairy industry good body with no

⁴ Unless a Ministerial consent is obtained to relieve LIC from this obligation.

commercial interests. It concluded that the benefits of transparent and independent oversight would outweigh the cost of transferring the database.

10. The proposal to transfer the dairy core database to an industry good body is widely supported by the industry.

Industry's progress in transferring the dairy core database

11. On 14 November 2012, 88 percent of LIC shareholders voted in favour of the resolution to:

- transfer a copy of the dairy core database from LIC to DairyNZ; and
- for LIC to enter into a formal agreement with DairyNZ based on a set of principles. One of the principles is for the agreement to be conditional on Ministerial approval to change LIC's constitution, which removes LIC's obligation to retain the dairy core database and releases LIC from its obligations under DIRA.

12. DairyNZ and LIC entered into a formal agreement to transfer the dairy core database in 2013. The agreement sets out the terms of the transfer. The key outcomes of the agreement will support the Government's policy objectives by:

- a. Ensuring DairyNZ has access to all information required for animal evaluation; and
- b. Supporting DairyNZ to operate the New Zealand animal evaluation system to reflect the industry's National Breeding Objective.

13. MPI had no direct involvement in the formal agreement but understand the key provision of the agreement are that:

- DairyNZ will establish and operate a Dairy Industry Good Database (DIGAD) to hold both core and unregulated, non-core data.
- LIC will provide non-core datasets for industry good research purposes until 2018;
- LIC will grant DairyNZ in perpetuity an irrevocable, non-exclusive and royalty-free licence of its animal evaluation intellectual property to enable DairyNZ to carry out animal evaluation for the New Zealand dairy industry;
- LIC will provide DairyNZ with the core and non-core data fields necessary to operate the New Zealand animal evaluation system;
- DairyNZ will operate and manage the New Zealand animal evaluation system to reflect the National Breeding Objective;
- DairyNZ will continue to have responsibility for determining the industry's National Breeding Objective and sire benchmarks and delivering sire benchmarks to the industry;
- DairyNZ will produce and distribute cow benchmarks on behalf of LIC to ensure that only one version of national animal evaluation benchmarks is produced;
- LIC will retain the exclusive right to provide Cow Breeding Worth to its clients and other parties on a fee paying basis; and

- DairyNZ will be unable to engage in any commercial trading relating to dairy genetics or herd improvement that is in breach of the Commodity Levies Act.
14. Companies involved in artificial breeding have agreed to provide the additional data required to run animal evaluation at no charge for the foreseeable future. This ensures the ongoing value and relevance of the wider database of information that will transfer to DairyNZ.
 15. Since the agreement, DairyNZ and LIC have been working together to design, build and test a Dairy Industry Good Animal Database (the DIGAD) that will be managed by DairyNZ. The DIGAD will house the regulated core data plus non-core data.
 16. It is expected that by September 2014 the DIGAD will be operational. It will receive all its data, including CRV Ambreed's data, via LIC until there are IT solutions that allow it to receive data directly from other providers, primarily the Breed Societies (in early 2015) and CRV Ambreed (by mid 2015). The DIGAD build process has already experienced delays due to unforeseen testing problems. Further delays are possible.

DIRA requirements for transferring ownership of the dairy core database

17. The DIRA anticipates a transfer of the dairy core database and includes regulation-making powers that can be applied to other holders of the database.
18. The Minister for Primary Industries' consent is required to amend LIC's constitution to enable the transfer. In addition, technical changes to the DIRA and the regulations will need to be progressed to enable DairyNZ to be the database holder, and subject to the requirements currently in place for LIC (as database holder). A number of restrictions on LIC will remain irrespective of the transfer.
19. Specifically LIC is required to:
 - provide nationwide herd testing service at uniform regional prices (Herd Testing Regulations regulation 9);
 - remain registered under Part 2 of the Co-operative Companies Act 1996, unless Ministerial consent is received to no longer do so (DIRA s52); and
 - restrict who may hold shares and impose maximum voting rights (DIRA s48-50).
20. The regulatory regime placed these restrictions on LIC since it was the only herd tester in New Zealand at the time. They were put in place to ensure that farmers would be the beneficiaries of LIC's dominant market position. They are not considered further here.

Problem definition

21. Administration of the dairy core database by LIC is undesirable. LIC's commercial interests, combined with being the largest contributor of information, is problematic because:
- a. LIC can potentially make access to the database difficult or expensive for its competitors;
 - b. Competitors may be hesitant to access data where this access may reveal commercially sensitive information to LIC. This is despite existing provisions designed to protect confidentiality; and
 - c. LIC can drive decisions about the future of the database that align with its own commercial decisions, rather than the industry's desired outcomes.
22. These issues, or even the perception that they could occur, can affect industry cohesion and may act as a barrier to realising optimal genetic gain in the national dairy herd.

POLICY OBJECTIVES

23. The overarching policy objective is to ensure that the New Zealand dairy industry is able to realise optimal genetic gain in the national dairy herd.
24. In evaluating which entity is best placed to administer the database, the policy options were assessed against the following objectives:
- The holder of the dairy core database is competent to populate and maintain the database for the overall benefit of the New Zealand dairy industry;
 - The dairy core database can be accessed at a fair price where it will be beneficial to the New Zealand dairy industry;
 - The holder will have the wide spread support of the industry; and
 - The holder is best placed to deliver to industry needs, including how the database is developed over time, and transparent and independent oversight; and
 - The holder will administer the database in a cost effective manner.

OPTIONS

25. A transfer of the database to the government or OSPRI has not been considered as part of this analysis. The Anderson Committee's recommendation was to transfer the dairy core database to an industry good body, namely DairyNZ. A significant amount of investment and consultation has been done on the basis that DairyNZ would become the new holder and this proposal has overwhelming support from the dairy industry. On this basis a decision was made not to evaluate alternative options.

REGULATORY IMPACT ANALYSIS

	Criteria 1: Competent	Criteria 2: Database accessed at a fair price	Criteria 3: Widespread support of the industry	Criteria 4: Best align with dairy industry needs	Criteria 5: Cost effective	Overall assessment
<i>Option 1: Status quo</i>	High	Low	Low	Low	High	<i>Not recommended</i>
<i>Option 2: Transfer database to DairyNZ</i>	Med	High	High	High	Med	<i>Recommended</i>

Option 1 – Status quo

26. Under this option the Minister does not consent to a transfer of the dairy core database to DairyNZ, and LIC continues to hold the dairy core database.

Benefits

27. LIC has been the holder of the dairy core database for over a decade. In that time it has built up significant capability in managing the database. It also has the resources and expertise to maintain the database, ensuring its on-going integrity.

28. The dairy industry has experienced productivity gains in the past decade while LIC has been the custodian of the database. Milksolids per cow grew significantly and about two-thirds of the improvement in cow productivity over this period can be attributed to genetic improvement⁵.

Costs/Risks

29. LIC may face commercial incentives that conflict with those of the wider industry. Retaining the management of the core database as a subset of LIC's private database activities may not advance the wider industry needs as affectively as if the database was managed by an industry good body.

30. The status quo may not maximise the potential gain in genetic improvement while companies remain hesitant to ask LIC for access to data for research if it may reveal commercial strategies.

31. The transfer has strong industry support and preparations for a transfer have been underway for several years. DairyNZ has incurred substantial costs by building the DIGAD in anticipation of the transfer. Government would risk losing industry confidence if it did not permit the transfer to proceed.

⁵ DairyNZ Economic Farm Surveys

32. The status quo provides LIC with a privileged position within the industry because as the holder of the core database it has access to data supplied by its competitors and the industry. LIC could make access to the database difficult or expensive for its competitors, which would not meet the policy objectives.

Option 2 – Minister consents to transferring the dairy core database

33. Under this option the Minister consents for LIC to change its constitution to no longer be the holder of the dairy core database and nominates DairyNZ to be the new holder.

Benefits

34. Due to the dairy core database's industry good characteristics and its wider spill-over benefits for the national dairy herd, management of the database naturally aligns with an industry good body such as DairyNZ. MPI agrees with the conclusion reached by the Anderson Committee that the benefits of transparent and independent oversight of the dairy core database would outweigh the costs of the transfer.

35. There is overwhelming support in the dairy industry to transfer the core database to DairyNZ.

36. It will enable the industry to have more influence in decisions regarding the development of the database to make sure its direction is in-line with the industry's desired outcomes, rather than the commercial outcomes of one company.

37. The impending transfer appears to already have positively influenced behaviours within the industry. For example,

- CRV Ambreed reached an agreement with LIC that significantly reduces the price it pays on behalf of its farmer clients for cow benchmark indices, or cow breeding worth (commercial: in confidence).
- CRV Ambreed and LIC are working through a solution to enable a more substantial exchange of data between the companies when a farmer chooses to switch between the two.
- LIC and CRV Ambreed have already agreed to supply DairyNZ with additional data beyond the 46 regulated core fields, after the transfer.

38. It is expected that the transfer will bring the following added benefits:

- better incentives for companies and organisations to provide data outside of the 46 core data fields because it will benefit the industry as a whole; and
- greater use of the database because companies will no longer have to apply to LIC to use data for research and risk revealing commercially sensitive information about their activities.

Costs/Risks

39. In the time that LIC held and managed the database, it has grown considerably beyond the core data fields and the industry now relies on this additional data for downstream services such as artificial breeding. Transferring a sub-set of the 'industry database' (i.e., the core data) could cause fragmented datasets across the industry. This risk is mitigated by the formal agreement between LIC and DairyNZ.
40. LIC has made parts of the agreement conditional on the removal of all restrictions on LIC in DIRA and the Herd Testing Regulations. Some of these restrictions do not relate to its role as custodian of the dairy core database. The government has agreed to consult on these restrictions in 2014. A consultation document is submitted along with the Cabinet Paper that accompanies this Regulatory Impact Analysis. If this risk eventuates, it could be addressed by amending the regulations, for example, by widening the range of data fields that herd testers must supply to the dairy core database.
41. The Herd Testing Regulations established an Access Panel, who oversee access to the core database. The Access Panel will transfer with the dairy core database to DairyNZ. There is a risk that Access Panel oversight could be bypassed given that DairyNZ and LIC will hold very similar sets of data for some time. There is a concern that LIC could grant access to the core data they hold that might be detrimental to the New Zealand dairy industry's interests, because they will no longer have Access Panel oversight.
42. While this concern is valid, MPI do not consider this to be a significant risk because:
- LIC have agreed with DairyNZ to not grant access to applicants that are turned away by the Access Panel;
 - As a commercial entity, LIC's incentive is to hold data tightly, only sharing where it is in its own interests, which, more often than not, will likely align with the objective of optimising genetic gain; and
 - New Zealand already advances the interests of other dairy industries through the export of bovine semen.
43. In addition, MPI consider that the cooperative structure is an important factor in aligning LIC's behaviour to act in the best interests of the New Zealand dairy industry, given that LIC is wholly owned by New Zealand dairy farmers.

RECOMMENDATION

- A. **Officials recommend transferring the dairy core database to DairyNZ.** Although the status quo has delivered substantial benefits, it is considered that the benefits of transparent and independent oversight would outweigh the costs of the transfer.

CONSULTATION

44. The merits of the proposed transfer have undergone significant consultation and have broad support from the dairy industry.
45. A transfer was recommended by the Anderson Committee in 2009, was consulted on by DairyNZ in 2010, by the Ministry for Primary Industries in 2011 and 2012, and by LIC with its farmer shareholders in 2012.
46. LIC shareholders approved the transfer of the dairy core database (88 percent supportive) at its Annual Meeting of Shareholders on 14 November 2012.
47. The Ministry for Primary Industries issued a discussion document covering the regulatory regime for the Dairy Core Database in December 2012.
48. 14 submissions were received with general agreement that continued regulation was important for ensuring that the database was populated, maintained and accessed for the industry good.

IMPLEMENTATION

49. Implementation of the recommended approach involves amending the Herd Testing Regulations so that they apply to a new holder of the dairy core database—DairyNZ. These amendments are anticipated by section 65A of the DIRA.
50. LIC will continue to be the holder of the dairy core database until it seeks the Minister's consent to change its constitution to allow it to transfer the dairy core database to DairyNZ (currently expected in September 2014). At this time, DairyNZ would be nominated to manage the dairy core database in accordance with section 65A.
51. Once the transfer has occurred, some minor legislative changes would be required to update references in the DIRA that specifically name LIC as the database holder. These changes would be non-controversial and technical and we propose making them through the Statutes Amendment Bill process in 2015. Alternatively, the changes to DIRA could be incorporated into the wider review of the DIRA, due to begin in mid-2015.

MONITORING, EVALUATION AND REVIEW

52. MPI administers and regularly reviews provisions in the DIRA.
53. MPI recommend that a review of DairyNZ's performance as the holder of the Dairy Core Database is carried out in three years. DairyNZ will also be held accountable by dairy farmers because the management of the dairy core database will be partly fund through the milk levy collected from dairy farmers.

54. MPI is not party to the agreement between LIC and DairyNZ, or that between LIC and CRV. As such, MPI does not have a role in monitoring the implementation of those agreements.
55. General competition provisions of the Commerce Act 1986 will continue to apply and provide an avenue to investigate any complaint of anti-competitive practices.
56. MPI will be undertaking related work on the restrictions on LIC that remain in place irrespective of the transfer, and the state of competition in the herd testing and related markets. This work is currently underway, and it is anticipated that any legislative and regulatory changes required would be incorporated into the wider review of the DIRA, due to begin in mid-2015.