

CDCB Overview and System

2026 CDCB Genomic Nominator and Laboratory Workshop

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Who is CDCB?

The Council on Dairy Cattle Breeding (CDCB) is a non-profit organization that manages the National Cooperator Database, calculates and distributes the U.S. genetic evaluations and genomic predictions, and aggregates dairy cattle data.

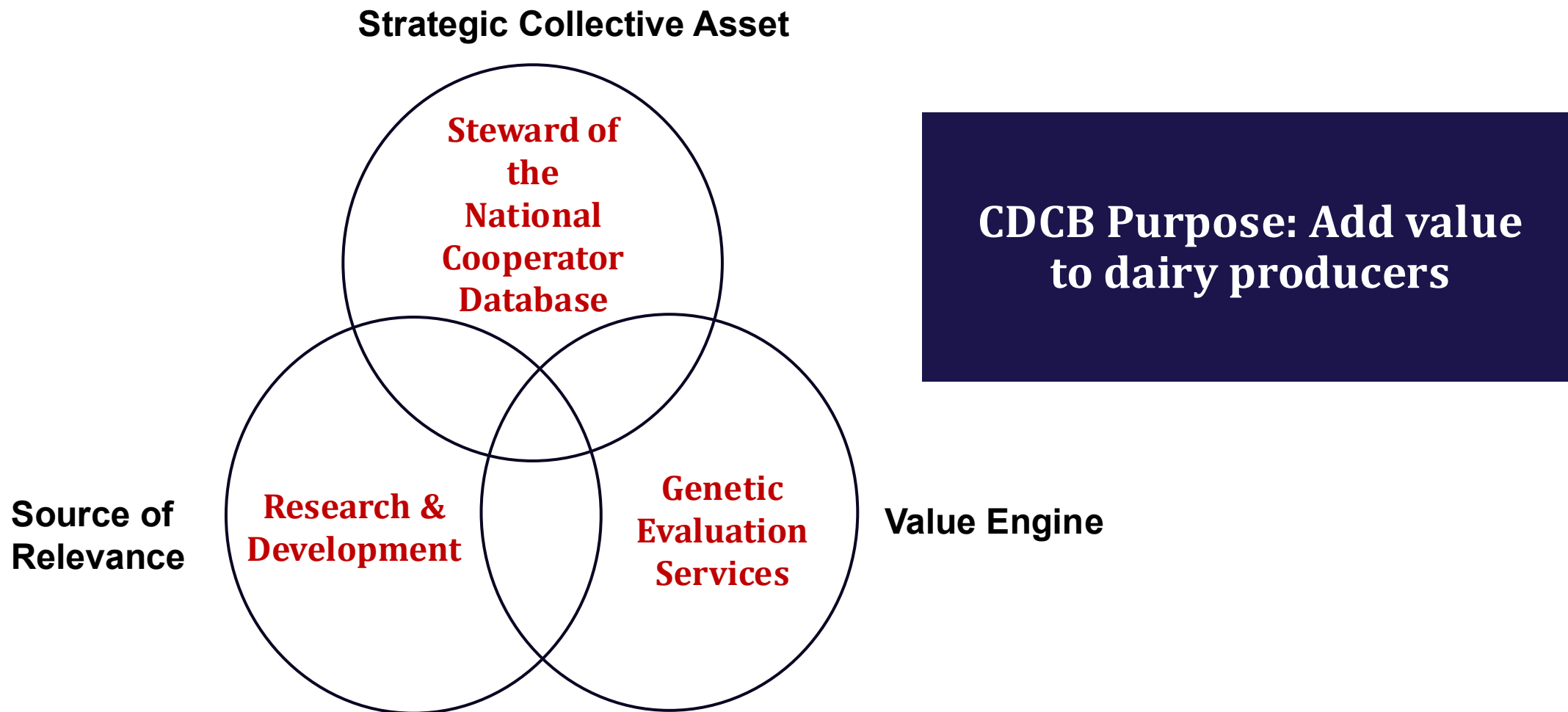
CDCB Mission

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.

CDCB Vision

To be the leading source of genetic information for dairy improvement

CDCB Strategic Pillars



CDCB 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 outcomes 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

What we do

- Steward the National Cooperator Database
 - Maintain 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.
- Calculate and distribute genetic evaluations and genomic predictions
- Analyze and aggregate dairy cattle data in the U.S.

Driven by Purpose

Genetic Evaluations

- Weekly
- Monthly
- Triannual
- Interim
- Quick turnaround

Traits

- Production (5)
- Feed Efficiency (2)
- Longevity (3)
- Health (7) + 2
- Fertility (4) + 1
- Calving (6)
- Conformation (22)
- **Lifetime Merit Indexes (4)**

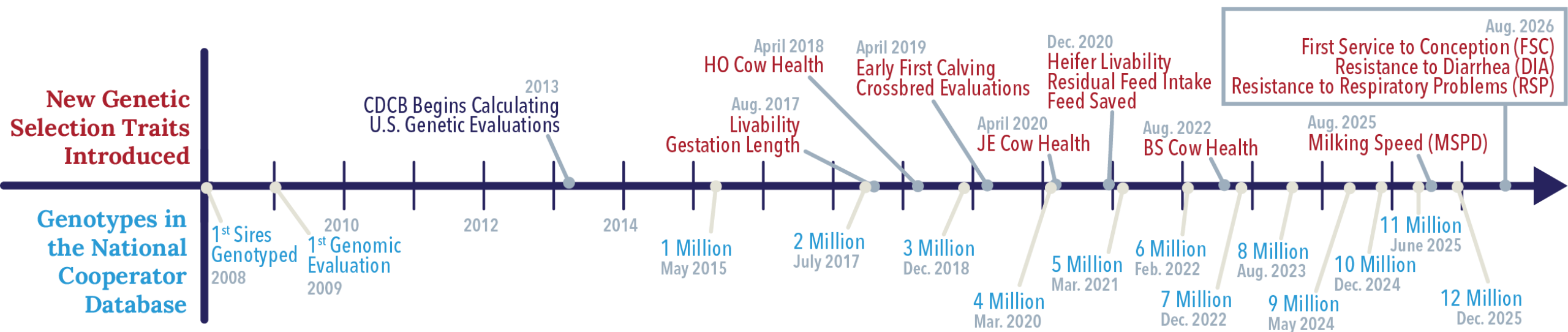
Breeds

- Ayrshire
- Brown Swiss
- Guernsey
- Holstein
- Jersey
- Milking Shorthorn
- (Crossbreds)

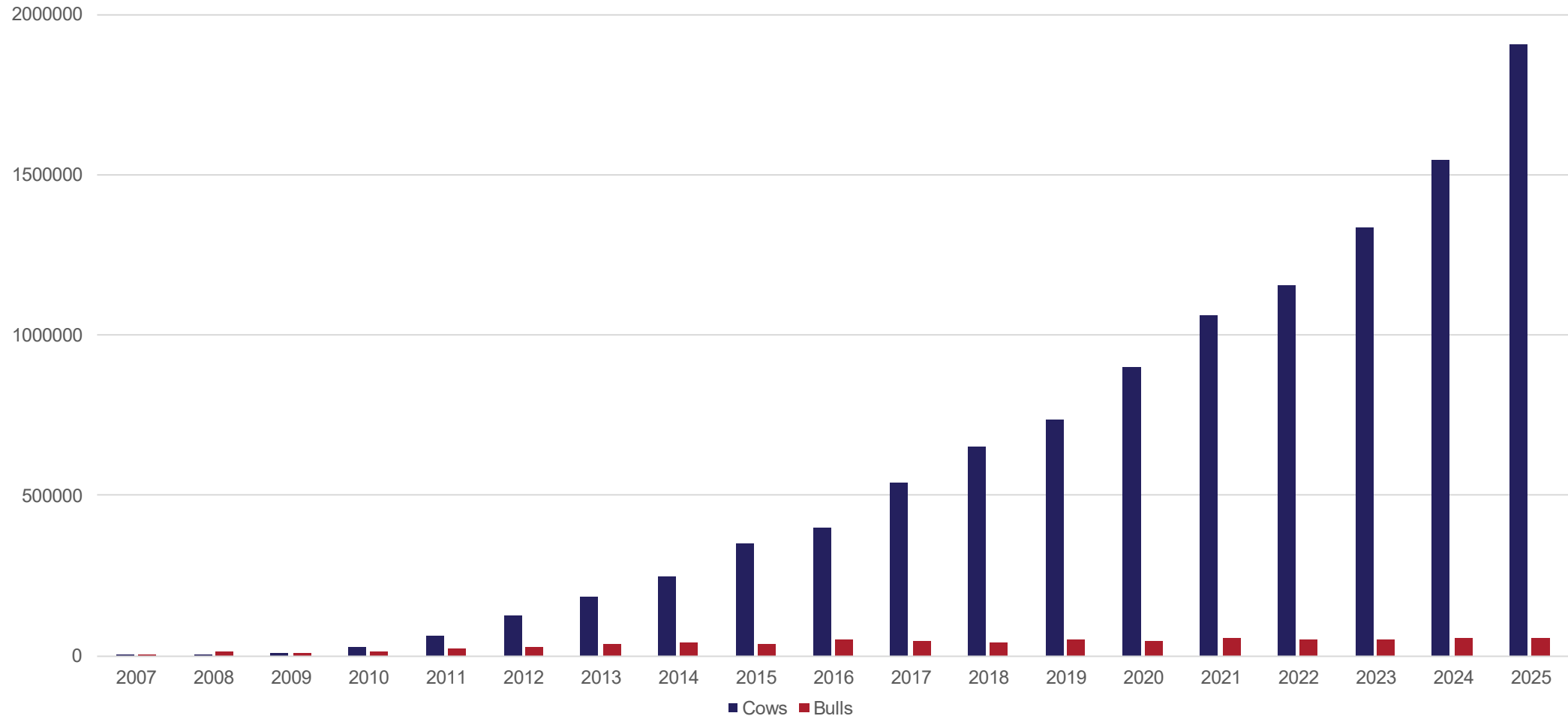
Other

- Parentage Verification
- Quick Discovery
- Breed %
- Genomic inbreeding
- Haplotypes & genetic conditions
- WebConnect
 - Stats
 - Results
- Outreach

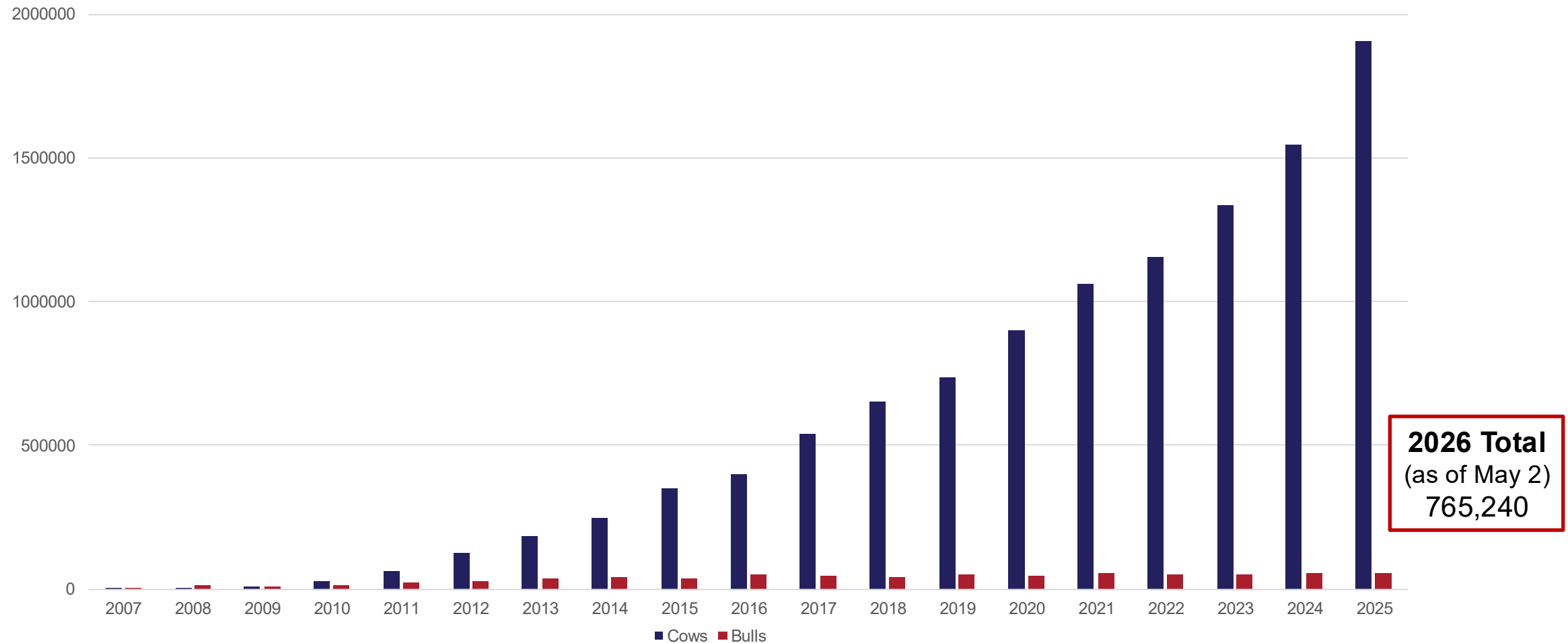
CDCB Milestones



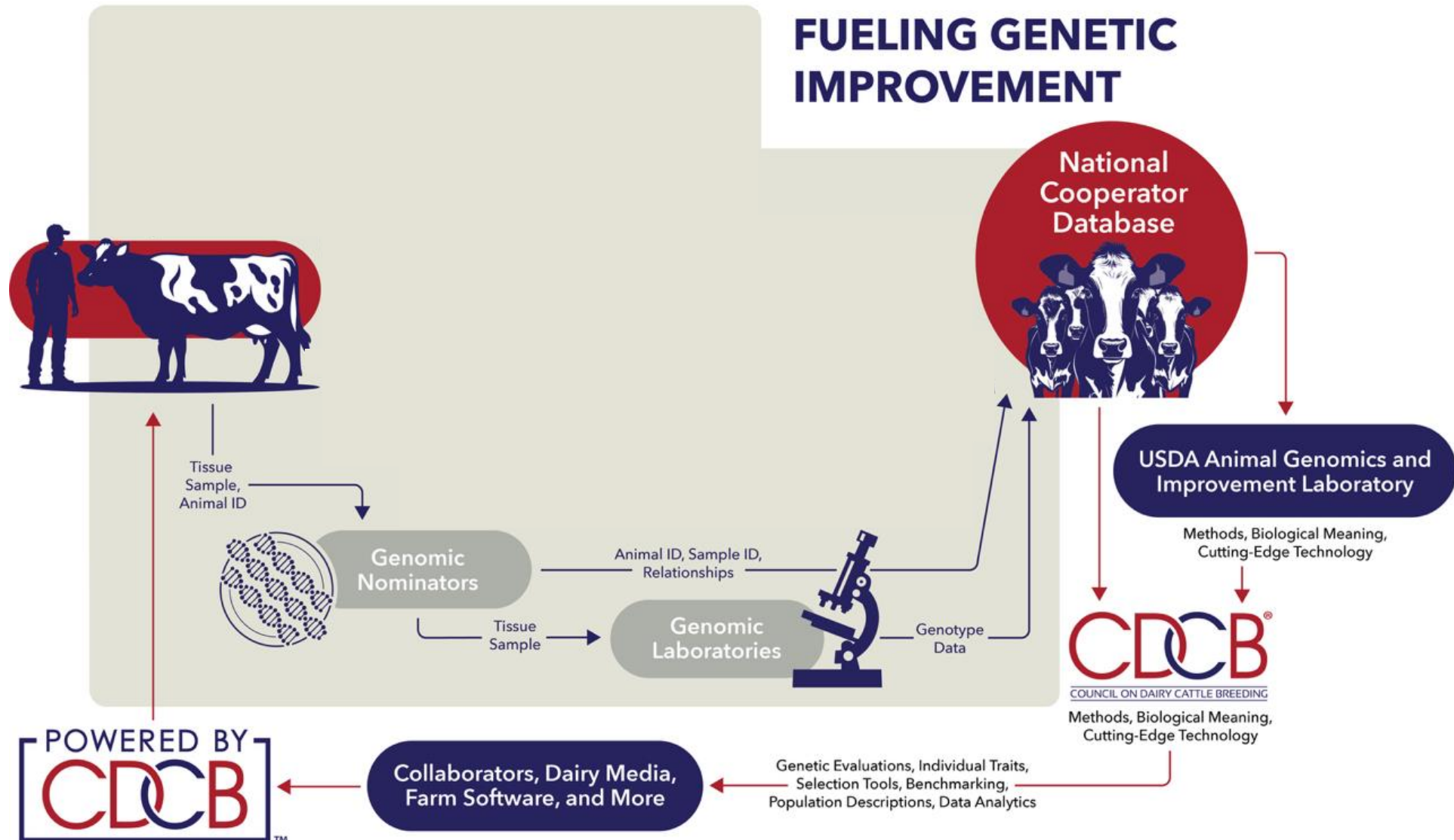
Genotypes by Sex



Genotypes by Sex



NATIONAL COOPERATOR DATABASE





Certified Genomic Nominators

- » ABS Global
- » American Jersey Cattle Association
- » AWE Group
- » Bio-Genesys
- » BIORASCO
- » Beijing Compass Agricultural Technology
- » CRV USA
- » Czech Moravian Breeders' Corporation
- » Eurofins BioDiagnostics
- » Eurofins Genomics
- » 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

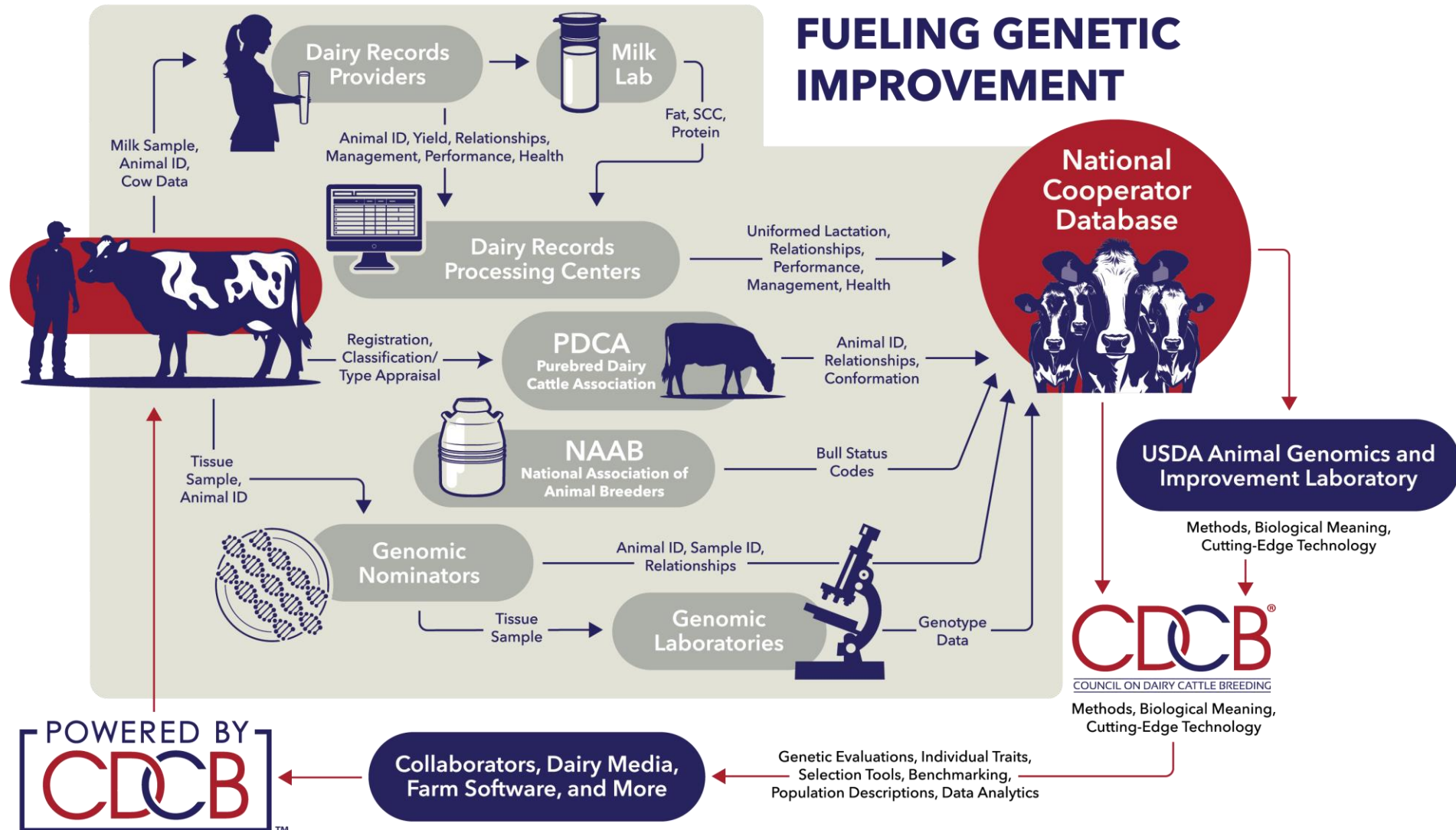
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- » Molbreeding Biotechnology
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- » VHL
- » Zoetis



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*)

NATIONAL COOPERATOR DATABASE





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



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Dairy Records Processing Centers

- » AgriTech Analytics
- » AgSource Cooperative Services
- » Amelior
- » 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



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Data Quantities (April 2026)

Trait	Counts
Lactations	111,985,543
Somatic Cell Score	75,446,884
Cow Livability	131,404,019
Fertility	103,454,094
Health	13,870,277
Residual Feed Intake	11,922
Calving Ease	41,089,957
Type (non-HO)	3,704,947

Evaluations
(Traditional + Genomic)

Sex	Counts
Male	794,592
Females	92,252,576

CDCB Nominator & Laboratory Certification Program

- **Purpose**

- Ensure high-quality, reliable genomic data enters the CDCB system
- Maintain consistency across nominators and laboratories

- **Certification Focus**

- Data accuracy and completeness
- Timeliness of submissions
- System compatibility and formatting
- Ongoing performance monitoring

- **Outcome**

- Trusted genomic data supporting national evaluations and all CDCB services

Data Validation: Ensuring Data Integrity and Readiness

- **Purpose**

- Ensure data accuracy, consistency, and reliability
- Confirm compliance with CDCB standards
- Prepare data for evaluations and CDCB services
- Maintain consistency across nominators and laboratories

- **Key Validation Checks**

- Animal identification and pedigree consistency
- Sample-to-animal matching
- Genotype quality and completeness
- Data format and submission standards

Data Validation: Ensuring Data Integrity and Readiness

- **Ongoing Process**

- Validation occurs **during and after submission**
- Continuous monitoring of data performance
- Feedback loop with nominators and laboratories

- **Outcome**

- High-quality data driving genetic improvement

Fee Schedule

- The CDCB fee system has been structured to reward participants based on their contribution to the National Cooperator Database
- It's based on herd contribution; NOT on an animal basis
- It depends on the herd of the animal or the animal's Dam (the most convenient)
- It's recalculated triannually and determined from the database
- Rules are described in the Fee Schedule at:
https://redmine.uscdcb.com/projects/cdcb-customer-service/wiki/CDCB_Fee_Schedule_for_Genomic_Evaluation_Fees

Fee Schedule

Get Fee

Run:

April 2026

Fee Code:

1

Yield Credit:

Yes

Health Credit:

Yes

Type Credit:

Yes

Female Basic Nomination Fee: \$8	Cooperator Credits:
Born in U.S. herd?	\$4
Milk yield data provider?	\$2
Conformation data provider?	\$1
Health data provider?	\$1
Born in Canadian herd?	\$2

Male Basic Nomination Fee: \$200	Cooperator Credits:
Controller is a collaborator stud?	\$175
Foreign submitted by an international genotype exchange partner?	200
Born in U.S. herd?	\$100
Milk yield data provider?	\$25
Conformation data provider?	\$25
Health data provider?	\$25

Shaping the future

- 24 genomic nominators & 13 genotyping labs certified
- Over 1.94 million animals genotyped in 2025
- 69,200 SNPs used in evaluation since August 2024
- 61 chips validated and supported
- 1,070 cases of chromosomal abnormalities discovered so far
- Only evaluation system using constructed dams to incorporate discovered ancestors
- Two new calf health traits and one new reproductive performance trait coming in August
- Modernization of the evaluation system