# Welcome to **Herd Testing**

2025-2026

LIC®

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# Welcome to Herd Testing
2025-2026

**Richard Spelman,**
Chief Scientist

After 34 years at LIC I still marvel at the impact that herd testing has on decision making on New Zealand dairy farms. Coming from a background of sheep and beef farming, it's impressive to see how the production data that herd testing generates enables farmers to make more informed breeding, culling and dry-off decisions.

The focus on every cow's performance has never been more important than it is now. Productivity, efficiency and profitability of the herd is still top priority and will help the sector to meet current and future environmental goals. The ability to use herd test samples for milk pregnancy testing and animal health testing such as Johne's disease, Bovine Viral Diarrhoea (BVD) and mastitis adds immense value.

Detailed production and health traits recorded through herd testing and the MINDA® herd management platform feed directly into the national animal evaluation system. This system underpins sire selection and cow mating programmes, allowing for the identification of genetically superior animals. The accuracy and robustness of these evaluations are directly tied to the depth and quality of herd testing data.

Furthermore, integrating herd testing data with genomic information enhances our ability to pinpoint genetic variations and understand how this influences milk production and disease traits - essential for the development of tools that are accelerating the pace of genetic progress. Our Herd Improvement Technical Manager Rachel Bloxham shares some great insight into this on page 6.

Our Research and Development team use herd testing data to create tools that support animal disease and health studies, for example identifying mastitis trends from Somatic Cell Count (SCC) readings. This season we are excited to release our new Mastitis Multiplex PCR test which provides a more accurate and affordable solution to identify mastitis in your herd through herd test milk samples. You can read more about the benefits of this test on page 16.

Herd testing is far more than a farm management tool; it is a linchpin of dairy science in New Zealand. As the dairy sector continues to adapt to challenges such as climate change and shifting consumer expectations, the role of robust, research-oriented herd testing will only become more vital.

I wish you all the best for the upcoming season.

# Key updates

## Notify us of any milking regime and herd changes

Please ensure all herd test details on the date confirmation letter included with this booklet are correct and up to date.

**If we aren't notified of herd or regime changes, you may require an extra delivery of equipment, which incurs an additional charge of $195+GST.**

Two weeks prior to each herd test, we'll send an email reminder. Please check the test details and confirm they are correct. If we don't hear from you within three days, our team will arrange a follow up call to confirm the test details with you.

You can notify us of any changes by emailing **herdtesting@lic.co.nz** or calling our **Herd Test Team** on **0800 837 843.**

## Variable milking - flexibility around milking times

If your herd is moving to a variable milking schedule (such as 3-in-2 or 10-in-7), please let us know in advance. We'll work with you to support your new routine, but we may need your help to ensure milking times fit within our setup and delivery windows.

**Setup and pickup windows:**

- **AM Testing:** Samples and equipment must be ready for pickup by **12pm.**
- **PM Testing:** LIC setup must be completed by **2pm.**

Late changes or required rescheduling may result in additional fees.

## Closure of Herd Test Report in Shareholder Services

From 31 May next year, several reports will no longer be available via LIC's print and postage or viewed in Shareholder Services, this includes the Herd Test report. This information is still available to you through a number of MINDA® herd management reports anytime you need.

You will still continue to receive your Lab Strip via Shareholder Services.

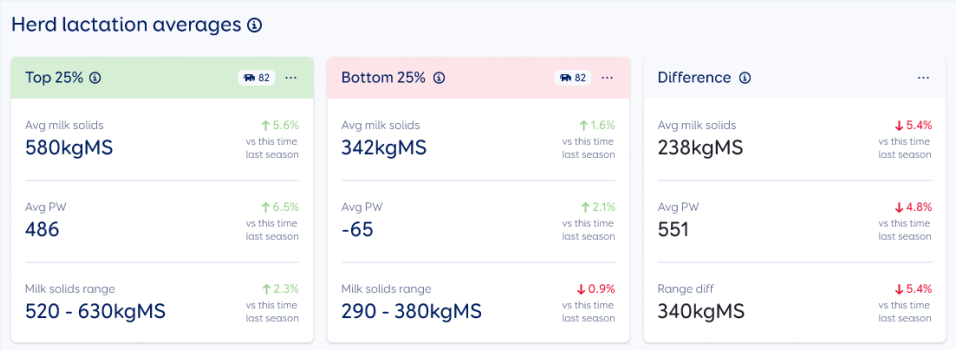
Contact your Agri Manager for more information or reach out to our helpful **Customer Experience Centre** for assistance **0800 264 632.**

## Herd Test information in MINDA

Last year we surveyed over 300 farmers to understand what information was important for decision making when it came to herd test data. From that collaboration, we have designed some new ways for you to view key pieces of information you get from your herd tests within MINDA, with the aim to help you get to key insights faster.

We're starting with herd lactation averages, with a focus on milk solids, broken down by top and bottom quartiles. This new insight will make it easier to see how the animals in your herd stack up against each other and you'll be able to spot the variation between your top and bottom performers, helping with your decision making for breeding. This will be the first insight available in late September, with more to follow.

When you can easily see key insights, you can make smarter, more confident decisions for your herd – and that's the power of good data in your hands.




*This is a prototype and subject to change.*


# The critical role of herd testing in genomic evaluations and dairy herd improvement

Herd testing is a cornerstone of dairy herd improvement, providing you with the data you need to enhance productivity, profitability, and sustainability. In the era of genomic evaluations, its importance has only grown, serving as the foundation for accurate genetic selection and effective herd management.

## Accelerating genetic progress and productivity

At its core, herd testing provides reliable phenotypic (observable traits) data. By regular testing throughout the season, you can monitor individual cow performance including milk volume, fat and protein content, and somatic cell counts.

This data feeds into key economic indexes - Breeding Worth (BW), Production Worth (PW) and Lactation Worth (LW), enabling more informed decisions regarding breeding, culling, and herd management.

Understanding individual cow performance allows you to make strategic decisions, such as culling low producers or selecting top performers for breeding. This targeted approach can lead to significant increases in milksolids production and overall farm profitability

For example, the average production difference between the top 25% and bottom 25% of 2-8-year-old cows in MINDA herds across New Zealand is 156 kgMS*. Without herd testing, identifying the lowest performers becomes nearly impossible.

### Not all cows are created equal

| Ranked by KgMS | Avg KgMS | Avg gBW | Avg PW | Avg DIM | Avg lwgt gBV | KgMS per Kg lwgt |
|---|---|---|---|---|---|---|
| Q1 | **522** | **321** | 467 | 258 | 15 | 1.05 |
| Q2 | 467 | 283 | 336 | 253 | 13 | 0.94 |
| Q3 | 427 | 258 | 247 | 249 | 11 | 0.86 |
| Q4 | **366** | **223** | 119 | 241 | 10 | 0.74 |
| Average | 446 | 271 | 292 | 250 | 12.1 | 0.90 |

**156 KgMS** difference between top and bottom quartile average
**98 gBW** difference between top and bottom quartile average

** Source: MINDA recorded herds, 2024/25 season, 2-8-year-olds, at least 150 cow herd size, minimum 200 days in milk. Quartiles are calculated within herd and year born before being re combined to display full herd figures by quartile (each quartile therefore contains animals of each herd and age).*

Additionally, many herds contain mature cows (4-8-year-olds) producing less than the average 2-year-old, highlighting the need for regular performance tracking.

## Driving genetic improvement through data

Even in the age of genomics, herd testing remains essential. Genomic evaluations depend on linking an animal's DNA to actual performance traits, and herd testing provides the observable data needed to make these connections for production traits.

*Without consistent and accurate herd testing, genomic predictions would lack the data needed to validate and improve them.*

## Productivity is more than just genetics

Beyond genetics, herd testing also captures valuable information about non-genetic factors that influence an animal's performance. Imagine a cow's milk production is like a cake. The genetics are the recipe — they tell you what the cow could do. But the environment is everything else: the oven, the ingredients, the kitchen conditions.

But not all environmental effects are the same — some last a lifetime, like the impact of heterosis due to the fact an animal is a crossbred (permanent environmental effects), others change from one day or season to the next, like weather and feed quality (temporary environmental effects). These will affect a cow's productivity but are not passed onto her progeny.

This broader performance picture is reflected in two key indexes:

**Production Worth (PW):** Represents an animal's lifetime productivity, accounting for both genetic and permanent environmental effects.

**Lactation Worth (LW):** Reflects current-season performance, helping identify cows that are thriving under current farm conditions and accounts for genetics, permanent and temporary environmental effects.

Together, these insights help you to identify how well animals are performing on your farm, under your management system. Enabling you to make more informed decisions around which cows to keep, cull, sell or buy.

***Herd testing is far more than a routine task, it's a strategic tool that underpins the success of genomic evaluations and dairy herd improvement.***

**Rachel Bloxham,**
Herd Improvement
Technical Manager

# Herd Testing Standards update

Alongside DairyNZ and CRV, LIC has recently completed a comprehensive review of the Herd Testing Standard. As a result, several updates have been made which will be phased in over a three-year transition period.

The first change that has been implemented is an increase in the calving threshold percentage from 75% to 85%.

This change is aimed at improving the accuracy and quality of production data used in animal evaluation. It aligns with other initiatives within the dairy sector to accelerate genetic progress, enhance profitability, and drive better environmental outcomes.

To prevent delays in receiving your results, we encourage you to ensure that your calving data records are up to date before the first herd test of the season.

Old requirement

**75%**

New requirement

**85%**

At least 85% of lactating cows must have their calving recorded in MINDA

# Understanding herd testing data and accuracy

To the right is a list of topics our Customer Experience Centre and Herd Testing Team frequently receive questions about. To revisit the information we've previously shared and access it directly on our website, please scan the QR code.

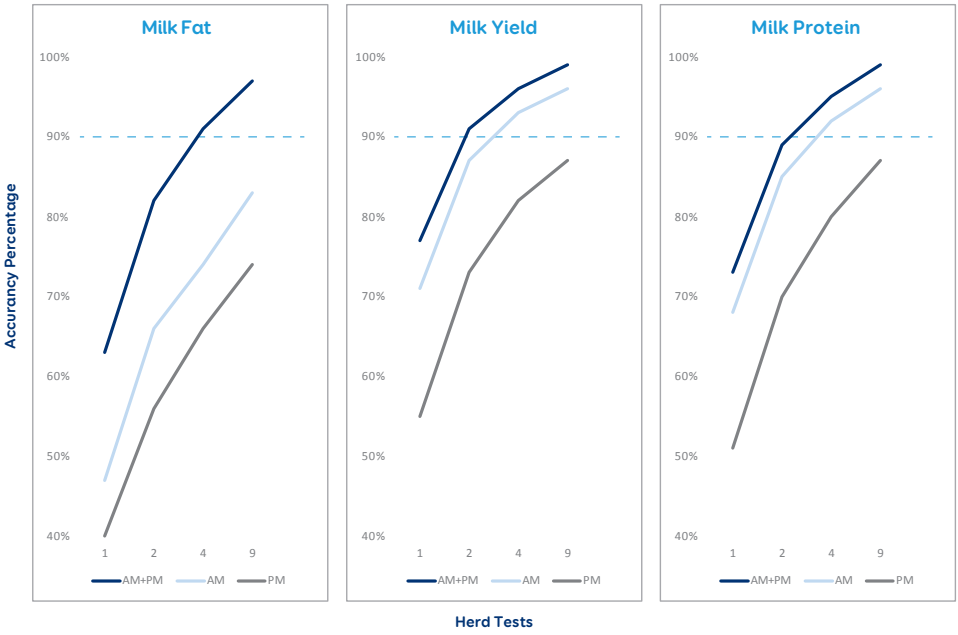
- Derived data
- Accumulated lactation and days in milk (DIM)
- Abnormal codes and assessed results
- Minimum sample limits

## Accuracy differences between classic and single sample herd tests

Over the last two decades herd sizes have increased, and the range of herd management practices have broadened. More recently, variable milking regimes have been on the rise which is providing greater flexibility and work/life balance. Alongside this, we have also seen an increased uptake of single sample herd testing (PM or AM only).

Whilst a single sample may be tempting for convenience on farm, data proves that twice-a-day milking regime with conventional "Classic" herd testing (PM/AM sampling) provides the most accurate information.

The graph below illustrates the impact herd testing sample regime has on the prediction of total yield (by product; Milk Fat, Milk Yield, Milk Protein). Showing accuracy for one, two, four and nine herd tests throughout a season, compared by one sample (AM or PM), or two sample PM and AM on a twice-a-day milking regime.




*Source: AbacusBio (2012) Herd testing regime. Report prepared for DairyNZ*

## Summary of results:

- Twice-a-day milking regime with conventional "Classic" herd testing (PM/AM, dark blue line) provides the most accurate data for predicting total yield, for all components, Milk Fat, Milk Yield and Milk Protein. In other words, this is the Gold Standard.
- Completing more herd tests increases the accuracy of prediction, with four herd tests per year needed to predict total yield for all components of more than 90%.
- If single sampling, a herd test collected in the morning (AM, light blue line) has consistently higher accuracy for all components than single sample collected in the afternoon (PM, grey line).
- Single sample herd test predicts Milk Fat with far less accuracy than Milk Yield or Milk Protein.

## Brush up on your herd testing skills

Whether you're new to herd testing or have years of experience under your belt, our interactive learning modules provide a clear, step-by-step guide for completing a herd test, with or without an EZ Link® device.

Seasonal updates are regularly added, so we recommend that you and your team complete the modules at least once a year to stay up to date.

## Plus, be in the draw to win a $50 Prezzy card!

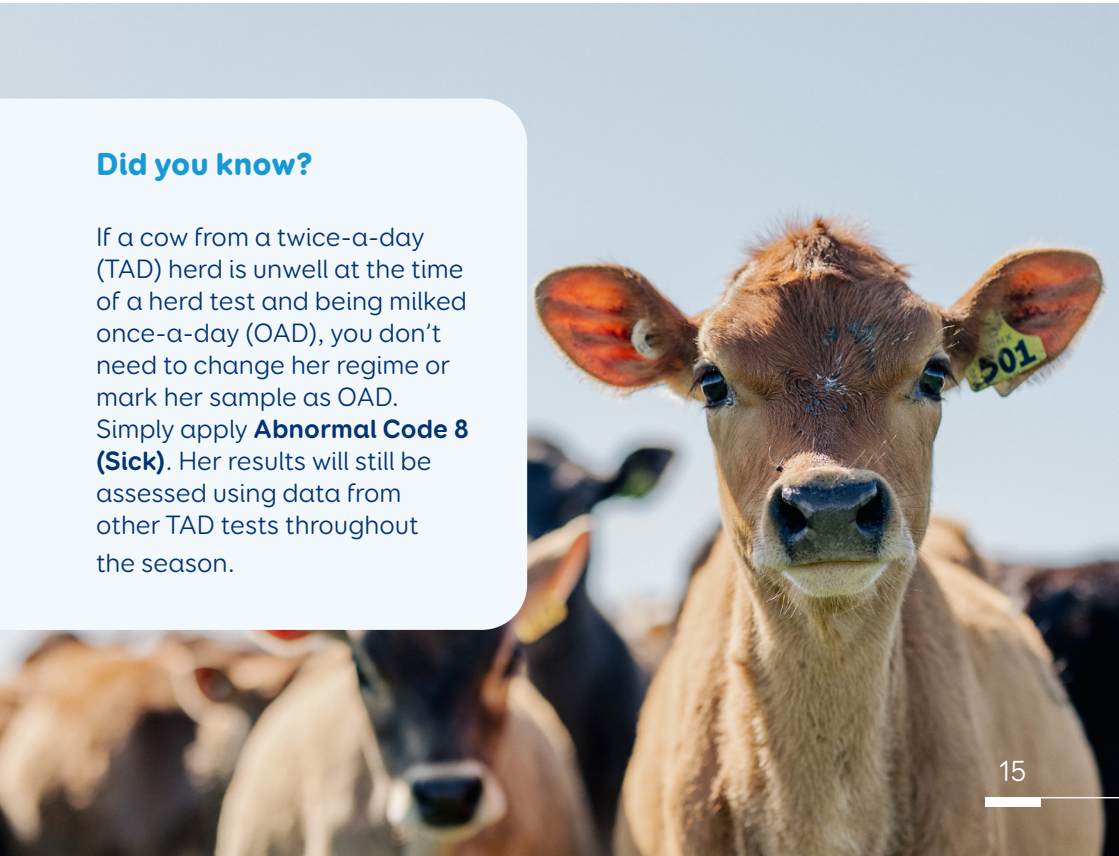
Complete any herd testing training module on the LIC website before **30th September 2025** and go in the draw to **win a $50 Prezzy Gift Card**.

Simply scan the QR code below to get started.

Terms and conditions available on the LIC website.

## Did you know?

If a cow from a twice-a-day (TAD) herd is unwell at the time of a herd test and being milked once-a-day (OAD), you don't need to change her regime or mark her sample as OAD. Simply apply **Abnormal Code 8 (Sick)**. Her results will still be assessed using data from other TAD tests throughout the season.



# Herd improvement only exists with a healthy herd

**Katherine McNamara,**
Product Manager, Animal Health

At the heart of any herd improvement story lies a critical factor: herd health.

Healthy cows are productive cows, free from disease and stress, they are not only able to produce larger quantities of higher-quality milk, but also maintain optimal fertility, and are able to reach their genetic potential within the herd.

LIC offers a number of animal health tests using herd test milk samples. This is an easy and convenient way to manage and monitor your herds health at the same time as assessing their performance.

Key diseases such as BVD and Johne's disease, as well as bacteria associated with mastitis, can be detected in herd test milk, helping you to make more informed decisions about your animals.

We have seen a significant increase in farmers using their herd test milk samples for animal health testing services, with LIC's animal health laboratory processing close to 2 million samples last season.

## What can you get from a drop of milk?

Herd test milk samples provide a non-invasive and convenient way to obtain more insights about your cows.

lic.co.nz/dropofmilk

**Milk pregnancy testing:** Detects pregnancy 28 days after mating.

**Johne's disease testing:** Identifies high risk cows so you can make informed management decisions to minimise the spread of Johne's disease.

**BVD testing:** Identifies persistently infected (PI) animals to help control the spread of BVD in your herd.

**Mastitis Multiplex PCR testing:** Identifies, *Staph. aureus, Strep. uberis & Strep. dysgalactaie*, including strains resistant to penicillin based antibiotics.

**A2/A2 testing:** Identifies A2/A2 cows using herd test samples.


250/96

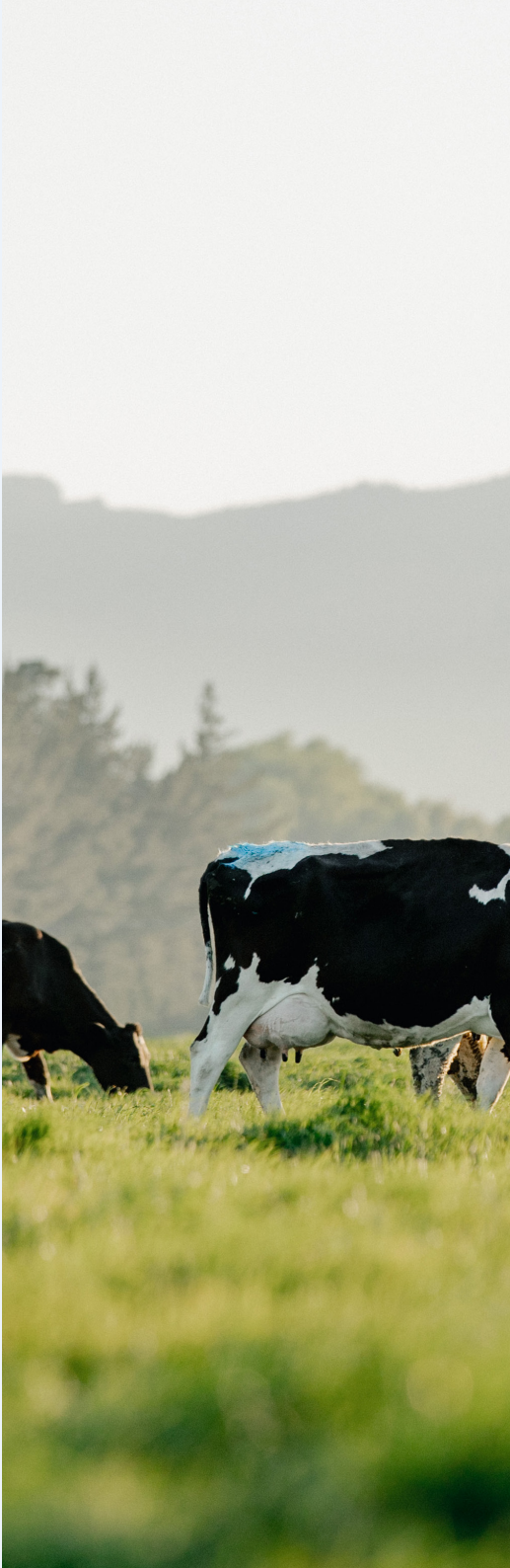
# New Mastitis Multiplex PCR test - more information, more accuracy, less cost

Detecting mastitis in your herd is more accurate than ever before with LIC's new Mastitis Multiplex test. By utilising DNA detection technology, this test uses herd test milk samples to detect three of the most common mastitis causing bacteria; *Staphylococcus aureus, Streptococcus uberis*, and *Streptococcus dysgalactiae*, and can also identify the bacteria resistant to penicillin antibiotics, helping you to make more informed decisions for treatment.

You can select a nominated list of animals to test based on your herd test SCC information or any other criteria that you desire. A minimum of 24 samples is required.

Samples for this test can be processed through our lab from 1st August 2025, and bookings must be made via your vet.

For more information on the new Mastitis Multiplex test, visit our website or contact the
**Animal Health Team**
0800 436 362
testyourcows@lic.co.nz



## Bovine Tuberculosis testing impact on Johne's disease ELISA

UK research shows that testing for Bovine Tuberculosis (TB) before a Johne's disease (JD) ELISA test may increase the number of uninfected animals being given a suspect result. The risk for false positive or false high positive results may also be increased.

LIC have therefore adopted the UK recommendations for timing of the JD ELISA test post tuberculin exposure and advise to leave the following gaps between the TB test date and JD ELISA:

- 43 days before milk JD ELISA
- 71 days before blood JD ELISA

Where possible, TB testing should be done after JD ELISA to avoid any possible issues.

If you have any questions, please call our **Animal Health Team** on **0800 436 362**.

Contact our Herd Test team on:
**0800 837 843 | herdtesting@lic.co.nz**

**lic.co.nz**