

October 2024-September 2025

ACTIVITY REPORT



CDCB[®]

COUNCIL ON DAIRY CATTLE BREEDING

FOUR FARMERS. ONE MESSAGE.

Genetic improvement has been driven by the century-long partnership of U.S. dairy farmers and the many organizations that collect and transmit quality farm data into the National Cooperator Database. This database is the engine that powers genetic improvement. Its output: U.S. dairy genetic evaluations and management tools that are the global standard - data-driven, future-focused, reliable, and unbiased. *See page 11 for more details.*

DATA FUELS

GENETIC IMPROVEMENT



"My data is most valuable when it's aggregated with millions of other records and thousands of other herds. By sharing into the national database, I help secure that future by having phenotypic data with the genotypes. The phenotypes that are collected on-farm are absolutely necessary for reliable information."

Greg Andersen, Idaho

"Because our herd and others share data into the national database, the genetic evaluations in the U.S. really are the most trusted, accurate, and consistent genetic evaluations in the world."

Joe Engel, Illinois

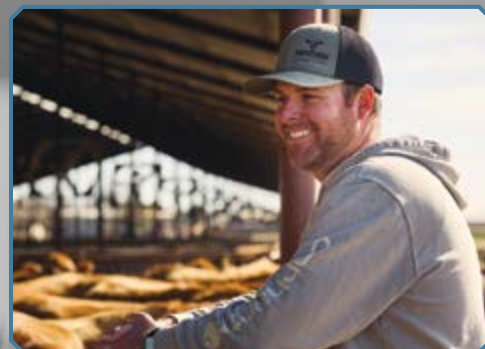


"Every dairy farm should contribute into the national cooperator database, because that information is economically useful for them. From a reliability of the sire side, but also on the female side, to make better decisions on a daily basis on what heifers you want to raise, which ones you don't, which are going to be most efficient and valuable to you down the road."

Bill Peck, New York

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

Brent Wickstrom, California



Watch videos from these dairy farmers and learn more about data fueling genetic improvement by scanning this QR code. Educational and outreach materials about how data flows to the National Cooperator Database are also available for CDCB's collaborating organizations.

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ABOUT CDCB

The Council on Dairy Cattle Breeding (CDCB) provides premier dairy genetic information services through industry collaboration to help optimize cow health and productivity in herds worldwide. This non-profit organization is responsible for calculating and distributing genetic evaluations and genomic predictions, stewarding the National Cooperator Database, and analyzing and distributing dairy cattle data in the U.S. CDCB drives continuous animal improvement and maintains the integrity of the world's largest animal database, building on a quality foundation of more than eight decades of recorded U.S. dairy animal performance. CDCB is a collaboration between four sectors of the U.S. dairy industry: dairy records providers (DRPs), dairy records processing centers (DRPCs), the National Association of Animal Breeders (NAAB), and the Purebred Dairy Cattle Association (PDCA).

MISSION

To drive global dairy cattle improvement by using a collaborative database to deliver state-of-the-art genetic merit and performance assessments for herd decision making.

VISION

To be the leading source of genetic information for dairy improvement.

Looking for top male or female lists?
National performance metrics?
Summary statistics?
Find all this and more on

WEBCONNECT

Available at webconnect.uscdcb.com

CEO COLUMN

by João Dürr



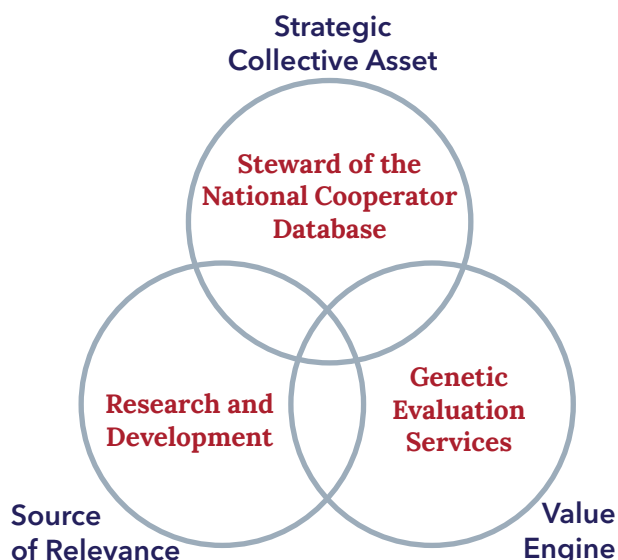
I have been writing this column since the 2014-2015 Activity Report, so I decided to read all my past texts before writing this one. It is amazing to realize how much progress CDCB has made in these 11 years. It feels good to see that we delivered on most of the plans I wrote about.

Two common themes were present in all reports: CDCB embraces change and, as a result, we are always better off now than we were at the previous year. As an enterprise responsible for providing the dairy industry with the necessary tools to ensure genetic improvement of dairy animals, CDCB also lives by the principle that progress needs to be cumulative, with every new phase benefiting from what was built before. In order to achieve that in an organization, however, it is not enough to know WHAT needs to be done and be very good at it.

The driving force behind consistent growth is knowing WHO we are and WHY we exist.

CDCB aims to be the leading source of genetic information for dairy improvement, and the figure here shows the three strategic pillars that define our institutional identity: as steward of the National Cooperator Database. CDCB exists to ensure

CDCB Strategic Pillars



continuous aggregation of quality data that is properly integrated in order to enable cutting-edge research and development (R&D) and deliver a state-of-the-art genetic evaluation service portfolio to dairy herds and stakeholders. While the national database is the most valuable collective asset, R&D functions as the source of relevance, and genetic evaluations are the value engine that sustains the entire system.

Who we are is also defined by our corporate values and the nature of the organization. In CDCB's case, it translates into a cooperative, science-based culture built on collaboration, transparency, and the pursuit of innovation for the collective good of the dairy sector.

The CDCB team continues to grow into new areas that complement our mix of talents to ensure we can accomplish our mission and fulfill the expectations of an increasing number of collaborators and service users. This drives a steady expansion of investments in research and development, infrastructure, system efficiencies, communication, and quality of services, year after year, as evidenced by this year's Activity Report. The multi-sector composition of CDCB's board allows coordination of efforts across the dairy industry towards the ultimate common goal — empowering dairy farmers in their mandate to feed the world. This integrated effort has driven the Data Fuels Genetic Improvement producer awareness campaign, which stresses the vital contribution of data provider herds for the relevance of the National Cooperator Database in maintaining the competitive leadership of American genetics and the U.S. dairy business as a whole.

Besides celebrating our achievements in the past 12 months, this Activity Report highlights many important projects that will be coming to fruition in 2026, so both producers and stakeholders can continue to count on CDCB as a trusted partner and strategic ally.

Thank you all for being part of our story!

BY THE NUMBERS

October 2024 - September 2025

30 PAPERS
PUBLISHED
in 11 academic journals

30 INVITED
TALKS
around the globe

20 DAIRY
EVENTS
attended across the world

11 POPULAR
PRESS ARTICLES
in 5 industry publications



3,091
followers



374
subscribers



247
followers

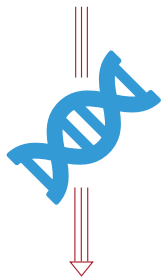


1

2,460 CDCB
Connection recipients

1.6 MILLION

genotypes added to the National
Cooperator Database in 2024



11.4 MILLION

genotypes currently in the
National Cooperator Database

Remember!

You can generate
summary statistic
reports, national
metric rankings,
top animal lists,
and more from
this data with
WebConnect.



These
genotypes
are...



10%
JERSEY
88%
HOLSTEIN



7%
MALE



93%
FEMALE



FROM
76
DIFFERENT
COUNTRIES

10.7 MILLION USABLE GENOTYPES IN THE AUGUST 2025 EVALUATIONS

Ayrshire 20,584

Brown Swiss 90,892

Guernsey 11,511

Holstein 9,250,379

Jersey 937,805

Crossbred 384,180

RECORDS USED IN THE
AUGUST 2025 EVALUATIONS



129.2
MILLION
COW
LIVABILITY

110.4
MILLION
LACTATION

101.7
MILLION
FERTILITY

73.8
MILLION
SOMATIC
CELL SCORE

40.6
MILLION
CALVING
EASE

13.6
MILLION
HEALTH

3.6
MILLION
TYPE
(NON-HO)

11.6
THOUSAND
RESIDUAL
FEED INTAKE

BOARD CHAIR REPORT

by Jay Weiker



The past year has brought both challenges and opportunities for the Council on Dairy Cattle Breeding (CDCB). As the dairy industry adapts to evolving market conditions, CDCB is also advancing to meet today's needs while positioning for long-term success. This report highlights several key areas of focus for CDCB staff and the Board of Directors.

Shifts in reproductive management and fertility evaluation

Few could have anticipated the dramatic rise in the value of dairy-beef crossbred calves. While this trend has been widely analyzed in terms of dairy profitability and consumer beef prices, its impact on CDCB's data flow and genetic evaluations is less frequently discussed.

The elevated use of beef semen, along with greater adoption of sexed semen and reduced reliance on conventional semen, has significantly altered reproductive management on dairy farms. These shifts reduce the volume of conventional breeding data available for fertility evaluations. In response, CDCB has initiated a comprehensive review of fertility evaluation models, with the goal of developing more robust methods that reflect and adapt to these modern reproductive practices (page 15).

Strengthening phenotypic data for genomic evaluations

Phenotypic data remains the cornerstone of accurate and reliable genomic evaluations. Recognizing this, CDCB launched two initiatives in 2024:

- » Data Providers Incentives Task Force — formed to review and strengthen incentives for dairy producers who contribute data to the National Cooperator Database.
- » Strategic Data Flow Work Session — a one-day session with board and management focused on anticipating future data needs and integrating new data streams, particularly as electronic and digital (non-traditional) data become more reliable and widely available.

The insights from these efforts will guide how CDCB maintains and expands the flow of high-quality data to support future evaluations.

Genetic evaluations and economic indices

The introduction of Milking Speed in August 2025 (page 14) was a major achievement, marking the first objective, data-based measure of this trait. With future additional data from robotic milking systems, this evaluation is expected to expand further in scope and precision.

At the same time, the Net Merit index (NM\$) continues to evolve alongside the economics of dairy production. CDCB actively collects and considers industry feedback to ensure the index remains relevant, scientifically sound, and useful for producer decision-making (page 16).

Advancing internal governance and organizational strength

The newly established Governance Committee plays an important role in ensuring CDCB maintains the highest standards of transparency, accountability, and alignment with its mission. Strong governance is central to CDCB's ability to maintain credibility and deliver value to the industry in an environment of rapid change.

Transitioning to a single-step genomic evaluation model

CDCB has devoted significant time and resources to developing a single-step evaluation model for the U.S. This transition will achieve faster processing, greater reliability, and the potential for more frequent evaluations — strengthening both the accuracy and timeliness of genetic information for dairy producers (page 15).

On behalf of CDCB, I extend my sincere gratitude to dairy producers whose data contributions make our work possible. I also thank my fellow board members, CDCB staff, committee members, and industry partners for their collaboration and commitment. It is through this collective effort that CDCB continues to deliver sound, science-based evaluations that advance dairy cattle genetic improvement.

The Board of Directors governs the direction and continuous improvement of CDCB and its services. It consists of members from each collaborating sector.

BOARD OF DIRECTORS



Standing, left to right: Jay Mattison, Neal Smith, Jonathan Lamb, Steven Smith, Jay Weiker, Paul Hunt, Robert Fourdraine, CDCB CEO João Dürr. Seated: Sophie Eaglen, Susan Lee, Dan Sheldon, Tony Allen, Lindsey Worden.

National Association of Animal Breeders (NAAB)

- » Jay Weiker, Chair, NAAB
- » Paul Hunt, URUS Group LP
- » Sophie Eaglen, NAAB

Purebred Dairy Cattle Association (PDCA)

- » Lindsey Worden, Vice Chair, Holstein Assoc. USA
- » Neal Smith, American Jersey Cattle Assoc.
- » Jonathan Lamb, Oakfield Corners Dairy

Dairy Records Providers (DRPs)

- » Dan Sheldon, Secretary, Woody Hill Farm
- » Susan Lee, Idaho DHIA
- » Jay Mattison, National DHIA

Dairy Records Processing Centers (DRPCs)

- » Tony Allen, Treasurer, AgriTech Analytics
- » Robert Fourdraine, Dairy Records Management Systems
- » Steven Smith, Amelcor

ADMINISTRATION AND STRATEGY

These CDCB staff members work closely with the Board to execute planned priorities.



Rob Cooper
Chief Administration Officer



Kat Buchholz
Strategic Marketing Manager

THANK YOU!

Katie Olson, Ph.D., of ABS Global completed her second three-year term on the Board. Thank you, Katie, for your service to the dairy industry!

In April, **Sophie Eaglen** of NAAB joined the Board and new officers, listed above, were elected to two-year terms.

CDCB appreciates each of these Board members for dedicating their time, energy, and expertise to advancing dairy cattle and dairy farms worldwide.

COMMITTEES

CDCB enjoys collaborating with numerous individuals who help improve genetic evaluation services.

PRODUCER ADVISORY COMMITTEE

The Producer Advisory Committee (PAC) offers CDCB crucial boots-on-the-ground perspective as updates are made to CDCB services. In the last year, the group has discussed topics including herd health data flow, merit index revision, genetic conditions, reproductive metrics, and more.

Members are appointed each spring by the CDCB Board of Directors. Dairy farmers interested in serving on the PAC should contact a Board member.

Several producers completed PAC terms this year: Spencer Hackett (Rice, Minn.), Tom Kestell (Waldo, Wis.), David Lawrence (Muleshoe, Texas), Mary “Sam” Smith (Monkton, Md.), and Guy Vogel (Reedsville, Wis.). Thank you for your commitment!

Thank you to our 2025-26 PAC members!



Current PAC members are, in back from left to right, Matt Hendel (Caledonia, Minn.), Eric Grotegut (Newton, Wis.), Greg Andersen (American Falls, Idaho), and Brian Houin (Plymouth, Ind.); in front, Dave Harvatine (King Ferry, N.Y.), Betsy Bullard, Turner, Maine), and Kent Buttars (Lewiston, Utah). Not pictured are Mack Drees (Peshtigo, Wis.) and Glenn Kline (Troy, Pa.).



DAIRY SHRINE PIONEERS

Dr. George Wiggans and Dr. Paul VanRaden are being honored this year with the National Dairy Shrine Pioneer Award.

This duo developed and implemented much of the U.S. genetic evaluation system, transforming data processing and genetic modeling for selection traits that have boosted genetic progress in the genomic age. Their research has enabled decades of dairy farmers to make more informed decisions to improve their herds.

CDCB was honored to submit their application as we have worked closely with both men since taking over the publication of genetic evaluations in 2013. Dr. Wiggans remains on staff as a technical advisor. Congratulations on this outstanding recognition!

DAIRY EVALUATION REVIEW TEAM (DERT)

This group provides independent, objective, and confidential review of the triannual genetic evaluations prior to publication to improve evaluation day data release.

- | | |
|--|---|
| » Sam Comstock,
Holstein Association USA | » Mehdi Sargolzaei,
Select Sires, Inc. |
| » Jason Graham,
Holstein Association USA | » Ryan Starkenburg,
ABS Global |
| » John Metzger,
American Jersey
Cattle Association | » Bob Welper,
PEAK Genetics |

GENETIC EVALUATION METHODS (GEM)

This group provides independent, objective, and impartial advice and strategic guidance to CDCB and USDA AGIL staff throughout the development of dairy genetic evaluations.

- | | |
|--|---|
| » Christian Maltecca, Chair,
North Carolina State Univ. | » Francisco Peñagaricano,
Univ. of Wisconsin-Madison |
| » Jason Graham,
Holstein Association USA | » Ryan Starkenburg,
ABS Global |
| » Daniela Lourenço,
Univ. of Georgia | » Robert Tempelman,
Michigan State Univ. |

THANK YOU!

Upon their respective 2025 retirements, Dr. Paul VanRaden and Dr. Tom Lawlor completed their time on CDCB committees. Both generously offered their expertise to improving CDCB services for more than a decade. Thank you, Paul and Tom!

More than 60 organizations work together to move data from farms to the National Cooperator Database for genetic evaluations and genetic research.

DATA PROVIDERS



Dairy Records Providers

- » AgSource Cooperative Services
- » Arizona DHIA
- » Capstone Dairy Data Services
- » Central Counties DHIA
- » CentralStar Cooperative
- » Common Ground DHIA
- » Dairy One Cooperative
- » DHI Cooperative
- » Eastern Wisconsin DHIC
- » Fresno DHIA
- » Idaho DHIA
- » Indiana State Dairy Association
- » Integrated Milk Testing Services
- » Kings County DHIA
- » Lancaster DHIA
- » Minnesota DHIA
- » Rocky Mountain DHIA
- » Southern Counties DHIA
- » Texas DHIA
- » Tulare DHIA
- » United Federation of DHIA's
- » Washington State DHIA
- » Willamette DHIA



Dairy Records Processing Centers

- » AgriTech Analytics
- » AgSource Cooperative Services
- » Amelcor
- » Dairy Records Management Systems



Purebred Dairy Cattle Association

- » American Guernsey Association
- » American Jersey Cattle Association
- » American Milking Shorthorn Society
- » Brown Swiss Cattle Breeders' Association
- » Holstein Association USA
- » Red and White Dairy Cattle Association
- » U.S. Ayrshire Breeders Association



Certified Genomic Nominators

- » ABS Global
- » American Jersey Cattle Association
- » AWE Group
- » Bio-Genesys
- » Beijing Compass Agricultural Technology
- » CRV USA
- » Czech Moravian Breeders' Corporation
- » Eurofins BioDiagnostics
- » Eurofins Genomics
- » Feanix Biotechnologies
- » Genetic Visions-ST
- » Holstein Association USA
- » Holstein Canada
- » Labogena DNA
- » MolBreeding Biotechnology
- » National Association of Animal Breeders
- » Neogen GeneSeek
- » PEAK Genetics
- » SEENERGI
- » Select Sires
- » Semex Alliance
- » Sexing Technologies
- » SYNERGY
- » Zoetis



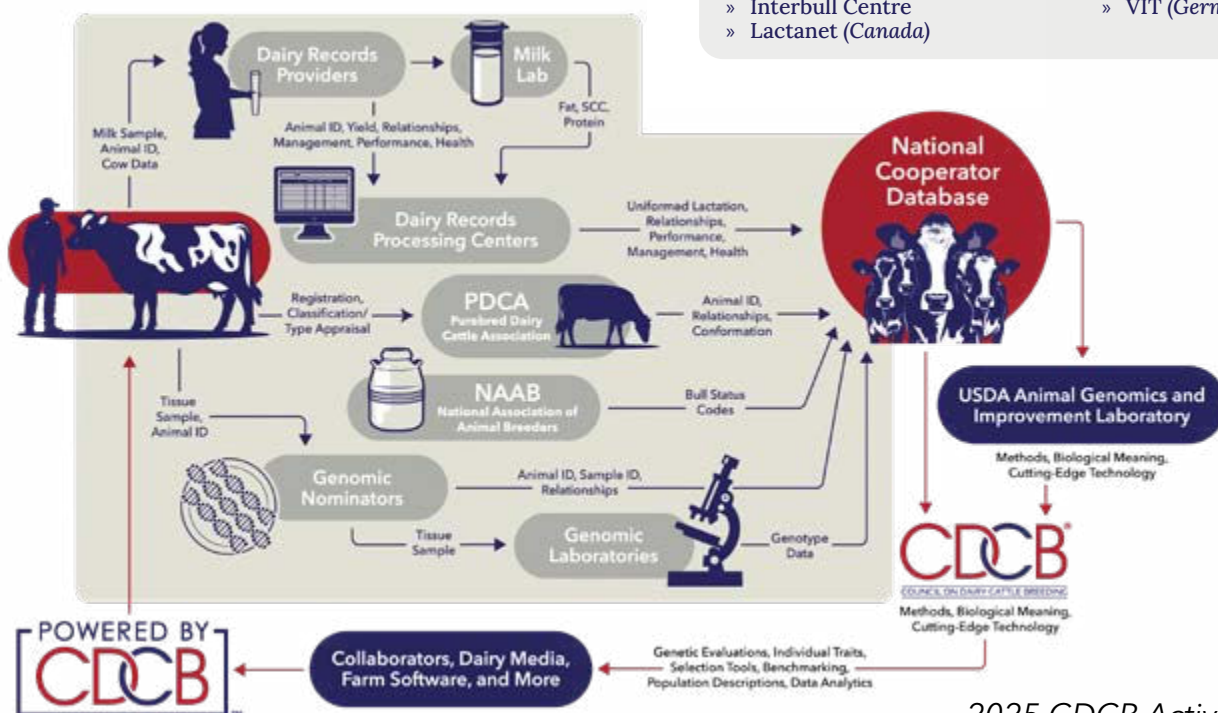
Certified Genotyping Laboratories

- » Beijing Compass Agricultural Technology
- » Bio-Genesys
- » Czech Moravian Breeders' Corporation
- » Eurofins BioDiagnostics
- » Eurofins Genomics
- » Feanix Biotechnologies
- » Genetic Visions-ST
- » IFN Schönow
- » Labogena DNA
- » Neogen GeneSeek
- » SEENERGI
- » Zoetis



International Collaborators

- » Agriculture and Horticulture Development Board (U.K.)
- » ANAFI (Italy)
- » BSW Intergenomics
- » CONAFE (Spain)
- » CRV B.V. (Netherlands)
- » Eleveo ASBL (Belgium)
- » Interbull Centre
- » Lactanet (Canada)
- » National Livestock Breeding Center (Japan)
- » Nordic Cattle Genetic Evaluation (Denmark, Finland, Sweden)
- » Qualitas (Switzerland)
- » SYNERGY (Italy)
- » VIT (Germany)



OUTREACH AND COMMUNICATIONS

PRODUCER EXCHANGE TOOK CDCB TO RENO, NEV.

Applying genetic tools on the farm was the focus of CDCB's Producer Exchange "Genetics for Progressive Dairies," which took place on March 31, 2025, in Reno, Nev., just prior to the Western Dairy Management Conference. Approximately 80 dairy farmers and industry representatives attended.

The event kicked off with analysis of the changes made in the April triannual evaluation, including a base change and a revision to the lifetime merit indexes. Attendees also learned about the research being done to bring new Milking Speed (see page 14) and calf health traits (see page 18) to the market. Plus, the event shared details on cutting-edge work on evaluating milk samples for more characteristics that could help farmers better manage their cows (see page 19).

The afternoon also included insight from four dairy producers around how genetic strategies improve their farm's profitability and accurate genetic evaluations contribute to those goals. "Genetics serves a lot of things when it comes to profitability," summarized panelist Dan Siemers of Newton, Wis.



NATIONAL COOPERATOR DATABASE WORKSHOP WELCOMED COLLABORATORS

The second biennial National Cooperator Database Workshop was held August 26 to 28, 2025, in Milwaukee, Wis., with 106 attendees from over 30 collaborating organizations. CDCB's 2024-2026 Strategic Plan was largely built around feedback received at the 2023 edition of this meeting, and staff were able to share those updates and more.

The event consisted of small group discussions and open dialogue among all attendees. The group learned about and posed questions around how new technologies might help more efficiently move and store data, the implementation of single-step genomic evaluations (ssGBLUP), selection tools relevant on today's dairies, and explaining the value of the National Cooperator Database.

Meet the team!



Katie Schmitt
Industry Relations Manager



Katelyn Allen
Communications Specialist

2024 INDUSTRY MEETING ATTRACTED OVER 400

CDCB's 10th annual Industry Meeting was held on October 2, 2024, during World Dairy Expo in Madison, Wis., with 155 people attending in person and more than 250 joining the livestream.

The event focused on the integrated value of the U.S. genetic evaluation system and how all collaborators contribute to the strength of the National Cooperator Database, which returns insights and tools for dairy farmers. During the meeting, the "Powered by CDCB" logo was introduced as a new way for genetic evaluations to be clearly marketed as products of this independent system.

In addition, attendees heard updates about ongoing research projects and other CDCB initiatives to bring new traits and tools to the industry. In a panel discussion, three dairy producers described how they use cow data to make management decisions.



SHOWCASING THE IMPORTANCE OF THE NATIONAL COOPERATOR DATABASE

Dairy producers strive to improve their herds every day, and genetics can serve as a key component of that growth. For a century, U.S. dairy's genetic improvement has been made possible by the partnership of dairy farmers and the many organizations that collect and transmit quality farm data into the National Cooperator Database – the engine that powers genetic evaluations.

These genetic evaluations are the global standard because they are data-driven, future-focused, reliable, and independent. When dairy farmers have access to these selection tools, they are in the driver's seat to make better decisions for their herds. Contributing data into the National Cooperator Database fuels genetic improvement for generations through these evaluations.



An education campaign was launched in 2025 to highlight this system and how “Data Fuels Genetic Improvement.” Materials are available for dairy producers, CDCB collaborators, and the industry to learn about the integrated system and share its value. Scan the QR code on the inside cover of this report to visit uscdcb.com/data-fuels-genetics/ and find:

- » **Videos** from producers who use the integrated system to make farm decisions every day
- » Dairy media **articles** explaining the integrated system
- » **Frequently Asked Questions** about the integrated system and National Cooperator Database
- » **Talking points** about the integrated system for collaborators and field staff to use in on-farm conversations
- » A **handout** to address producer questions about the integrated system such as “Where is my data used?” and “How do I know if my data is going into the database?”

Watch for additional materials in the coming months. We invite all organizations that interact with the National Cooperator Database to share the story of how we can continue to strengthen it!



CDCB is proud to sponsor the J. L. Lush Award in Animal Breeding presented by the American Dairy Science Association. João Dürr congratulated this year's winner, the University of Georgia's Daniela Lourenço, at the ADSA Annual Meeting in Louisville, Ky., in June.

OUT ON THE ROAD

Have you seen a CDCB team member at an event this year? Maybe even heard them give a presentation?

You're not alone! CDCB staff attended over 20 industry events in the last year. Some highlights included the American Dairy Science Association (ADSA) and Interbull joint Annual Meeting, all six national breed conventions, the World Brown Swiss Congress, and annual meetings of many of our trusted partners.

Through these events and additional invited presentations, CDCB staff gave approximately 30 talks over the last year, advancing the future of the dairy genetic evaluations and the National Cooperator Database.

READ ALL ABOUT IT

Published papers and popular press articles remain an important way for the CDCB team and its collaborators to share research and its application with the dairy industry and producers. Since last fall, CDCB staff have:

- » Published 30 scientific articles in 11 different journals
- » Written 11 popular press articles for five dairy industry publications

YEAR IN REVIEW

OCTOBER

- » Over 150 in-person and 250 virtual attendees joined CDCB's 10th annual Industry Meeting, "The Integrated Value of the U.S. Genetic Evaluation System," at World Dairy Expo on October 2. (page 10)
- » Monthly evaluation updated the algorithm to determine if animals carrying the haplotype for Cholesterol Deficiency (HCD) or Early Onset Muscle Weakness (HMW) also have the corresponding mutation.



NOVEMBER

- » Nathan Blair joined CDCB as Principal Engineer.

DECEMBER



- » More than 87.1 million animals received an updated genetic evaluation.
 - Brown Swiss Rear Teat Placement was integrated into the international evaluation process.
 - NM\$ trends for all breeds began excluding animals with missing breed codes for sire and crossbreds.
 - The Residual Feed Intake calculation was updated.
- » The "Powered by CDCB" logo first appeared on triannual evaluations.
- » The National Cooperator Database recorded its 10 millionth genotype on December 14. (page 17)
- » The Board of Directors approved implementing a base change and revising the lifetime merit indexes in April 2025 plus support for ongoing research and operations development.
- » The Producer Advisory Committee joined the Board in Savannah, Ga., and discussed research, inbreeding, and the NM\$ revision.
- » Clarissa Boschiero joined CDCB as Bioinformatics Scientist.

JANUARY

- » Simone Savoia joined CDCB as Geneticist.

FEBRUARY

- » Kat Buchholz joined CDCB as Strategic Marketing Manager.



MARCH

- » During the CDCB Producer Exchange in Reno, Nev., on March 31, 80 attendees heard dairy farmers and researchers discuss "Genetics for Progressive Dairies." (page 10)
- » Katelyn Allen joined CDCB as Communications Specialist.

October 2024 to September 2025

APRIL

- » More than 88.4 million animals received an updated genetic evaluation.
 - The four lifetime net merit indexes were revised for the first time since 2021. (page 16)
 - A base change was implemented for most traits. (page 14)
 - The Breed Base Representation reference population was updated.
 - Type trait reliability calculations in non-Holsteins were normalized.
- » The Board of Directors met in Denver, Colo. Data flow was approved to support upcoming trait needs, new officers were elected, and nine dairy farmers were appointed to the Producer Advisory Committee. (pages 7-8)

JULY

- » CDCB's Dr. John Cole received the Innovation in Animal Breeding and Genetics Award from the American Society of Animal Sciences.
- » Jay Megonigal, Service Software Manager, celebrated 10 years with CDCB.
- » Kaori Tokuhisa, Genomic Data Analyst, celebrated 10 years with CDCB.
- » Jesse Malloy joined CDCB as IT Support Engineer.



SEPTEMBER

- » “Introducing the Next Genetic Tools” was announced as the theme for the 11th annual Industry Meeting on October 1.

MAY

- » Dr. George Wiggans and Dr. Paul VanRaden were announced as 2025 National Dairy Shrine Pioneers. (page 8)
- » CDCB certified its first sequencing-based laboratory for data submission. (page 17)

JUNE

- » The National Cooperator Database recorded its 11 millionth genotype on June 7. (page 17)
- » Three new interns arrived to kick off the ninth year of the CDCB intern program. (page 21)
- » Hannah Templeton joined CDCB as Data Support Specialist.
- » Tasmia Haider joined CDCB as Manager of Software Quality Assurance.
- » Michael Sullivan joined CDCB as Principal Engineer.

AUGUST

- » Nearly 90 million animals received an updated genetic evaluation.
 - Milking Speed (MSPD) was introduced. (page 14)
 - The base change was implemented for SCE, DCE, SSB, and DSB. (page 14)
 - Gestation Length was integrated into the international evaluation process.
- » The Foundation for Food & Agriculture Research awarded CDCB and its research partners a \$2 million grant to continue and expand work on hoof health. (page 18)
- » The Producer Advisory Committee met in Bowie, Md., to hear about research updates and discuss future trait needs.
- » More than 100 staff members from 30 collaborating organizations attended the National Cooperator Database Workshop in Milwaukee, Wis., August 26 to 28. (page 10)
- » Fiona Guinan joined CDCB as Livestock Data Analytics Expert.

OPERATIONS AND I.T.

GENETIC BASE CHANGE ILLUSTRATED PROGRESS

Every five years, the genetic base of the U.S. dairy population is set to zero. Moving back the starting line from which we measure Predicted Transmitting Abilities (PTAs) allows new evaluations to easily be compared with previous evaluations as the industry makes genetic progress. This base change was implemented in the April 2025 triannual evaluation for all traits except Sire Calving Ease, Daughter Calving Ease, Sire Stillbirth, and Daughter Stillbirth, which received their base change in August.

Value of genetic change between cows born in 2020 and 2015						
Trait	Ayrshire	Brown Swiss	Guernsey	Holstein	Jersey	Milking Shorthorn
Milk (lbs.)	142	381	68	752	355	6
Fat (lbs.)	3	9	0	44	16	-7
Protein (lbs.)	5	14	2	29	14	-3
Productive Life (mos.)	0.08	0.9	0.72	2.31	1.61	0.37

This year's base change values were calculated by subtracting the average PTA of cows born in 2015 from the average PTA of cows born in 2020. For most traits, a change greater than 0 means genetic progress was made in the last five years. The changes for a few traits are seen in the table. All 2025 base change values can be found online at uscdcb.com/basechange.

The four calving traits underwent their base change in August instead of April because they performed unexpectedly in the lead-up to the April run.

All four traits are calculated for Holsteins, with Sire Calving Ease and Daughter Calving Ease also calculated for Brown Swiss. These traits differ from most others because they are categorical, not continuous, so they are evaluated with sire/maternal grandsire threshold models. The PTAs are also expressed as probabilities, considering both a genetic and a phenotypic base.

MILKING SPEED (MSPD) DELIVERED TO INDUSTRY

The August 2025 evaluations marked the release of a new trait for Holsteins: Milking Speed, abbreviated MSPD. This is the first trait of its kind to use solely standardized in-line sensor measurements. The trait was developed by researchers from CDCB, USDA AGIL and data partners with lactation records from 121,662 cows of various breeds and parities.

MSPD Fast Facts:

- » **Heritability:** 42%
- » **PTA unit:** pounds of milk per minute, the standardized average is 7 lbs/min
- » **Data source:** in-line milk meter sensors
- » **Breeds:** Holstein
- » **Initial reliabilities:** 67% for proven bulls, 58% for genomic bulls

Why should I use MSPD? Developing a herd of cows that milks out consistently will improve parlor efficiency, provide opportunities for cow grouping, and optimize farm labor usage.

How is MSPD different from MSP calculated by CDCB for Brown Swiss and Milking Shorthorns? MSP uses subjective scores of milking speed provided by dairy farmers and collected by classifiers during type appraisal. This is also how many international milking speed evaluations are produced. MSPD removes the human element from evaluating how fast or slow a cow takes to milk.

How is data from different milking manufacturers handled? Each manufacturer has a unique way to measure the factors included in MSPD. When the data is transmitted to CDCB, a code indicates the system it was produced in so the data can be standardized. The trait was developed with data from 11 different manufacturers.

Does MSPD apply to herds with robots? The trait currently only uses data from traditional parlor equipment. In the future, incorporating data from automatic milking systems will be explored.

Meet the team!



Ezequiel Nicolazzi, Ph.D.
Chief Operation Officer



Jesse Malloy
IT Support Engineer



Taylor McWhorter, Ph.D.
Geneticist



Jay Megonigal
Service Software Manager



Rodrigo Mota, Ph.D.
Applied Geneticist



George Onoh, M.S.
Data Specialist



Frank Ross
Senior System Administrator



Simone Savoia, Ph.D.
Geneticist

2026 TRIENNIAL EVALUATION DATES

April 7
August 11
December 1

SINGLE-STEP EVALUATIONS ARE ON THE HORIZON

CDCB continues to get closer to the implementation of single-step genomic evaluations (ssGBLUP) to streamline and improve the methodology of the evaluations. This future change can be compared to upgrading the engine in a car: a newer tool provides more efficiency and more thorough results.

Today, our genetic evaluations are calculated with two steps. Records and pedigree information are used to formulate traditional evaluations, and genomic evaluations are calculated separately before being combined with the traditional evaluations. Instead, ssGBLUP integrates records, pedigrees, and SNP information all at once. This approach allows us to make better use of available genomic information for both genotyped and ungenotyped animals.

The process has been successfully integrated in other species and dairy cattle in other countries, but the size of the National Cooperator Database has made implementing it in the U.S. system more complex. With partners at the University of Georgia and USDA AGIL, CDCB has developed a unified single-step evaluation pipeline that will work across traits and breeds while being flexible and scalable for future needs. Once the models have been refined and final testing and debugging have been completed, CDCB will work with collaborators to facilitate a smooth transition to this exciting new method of data transmission and use.

What will improve with single-step?

- » Pre-selection bias
- » Overestimation of genomic PTAs
- » Software and solver capacity
- » Evaluation accuracy (for smaller breeds and traits with less data)
- » Evaluation stability
- » Ease of producing the evaluations

FERTILITY TRAIT REVIEW NEARS COMPLETION

CDCB and USDA AGIL have been conducting a foundational review of the U.S. female fertility traits – Daughter Pregnancy Rate (DRP), Cow Conception Rate (CCR), Heifer Conception Rate (HCR), and Early First Calving (EFC) – to evaluate their relevance given on-farm changes in reproductive management and to ensure continued applicability.

What is First Service to Conception?

FSC measures the number of days from a cow's first insemination to confirmed pregnancy. Like CCR, this trait only includes lactating cows. If a cow takes more than 200 days to get pregnant, the trait is capped at 200 days. If a cow does not get pregnant, her phenotype is capped at 200 days and a 30 day penalty is added to ensure cows that do not get pregnant have the lowest phenotype. FSC formulation is not affected by a VWP, only considering days from the first insemination to conception.

Ongoing testing is focused on possible refinements designed to build on the strengths of the current approach. Potential refinements being evaluated are introducing variable voluntary waiting period (VWP) adjustments for DPR, moving the uncorrelated trait, EFC, to a single-trait model while the others remain multi-trait, and amending CCR and HCR pre-adjustments. Additionally, an age-based cutoff of 36 months is implemented for first-lactation records to reduce time-lag bias, computational efficiency is improved, and variance components are re-estimated using recent data. Due to this research, the team is exploring the possibility of introducing a potential new trait, First Service to Conception (FSC). Interbull validation of the reworked existing traits and FSC is in progress.

MERIT INDEXES REVISED FOR FIRST TIME SINCE 2021

Scan to learn more.



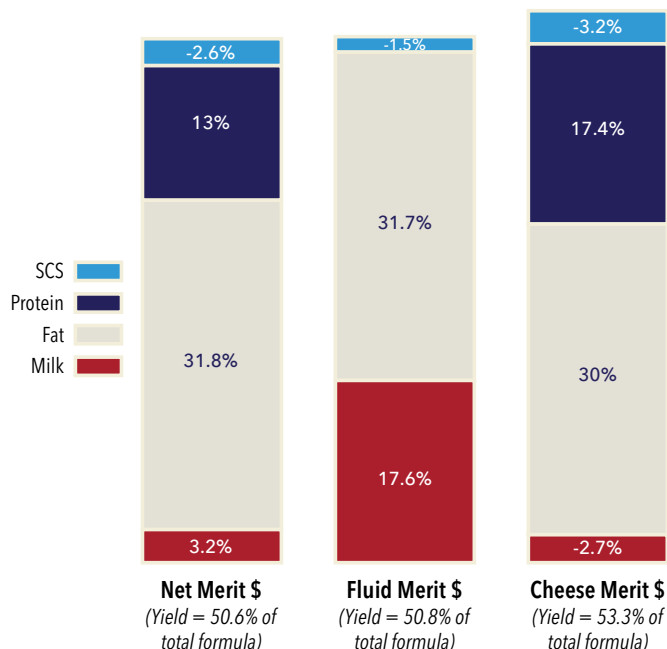
Using a selection index is the best way to improve cow profitability in each generation. Net Merit (NM\$) was first published by USDA's Animal Improvement Programs Laboratory in 1994 and has been routinely revised since then to reflect current economic conditions.

The April 2025 update featured:

- » More emphasis on fat and less on protein due to more recent price trends.
- » More emphasis on Cow Livability and Heifer Livability and less emphasis on Productive Life due to higher cull cow and calf prices.
- » More negative emphasis on Body Weight Composite due to higher maintenance costs estimated from actual feed intake data.
- » More emphasis on Residual Feed Intake due to higher reliability now that more records are available.

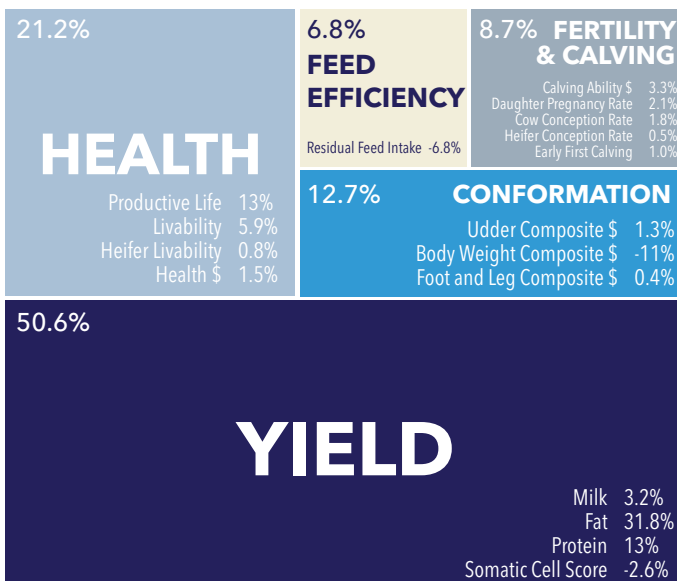
NM\$ combines economic values for 12 individual traits plus five composite subindexes to help farmers make profitable mating decisions. To determine the economic value of traits, published scientific papers and publicly available milk pricing data are used. However, it is impossible to design a single selection tool for every milk pricing method.

Yield Percentage Breakdown by Index



LIFETIME NET MERIT \$

Relative Emphasis of Traits - April 2025 Update



CDCB also publishes Cheese Merit \$ and Fluid Merit \$. Both of these indexes closely mirror NM\$ when it comes to health, feed efficiency, fertility and calving, and conformation, but variation is evident in the roughly 50% of the index comprised of yield traits. This allows each formula to match it's distinct milk market pricing system.

- » **Net Merit (NM\$)** assumes a hypothetical milk market structure to build a universal, economic tool.
- » **Fluid Merit (FM\$)**, published since 1999 for farmers selling on the fluid market places more emphasis on milk and fat.
- » **Cheese Merit (CM\$)**, published since 1999 for farmers selling milk for cheese production. More emphasis is on protein and Somatic Cell Score, less emphasis on fat, and negative emphasis on milk.

GRAZING MERIT (GM\$)

Published since 2014 for pasture-based herds, the Grazing Merit Index places more emphasis on fertility and less emphasis on Productive Life. Yield weights closely align with values in NM\$.



DATA MANAGEMENT AND QUALITY CERTIFICATION

GENOTYPING-BY-SEQUENCING INTEGRATED INTO DATA FLOW

In May, CDCB certified the first sequencing-based laboratory for data submission. As part of the process, CDCB validated the first SNP panel derived from sequencing data.

SNP chip technology has been the cornerstone of the U.S. genetic evaluation system since the introduction of genomic testing in 2008. This process identifies key genetic markers associated with traits of impact and then uses imputation to complete the genetic information needed for genomic evaluations.

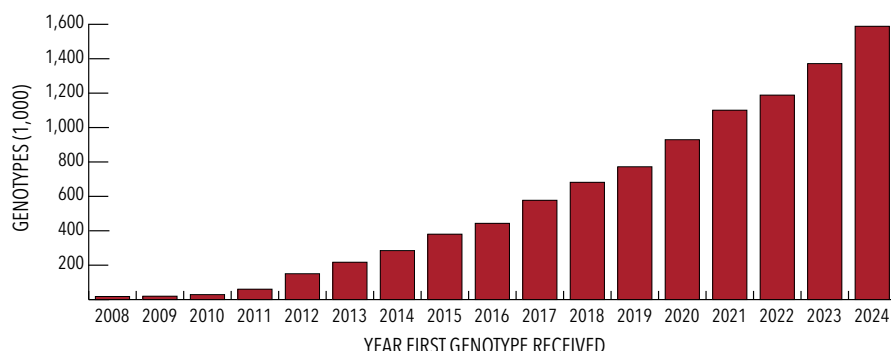
On the other hand, genotyping-by-sequencing (GBS) enables the identification of SNPs directly from sequence data, creating an alternative to genotyping chips. It is widely used in plant and other animal breeding programs, and its use in dairy provides the potential for deeper genomic insight.

The first sequencing panel certified by CDCB uses a combination of low-pass sequencing, which sequences the entire genome at low coverage, and targeted sequencing, which enriches the coverage of specific high-priority SNPs.

CDCB is committed to integrating innovative technologies to meet the needs of our collaborators and stakeholders while maintaining the quality and reliability of service farmers expect. The certification marked the first time GBS will be utilized in a national dairy cattle genetic evaluation system anywhere in the world!

THE NATIONAL COOPERATOR DATABASE CONTINUES TO GROW

The database reached 10 million genotypes on December 14, 2024 and 11 million in June 2025. In 2024, there were a record 1.6 million genotypes added. Between the April 2025 and August 2025 triannual evaluations, nearly 600,000 new genotypes were added – also a record for a four-month period.



Meet the team!

In the last year, this team certified:

3 NEW & **3 NEW**
genomic nominators genomic laboratories



José Carillo, Ph.D.
Chief Data Officer



Lillian Bacheller
Senior Applications Developer



Heather Adams
Enzenauer, Ph.D.
Applied Geneticist



Fiona Guinan, Ph.D.
Livestock Data
Analytics Expert



Courtney Hoff, M.S.
Data Support Specialist



Hannah Templeton, M.S.
Data Support Specialist



Kaori Tokuhisa, MSC
Genomic Data Analyst



George Wiggans, Ph.D.
Technical Advisor

11.4 MILLION
GENOTYPES CURRENTLY
IN THE NATIONAL
COOPERATOR DATABASE

RESEARCH AND DEVELOPMENT

Meet the team!



John Cole, Ph.D.
Chief Research and Development Officer



Clarissa Boschiero, Ph.D.
Bioinformatics Scientist



Kristen Parker Gaddis, Ph.D.
Geneticist



Andres Legarra, Ph.D.
Senior Geneticist



Xiao-Lin (Nick) Wu, Ph.D.
Senior Biostatistician

FINDING GENETIC TOOLS FOR HEALTHIER CALVES

Dairy farmers know well that the future of their herd depends on their calves and heifers. When keeping those animals healthy and productive gets derailed due to disease, it can be frustrating, expensive, and time-consuming to get them back on the right track.

Research by USDA AGIL and CDCB scientists has recently found that there is enough data in the National Cooperator Database to produce genomic evaluations for Holsteins and possibly Jerseys for the two biggest calfhood diseases: diarrhea (scours) and respiratory disease. Combined, these issues account for roughly 75% of preweaning calf mortality. Adding a genetic component to the on-farm toolbox to tackle these diseases has the potential to save dairies significant time, money, and effort.

As research is being finalized, the heritability of these traits has been found to be similar to that of current cow health traits (around 2%). Both traits are favorably associated with Heifer Livability and lowly correlated with other traits, meaning selecting for calf health should not undesirably impact other selection goals.

Calf health data can be extracted from the national database from existing formats for cow health data. Testing of the complete evaluation pipeline needed will soon be underway to analyze a potential timeline for implementation. Like all traits, a robust data supply is necessary to make the evaluations the best they can be. CDCB is working with dairy records processing centers to efficiently move calf health data. Dairy farmers are encouraged to continue recording all calf health events in farm management softwares so the information is available.

INVESTIGATING THE UNANSWERED QUESTIONS OF LAMENESS

Dairy herds continue to be affected by lameness problems, but simply knowing if a cow developed lameness or not is insufficient to develop a genetic selection tool against the suite of hoof health conditions that can cause it. CDCB researchers have been working closely with Gerard Cramer, D.V.M., D.V.Sc., at the University of Minnesota College of Veterinary Medicine and CattleEye to uncover the information needed to develop genetic evaluations for hoof lesions and cow mobility.

Producer-recorded lameness events noted in farm management software, computer-vision cow monitoring sourced from CattleEye software on seven farms, and hoof trimmer records have been used in this research. Hoof trimmer data has proven to generally be of higher quality than pooled on-farm records. Lesions are divided into those of infectious and noninfectious sources, with intermediate heritability (3.6% to 3.7%) observed for both types of lesions when considering hoof trimmer data. Traditional reliabilities of the tested traits for sires with daughters range from 25% to 43% from trimmer data and from 14% to 32% from all data.

Work to establish routine, accurate data flow of hoof lesion incidence for a hoof health trait and of cow movement data for a mobility trait remains in progress. Because of the broad nature of lameness, data system updates have been needed to resolve ambiguity in some submitted records.

The Foundation for Food & Agriculture Research awarded Dr. Cramer a \$2 million grant this summer to support this project. That funding will go toward more work for early lameness detection and monitoring options as well as producing lameness prevention and education materials in coordination with Kinder Ground and CDCB.

INNOVATION AND SUSTAINABILITY

The Research and Development and Innovation and Sustainability teams work to explore new data types and traits that could be relevant to dairy farmers. They then refine the systems needed to bring those services to the industry. CDCB also continues its research partnership with USDA AGIL as it pursues a number of projects that touch different parts of a dairy farm.

In addition to the projects detailed here and on the next two pages, CDCB supports other relevant dairy cattle research around the country by providing access to information stored in the National Cooperator Database to approved universities and research institutions.

FINE-TUNING THE POWER OF A MILK SAMPLE

Predicting yield and component production from milk tests that may occur monthly or less frequently is a valuable element of Dairy Herd Information (DHI) services. However, the factors used in those calculations were developed more than 30 years ago when farm management practices and cow production ability was much different. CDCB has been working closely with National DHIA and USDA AGIL to collect new data that can be used to update these factors.

In the last year, seven new farms utilizing six DHI labs have been enrolled in data collection, bringing the total to 11 farms out of a goal of 15 covering both Holsteins and Jerseys and multiple milking frequencies. Farms that participate undergo weekly sampling of all milkings in a day for 16 weeks, followed by eight months of routine DHI testing.

Preliminary analysis of the existing and updated yield factors is continuing, and formal analysis of the updated factors will come next. CDCB appreciates the partnership of each farm in the project as well as the DHI affiliates.

An additional component to this project is the ability to analyze collected milk samples further. DHI labs use infrared spectrometry to determine a sample's milk, fat, protein, lactose, and milk urea nitrogen (MUN) content by identifying how much light is absorbed by a sample versus passing through. This spectral data has the potential to provide insight on biomarkers of cow health, fatty acid production and rumen health, and potentially fertility.

Continued research will explore how analyzing fatty acid production can provide on-farm nutrition insights. There are also opportunities in expanding a milk spectral database and developing standardization procedures.

Meet the team!



Javier Burchard, Ph.D.
Chief Innovation Officer



Malia Caputo, Ph.D.
Associate Research Scientist



Ashley Ling, Ph.D.
Support Scientist



H. Duane Norman, Ph.D.
Technical Advisor





VISUALIZING FEED INTAKE ON THE FARM

Monitoring potential new data streams means identifying when novel technologies can make a difference in accurately contributing to CDCB's data partners. The Cattle Feed Intake (CFIT) system is one such opportunity.

CFIT is a 3D camera system for capturing individual measures of dairy cattle feed intake and body weight on dairy farms. Developed in Denmark, it can capture individual animal identification and calculate the feed consumption in front of her during each meal throughout the day by using artificial intelligence. It can then also estimate cow weight and bodyweight changes. All of this is possible with simple installation and little intrusion in a farm's day-to-day activities.

This technology could significantly streamline how we collect feed intake data that can be used in genetic evaluations. The CDCB team has been developing a project plan for implementation and begun the process of identifying pilot farms for testing and additional validation.

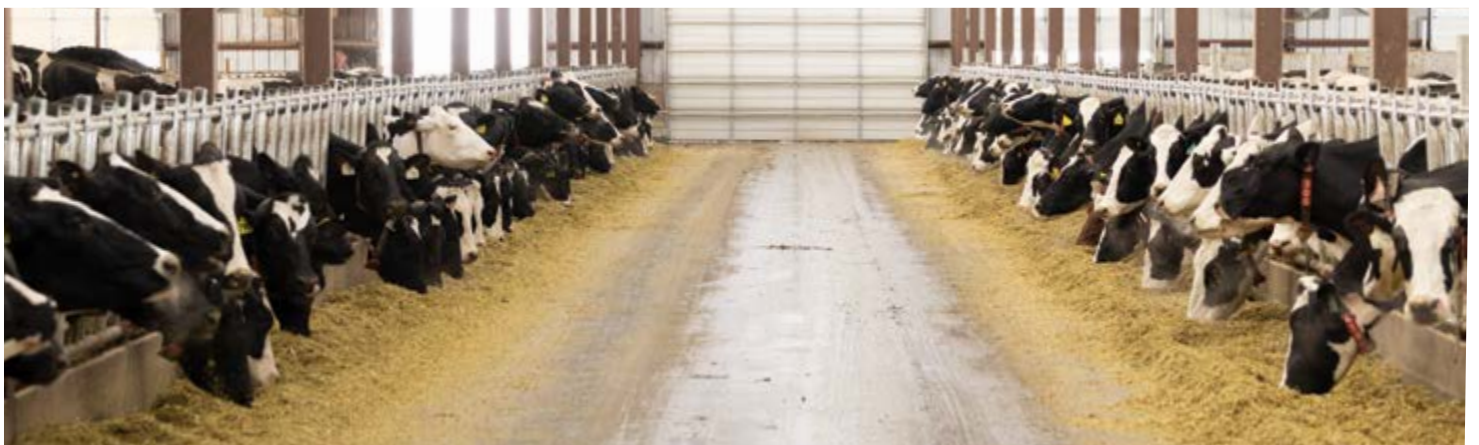
TACKLING METHANE COLLABORATIVELY

CDCB is a founding member and remains involved with the steering committee of the Greener Cattle Initiative. Together with other nonprofits and private companies, this group allows CDCB to be on the cutting edge of research designed to mitigate enteric methane emissions from cattle.

CDCB's role in this work includes supporting the phenotypic evaluation of animals, uncovering trait correlations, and developing a system to collect and use this novel data.

So far, 2,700 cows have been phenotyped between research and commercial farms. The project's team has found that enteric methane emissions are heritable (20% to 30%), indicating genetic selection can make a difference in animal environmental impact. Enteric methane production has also been found to be highly correlated with residual feed intake, which is already taken and used in the CDCB system.

Milk spectra data and microbiome sampling are also being explored as opportunities to identify and measure enteric methane production.



SUPPORTING THE NEXT GENERATION OF GENETICS LEADERS

The CDCB summer internship program began in 2016 as a way for genetics students to work closely with CDCB staff and collaborating partners to analyze dairy genetics and management data, supporting the missions of CDCB and USDA AGIL. Past projects have covered a range of topics and this year was no different. Read on to find out more about this summer's interns and their work.

YIJING GONG



Univ. of Wisconsin-Madison

CDCB Project:
Utilization of multiple health events for genetic evaluations

Current CDCB genetic evaluations for health traits only consider an animal's first health event per lactation. Yijing evaluated if incorporating more than one health event, when it occurs, would improve evaluation accuracy. She began this work by applying it to mastitis records. After evaluating the effects of linear, threshold, and multivariate models, she found that incorporating multiple events into the linear model has little impact on heritability, reliability, or animal ranking.

JACOB MASKAL



Purdue University

CDCB Project:
Review of calving trait models

The calving traits calculated by CDCB — SCE, DCE, SSB, and DSB — use sire/maternal grandsire threshold models. These are the only sire and threshold models CDCB uses, so Jacob analyzed if these traits could be moved to a different model more in line with other traits. He determined that transforming the calving ease phenotypes to meet a linear model does not change the relative proportions. There are multiple adjustments that can be made to the trait data to take advantage of more records and modern programs.

CHANG XU



North Carolina State Univ.

CDCB Project:
Incorporation of genomic information in genetic evaluation of hoof lesion incidence

As more hoof health data becomes available to the National Cooperator Database, Chang evaluated how using a linear mixed model and threshold model in single-step evaluations (ssGBLUP) would affect hoof lesion PTAs and reliability. She found that ssGBLUP can improve reliability and PTA rank correlations are higher than with traditional BLUP. Still, small sample sizes for some lesions and limited herd-sire data should be resolved for improved accuracy.

Previous CDCB Interns

Augustin Chasco (2024)
Gabriella Dodd (2024)
Gaurav Dutta (2024)
Amber Gabel Smith (2016)
Fiona Guinan (2019)
Elif Gunai (2018)

Isaac Haagen (2017)
Tori Iqbal (2022)
Laura Jensen (2019)
Sydney Jewell (2021)
Jonathan Layton (2023)

Maci Lienemann-Mueller (2017)
Taylor McWhorter (2019)
Larissa Novo (2022)
Anil Sigdel (2021)
Joe-Menwar Tabet (2023)

Internship applications open in late fall for junior and senior undergraduate or graduate students studying animal or dairy science. Visit uscdcb.com for more details.

SOFTWARE DEVELOPMENT

CDCB maintains the integrity of the world's largest database of animal information: the National Cooperator Database. In the last year, four new faces have joined the software development team to help ensure the continued success of CDCB's data collection, management, and analytics processes. With experience in a range of industries including but not limited to dairy, these engineers bring new skills and opportunities to the CDCB system.

PRIORITY PROJECTS

- » Building a pipeline for collecting novel data types
- » Modernizing the legacy data ingestion system
- » Developing support for the implementation of single-step genomic evaluations (ssGBLUP)
- » Creating Herd Portal application with National DHIA
- » Exploring applications of artificial intelligence

DATA INGESTION RETOOLING UNDERWAY

A steady flow of animal data is necessary for the production of genetic evaluations. The current system to receive data into the National Cooperator Database was developed by USDA in the 1970s, and the expansion of the software team has brought expert resources in-house to modernize this system.

By enhancing data ingestion functions, CDCB collaborators will be better served and the U.S. genetic evaluation system will be more equipped for future opportunities.

HERD PORTAL WILL SHOW WHERE FARM DATA IS FLOWING

The team has been working closely with National DHIA to develop a comprehensive web and mobile portal for consolidating herd code assignments and data permissions information. The Herd Portal will allow a farm's trusted advisers to easily check the farm's CDCB fee code, data access, and use agreements. Those advisers will also be able to export the information to share with the farm owner so they are able to reaffirm their commitment to contributing data into the National Cooperator Database for use in genetic evaluations and research and development.

Farms can select one of three options for data sharing:

- » **Code 1:** Data only goes from a farm's DHI affiliate to a dairy records processing center (DRPC)
- » **Code 2:** Data flows from the DRPC to the National Cooperator Database for use by CDCB and USDA AGIL
- » **Code 3:** Data flows from the DRPC to the National Cooperator Database and any farm-authorized recipients

Meet the team!



Chip Donatone
Chief Technology Officer



Nathan Blair
Principal Engineer



Tasmia Haider
Manager of Software
Quality Assurance



Adam Leppke
Senior Software
Developer



Michael Sullivan
Principal Software
Engineer

HOW CAN WE CAPTURE NEW TRAITS?

Introducing new traits requires receiving, storing, and processing the data needed to calculate PTAs. However, new types of data aren't always formatted or handled in the same ways current data types are.

In the future, information such as direct measurements of feed intake, mobility and hoof health data, milk spectra details, or others could be used for traits. To receive and store nontraditional data, a novel data pipeline and data lake have been developed. A data lake differs from a database in that it can easily store unstructured data for processing.

When Herd Portal is complete, that system will function as the data lake's permissions model, allowing a farm's trusted advisers to access their data along with CDCB and USDA AGIL researchers in their work to help the industry breed more profitable animals.

FINANCIAL REPORT

The genetic evaluations produced by CDCB continue to maintain their reputation as the global standard for dairy cattle. That creates strong market share, driving revenue that is reinvested in projects addressing key dairy challenges such as lameness, feed efficiency, and labor efficiency. See pages 18 to 21 for more details on these projects.

This past year, CDCB experienced a 12.5% climb in revenue driven primarily by foreign female genomic evaluations.

With growth comes the responsibility to invest wisely, and this year, CDCB made deliberate choices to strengthen its foundation for the future. The largest increases in expenses came in the areas of research and development and salaries. Expanding the investment in research and development reflects CDCB's deep commitment to addressing the opportunities that are most critical to dairy's long-term success.

By intentionally bringing new talent into the team, CDCB is modernizing systems, enhancing services, and positioning the organization to deliver even greater value to the industry. Nearly every internal team expanded this year as 10 new faces joined CDCB to support data, operations, research, education, and software needs.

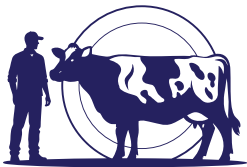
2024 AND 2023 AUDITED FINANCIAL STATEMENTS

ASSETS	2024	2023
Cash	\$1,586,959	\$1,472,944
Investments, at fair market value	\$14,023,998	\$11,313,831
Accounts Receivable	\$851,288	\$1,424,827
Property & Equipment (net book value)	\$1,563,576	\$1,725,664
Other	\$318,787	\$408,085
Total Assets	<u>\$18,344,608</u>	<u>\$16,345,351</u>
LIABILITIES & NET ASSETS		
Accounts Payable	\$437,835	\$142,209
Accrued Expenses	\$84,509	\$77,106
Lease Liability	\$155,623	\$334,403
Total Liabilities	<u>\$677,967</u>	<u>\$553,718</u>
Unrestricted Net Assets	<u>\$17,666,641</u>	<u>\$15,791,633</u>
Total Liabilities & Net Assets	<u>\$18,344,608</u>	<u>\$16,345,351</u>
REVENUES		
Service Fees	\$10,349,883	\$9,279,591
Other	\$9,756	\$33,443
Investment Income	\$447,052	\$292,572
Total Revenues	<u>\$10,806,691</u>	<u>\$9,605,606</u>
COST OF OPERATIONS		
Salaries, Service, and Administration	\$7,079,931	\$5,450,155
Research and Development	\$1,599,500	\$905,244
Depreciation	\$615,369	\$600,551
Total Cost of Operations	<u>\$9,294,800</u>	<u>\$6,955,950</u>
Change in Net Assets from Operations	<u>\$1,511,891</u>	<u>\$2,649,656</u>
Other Income (Expense) Net realized and unrealized gain/(loss) on investments	\$363,117	\$544,799
Change in Net Assets	<u>\$1,875,008</u>	<u>\$3,194,455</u>
Net Assets, beginning	\$15,791,633	\$12,597,178
Net Assets, ending	<u>\$17,666,641</u>	<u>\$15,791,633</u>



COUNCIL ON DAIRY CATTLE BREEDING

COUNCIL ON DAIRY CATTLE BREEDING VALUES



Dairy-driven

We focus solely on dairy, advancing the industry through new traits and evolving selection methods.



Cooperative

Collaboration across four U.S. sectors and 60+ global partners drive our shared commitment for accurate evaluations.



Science-based

Through rigorous research and innovation, we ensure data integrity and advance genetic improvement.



Transparent

Our methods and outputs are documented, traceable and accessible – open to public review and scrutiny.



Data-driven

As stewards of the National Cooperator Database, we manage a vital, collective asset for the dairy industry.

CORE VALUE

Providing premier dairy genetic information services and industry collaboration.

Follow CDCB all year long!



CDCB Connection
monthly e-newsletter

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