DATA FUELS
GENETIC IMPROVEMENT

Sending Data Through the National Cooperator Database Benefits All Dairies

Brent Wickstrom believes in the power of plentiful, clean data to improve herd heath and efficiency on his California dairies.

"Every day we're trying to be more efficient, whether it's milk per cow or pounds of milk per pound of intake. The National Cooperator Database is full of knowledge and that data can be put to our use – just more tools in our belt to work toward a more efficient herd and a more efficient industry."

Efficiency drives decisions

Brent Wickstrom believes in the power of good data – a mindset he brought back to the family farm after college. Through participation in the North American Intercollegiate Dairy Challenge, he learned the value of benchmarking for herd progress and the role good data plays in the process.

The foundation of benchmarking starts with accurate data collection. For Brent, this includes monthly milk testing through DHI – measuring yield, fat, protein, and somatic cell count. The milk data is sent to a Dairy Records Processing Center for data analysis and movement into the National Cooperator Database. Animals under Brent's care are also genomic tested for informed breeding and management decisions. Health events are recorded in on-farm management software and also shared with the national database.

On a monthly basis, Brent sits down to review his "report card" to check in on individual cows and overall herd performance. These types of insights are also leveraged by consultants, veterinarians, and nutritionists to evaluate the three dairy farms compared to other similar Jersey dairies in the Hilmar area. This level of whole herd benchmarking is done twice a year and results in better management and measurable change. Brent points to improvements in fertility as just one example.

"I used benchmarking with repro. We had some overcrowding and I saw our rates were slipping compared to the other dairies. So I implemented a new protocol," said Brent.

Being able to take his decision making from a performance level to a genetic prediction level through genomic testing brings additional value to Brent's farms. The largest benefit is streamlining data review through genetic index tools for animal ranking. Given the large herd size at each farm, along with the amount of data available for each animal, having predictions about an animal's overall potential value is a significant time saver.

Brent Wickstrom, California
Family operates 3 dairies

Wickstrom Jersey Farms, Inc., Hilmar, CA
- 2,500 milking Jerseys

Red Top Jerseys, Chowchilla, CA
- 6,500 milking Jerseys

Pinnacle Dairy LP, Turlock, CA
- 1,200 milking Jerseys

Participation in the integrated system
- Milk testing monthly through DHI
- Milk and health records processed through a Dairy Records Processing Center
- All dairies on REAP with American Jersey Cattle Association, which includes registration, performance testing, classification twice a year, and JerseyMate™
- Genomic testing
  - Wickstrom Jersey Farms genotypes all female calves at 4 months
  - Red Top Jerseys and Pinnacle Dairy test the top 25% of heifers (based on parent average)

Hear More from Brent

"I know it's clean data. It comes from us, goes through DHI, goes through a Dairy Records Processing Center, and then to the national database. As much data in there as possible is good for all producers. We know it goes into the database right, and we can utilize it on our herd to be more efficient, improve production and health traits, improve everything we can."

Identification is a top priority at Wickstrom Jersey Farms. The average U.S. dairy farm has about 18% of its herd misidentified.

Not all data created equal

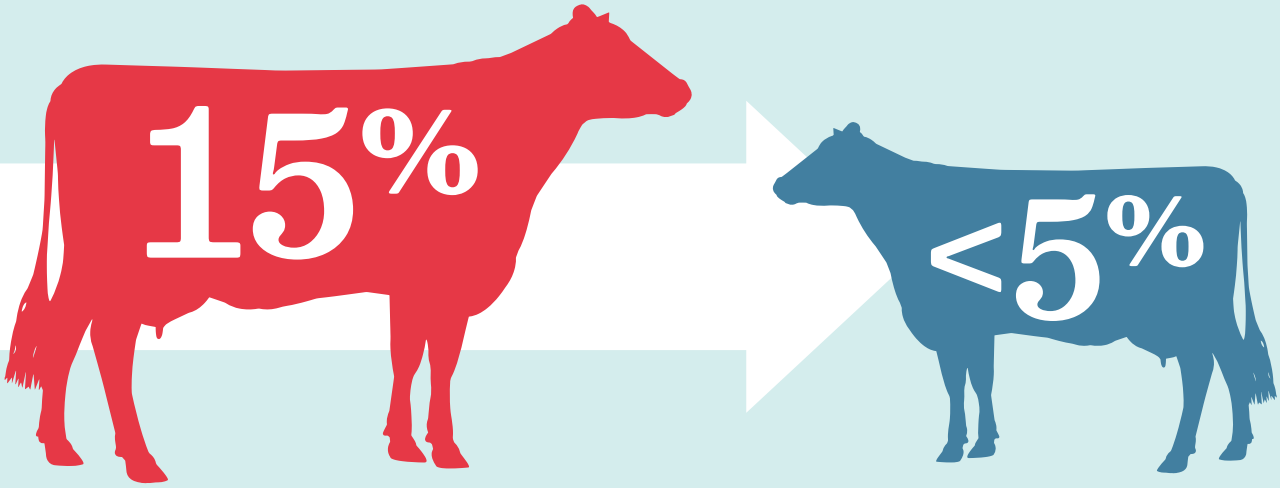
It's hard to argue with the fact that dairying requires a lot of hard work. Adding more to an already heavy load is daunting, so it's gratifying when extra effort pays off.

"About 15% of our animals were misidentified. On an average dairy, about 18% misidentified is normal," he said.[1] "Genomic testing every animal on the farm was challenging but it was worth it. Now we're at less than 5%, and that only happens because Jersey calves are so quick to pop up and get moving after birth."

There are strong protocols in place to ensure that the maternity pen is covered 24 hours a day, new calves are tagged at birth, and their birth and parentage is recorded in on-farm software immediately. Genomic testing is then used to confirm that the correct data has been entered for each calf, or if a surprise is discovered, the parentage of the calf is corrected. This ensures observed genetic variations, health issues, or positive traits are assigned to the correct animal, parents, and families so the right decisions can be made moving forward. Brent knows that many dairy records are rejected from the National Cooperator Database for use in genetic evaluations because of animal identification errors, and he strives to minimize that number on his dairies. Meeting data quality thresholds, and sharing information with the National Cooperator Database, allows Brent to qualify for genomic fee credits from CDCB.

Improvements in Animal Identification at Wickstrom Jersey Farms

Identification errors cause dairy records to lose value. Cleaning up IDs pays off when the correct parentage can be assigned to calves and genetic eveluations run through the system without failure.



1 https://mycentralstar.com/centralstar-and-zoetis-partner-to-provide-genomic-testing/#:~:text=At%20the%20onset%2C%20genomic%20testing,18%20percent%20of%20the%20time.

"Health traits have helped Jerseys a lot. We've always touted the Jersey as a healthier cow, easier to work with, a cow with fewer problems, but there's always room for improvement. We were actually a pilot herd that put in many of the original health records for genomics and we get to use that now as we select bulls and females for our programs, seeing how much difference there is from the various health traits. There's always the next step to be more efficient, to do something different."

A pioneer of genomic health trait testing

The Wickstrom family's dairies were part of the original group that submitted health records to the national database to create six Jersey disease-resistant genetic traits. Holstein traits launched in 2018, but sufficient Jersey data didn't exist to determine the same traits in the Jersey breed. The Wickstrom family decided to contribute to this effort by submitting health data on every cow in her second lactation and later. Through support from the American Jersey Cattle Association and data contributions from other Jersey herds, success was achieved when disease-resistant health traits were launched for Jerseys in 2020.

Having a healthier herd has many benefits. Beyond the number of cows in the hospital pen and the amount of milk lost, there is also less labor needed to treat cows, lower drug costs, and fewer veterinary visits.

FOCUS ON HEALTH TRAITS PAYS OFF

An increase in health data recording on dairy farms since 2018 prompted a trait model adjustment in the April 2024 genetic evaluation for six health conditions. As producers incorporated disease resistance into their breeding decisions, the upswing in Predicted Transmitting Ability (PTAs) is clear. Improving herd health provides benefits such as reduced treatment costs and vet visits, improved longevity, and increased milk production and quality.

August 2025 PTAs reported. Additional genetic trends for health traits can be found in WebConnect: https://webconnect.uscdcb.com/#/summary-stats/genetic-trend

Brent notes their breeding strategy remains the same as it has always been with production and fertility primarily driving decisions. Looking at health traits and factoring the presented information into mating decisions has been a value-added benefit of submitting data to the National Cooperator Database. While it has taken patience, now that he is a couple generations out from being able to evaluate health data, Brent sees reduced health events overall in the herd and a lower occupancy rate in the hospital pen.

Looking forward

Brent isn't the type to let grass grow under his feet. At a time when transition management is a frequent topic across the industry, Wickstrom Jersey Farms stands out for its owner's energy, fresh ideas, and visionary leadership. He's pushing hard to get the most performance from his cows, and that means demanding everything he can possibly pull from his data.

Thanks to collaboration, that is happening here. Producer-owned and controlled data flows through multiple data-collecting organizations into the National Cooperator Database and comes back to the producer in a more valuable format. The Wickstrom family uses their processed DHIA test day data, genomic test results, and CDCB genetic evaluations to drive decisions that help their businesses thrive.

The Collaboration that Drives Data into the National Database

Genetic improvement is driven by the partnership of U.S. dairy producers and 60-plus organizations that collect and transmit certified animal data into the National Cooperator Database.

This database – with millions of cow records – is the engine that powers genetic improvement. Stewarded by the Council on Dairy Cattle Breeding (CDCB), the national database delivers male and female genetic evaluations, independent research to support new traits, national benchmarking, and accurate animal data to milk and breed better cows.

Owners and managers at 10,000 herds of all types and sizes across the U.S. contribute performance (phenotypic) and genotypic data on individual animals into this database. Millions of individual animal records – from milk components and fertility to conformation scores and health events – are transmitted and aggregated in the national database each year.

Like an engine, all parts of the system are essential.

- U.S. dairy producers
- Dairy records providers
- Dairy records processing centers
- Breed associations
- National Association of Animal Breeders
- Genomic nominators and genotyping labs

When farms provide animal data into the system, they fuel genetic improvement for generations to come.

As an independent, dairy-and data-driven organization, CDCB exists to provide information to the United States dairy industry. Brent Wickstrom trusts CDCB as a neutral third party organization to take "everything from everywhere, put it together, then give us the data we need to use every day on our operations." Dairy producer identities are not associated with their herd data. Signing up to contribute to the National Cooperator Database is straightforward and benefits the entire dairy industry.

DATA FUELS GENETIC IMPROVEMENT

It all starts at the farm.

LEARN MORE about how herd data fuels genetic evaluations.