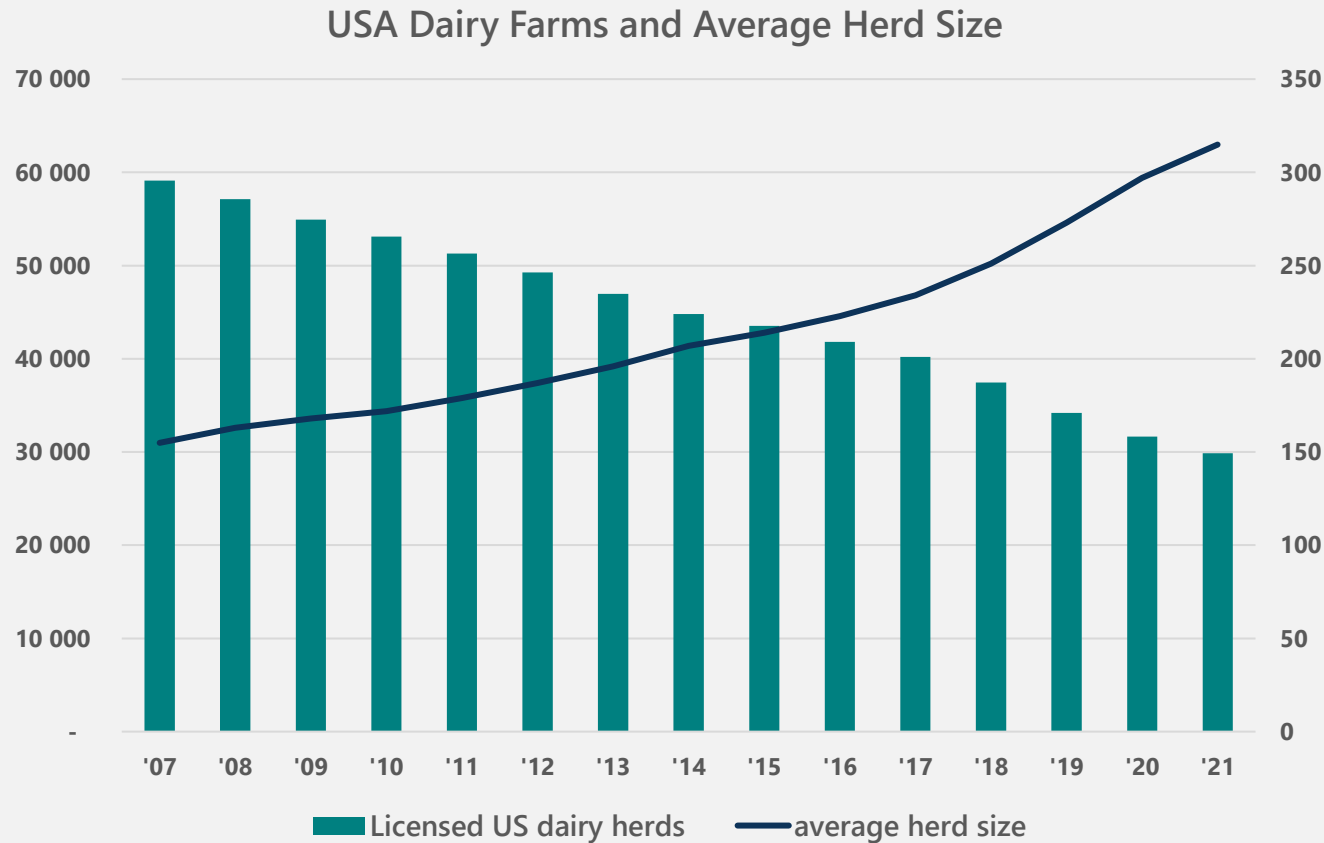


Feed Efficiency & Sustainability

*Utilizing genetics to make your herd
more profitable in any environment*

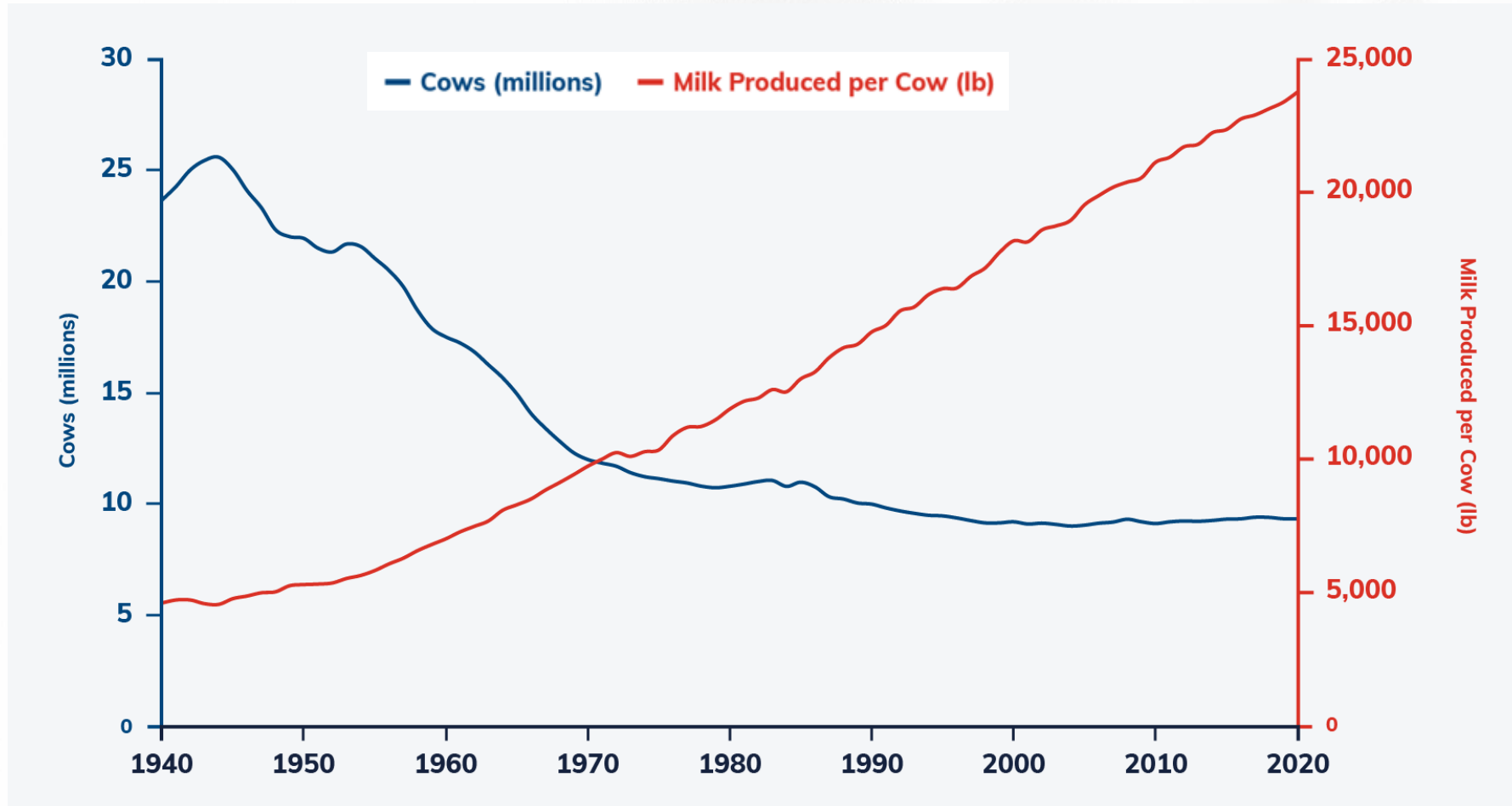
Gwen Powers, Senior Director Technical Services

Dairy Industry Trends



- › Number of herds decreasing, herd size increasing
- › Multiple site operations
- › Improved reproduction
- › Strategic breeding
- › High investment in technology
 - › Sexed semen
 - › Activity monitoring systems
- › Profit outside of only milk
 - › Beef x Dairy
 - › Methane biodigester

More Milk from Fewer Dairy Cows



Source: USDA National Agricultural Statistics Service



Empowering tomorrow's cows to perform

PROGRESS is impossible
without change.

CHANGE
drives action.

ACTION is required
to feed a growing
world.



HOW do we do this?

PROGRESS is impossible
without change.

CHANGE
drives action.

ACTION is required
to feed a growing
world.



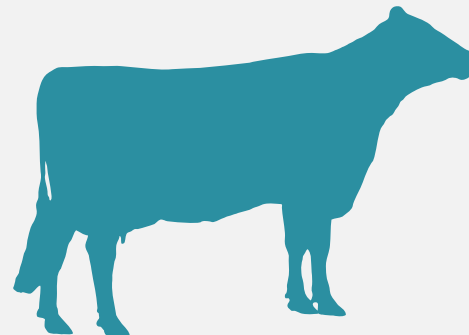
HOW do we do this?

We maximize the efficient production
of safe and affordable animal protein
by maintaining a keen focus on:

**PRODUCTION
EFFICIENCY**

SUSTAINABILITY

FERTILITY





For more than a decade, ICC™ has been the leading index
for creating cows that excel in commercial operations ...
because of our dedication to innovation.



2014

First commercial-
focused index;
emphasis on
RIGHT-SIZING
the dairy cow

2019

First to focus on
HEALTH
with GENEX and
CDCB health traits

2021

First dairy
selection index
to include
**FEED
EFFICIENCY**

2025

Adjusted to
sharpen focus on
**EFFICIENCY,
LONGEVITY &
PROBLEM-FREE**
commercial cows!

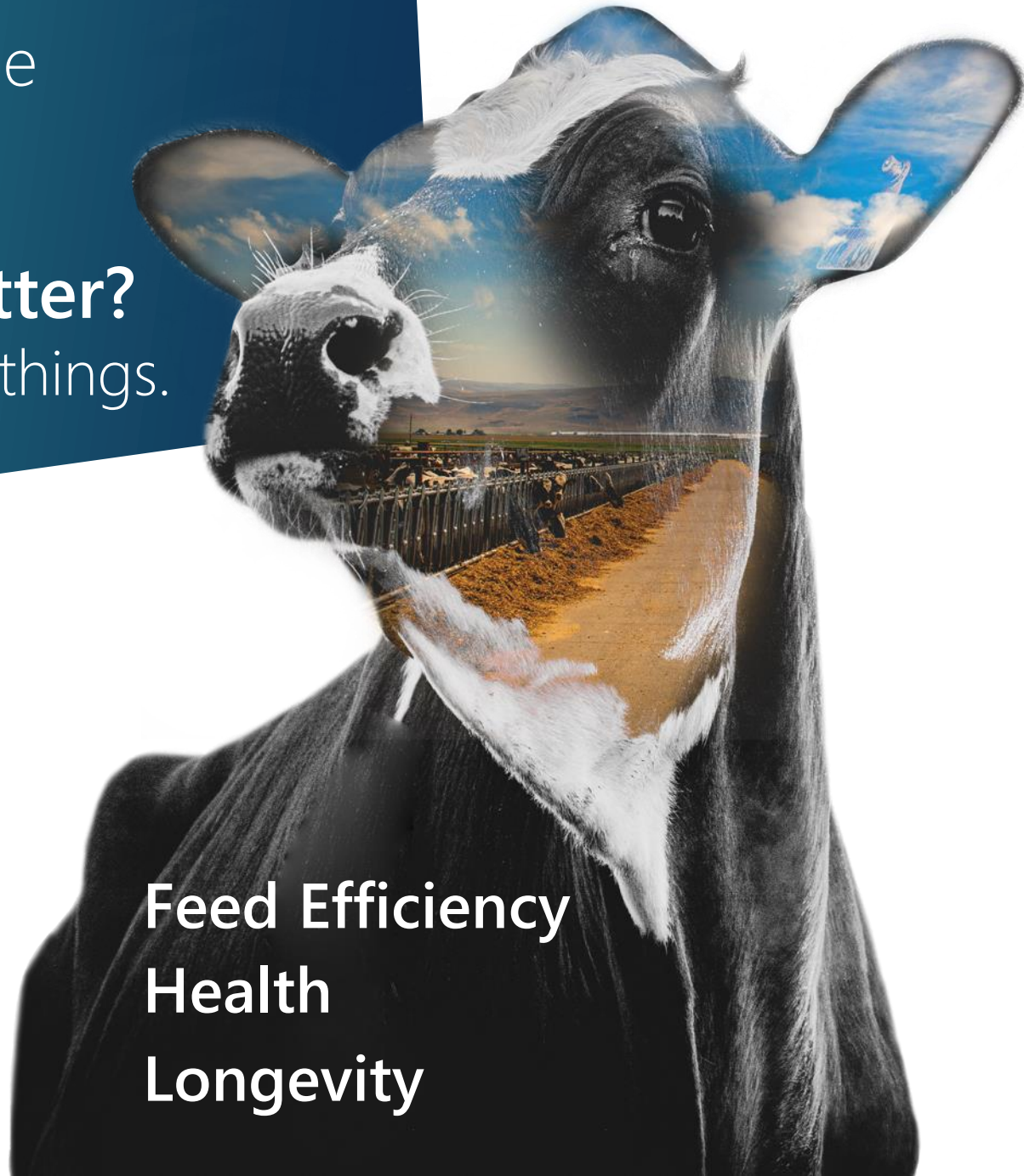
GENEX is the #1 stud for the
ICC™ index. That we know.

But WHY does that matter?
Because we win at the **right** things.

GENEX™

ICC™

Feed Efficiency
Health
Longevity



Her Story: Cow 3967

“

She is exactly the kind of cow you want in a commercial herd. She's never been sick, has low SCC, great components, breeds back easily and just seems to get better the older she gets."

Darin Dykstra,
Dykstra Dairy,
Iowa, USA





3967 freshened regularly. This shows her exceptional health & fertility, traits emphasized in ICC™.

Events	Items	Items2	TestDays	PrevLacts	Lactation							
DIM	198	MILK	116	RPRO	BRED	PGVAL	343					
LACT	8	SCC	19	DCC	0	CWVAL	881					
L#	AGE	FDAT	CDAT	DDAT	TOTM	TOTF	TOTP	305ME	RELV	OPN	DIM	DDRY
1	2-1	12/18/14	5/08/15	12/22/15	30740	1361	985	33670	118	141	369	53
2	3-3	2/13/16	4/22/16	12/06/16	28760	1293	879	30820	105	69	297	54
3	4-2	1/29/17	4/14/17	11/28/17	29950	1342	897	31000	106	75	303	50
4	5-2	1/17/18	3/30/18	10/30/18	30830	1416	928	32790	108	72	286	62
5	6-1	12/31/18	4/26/19	12/10/19	38460	1657	1191	35460	118	116	344	50
6	7-2	1/29/20	10/23/20	5/11/21	45530	2136	1434	32980	106	268	468	78
7	8-8	7/28/21	10/08/21	5/24/22	32270	1335	981	34930	116	72	300	54
8	9-8	7/17/22	-	-	23020	1060	706	35780	119	198	198	0
TOT					259560	11600	8001					

She produced nearly 260,000 pounds of milk!



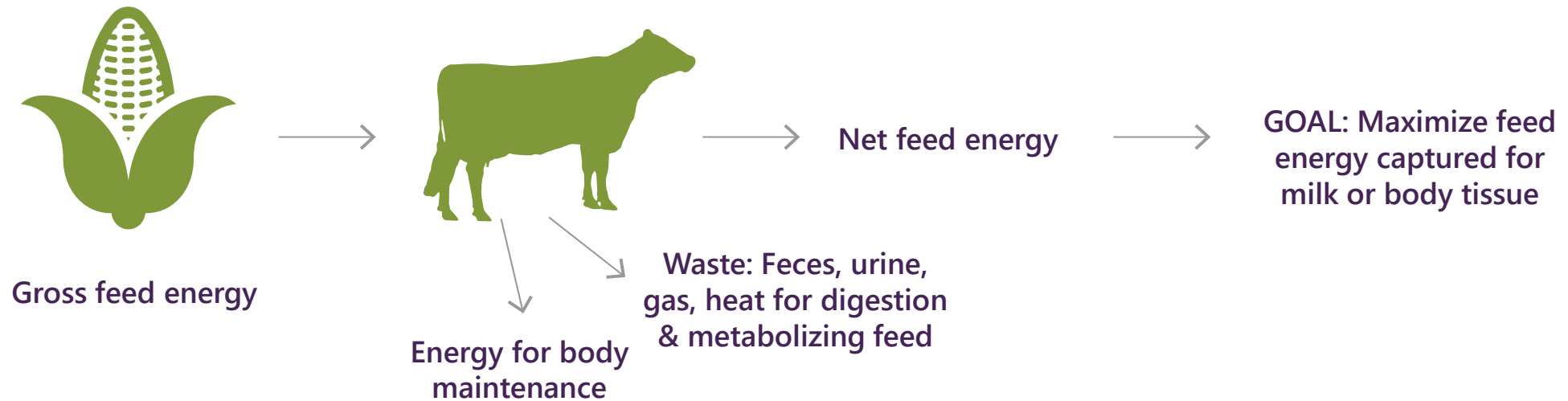
"3967 hasn't been sick a day in her life and neither were her dam or grandam. Creating healthy, feed efficient, sustainable, fertile cows that perform – like 3967 – is our goal at GENEX."

Pete Weber, GENEX Account Manager

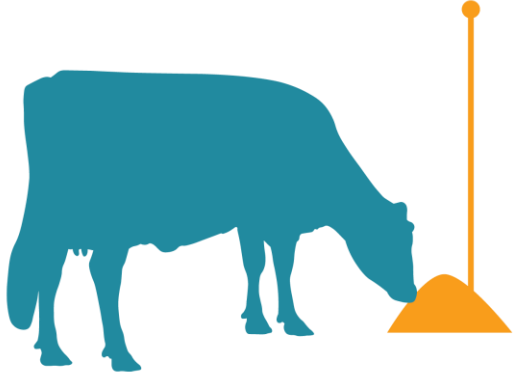


It All Comes Back to Efficiency...

- › Feed is the single highest expense on the farm
- › Breeding for feed efficiency can lead to overall **lower feed costs**
- › A more efficient herd is also **more sustainable** with less manure & greenhouse gas impacts



GENEX
+153.6



OTHER STUDS
+49.6



GENEX (1st) = **153.6 FSAV** Average
OTHER STUDS = **49.6 FSAV** Average
That's a difference of **104!**

Feed Saved (FSAV) represents the expected pounds of feed saved per lactation based on Body Weight Composite and Residual Feed Intake.

Given the same production and body size, daughters of GENEX bulls will on average eat **104 fewer pounds** of feed per lactation compared to daughters sired by competitor sires!

Putting it in dollars and cents...



GENEX = **153.6 FSAV** Average
OTHER STUDS = **49.6 FSAV** Average
That's a difference of **104!**

In a herd that freshens 1,000 heifers per year,
the GENEX FSAV average
compared to the rest of the industry
can save **nearly \$35,000 in feed costs!**

Herd with 1,000 heifers freshening annually		
Difference in lbs. DMI/cow/lactation	104 lbs.	153.6 FSAV – 49.6 FSAV
Difference in DMI cost/cow/lactation*	\$12.48	104 lbs. x \$0.12
Difference in lbs. DMI over 1 lactation	104,000 lbs.	104 lbs. x 1,000 head
Difference in lbs. DMI over 2.8 lactations**	291,200 lbs.	104,000 lbs. x 2.8 lactations
Difference in DMI cost over 2.8 lactations*	\$34,944	291,200 lbs. x \$0.12

*Assuming DM cost of \$0.12/lb. **Based on 2.8 average lactations from CDCB FSAV research | Source: Apr 2025 NAAB Active File for Holstein Bulls

GENEX™

ICC™

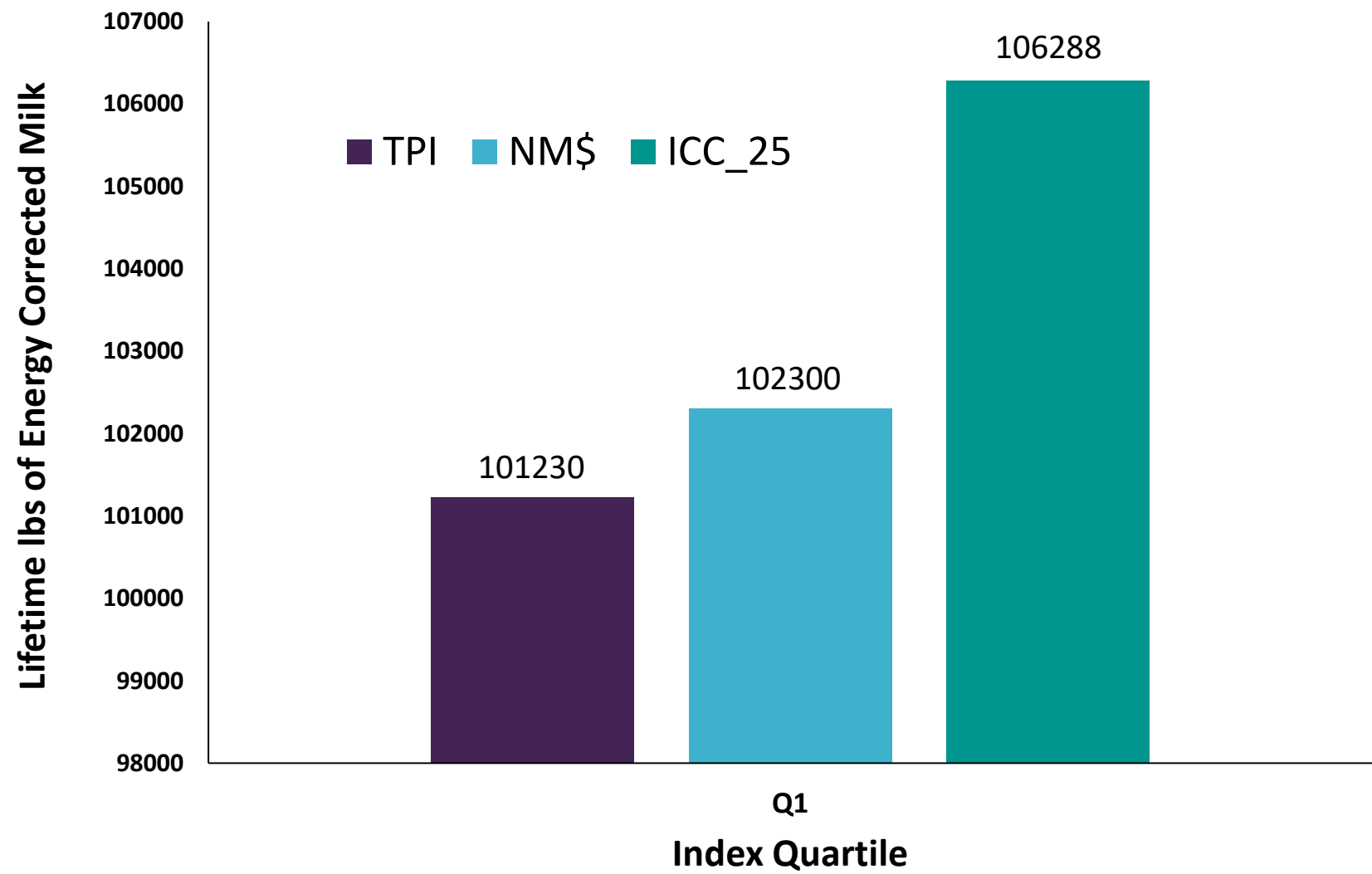
Real-World ROI

Validation Data Set



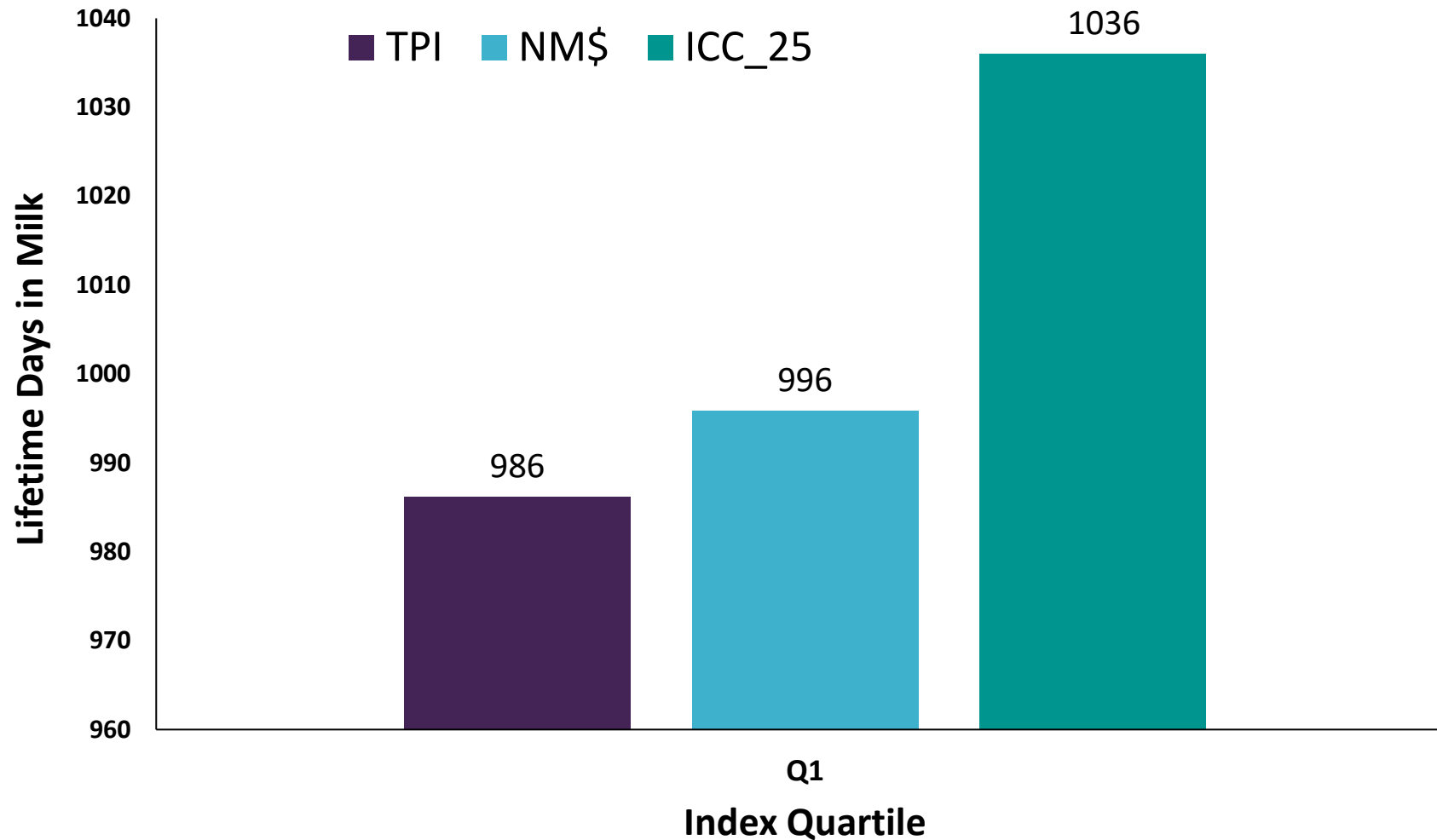
- › Multiple progressive, well-managed Holstein herds across the USA
- › Nearly 30,000 genomic-tested females with ICC™ values
- › Actual production, health events, repro & culling data
- › Retrospective analysis

Average Lifetime lbs Energy Corrected Milk by Index Quartile



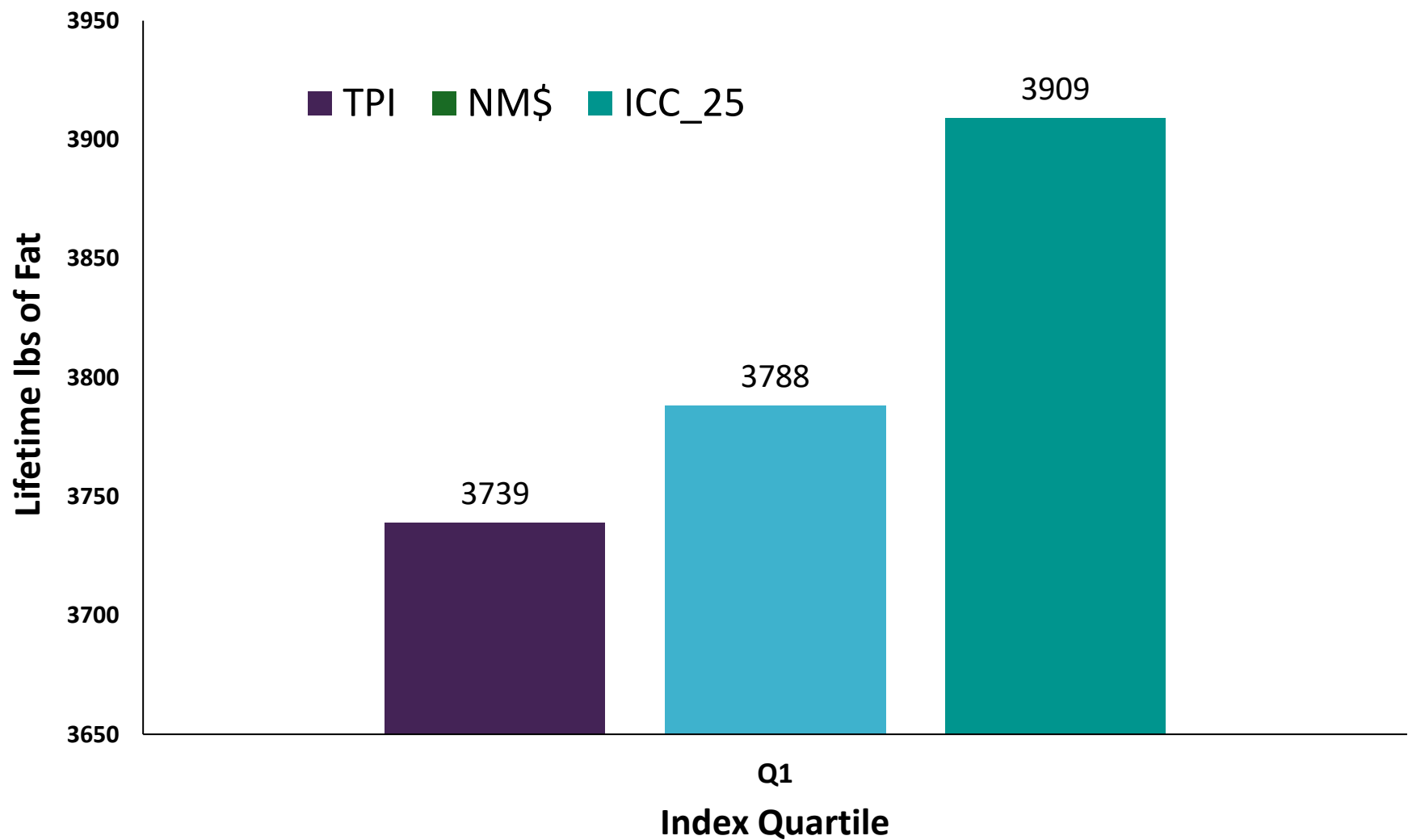
Source: GENEX internal data set. April 2025 proof data

Average Lifetime Days In Milk by Index Quartile



Source: GENEX internal data set. April 2025 proof data

Average Lifetime lbs Fat by Index Quartile

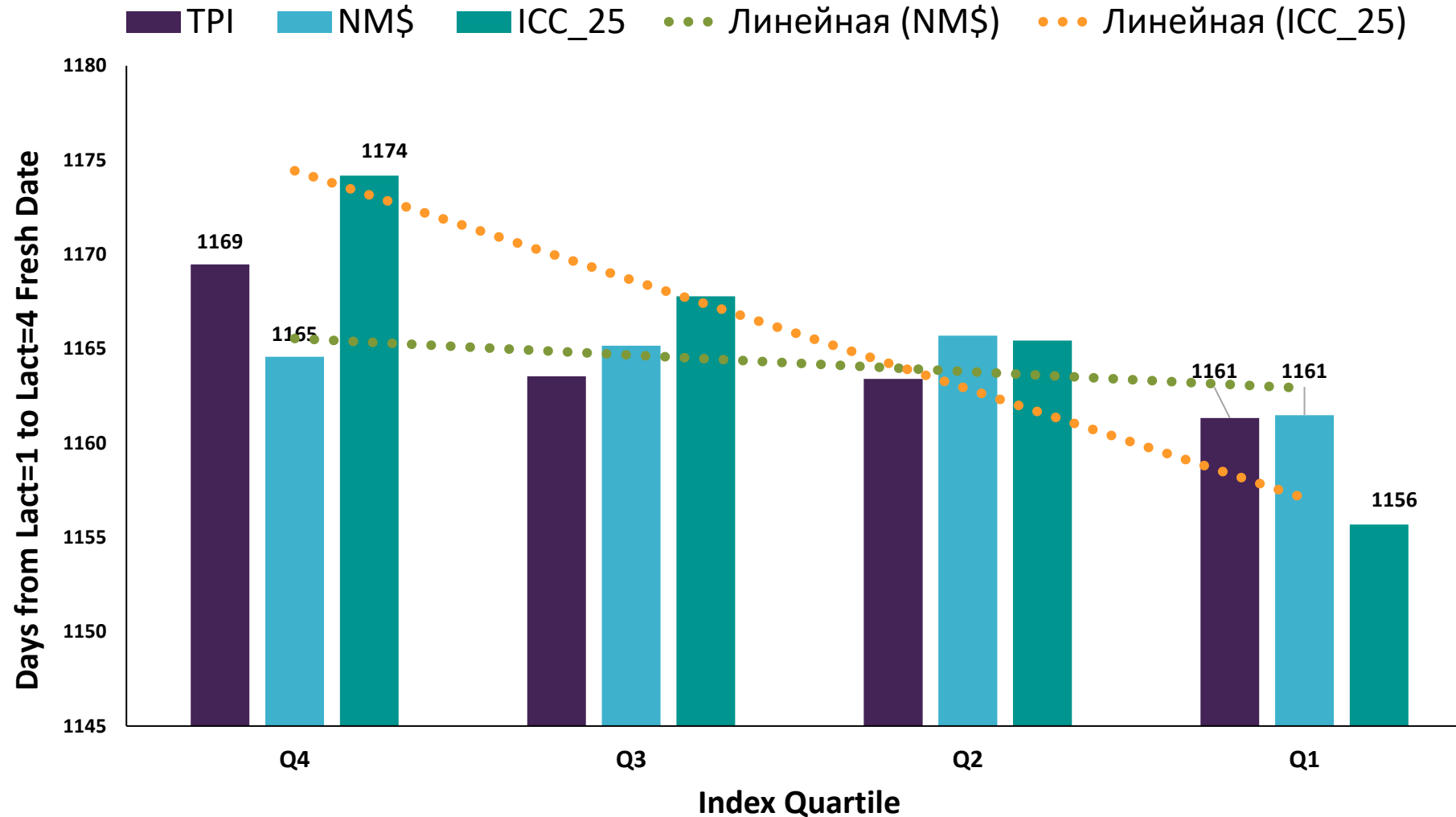


Source: GENEX internal data set. April 2025 proof data

Top ICC™ Animals Achieve ROI Sooner



Average days from 1st lactation freshening date to 4th lactation freshening date by Index Quartile



Female Fertility Advantage



Top 25% for each Index	ICC™ '25	NM\$ '25	TPI®
% Reach Lact=4	46.4%	42.9%	42.4%
% Reached Lact=4 by 1095 Days*	13.9%	12.2%	12.1%
Total Times Bred to Lact=4*	5.98	6.17	6.12

With the ICC™ index,
more females reach their fourth lactation,
and they get there faster and with fewer times bred.

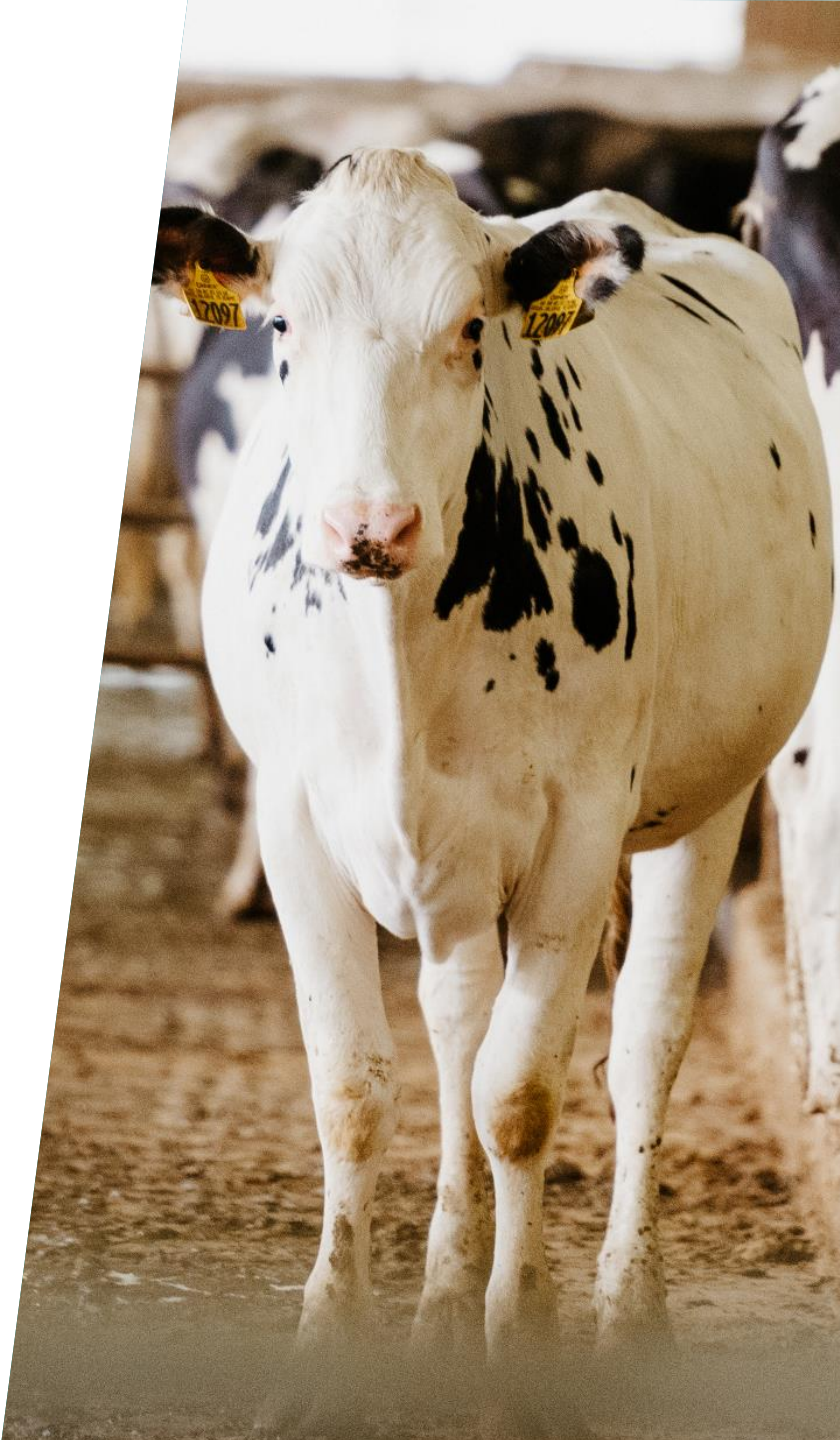
Source: GENEX internal data set. April 2025 proof data

Health Advantage from the Start

Top 25% for each index	ICC™ '25	NM\$ '25	TPI® '25
Mastitis Event % (L1)	7.06%	7.65%	7.21%
Average LGSCC (L1)	1.701	1.763	1.734
Metritis Event % (L1)	13.28%	13.89%	13.73%
% Sold/Died (L1)	16.47%	18.01%	18.20%

ICC™ creates females with fewer health, transition and cull events.

Source: GENEX internal data set. April 2025 proof data



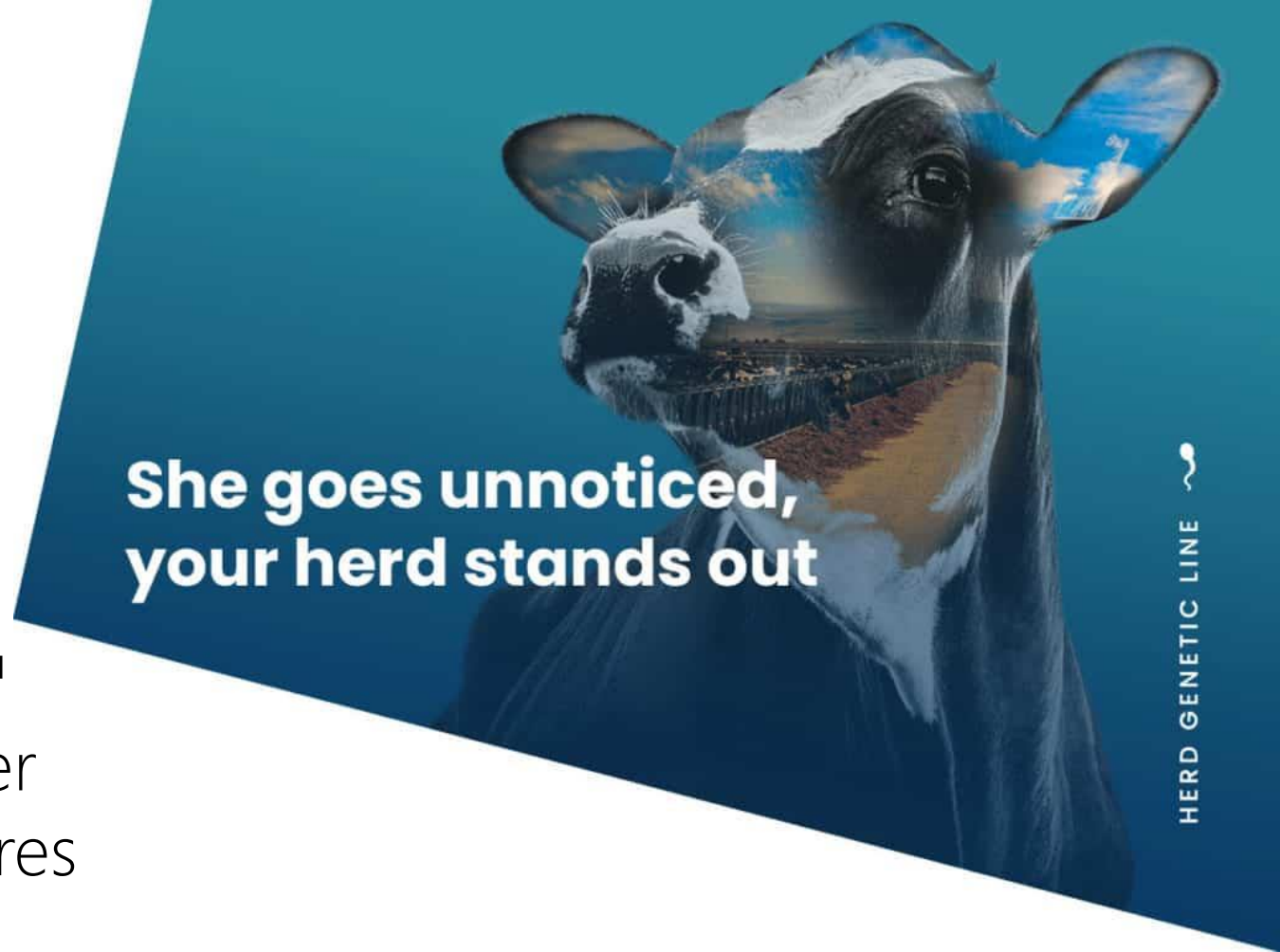
Sustainable Dairying is Our Social Responsibility

- › Dr. Kaitlyn Briggs
 - › Focused on Animal Welfare & Sustainability continuous improvement projects,
 - › 1 of 6 leading experts with fairlife®
- › Animal Health - Cornerstone of Sustainable Dairying
- › Cows with clinical mastitis have **6.2%** higher emissions/gallon of milk than those without.
- › At the herd level, 27 additional cases of mastitis/100 cows increases total emissions by **1.7%**.



Conclusions

- › High ICC™ cows will produce more energy-corrected milk in their lifetime & do it faster than other cows.
- › Daughters of bulls with high ICC™ index values live longer & healthier than daughters of high-ranking sires of other indices.
- › Daughters of bulls with high ICC™ index values have the biggest advantage in Feed Saved.



**She goes unnoticed,
your herd stands out**

HERD GENETIC LINE



Genetics today for the generations of tomorrow.