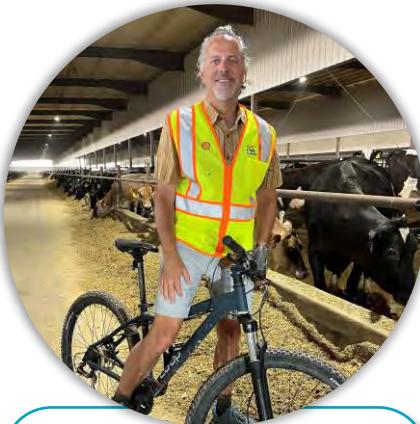


# What Should I Expect from my Consulting Nutritionist?

With moderator Jeff Keunen  
Adisseo Ruminant Technical Sales Manager, Canada



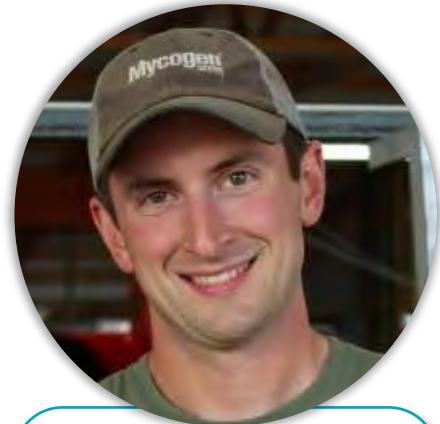
**Greg Bethard**

*High Plains  
Ponderosa Dairy*



**Brian Houin**

*Homestead Dairy*

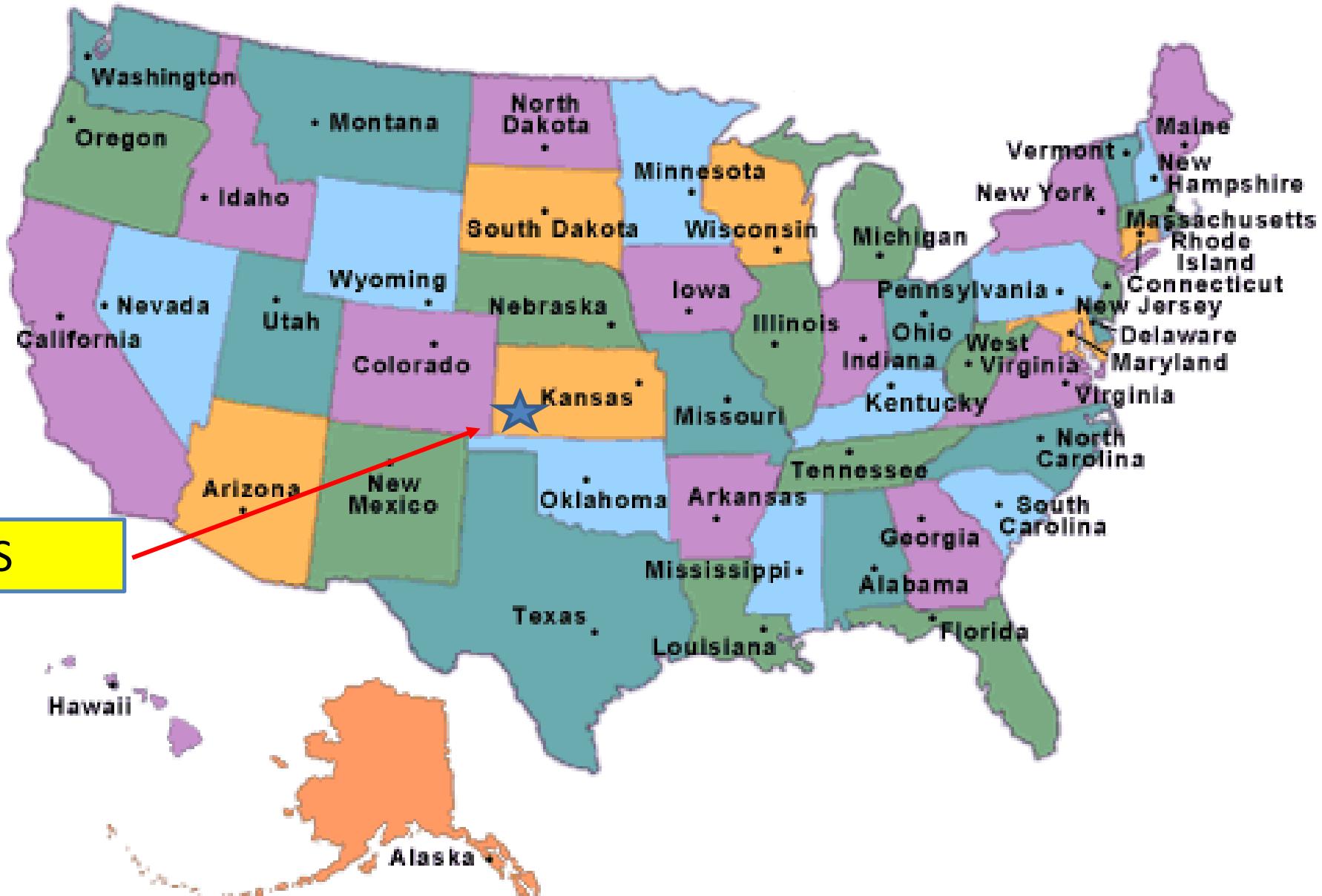


**Sam Fessenden**

*Silver Spirit Farm*



**Greg Bethard, Ph.D.**  
**CEO and Managing Partner**  
**High Plains Ponderosa Dairy**  
**Plains, KS**

















# Big Data

- We Utilize *Surveillance* tools that were developed to answer questions:
  - Did we get close up cows moved at the right time this week?
  - Did we get enough cows bred this week?
  - Did cows get dried off on-time this week?
  - Did foot trimmers get enough cows trimmed this week?
  - Are fresh cows healthy this week?
  - Was milk letdown good yesterday?
  - Were cows hot yesterday?
  - Are heifers getting sick?
  - Do we have more warts this week?
  - Etc etc etc

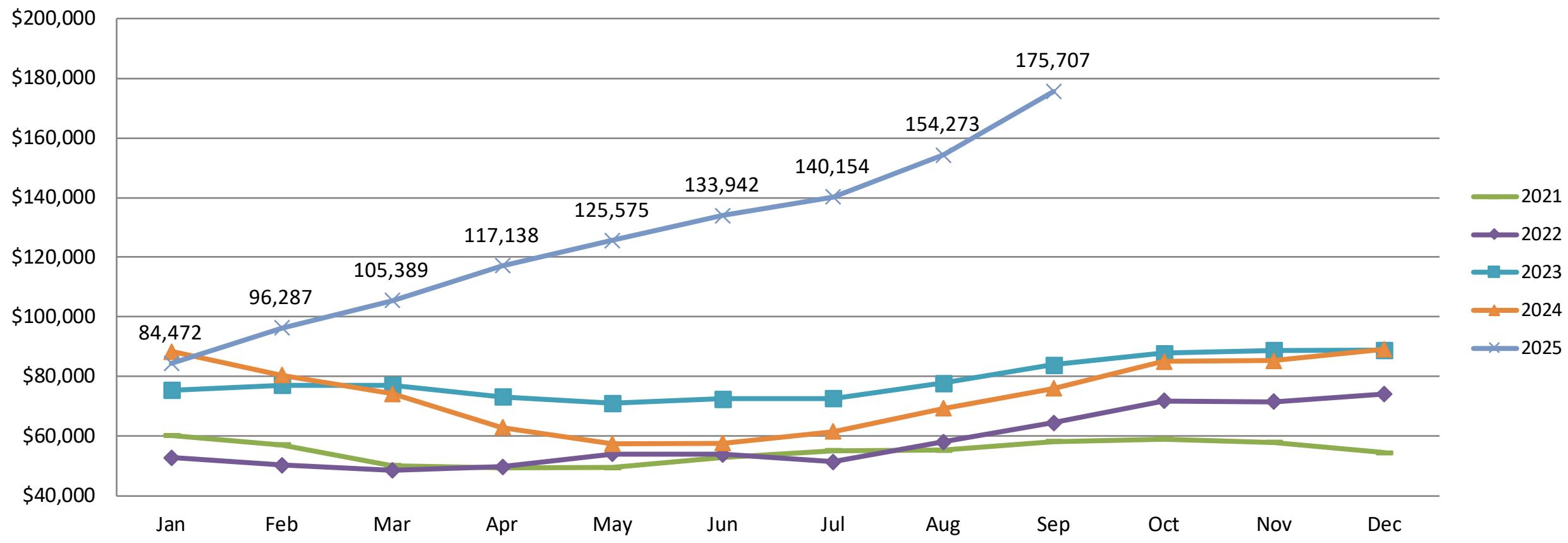
# Surveillance Power Points, PDF's, and Power Bi

- Daily
  - Parlor Summaries - [PPT](#)
  - Heavy Breathing Summary – [PPT](#)
  - [Power Bi](#) – daily milk, intakes, components, etc
- Weekly
  - Fresh Cow Report – [Power Bi](#)
  - Milk Quality Checklist - [PPT](#)
  - Pen Capacities - [PDF](#)
  - Heifer Cohorts - [PDF](#)
  - Breeding report – [Power Bi](#)
- Biweekly
  - Payroll report - [PDF](#)
- Monthly
  - Milk Sold Summary - [PPT](#)
  - Monthly Heifer Monitor - [PPT](#)
  - Lame Summary - [PPT](#)
  - Dead and Beef Summary - [PPT](#)
  - Milk Quality Summary - [PPT](#)
  - Survival Curve - [PDF](#)
  - Lact=1 cohorts - [PDF](#)
  - Inventory Projections - [PPT](#)
  - Feeding Monitor - [PDF](#)
  - Parlor Chemical Usage - [PDF](#)
  - Feed inventory and Shrinkage - [PDF](#)
  - Test Day Summary - [PDF](#)
  - Financials – P&L, Borrowing Base, Cost/hr for equipment - [PDF](#)

# What does Efficiency mean to us?

- In three words....*Breakeven Milk Price*
- In a commodity world it is how you compete
- Our most important Dairy Metric is *Static Variable Margin*...
  - More important than individual cow metrics like milk/cow, preg rate, conception rate, etc

## High Plains Ponderosa Static Variable Margin, Dollars per day

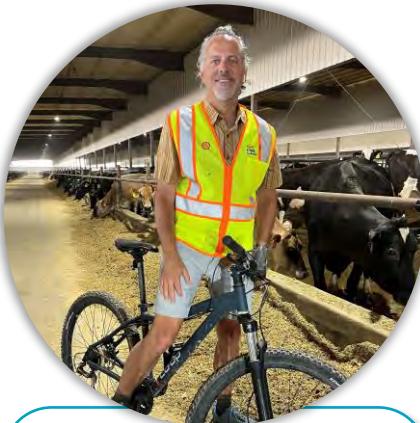


Static Margin = IOFC/d - \$2.05/d

\$2.05/d = Dry Cow Feed (\$0.30/d) + Replacement (\$1.25/d) +  
supplies (\$0.50/d)

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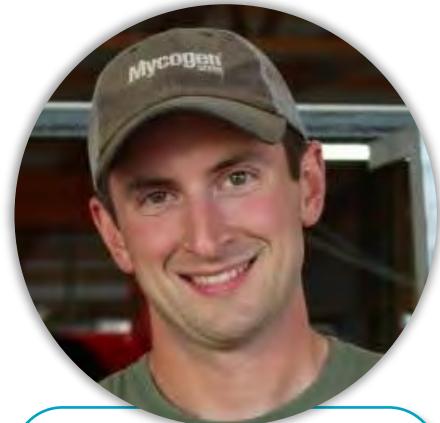
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*Homestead Dairy*



**Sam Fessenden**

*Silver Spirit Farm*

# Homestead Dairy LLC.



**Family owned and operated since 1979**

# Homestead Dairy LLC.

- Double 25 Parallel parlor built in 2000
- Afifarm and Afilab
- Milking 2100 cows, 3 times a day
- Methane Digester installed 2013



# Homestead Green Energy Est. 2013

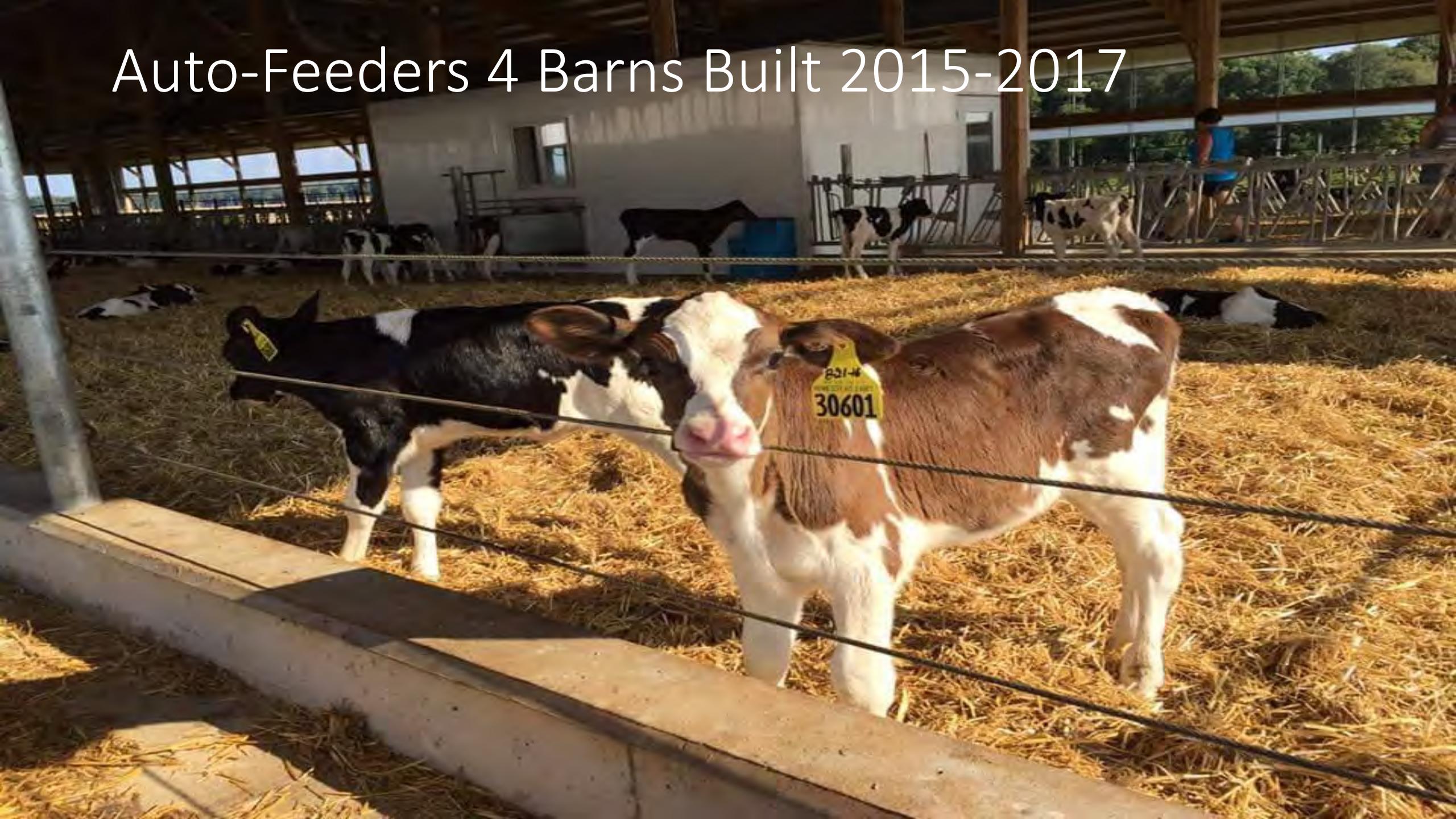


# Legacy Dairy

- Purchased in 2007
- Double 8 parallel
- Expanded to double 12 in 2010
- Installed Afi in 2010
- Only 1<sup>st</sup> lactation animals
- Currently milking 830



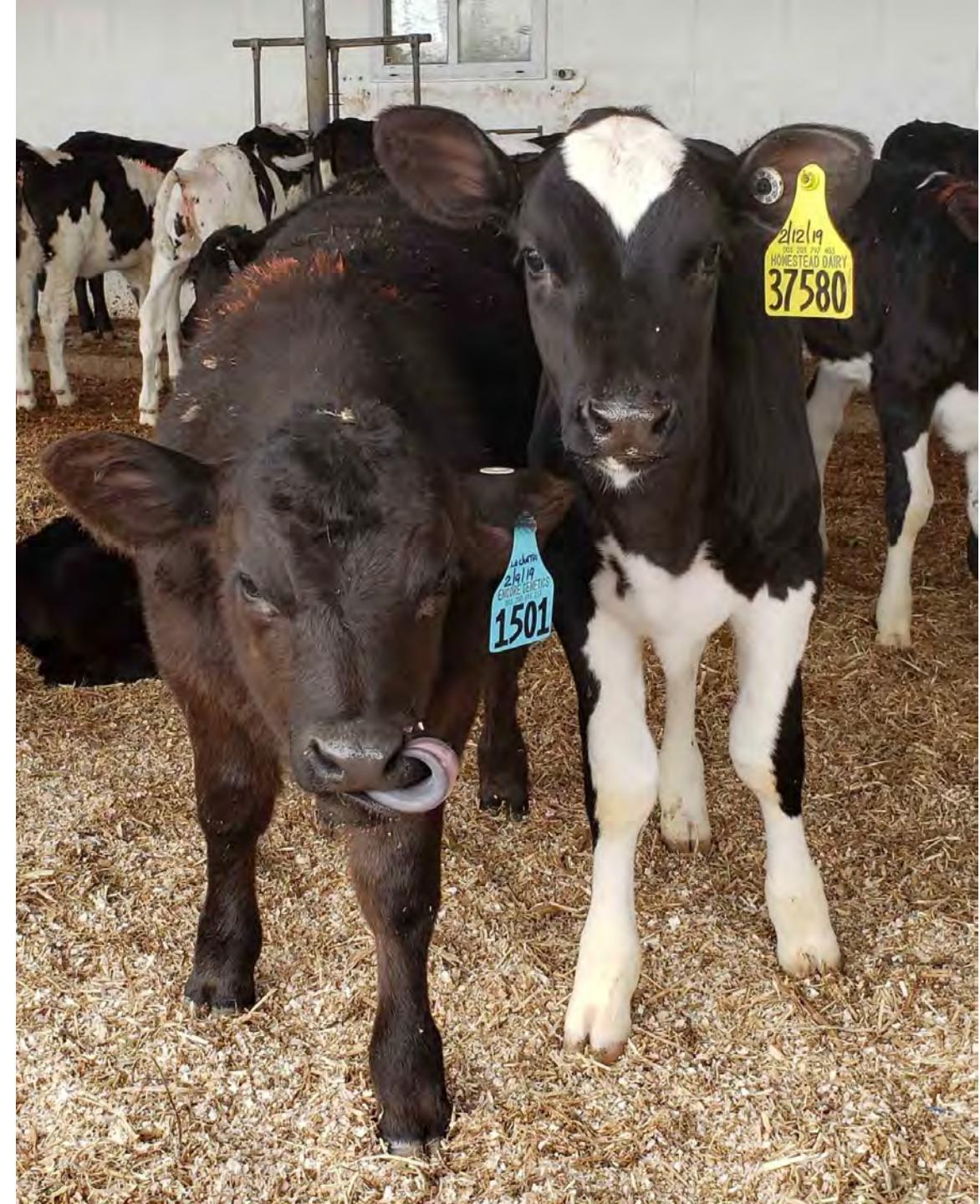
# Auto-Feeders 4 Barns Built 2015-2017



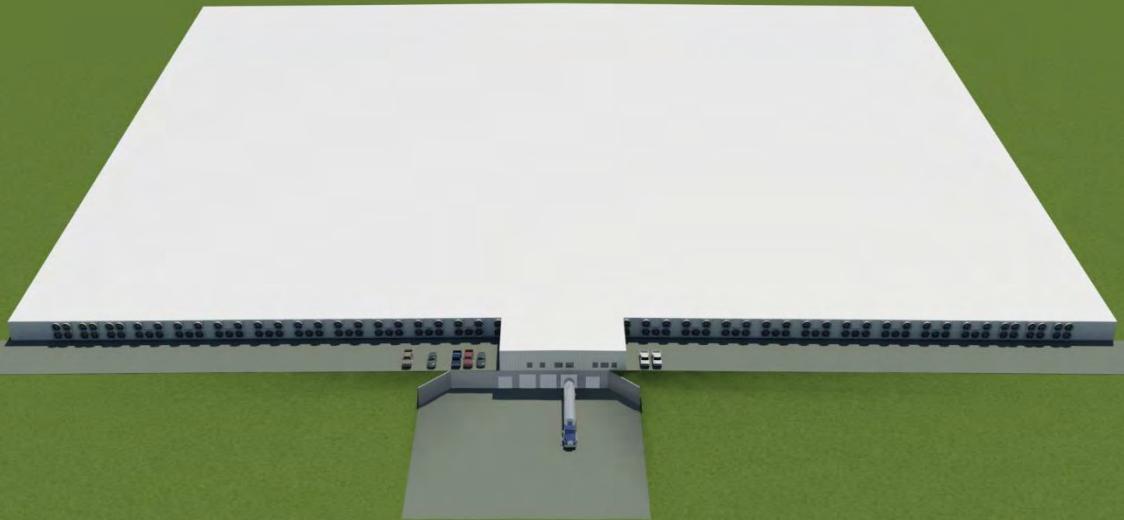


## Genetic Testing Since 2012

- Bottom 50% DWP\$ get Beef semen or Holstein Embryo
- 50 Holstein Embryos per month
- Automatically imports in Dairy Comp



# Robotic Dairy

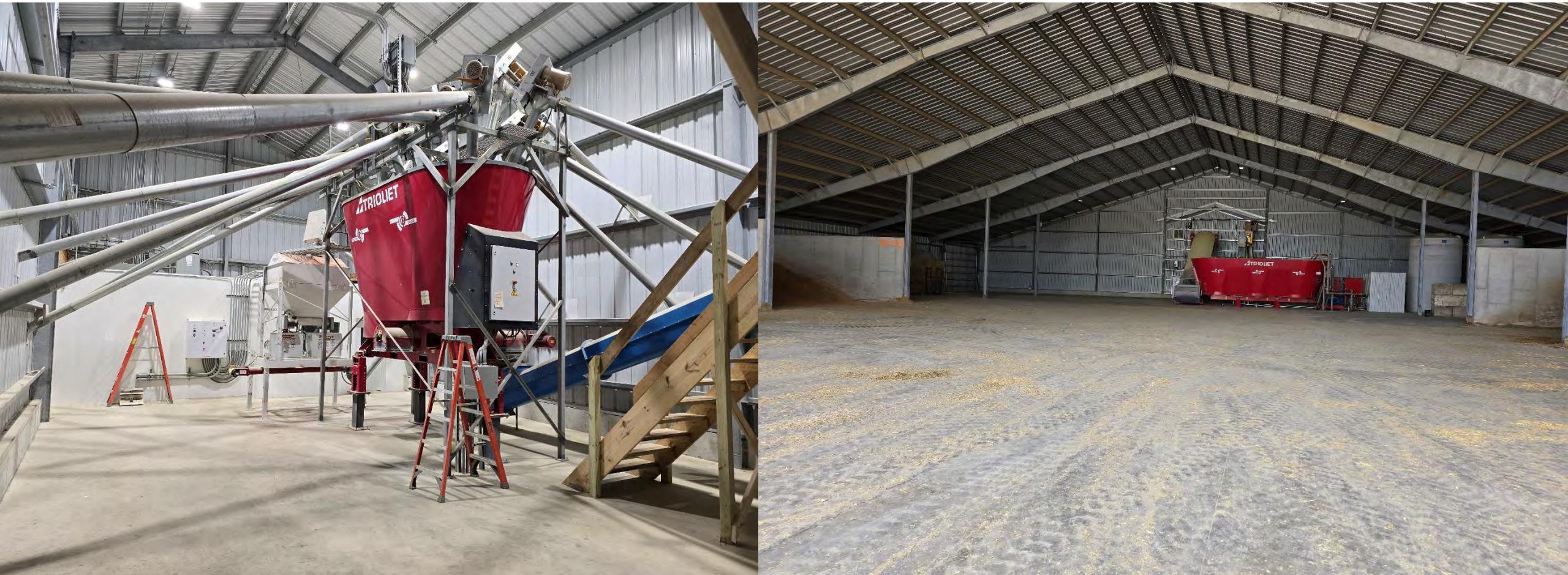


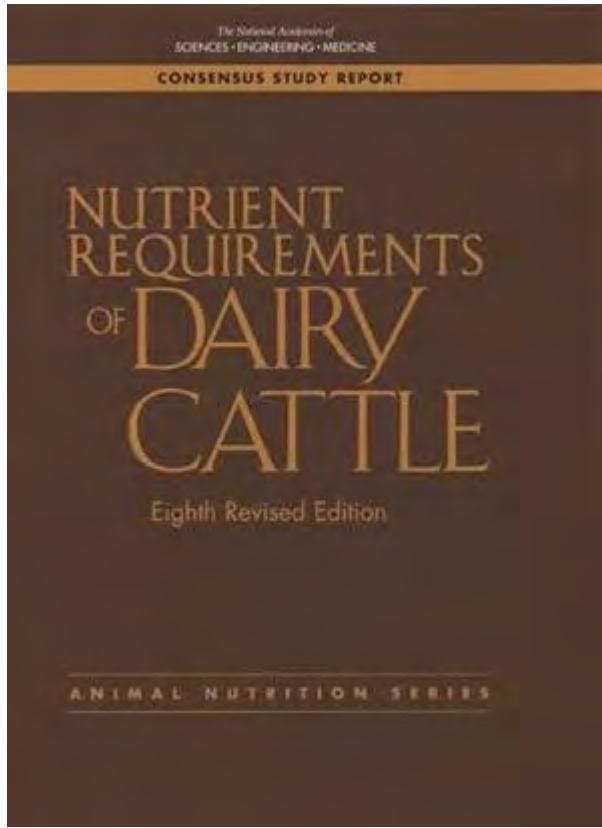
- 36 Lely A5 Robots
- 3 Robots per pen
- New Maternity Pen
- Far off Dry Cow



# New Feed Center

- Started Operation March 2025
- Automated making of premix
- Hand Load forages





# Why and how I learned Nutrition

- 2010 had fresh cow problems
- Started with Amino Cow
- Chance meeting at World Dairy Expo
- 2014 introduced to NDS
- 2015 on my own
- 2017 hired a consultant

[Download free trial version!](#)

 **NDS PROFESSIONAL**

*Nutritional Dynamic System*  
CNCPS based platform for  
ruminant diet formulation and  
evaluation

Registration is required to download the demo. If you are already registered, please  
follow the link to provide your login information and download the trial.

Visit our site or follow us on Facebook  
[www.homesteaddairy.com](http://www.homesteaddairy.com)



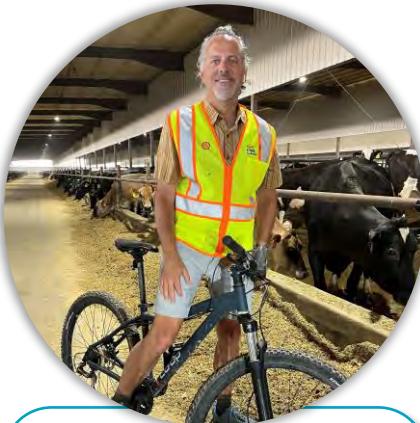
Our Mission is to supply the highest quality Agricultural products in a sustainable way, while creating a positive impact for cows, business, and community.

Thank you! | [brian@homesteaddairy.com](mailto:brian@homesteaddairy.com)



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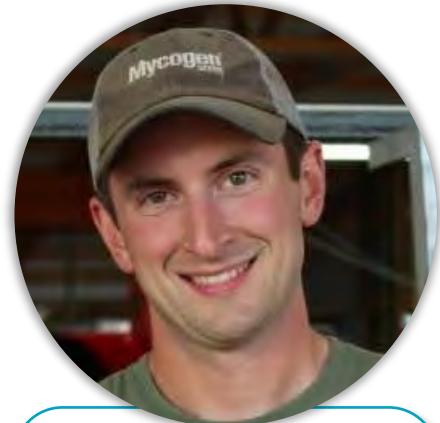
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**Sam Fessenden**

*Silver Spirit Farm*

# Silver Spirit Farm



**Samuel Fessenden, PhD**  
**Silver Spirit Farm, Elgin, MN**  
**Agricultural Modeling and Training Systems (AMTS)**



# Silver Spirit Farm – People

- Partnership between Craig and Cathy Reiter, Sam and Brenda Fessenden
  - New robot dairy started in September 2020



# Our Journey

- Craig and Cathy bought the farm in 1989
- Raised 5 kids
- Milked in 70 cow stanchion until 2011
- Transitioned to raising dairy steers



- Brenda--grew up on farm
- BS and MS from UMN (working on PhD)
- Joined Genetics team at Zoetis in 2013
- Tech Service Lead, Zoetis Precision Animal Health

- Sam --grew up on a 500 cow dairy in Central NY
- BS from Cornell, MS from UMN, PhD from Cornell.
- Joined AMTS in 2016



Cornell University



UNIVERSITY OF MINNESOTA



# Overview

- **130 cows on 2 Lely A5 robots**
  - All heifers raised on site
- **300 acres of tillable ground**
  - Corn silage, alfalfa, annual haycrop, rye silage
  - High-moisture and dry corn
- **Steers raised from birth to 6wt.**
  - Sexed and beef semen, genomic testing

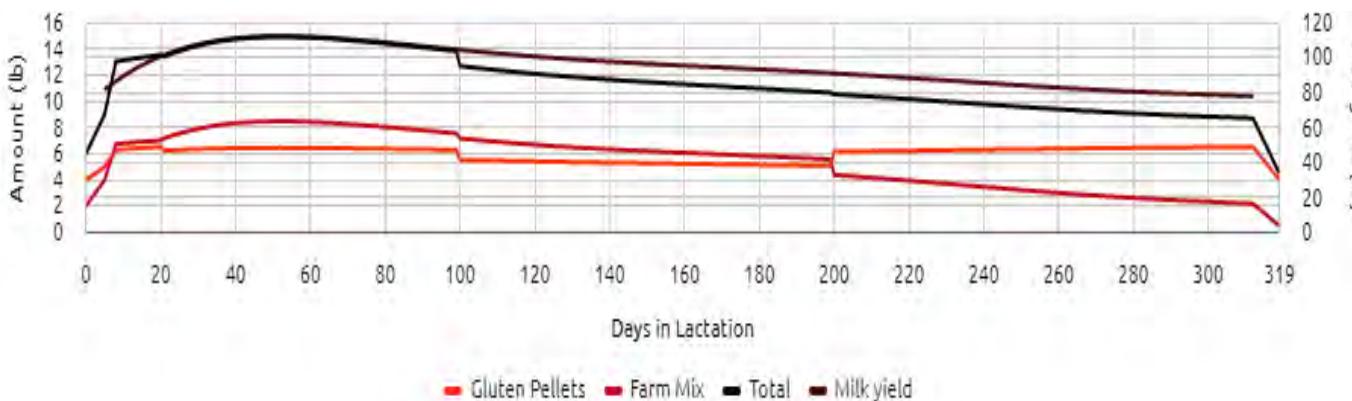






# Robot Feed

- Ground dry corn (home-grown)
  - Mixed with some protect AA on-farm
- Gluten pellets (bulk)
- Target 8-12 lbs total robot feed/100lbs milk
  - Start at 40:60 corn:gluten, work up to 70:30 for peak/high cows
  - Bring back down to 20:80 corn:gluten as milk production decreases





# Most valuable resource: Time

- Capital investment in robots is like paying for a very high-tech parlor **PLUS** 5-7 years of labor.
  - Con: Paying interest on the labor expense
  - Pro: They show up for work
- Just like a parlor, financial efficiency comes from pushing more F+P harvested per unit time.
  - Reduce free time & down time (maintain and clean!)
  - Increase milk/hour (milk speed, attachments)
  - Increase milk/cow (dilution of maintenance, fewer cow touches/cwt)
  - Milk the right cows at the right time! (milk access)

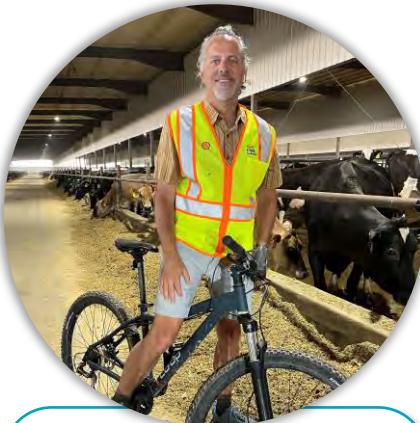


# Thank you!



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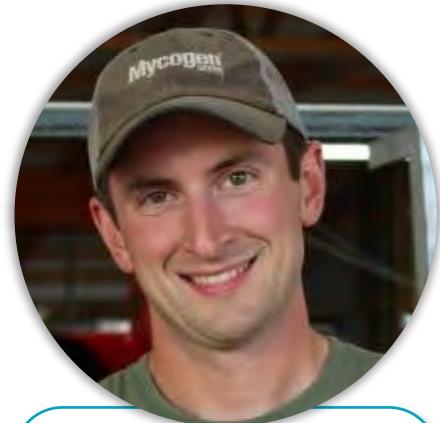
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