# RentralStar BIG BOOK

### GET MORE GENETICS. REPRODUCTION. MILK. HERD'S HEALTH.



# **Dairy Greatness from Great Lakes Farmers**

Founded in 1916, the Michigan Milk Producers Association (MMPA) is a farmer-owned milk marketing cooperative and dairy processor. MMPA's member farms, located throughout the Great Lakes Region, lead the way in guality milk production. Nationally recognized for their commitment to quality, MMPA serves its member-owners every day, not only by marketing their milk, but by providing services and opportunities to all.





#### Building a better herd, one CALF at a time

Remember that feeling? The one you get when a cow goes Excellent, or when your top producer delivers a healthy heifer calf. It's that feeling that all the hard work, late nights, and decisions are leading to real progress. It's knowing you've done your best.

While the dairy industry continues to evolve, growing larger and more complex in some instances and more niche in others, some things never change. There's still satisfaction in seeing a healthy newborn calf stand and knowing it carries the best genetics for your future milk herd. Or, if it's a calf destined for beef, that it's made of genetics growers want, because they're thrifty and built to hit the ground growing. When the best decisions are made for every calf on the farm, it drives your operation's success.

This year's Big Book digs into what it truly means to **get more** out of your genetics, your herd's health, your data, and your reproduction programs. With the right tools and strategies, you can make every calf count; from that special heifer to the beef x dairy calf, both add profit to your bottom line.

This year, our ReproStar Award winners showed what's possible when you combine commitment with expertise. By partnering with their CentralStar teams, they achieved remarkable levels of reproductive efficiency and created more sustainable herds. Their success stories start on page 23 and remind us that getting more from your herd begins with genetics and reproduction, but extends far beyond those initial steps.

The year-end top-DHI reports highlight how some of the best in the industry are using their data to drive success. Look for the "get more" features addressing key areas to impact your herd's health and performance, along with insights from several CentralStar team members.

At CentralStar, we believe every calf has value and potential, and our goal is to help you unlock it. By partnering with the CentralStar team, you gain access to a network of experts who bring knowledge, hands-on experience, and a passion for your success. Working alongside you, our team will help you transform data into actionable insights, optimize herd-management strategies, and maximize the potential of every animal.

So, let's chase that feeling. With the right strategies and support, every calf, every breeding decision, every data point can contribute to building a better herd, one calf at a time.

On behalf of the CentralStar team,

Kelly Bristle Director, Member Relations and Promotions



#### Who's who

4	Pioneer award
23-27	ReproStar award winners
	DHI year-end production reports
13-20	Top 20% ECM herds
29-31	Top ECM protein-breed herds
33-34	Low SCC herds
37-40	Top herds by size & ECM

#### Resources

- 1p-27pHerd-management product solutions4pGuide to calf care challenges
  - 6p First Day Formula<sup>®</sup> research study
  - 8p CONVERT<sup>™</sup> case studies
  - 10p Guide to cow health challenges
  - 12p Ca3 BioFresh® research study
  - 15p Accel Ensile+ research
  - 19p DTX<sup>™</sup> research
  - 24p ProfitSOURCE®
  - 26p AccelAIRate on-farm trial
  - 45 Key performance indicators

#### 'Get More' features and articles

- 19 Mycotoxin binders
- 21 Finding the sweet spot
- 22 Early-life calf health
- 28 Best index for long-term success
- 35 Enhance revenue with beef genetics
- 36 Reducing non-completion rate
- 40 From the female side
- 41 Lameness and herd losses
- 43 Boost calf health
- 45 Calf immunity

#### On the cover

ReproStar Award Winner, Reed Dairy Farm, Owosso, Mich. L to R: Elizabeth (Liz), Malissa, and Steve Reed. Photo by The Mattesons Photography.

#### **Fine print**

Reports and Key Performance Indicators are based on the period of  $10/1/23 \cdot 9/30/24$ . Owner-sampler and commercial herds are not eligible for report rankings. Energy Corrected Milk (ECM) calculation = (pounds of milk x .327) + (pounds of fat x 12.95) + (pounds of protein x 7.65). Herds with cows milked more than 2X per day are labeled as 3X herds.

#### Minimums to appear include:

- Number of processed tests = 9 or a DCR >90
- Herd size: 25 cows
- Minimum ECM: mixed-breed and high-protein-breed herds: ≥19,000
- Minimum SCC report: ≤100,000 SCC and ≥20,000 ECM



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www.mycentralstar.com 800.631.3510

### PIONEER AWARD CHARLIE WILL

In the late 1970s, Wisconsin dairy producers weren't exactly rolling out the welcome mat for a fresh-faced Michigan Animal Breeders Cooperative (MABC) salesman named Charlie Will. Farmers were strongly loyal to their local breeding cooperative, and as the first person in northeastern Wisconsin to sell Select Sires genetics. Charlie often faced resistance. He remembers vividly: "I was told by more than one dairyman to, 'get out of here we already have a co-op.' We even had a farmer meeting where people from the local breeding cooperative showed up and said, 'We don't need another co-op here.' But then a farmer named Jerry Stencil (Denmark, Wisc.) stood and fired back, 'They have a lot better bulls than you, so get out.' They left, and Jerry became a great customer and friend."

What started with cold calls and closed doors in Brown County gradually blossomed into a growing territory for the cooperative. Charlie's persistence converted skeptics into loyal customers, helping the cooperative expand throughout the state. But as nearly everyone knows, Charlie's story and impact to the cooperative (now known as CentralStar), Select Sires, and the industry doesn't end there.

Born and raised on a dairy farm in southern Illinois, Charlie's love for cattle and respect for farmers fueled his entire career in genetics. Originally, Charlie sought a role at Select Sires in the sire department, however, fate had a different plan. While reading Hoard's Dairyman, he saw a sales position in



Indiana for, then, MABC, marking the start of his journey into dairy genetics.

Central**Star** 

For four years, Charlie opened new markets and helped grow the cooperative's presence with farmers. Although he enjoyed his role as a salesman and part-time genetic evaluator at the cooperative, he was grateful when Select Sires General Manager Dick Chichester hired him as an Assistant Sire Analyst in 1978. Charlie recalled, "After I had been at Select Sires 10 years, I had a bull come in that had a pretty good proof – BLACKSTAR. It was at that time, that Dick, the sire team, and the member-managers signed a letter that said I was officially off probation."

For more than 43 years, Charlie contributed to the sire development at Select Sires, leading as Holstein Sire Program Manager for 20 years. In these roles, he had a direct hand in shaping the genetics of the Holstein breed. "I always wanted to be part of something that would impact cattle across the country," Charlie recalled.

Over the years, Charlie introduced bulls that would go on to define entire eras of dairy genetics. Iconic names like MARK, BLACKSTAR, OMAN, DURHAM, ELTON, ROTATE, and BLITZ set new performance standards, and became hallmarks of his career. "OMAN held the #1 TPI® spot in the industry longer than any other bull in history, and we sold more than 1.5 million units of BLITZ," Charlie said. "Bulls like these truly made a difference for dairymen, and that's what I'm most proud of."





Through his decades of work, Charlie helped shape Select Sires' legacy, while staying focused on one key goal: to improve the economic viability of dairymen across the country. His legacy is one of dedication and a deep commitment to serving farmers, traits that have left a lasting imprint on the industry.

Charlie and his wife Linda live in Marysville, Ohio, where they enjoy spending time with their family.

The CentralStar Pioneer Award was established in 1977 to recognize individuals who, through unselfish and dedicated service as leaders, have provided the cooperative and its members greater prosperity, today, and a more secure tomorrow. The Pioneer Award is presented by the CentralStar Board of Directors.



Also check out DectoGard™ (doramectin topical solution) DectoGard Pour-On which contains the same active Pour-On ingredient and control regimen as Dectomax<sup>®</sup>(doramectin) Pour-On, but at a fraction of the cost per head. prinomectin On for Beef and Dairy Cattl SAME **ACTIVE AS EPRINEX®** BEST PRICE **ALWAYS** EpriGard® (eprinomectin) Pour-on — the dairy manager's new low-cost, broad-spectrum weapon against 39 species and stages of internal and external parasites WEATHERPROOF PROTECTING THE LEGACY **FORMULATION** ZERO MILK DISCARD Part of protecting your legacy is protecting your dairy

cattle investment against profit-robbing parasites. Now you can get max protection without hurting your profits with EpriGard<sup>®</sup>



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# GET MORE FROM YOUR GENETICS ERECTION

Leverage breed-leading genetics and proven reproductive programs to maximize your herd's potential and productivity. We can help you with day-to-day reproduction work and the strategic plans necessary to optimize heifer inventory, while providing programs to maximize your beef x dairy calves.



#### Top 100 sires for Herd Health Profit Dollars® (HHP\$®)

All active Holstein proven & genomic young sires



Source: August 2024. <sup>®</sup>Herd Health Profit Dollars and HHP\$ are registered trademarks of Select Sires Inc.

### **GENETIC** IMPROVEMENT

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Access to the world's best dairy, beef, and crossbreeding genetics to create the herd you want. Take your genetic selection to the next level when you enroll in Select Sires' NxGEN<sup>®</sup> program for early access to the most elite Holstein sires.





#### REPRODUCTION MANAGEMENT

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- Utilize professional A.I. Specialists to manage your herd's reproductive needs including heat detection, breeding, and synchronization program administration.
- Add CowManager<sup>®</sup>, a revolutionary life-time eartag sensor that works 24/7 to detect the health and fertility status of every animal.



### **INVENTORY** MANAGEMENT

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- Apply customized mating recommendations to optimize your herd's genetics and inventory needs.
- Use genomic testing to identify genetically superior animals for making future herd replacements.
- Strategically use sexed and conventional dairy semen, custom-selected beef semen, and full-beef embryos to optimize inventory management.



### HERD PERFORMANCE MONITORING

Even when the individual areas of your dairy are operating at top performance, opportunities for optimizing total outcomes still exist. CentralStar Consultants track trends, troubleshoot areas impacting performance, and provide insights to key management areas, helping you to get more from your herd.



# OPT FOR SUPERIOR GENETICS EVERY TIME!



TODAY!

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\*\*DWP\$ not available for ABS and ST. \*Ties broken by GPTA Protein, then GPTA Fat. August 2024: Holstein Assn Listing of Top 100 DWP\$ Genomic Young Bulls, Genomic active sires. <sup>1</sup>Validation of genomic predictions for a lifetime merit selection index for the US dairy industry. DWP\$<sup>®</sup> is a registered trademark of Zoetis Services LLC.



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EARLY ACCESS TO THE INDUSTRY'S MOST VALUABLE

### FROM CALF TO COW LIFETIME MONITORING. MAXIMIZE PERFORMANCE.



**SCAN NOW** 

Monitor your herd's health and productivity from calf to cow with our lifetime ear sensors. They provide real-time data to detect diseases early and tailor treatment by age, allowing you to address health, fertility, transition, and nutrition issues anytime. Our lifetime ear sensors follow your herd from birth throughout every life phase.

By combining Artificial Intelligence with ever-evolving algorithms, you receive accurate, comprehensive, and manageable information. This allows you to take proactive action. Our new, durable sensors come with a lifetime warranty, and we provide you with local support whenever you need it. We manage the tech so you can focus on what truly matters—your cows!





AHEAD OF THE HERD TOGETHER

www.cowmanager.com

# GET MORE FROM YOUR

Routine DHI testing collects essential data from just a few ounces of milk, delivering powerful insights into your dairy herd's productivity, health, and profitability-all for only pennies a day. By incorporating automated solutions like milk-based diagnostics, DHI allows cows to maintain their natural routines, which research has proven enhances herd health and profitability while reducing labor demands on your dairy farm. With DHI testing, you gain the ultimate early-warning system, enabling you to detect and resolve potential issues before they escalate into costly problems.



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#### Higher-producing cows rest more

Daily behavioral time budget for top 10% of cows by milk production and average milk production cows (h/d).<sup>1</sup>

Activity	Top 10%	Average	
Eating at manger	5.5	5.5	
Resting	14.1ª	11.8 <sup>b</sup>	Ь
Standing in alleys	1.1 <sup>b</sup>	2.2ª	
Perching in stalls	0.5 <sup>b</sup>	1.4ª	
Drinking	0.3	0.4	

Source: Grant, 2004

#### DATA-DRIVEN MANAGEMENT DECISIONS

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- ↗ Accurate data collection.
- Customized DHI programs for any size herd and set-up.
- Seamless data transfer to breed associations.
- Official test types meet CDCB requirements.
- Records processed through DRMS, the largest dairy records processing center in the USA!



# CONVENIENT & COST-EFFECTIVE DIAGNOSTIC TESTS

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- Use milk samples to gain insights for health and physiology, saving you time and eliminating labor to find, sort, and lock-up cows.
- Add analysis for A1/A2, BVD, BLV, Johne's, mastitis, pregnancy and more.
- Perform multiple tests on one sample.
- Send samples direct to lab or through routine DHI testing.



### TURN DATA ≝ACTION

- Choose from hundreds of standard printed reports or custom build reports specific to your herd.
- Maximize milk quality with FREE SCC reports.
- Leverage DART (formerly PCDART) dairy management software and mobile-app for convenient access to insights for herd management. Interfaces with most major milking and electronic heat- and healthmonitoring systems. Affordable per-cow pricing, local support, and FREE program updates.



### **GET MORE WITH ENDLESS** MANAGEMENT REPORT OPTIONS

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#### **SCC Hot Sheet - FREE**

Provides SCC scores for all cows and ranks their contribution to the bulk tank. Emailed within 24 hours of sample processing.

Index	Barn	Milk	Fat %	Pro %	SCS	Count	MUN	DIM	Lact	CAR	W/O	%
1409	1409	88.5	3.2	2.6	8.6	4851		79	6		140	12.7
1521	1521	80.3	3.4	3.0	8.5	4526		185	4		123	10.8
1884	1884	82.3	4.4	3.4	7.5	2263		160	2		115	5.5
1758	1758	70.0	5.1	3.4	7.1	1715		179	3		109	3.6

#### 7 Test Days with Herdmate Deviation (220)

Tracks trends for milk and SCC. Lactation-to-date data includes deviation from herdmates, ranking cows within the herd.

Pa		SC	CC and	Milk We	ights by	Test Da	ay	San	nple Day	/ Data	Carl Sec.			La	ctation To	Date			Project	ed 305 2X	ME	Times	Bred	Due
Bre	Permanent ID	Test Date 03-30	Test Date 04-27	Test Date 05-27	Test Date 06-22	Test Date 07-20	Test Date 08-21	Milk	Fat%	Over Feed \$	Barn Name	Lact No.	Fresh Date	Days in Milk	Milk	Fat	Pro 0	Over Feed \$	Diff. fre	om Herdm	ates	Bred	Date	Date
Batch	Sire ID	Milk SCC	Milk SCC	Milk SCC	Milk SCC	Milk SCC	Milk SCC	SCC	Pro%	Summit Milk	Index	Days Dry	Age Yr/Mo	Days 3X	ERPA \$	Fat%	Pro%	Perst. %	Milk	Fat	Pro	Service	Sire ID	Action Needed
	840003008538901 MORTAIL	98 3200	96 115	88 132	92 857	89 93	84 81	69.9 123	3.6 3.0	119	701	6 20	6-16 7-04	466	44600 +731	1804 4.0	1306 2.9 E	3 100	31437 +341	1326 +85	933 -30	2 JUMPSHO	10-23 T	7*29 F
1.000	840003003831045 SCORPIO	TF 100	115 13	156 13	132 13	128 13	148 13	116.5 14	3.7 3.1	135	775	6 52		181	23485 +323	853 3.6	658 2.8 (	98	33215 +626	1220 +12	969 -28	3 JAGUAR	8-28	6-04 P 10-12
HO 1	840003011934894 SHOT	DRY	DRY	138 41	160 33	144 18	136 20	136.0 29	2.3 2.6	152	794	6 43	5-12 7-03	135	18956 -316	538 2.8	504 2.7 (	0 107	34629 +1815	984 -194	977 -19	1 TOPSY	8-07	5-14 P

#### **Udder Health Monitor (427)**

Monitors SCC by lactation group. Identifies cows to cull for poor udder health. Overview benchmarks herd with top 20% of cohort herds.

	Cows to Treat or Watch - 1st Lactation Infected this test or last test (SCC >= 200K (SCS >= 4.0)) and DIM >= 5																	
	Lact.													Preg.				
Index	Grp	#	DIM	Milk	SCC	SCC	Level	SCC	SCC	#	%	Infected	Inf.	Loss	Milk	Milk	Bred	
8772	3	1	226	81.2	650	429	CHR	214	~~~~	4	57	2-12-13	135	83	28,487	~~~~	150	Ρ
8720	3	1	407	89.2	528	66	NEW	264	~~~~	7	54	7-09-12	98	77	33,155	~~~~	157	Ρ
8726	3	1	389	57.7	348	132	NEW	100	~~~~	2	17	3-12-13	326	63	33,722	~~~~	221	Ρ

#### Herd Evaluator (402)

Monitor trends to trouble-shoot and identify areas of opportunity in a herd. Easy-to-read herd overview summarizes key areas known to affect profitability on Midwest dairies including average daily milk, SCC, turnover and death loss, pregnancy and conception, and herd inventory. Graphs provide quick visual with data tables providing more in-depth information.



bit         India         Fail         Ford         PPN         OPR         PEN         PAIL           1         Kelsterge Replet LC, Norm Harch, Wi         H0         40         33,00         199         4.         1,138         12         7.5         40,955           4         Top-fact, Farrs, Wersgine, IA         H0         7.2         33,240         1.864         4.8         1,412         3.1         2.2         38,342           5         Snith Dary, Genetia, Wi         H0         390         1.864         4.8         1,412         3.1         2.2         38,343           6         M.4.C. Dary, Lensigne, IA         H0         390         1.844         40         1.122         3.2         7.1         38,321           7         Sand Tock Linghy LC, Histogris, M         H0         4.8         3,822         1.444         4.1         1.42         3.9												
2         Kenster Dary Ec. Davis, II         H0         410         37.00         1.50         4.5         1.13         3.2         7.5         40.955           4         Top-Deck Farrs, Westgas, IA         H0         7.2         32.73         1.56         45         1.13         3.3         7.2         35.94           5         Shith Ding Greented, W         H0         316         33.94         1.53         3.2         1.4         3.3         1.16         3.3         1.13         1.33         3.14         1.13         1.33         3.14         1.13         3.3         1.13         1.33         1.13												
1         investion ID, Section JM, March MC, DA, DA, DA, DA, DA, DA, DA, DA, DA, DA			÷									
4         7         Top-Dec Farms, Weighage, IA         H0         7/2         39.449           5         Shith Oray, Lens Springs, IA         H0         316         33.91         15/2         4.5         11/3         3.3         7.1         29.372           6         MAC Davy, Lens Springs, IA         H0         316         32.8         14.4         4.0         13/33         3.2         7.1         93007           7         Sward Cambul, LC, Alpann, WI         H0         4.07         34.22         1.404         3.1         1.026         3.3         7.1         38.862           10         Bissor Farms, Inc., Claiter, WI         H0         4.92         3.755         1.414         4.1         1.066         3.4         6.8         37.867           11         Tom Kinkels, Claiter City, WI         KX         1.022         3.2         4.9         1.046         3.3         6.7         3.57.17           14         Tom Kinkels, Claiter City, Marcin, MI         H0         1.043         3.157         1.46         1.066         3.3         6.8         3.57.17           14         Tom Kinkels, Claiter City, Michawer, MI         H0         1.023         3.406         1.48         1.1043         3.8		*										
5         Shinh Daiy, General, Wi         H0         31.01         32.932         4.5         1.112         3.2         7.1         92.032           7         Sand Cock Joby Luro Spring, Sin         H0         96.2         3.444         4.0         1.132         3.2         7.1         93.032           8         Forse Formelaci Fame Sciel, Wi         H0         440         3.2         1.44         1.06         3.1         4.8         3.2         7.1         33.630           9         Sinka Fame Li, C. Jong, Wi         H0         440         3.25         1.44         1.06         3.1         6.8         3.767           11         Tom Kinkel, Cabo City, Wi         H0         475         3.27         1.32         1.38         3.3         6.9         3.767           13         Fascher, Catar, Early Fames, Lich, Nich         H0         1.04         3.3         1.88         3.3         6.9         3.767           14         Nabion Sing Hait, Lich, Nich Catar, Min Hu         H0         1.29         3.775         1.49         1.4         1.105         3.8         3.0         1.8         3.3         6.8         3.717           15         Fascher Mang, Mantelia, Min Hu         H0         1.99<		*										
b         M & C Larly Line Springs, IA         H0         940         35.02         1.444         4.2         1.123         1.2         2.1         39.273           7         Same Cox Dahy LLC, Halams, MI         H0         1.407         3.232         1.409         4.3         1.133         2.3         1.40         3.3         1.716         3.3         7.11         3.8023           10         Raws Farms Isc, Calit, WI         H0         4.00         3.252         1.400         1.3         1.20         3.7         6.88         3.786           11         Tom Kinks, C.Dac City, WI         H0         4.00         3.757         1.382         1.9         1.044         3.16         3.3         6.88         3.757           15         Halton Calicit, MI         H0         1.00         3.757         1.387         4.64         1.006         3.3         6.88         3.757           16         Halton Family LL, Kharn Calony, MI         H0         1.00         3.1570         1.67         4.64         1.005         3.3         6.89         3.7571           17         Halton Family LL, Mann Calony, MI, M         H0         1.60         3.158         1.88         1.10         1.1053         3.16		*										
/         Sand Crock Dary Lic, Heatings, MI         HO         Med         140         1437         342.23         149         43         1126         33         7.11         38.83           9         Strike Farms Lic, Caleu, WI         HO         400         33,052         1,400         41         1092         31         7.01         38.8973           10         Riberg Farms Lic, Caleu, WI         HO         420         32,552         1,411         44         1006         31         6,8         33,569           11         Forsker & Clark Dary Helley, WI         XX         104         31         6,8         33,169           12         Zornschlager Marker, State, Milley, WI         XX         104         31         6,8         33,169           13         Forsker & Clark Dary Hell, KM         HO         143         34,809         1,35         40         1049         31         6,8         33,110           14         Nobiosin Taigle Hall, Lic, Mont Carky, WI         HO         153         31,840         1,441         45         1022         32         6,7         38,891           16         Carke Dary Fams, Iond, HI         HO         141         13,848         130         48         93			,									
B         Horson Hornsstand Jams, Cacl, Wi         HO         407         3/223         1,449         4.3         1,228         3.3         7.1         7.8         3/242           10         Strate Sams IC, Agang, Wi         HO         400         3/262         1,450         4.2         1,070         3.2         6.4         3/242           11         Tom Kankel Catab Dily Hanns IC, Casle, WI         HO         428         3/245         3/340         3/344         4         1,000         3.4         7.60         3/345           12         Freiher Acken Dily Hanns IC, Casle, WI         HO         230         3/30         6.48         3/3745           14         Nebic Dair Farms, SL Johns, MI         HO         103         3/324         4.61         1,653         3.3         6.48         3/3717           15         Nathan Bothers Dairy Hull, JA         HO         3/32         3/3717         3/3717         1,600         3.1         6.7         3/360         3.3         6.48         3/324         1,110         3.3         6.48         3/324         1,111         1,122         3.2         6.8         3/361           12         Catab Tairy Link, Mannut, MI         HO         3/325         3,1371		*	, , ,									
9         Strika Farms LC, Algona, Wi         HO         400         20,022         1,480         4.1         1,072         3.1         7.00         33,9392           11         6         Biter Smire, Cillel (Wi         HO         600         33,530         1,430         4.1         1,440         1,106         3.1         6,64         7,7467           13         7         Firscher & Cark Insigh Haller, Wi         XX         1,047         3,305         1,433         4.3         1,085         3.3         6,69         37,7667           14         Nation & Taily Excitant, Simana, Wi         HO         1,047         3,452         1,433         4.0         1,415         4.4         1,105         3.3         6.6         3,7767           15         Halle Matchar, Mi, Mi, Mi, Mi         HO         317.75         1,400         4.1         1,105         3.3         6.6         3,6700           10         Pairs Fame, Insin, Mi         HO         161         31,688         1,414         4.10         3.1         6.7         3,6801           10         Additional Marker         Hold Marker <th< td=""><td></td><td>*</td><td>, ,</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>		*	, ,									
11         •         Tom Karkel, Cuba City, Wi         HO         4/5         33.300         1.471         4.4         1.069         31         6.4         7.8789           13         •         Fischer & Colar Kolly, Hulley, Wi         XX         1.042         33.095         1.432         4.3         1.068         33         6.69         37.667           14         •         Note Mark Fames, Dato, Mint         HO         1.004         33.057         1.675         4.00         1.038         3.3         6.69         37.507           16         •         Nathrin S Tajja Elektari, Strawano, Wi         HO         1.033         3.1         6.7         35.507           16         •         Nathrin S Tajja Elektari, Mathrin K         HO         5.757         1.400         4.4         1.033         3.1         6.7         35.671           17         Fire Staring, Marken Multi, A         HO         5.757         1.400         4.4         1.043         3.1         6.7         35.671           10         * Cabac Mary Mathriki Maund, Mi         HO         1.041         3.038         1.417         4.4         1.043         3.1         6.6         35.826           * Firet Staring Starms Lic, Pattelekin, Maund, Mi <td>9</td> <td>*</td> <td>Srnka Farms LLC, Algoma, WI</td> <td>HO</td> <td>490</td> <td>35,052</td> <td>1,450</td> <td>4.1</td> <td>1,092</td> <td>3.1</td> <td>7.0</td> <td>38,593</td>	9	*	Srnka Farms LLC, Algoma, WI	HO	490	35,052	1,450	4.1	1,092	3.1	7.0	38,593
12       2 Zoronsk Framly Fram's LLC, Cader. WI       HO       475       23.765       1.444       4.4       1.060       3.4       7.06       37.765         14       -       Andrak Gake Najey Hanny, SJ. Johns, MI       HO       100       32.275       1.382       3.9       1.064       3.0       6.7       37.571         15       -       Nathan Galag Nature, SJ. Johns, MI       HO       123       31.570       1.457       4.6       1.035       3.6       9.8       3.8       1.043       3.1       6.6       35.570         17       -       Huhsten Brothers Dary, Mai, II       HO       100       4.858       1.384       1.043       3.1       6.4       3.8       6.8       1.041       4.5       1.022       3.2       6.8       3.8       1.041       3.1       6.4       3.8       1.041       3.1       6.4       3.8       1.041       4.7       4.8       4.93       3.2       6.8       3.8       1.041       4.1       4.5       1.022       3.2       6.8       3.8       1.041       4.0       1.042       3.2       6.8       3.8       1.041       4.5       1.042       4.5       1.042       3.2       6.6       3.6       3.8	10	*	Blaser Farms Inc, Gillett, WI	HO	602	33,852	1,430	4.2	1,092	3.2	6.9	37,942
Internal         Decision of the constraint, and the second of the s	11	*	Tom Kunkel, Cuba City, WI	HO	258	33,550	1,471	4.4	1,026	3.1	6.8	37,869
1         Notes Daily Farres, SL Johns, MI         10								4.4		3.4		
15         Nathar à Taja Retulaff Shavano, Wi         HO         123         34,099         1,375         4.0         1099         3.1         6.8         37,171           16         Locht Dayl LC, Muur Cavny, Wi         HO         533         1570         1,475         4.00         4.44         1105         3.5         6.9         37,117           17         Halskin Brothers, bairy, Hul, M         HO         546         33,458         1,388         4.14         1.043         3.1         6.7         36,691           10         Albel Dairy, Farms, Ford & Lac, Wi         HO         4.01         31,840         1,444         5         1.028         3.2         6.8         36,683           20         Glabs Dairy, Cincolot, Wi         HO         541         33,420         1,471         4.7         97         98         3.2         6.8         36,683           21         Varyabid Dairy, Cincolot, Wi         HO         241         33,420         1,411         1.003         3.3         6,83         3.65         3.7         4.0         1.031         3.2         6.6         3.6911           21         Varyabid Dairy, Cincolot, Wi         HO         1.035         3.3,40         1.0102         3.3												
16         Loch Daly LIC, Muur Cahary, W.         HO         993         315/0         1.457         4.6         1.036         33         6.8         37.11           17         Hubbins Bruchers Dairy Hu, IA         HO         568         33.658         1.388         4.1         1.043         31         6.7         36.940           19         Abot Dairy Farms, Fund du Jac, WI         HO         568         33.658         1.388         4.1         1.043         31         6.7         36.940           10         Glob Dairy Camerol, WI         HO         611         1.688         1.49         4.5         1.028         32         6.8         36.661           21         Weyslach Dairy Camerol, WI         HO         210.14         1.413         1.07         7.3         36.27           23         Banne Ridge Farms LC, Pietrelle, WI         HO         259         33.40         1.32         1.1         1.03         31         6.6         36.537           24         Weidsare Family Early Keethick WI         HO         1.28         31.84         1.08         31         6.5         36.527           25         Antorosins Dairy Farms, Sormaur, WI         HO         1.28         30.07         1.01												
17       Hulsdin Bröhes Daly, Hul, LÁ       HO       548       31.2       1.400       4.4       1.105       33.6       6.9       36.940         19       Abal Daity Fams, Fond di Liz, WI       HO       4.255       31.840       1.441       4.5       1.022       3.2       6.3       36.891         20       Fibes Daity, Ekhond, WI       HO       0.611       31.684       1.481       4.5       1.028       3.2       6.8       36.851         21       Fibes Calay, Ekhond, WI       HO       0.611       31.684       1.481       4.8       9.83       3.2       6.8       36.835         22       Ford Reght Fams, Lic, Platville, WI       HO       5.01       3.345       1.317       1.1       1.037       3.2       6.8       36.835         25       Antonisso Dairy Fam, Westfield, WI       HO       1.53       3.345       1.324       4.0       1.031       3.4       6.5       36.521         26       Adat Bales, Minor, IN       HO       1.052       3.337       3.333       1.344       4.0       1.031       3.4       6.7       36.547         27       George Kabergen, Mansfield, IL       HO       2.028       3.0276       1.404       4.0       <		*	,									
18         First Farms, form, M <sup>-</sup> HO         568         31,880         1,181         1,043         31         6,7         56,861           19         *         Abel Dairy Farms, Fond du Lac, WI         HO         6,155         31,840         1,441         45         1,022         32         6,6         35,661           21         * Fire Star Dairy, Et Mound, WI         HO         1,041         30,804         1,840         48         993         32         6,8         36,862           21         * Weysibe Dairy, Circellard, WI         HO         2,619         31,365         1,371         4.1         1,007         32         6,6         36,829           23         Banne Rdige Farms, Spentor, WI         HO         1,812         31,420         1,371         4.1         1,013         31         6,6         36,632           24         Weinstein Farmi, Spanton, Farm, Spanton, MI         HO         1,833         4,40         1,833         31         6,6         36,622           28         * Fred & Pal Boer, Miltori, IN         HO         1,833         31,65         1,124         31         8,6         36,622           29         Dan A, Marcian, MI         HO         2,033         1,333		*										
19         Abel Dary Earns, Fond du La, WI         HO         4.95         31.480         1.441         4.5         1.022         3.2         6.7         36.661           10         Floc San Dary, Elk Mound, WI         HO         6.11         31.688         1.439         4.5         1.028         3.2         6.8         36.613           22         Wayside Dary, Clk Mound, WI         HO         2.619         31.242         1.411         4.07         4.98         3.2         6.8         36.613           22         Banne Ridge Farm, L.P. Pateville, WI         HO         2.51         31.342         1.31.4         1.022         3.1         6.6         36.692           24         Weishaar Fami, Yestfield, WI         HO         2.57         31.349         4.0         1.032         3.1         6.6         36.647           25         Antrobusch Dairy Elk Monneffeld, L.         HO         2.75         1.528         1.31         4.6         6.6         36.447           29         Dan & Tim Linn, Xin Dyne, WI         HO         2.75         31.26         1.32         4.6         7.66.737           31         Harry & Gang Santom, Hubbardston, MI         HO         2.76         31.27         4.3         1.077			-									
0         Glabs Dafy Mierville, IA         HO         6.11         31.489         1.499         4.5         1.028         3.2         6.8         36.835           21         * Wayslo Dary, Greenalt Wi         HO         5.619         31.624         1.471         4.7         993         3.2         6.8         36.835           23         * Banner Reigr Farms, LLC, Plattelille, Wi         HO         5.519         31.625         1.471         4.1         1.067         3.2         6.6         36.857           24         Waisham Family Farm, Seymour, Wi         HO         128         33.399         1.343         0.1081         3.2         6.6         36.853           25         Anthrosits Dairy, Wesfield, Wi         HO         1.805         3.107         4.0         1.131         3.4         6.5         36.552           26         George Kasbergen, Mansfield, IL         HO         7.03         3.307         1.041         1.038         3.1         6.5         36.522           27         Fred & Pat Been, Mitrod, N         HO         7.05         3.307         1.041         1.038         3.1         6.5         36.624           30         Mainter Family Dairy, Miclain Mi         HO         7.03         <												
11         Fixe Size Diary (EE Maund, Wi         H0         1.041         1.0304         1.480         4.8         193         3.2         6.8         36,529           22         Waylde Daty, Greenlear, Wi         H0         559         3.3,65         1.317         4.1         1.032         3.1         6.5         3.627           24         Washaar Family Fam, Westfield, Wi         H0         359         3.3,26         1.317         4.1         1.032         3.1         6.6         36,583           25         Ambrossis Dairy Fam, Seymar, Wi         H0         128         3.3,39         1.314         4.0         1.032         3.1         6.6         36,582           27         George Kasbergen, Maneffeld, L         H0         2.79         1.528         1.31         4.0         1.045         3.1         6.6         36,447           29         Trind & Pad Boor, Millord, IN         H0         1.055         3.2070         1.307         4.0         1.015         3.4         1.038         3.1         6.6         36,5472           31         Manifeword In, Carer Nathbarrish I, M         H0         2.70         3.326         1.327         4.0         1.015         3.4         6.7         36,279		*										
12         Waysde Dañy Greenied, Wi         HO         2.619         31.242         1.471         4.71         6.70         6.86.27           23         Banner Ridge Farms LLC, Patteville, Wi         HO         559         33.362         1.372         4.1         1.067         3.2         6.6         36.6591           25         Antorsius Dairy Farm, Seymour, Wi         HO         128         33.342         1.372         4.1         1.021         3.1         6.6         36.6591           25         Antorsius Dairy Farm, Seymour, Wi         HO         128         33.399         1.343         4.0         1.0181         3.2         6.6         36.6591           26         Ferdel A Bater, Millord, IN         HO         1.037         3.4550         1.324         1.8         1.056         3.1         6.6         36.6171           30         Farde A Bater, Millord, IN         HO         7.05         3.2.6         6.6         36.6471           31         Markie Farairy Dairy, MEahn, MI         HO         7.03         3.3.673         4.1         1.038         3.1         6.6         36.2471           32         Locky Toky, MEahn, MI         HO         7.03         3.1.6         7.3         6.6 <td< td=""><td></td><td>*</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		*										
23         8         Barner Ridge Farms LLC, Platenelle, WI         HO         559         33.365         1.371         4.1         1.032         3.2         6.7         36.827           24         V         Weishaar Family Farm, Westfield, WI         HO         351         33.422         1.332         4.1         1.032         3.1         6.6         36.551           25         Amtosus Dairy Farm, Sparta, MI         HO         269         7.75         1.528         5.1         920         3.1         6.6         36.552           28         Fred & Pat Beer, Milrod, IN         HO         1.055         3.277         1.303         4.0         1.133         3.4         6.6         36.371           30         Harry A Gary Sarborn, Hubbardston, MI         HO         700         3.33         4.0         1.038         3.1         6.6         36.374           31         Lucky 7 Dainy, McBain, MI         HO         7.033         3.071         1.044         4.0         1.055         3.246         1.025         3.2         4.0         1.055         3.2         6.6         36.232           31         Lucky 7 Dainy, McBain, MI         HO         7.055         3.1         6.1         6.5         3.622		*										
12         Veckhaar Family Farm, Seymaur, WI         HO         251         3.3.422         1.312         4.1         1.021         3.1         6.6         36.591           25         Ambroxius Dairy Farm, Seymaur, WI         HO         128         3.399         1.343         4.0         1.081         3.2         6.6         36.583           27         George Kasbergen, Mansfield, IL         HO         0.3737         34.505         1.324         4.0         1.028         3.1         6.6         36.6417           28         F. ref & Pal Beer, Minor Jun         HO         1.055         3.276         1.324         4.1         1.038         3.4         6.6         36.321           31         Lack Ory Dairy, MEalin, MI         HO         2.76         3.322         1.330         4.0         1.037         3.1         6.6         36.329           32         Lack Ory Dairy, MEalin, MI         HO         2.756         3.322         1.322         4.0         1.073         3.2         6.6         36.222           33         Lack Ores Asing Lick, Battle Creek, MI         HO         1.333         3.02         1.322         4.0         1.075         3.2         6.6         36.222           34         <		*										
66         Mark Vanderhyde - Spartan Fam. Sparta, MI         HO         249         9.755         1.528         5.1         920         3.1         6.7         36555           27         *         George Kabergen, Mansfleid, IL         HO         3.737         34,550         1.324         3.8         1.056         3.1         6.6         36,472           29         Dan & Tim Liner, Van Dyne, WI         HO         245         3.307         1.333         4.0         1.038         3.1         6.6         36,372           31         Lock Y Bany Seam, Hubbardson, MI         HO         276         3.322         1.340         4.0         1.035         3.4         6.7         36,634           32         Minglewood Inc, Deer Park, WI         HO         2.76         3.7         1.014         4.6         1.035         3.264         1.025         3.2         4.6         1.025         3.2         6.6         3.6242           34         Caradal Farms LLC, Battle Creek, MI         HO         3.737         3.148         1.322         4.4         1.027         3.2         6.6         3.6242           35         Neyrele Harms, Turdan, MI         HO         7.373         1.417         1.056         3.2 <td< td=""><td>24</td><td>*</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	24	*										
27       George Kasbregen, Mansfield, IL       HO       3.737       34,550       1.324       3.8       1.056       3.1       6.5       36,522         28       Fred & Pal Beer, Milford, IN       HO       1.055       32,678       1.382       4.2       1.028       3.1       6.6       36,417         30       Harry & Gary Sanborn, Hubbardston, MI       HO       700       33.363       1.353       4.1       1.038       3.1       6.6       36,522         31       McAlleter Family Dairy LC, New Vienna, IA       HO       700       33.363       1.353       4.1       1.038       3.4       6.7       36,299         32       Lucky J Dairy, McBain, MI       HO       2.008       34,656       1.295       3.7       1.017       3.1       6.6       36,293         33       Lucky J Dairy, McBain, MI       HO       4.03       3.3328       1.322       4.0       1.007       3.2       6.6       36,422         36       Heimans Hotsteins LC, Marshfield, WI       HO       7.078       31.441       1.017       3.1       6.6       36,222         37       Roy-Line Hotsleins Pine Kiver, WI       HO       4.78       31,426       1.018       3.2       6.6       36,422	25	*	Ambrosius Dairy Farm, Seymour, WI	HO	128	33,399	1,343	4.0	1,081	3.2	6.6	36,583
28       •       Fred & Patt Beer, Millord, IN       H0       1.055       32.678       1.382       4.2       1.028       3.1       6.6       36.447         29       Dan & Tim Line, Van Dyne, WI       H0       245       33.007       1.307       4.0       1.133       3.4       6.7       36.417         21       McAliteler Family Dairy, LUC, New Vienna, IA       H0       276       33.271       1.440       4.6       1.053       3.4       6.7       36.296         31       Lucky 7 Dairy, McBain, MI       H0       235       2.160       1.372       4.3       1.047       3.3       6.6       36.296         34       Cardnall Farms, LLC, Battle Creek, MI       H0       375       32.666       36.242         35       Newell Farms, Tudant, MI       H0       473       33.38       1.322       4.4       1.027       3.2       6.6       36.242         37       Rosy-Lane Holsteins LLC, Watshfield, WI       H0       576       31.648       1.392       4.4       1.027       3.2       6.6       36.128         38       Sugar Creek Dairy, Elbern, WI       H0       448       32.267       1.366       4.2       1.018       3.6       35.896         <		*	Mark Vanderhyde - Spartan Farm, Sparta, MI	HO	269	29,755	1,528	5.1	920	3.1	6.7	36,555
29         Dan & Tim Line, Van Dyne, WI         HO         245         33.007         1.307         4.0         1.137         3.4         6.7         36.417           30         *         Harry & Gary Sanborn, Hubbardston, MI         HO         700         33.363         1.353         4.1         1.0365         3.2         6.6         36.3764           31         *         Lucky 7 Dairy, McBain, MI         HO         1.373         30.770         1.404         4.6         1.055         3.2         6.6         36.296           33         *         Lucky 7 Dairy, McBain, MI         HO         2.008         34.666         1.322         4.0         1.071         3.1         6.5         36.296           35         *         Newell Farms, Fluchan, MI         HO         473         3.328         1.322         4.0         1.077         3.2         6.6         36.232           36         *         Reinmas Holsteins LLC, Marshfied, WI         HO         478         3.328         1.322         4.0         1.017         3.4         6.6         35.232           37         *         Rosy-Lane Holsteins LLC, Marshfied, WI         HO         478         3.2261         1.333         4.1         1.050		*	George Kasbergen, Mansfield, IL	HO	3,737	34,550	1,324	3.8	1,056	3.1	6.5	36,522
30       *       Harry & Gary Sanborn, Hubbardston, MI       HO       700       33,363       1,353       4.1       10.38       3.1       6.6       36,372         31       McAllister Family Dairy LLC, New Vienna, IA       HO       276       33,221       1,340       4.0       1,053       3.4       6.7       36,299         33       *       Lucky T Dairy, McBain, MI       HO       2,008       34,666       1,295       3.7       1,071       3.1       6.6       36,299         34       *       Crandall Farms, LLC, Battle Creek, MI       HO       473       33,328       1,322       4.3       1,075       3.2       6.6       36,242         35       Newell Farms, Triant, MI       HO       473       33,328       1,322       4.4       1,027       3.2       6.6       36,242         36       * Sugar Creek Dair, Ethorn, WI       HO       476       31,417       4.6       1,027       3.2       6.6       36,282         37       * Rance Materlander, Pine River, WI       HO       447       31,716       1,364       4.2       1,050       3.3       6.6       35,896         4.2       * Selids Mn View Dairy, Luxemburg, WI       HO       1,1788       1,364 <td></td> <td>*</td> <td></td>		*										
31         McAllister Family Dairy LLC, New Vienna, IA         HO         276         33.221         1.340         4.0         1.065         3.2         6.6         36.364           32         Lucky Tolary, Mean, M         HO         1.373         30.770         1.404         4.6         1.053         3.4         6.7         36.296           34         Crandall Farms LLC, Battle Creek, MI         HO         355         32.160         1.372         4.3         1.047         3.3         6.6         36.293           35         Newell Farms, Tufant, M         HO         473         33.228         1.322         4.0         1.075         3.2         6.6         36.242           36         Reightams Holsteins LLC, Marsfrield, WI         HO         1.798         30.731         1.417         4.6         1.020         3.3         6.7         36.242           37         Rosy-Lane Holsteins LLC, Watertown, WI         HO         1.798         30.731         1.417         4.6         1.020         3.3         6.6         35.029           40         Curt Kohs, Gillett, WI         HO         4.77         31.3716         1.364         4.2         1.018         3.3         6.6         35.809           4.3												
12         *         Minglewond nr. Deer Park, WI         HO         1,373         30,770         1,404         4,6         1,053         3,4         6,7         36,296           33         *         Lucky 7 Dairy, McBain, MI         HO         2,008         34,665         1,372         4,3         1,007         3.1         6,5         36,293           35         *         Newell Farms, Tufant, MI         HO         473         33,328         1,322         4.0         1,007         3.2         6,6         36,243           36         *         Heimans Holsteins LLC, Marshfield, WI         HO         476         3,102         4,4         1,027         3.2         6,6         36,242           37         Rosy-Lane Holsteins LLC, Watertown, WI         HO         449         3,227         1,336         4,2         1,056         3.2         6,6         36,292           39         *         Harmen Waterlander, Pine River, WI         HO         447         3,166         4,3         1,035         3.3         6,6         38,953           41         Tom Engelken, EarVille, IM         HO         477         3,176         1,346         4,2         1,055         3.3         6,6         35,836 <td></td> <td>*</td> <td></td>		*										
33         *         Lucky 7 Dairy, McBain, MI         HO         2008         34.656         1.295         3.7         1.071         3.1         6.5         36.296           34         *         Crandal Farms LLC, Battle Creek, MI         HO         353         32.160         1.372         4.3         1.047         3.3         6.6         36.243           35         *         Newell Farms, Turdant, MI         HO         473         33.28         1.322         4.4         1.027         3.2         6.6         36.242           36         *         Negar Creek Dairy, Elhkorn, WI         HO         477         3.716         1.417         4.6         1.020         3.3         6.7         36.020           39         *         Harmen Waterlander, Pine River, WI         HO         448         32.267         1.366         4.2         1.018         3.2         6.5         36.029           40         *         Cut Kohs, Gilleit, WI         HO         447         7.3176         1.34         4.9         1.035         3.3         6.6         35.993           41         Torne Engeken, Earnie, LA         HO         7.913.1094         1.346         4.2         1.050         3.3         6.6		*										
34         *         Crandall Farms LLC, Battle Creek, MI         HO         355         32,160         1,372         4.3         1,047         3.3         6.6         36,242           35         *         Newell Farms, Trufant, MI         HO         473         33,228         1,322         4.4         1,027         3.2         6.6         36,242           36         *         Heimans Hotsteins LLC, Watertown, WI         HO         1,768         30,731         1,417         4.6         1,020         3.3         6.7         36,202           38         *         Sugar Creek Dairy, Elkhorn, WI         HO         449         32,267         1,366         4.2         1,018         3.2         6.6         35,953           40         *         Curl Kohs, Gileit, WI         HO         477         7,176         1,364         4.3         1,015         3.2         6.5         35,896           42         *         Seldis Mn View Dairy, Luxemburg, WI         HO         1,178         1,365         4.3         1,015         3.2         6.5         35,846           44         *         Grass Ridge Farm LLC, Pitzulle, WI         HO         598         31,027         1,355         4.4         1,057		*										
35       *       Newell Farms, Trufant, MI       HO       473       33,328       1,322       4.0       1,075       3.2       6.6       36,232         36       *       Heimans Holsteins LLC, Marshfield, WI       HO       576       31,648       1,992       4.4       1,027       3.2       6.6       36,232         38       *       Sugar Creek Dairy, Elkhorn, WI       HO       1798       30,731       1.41       1,056       3.2       6.6       36,029         40       *       Curk Kohs, Gillen LLC, Waterhow, WI       HO       448       32,267       1,366       4.2       1,018       3.2       6.6       36,929         40       *       Curk Kohs, Gillen LLW       HO       477       31,716       1,346       4.3       1,035       3.3       6.6       35,896         41       Tom Engelken, Earlville, IA       HO       478       31,788       1,335       4.4       1,057       3.4       6.6       35,876         42       *       Seidis Mn View Dairy, Luxemburg, WI       HO       3801       30,228       1,403       4.6       1,008       3.3       6.6       35,765         45       *       Ouantum Dairy LLC, Weyawega, WI       HO		*										
36       *       Heimans Holsteins LLC, Marshfield, WI       HO       576       31,648       1,392       4.4       1,027       3.2       6.6       36,232         37       *       Rosy-Lane Holsteins LLC, Watertown, WI       HO       1,798       30,731       1,417       4.6       1,020       3.3       6.7       36,202         38       *       Sugar Creek Dairy, Ekhorn, WI       HO       448       32,229       1,337       4.1       1,056       3.2       6.6       36,202         40       *       Curt Kohis, Gillett, WI       HO       448       32,267       1,366       4.2       1,018       3.2       6.5       35,879         41       Tom Engelken, Earbille, IA       HO       477       31,768       1,345       4.3       1,015       3.2       6.5       35,879         43       *       Seidls MIT View Dairy, Luxemburg, WI       HO       487       31,788       1,345       4.3       1,015       3.2       6.5       35,765         44       *       Orasn Ridge Farm LLC, Pittswille, WI       HO       302,28       1,330       4.1       1,029       3.2       6.5       35,646         45       Douglas Scheider, Freeport, IL       HO		*										
37       * Rosy-Lane Holsteins LLC, Watertown, WI       HO       1,798       30,731       1,417       4.6       1,020       3.3       6.7       36,202         38       * Sugar Creek Dairy, Elkhorn, WI       HO       649       32,229       1,337       4.1       1,056       3.2       6.6       36,128         39       * Harmen Waterlander, Pine River, WI       HO       448       32,267       1,366       4.2       1,018       3.2       6.5       36,029         40       * Curt Kohls, Gillett, WI       HO       477       31,716       1,344       4.3       1,015       3.3       6.6       35,953         41       Tom Engelken, Earlville, IA       HO       231       31,904       1,346       4.2       1,050       3.3       6.6       35,896         42       * Seidls Mtr View Dairy, Luxemburg, WI       HO       473       7,836       4.3       1,0151       3.2       6.5       35,836         44       * Grass Ridge Farm LLC, Pittswille, WI       HO       598       31,037       1,355       4.4       1,057       3.4       6.6       35,782         45       * Dean Meyer, New Albin, IA       HO       2,267       1,330       4.1       1,029       3.2 <td></td> <td>*</td> <td></td>		*										
38         *         Sugar Creek Dairy, Eikhorn, WI         HO         649         32,829         1,337         4.1         1,056         3.2         6.6         36,128           39         *         Harmen Waterlander, Pine River, WI         HO         488         32,267         1,366         4.2         1,018         3.2         6.6         35,953           40         *         Curt Kohls, Gillett, WI         HO         477         31,716         1,346         4.2         1,015         3.3         6.6         35,896           42         *         Seidls Min View Dairy, Luxemburg, WI         HO         1,154         33,306         1,314         3.9         1,042         3.1         6.5         35,879           43         *         Verhoed Dairy, Colby, WI         HO         487         1,788         1,355         4.4         1,057         3.4         6.6         35,782           45         *         Quantum Dairy LLC, Weyawega, WI         HO         3,801         30,228         1,403         4.6         1,008         3.3         6.6         35,762           46         Dean Meyer, New Albin, IA         HO         2,567         1,333         4.2         1,036         3.3         6.6<		*										
40       Curt Kohls, Gillett, Wi       HO       477       31,716       1,364       4.3       1,035       3.3       6.6       35,953         41       Tom Engelken, Earlville, IA       HO       231       31,904       1,346       4.2       1,050       3.3       6.6       35,896         42       Seidls Mir View Dairy, Luxemburg, WI       HO       1,154       33,306       1,314       3.9       1,042       3.1       6.5       35,879         43       Verhoef Dairy, Colby, WI       HO       487       31,788       1,365       4.3       1,015       3.2       6.5       35,884         44       Grass Ridge Farm LLC, Pittsville, WI       HO       3,801       30,228       1,403       4.6       1,008       3.3       6.6       35,765         45       Ougalas Scheider, Freegort, IL       HO       797       32,567       1,330       4.1       1,029       3.2       6.5       35,745         47       Brad & Laura Friesen, Baron, WI       HO       2,587       28,723       1,459       5.1       956       3.3       6.5       35,542         51       Scene Holsteins, Ladysmith, WI       HO       533       32,464       1,337       4.1       397	38	*		HO	649	32,829	1,337	4.1	1,056	3.2	6.6	
41       Tom Engelken, Earlville, IA       HO       231       31,904       1,346       4.2       1,050       3.3       6.6       35,896         42       Seidls Mn View Dairy, Luxemburg, WI       HO       1,154       33,306       1,314       3.9       1,042       3.1       6.5       35,879         43       Verhoef Dairy, Colby, WI       HO       487       31,788       1,355       4.4       1,015       3.2       6.5       35,836         44       Grass Ridge Farm LLC, Pitsville, WI       HO       3,801       30,228       1,403       4.6       1,008       3.3       6.6       35,765         45       Quantum Dairy LLC, Weyauwega, WI       HO       3,801       30,228       1,403       4.6       1,008       3.3       6.6       35,765         46       Doeglas Scheider, Freeport, IL       HO       797       32,567       1,330       4.1       1,029       3.2       6.5       35,646         47       Brad & Laura Friesen, Barron, WI       HO       222       1,633       1,333       4.2       1,036       3.3       6.5       35,542         50       Devon & Doreen Zimmerman, Claypool, IN       HO       533       32,464       1,317       4.1	39	*	Harmen Waterlander, Pine River, WI	HO	488	32,267	1,366	4.2	1,018	3.2	6.5	36,029
42       * Seldis Min View Dairy, Luxemburg, WI       HO       1,154       33,306       1,314       3.9       1,042       3.1       6.5       35,879         43       * Verhoe Dairy, Colby, WI       HO       487       31,788       1,365       4.3       1,015       3.2       6.5       35,836         44       * Grass Ridge Farr LLC, Pittsville, WI       HO       598       31,037       1,355       4.4       1,057       3.4       6.6       35,782         45       * Daughas Scheider, Freeport, IL       HO       3,801       30.228       1,403       4.6       1,008       3.3       6.6       35,745         47       Brad & Laura Friesen, Barron, WI       HO       2,22       31,683       1,353       4.3       1,015       3.2       6.5       35,646         48       Dean Meyer, New Albin, IA       HO       2,587       28,723       1,459       5.1       956       3.3       6.5       35,542         50       Devon & Doreen Zimmerman, Claypool, IN       HO       533       32,464       1,337       4.1       994       3.1       6.4       35,534         52       * Maly Farms, Bryant, WI       HO       510       33,804       1,282       3.8	40	*	Curt Kohls, Gillett, WI		477	31,716	1,364	4.3	1,035	3.3	6.6	35,953
43       *       Verhoef Dairy, Colby, WI       HO       487       31,788       1,365       4.3       1,015       3.2       6.5       35,836         44       *       Grass Ridge Farm LLC, Pittsville, WI       HO       598       31,037       1,355       4.4       1,057       3.4       6.6       35,782         45       *       Ouglas Scheider, Freeport, IL       HO       3,801       30,228       1,403       4.6       1,008       3.3       6.6       35,745         47       *       Brad & Laura Friesen, Barron, WI       HO       2,22       31,683       1,353       4.3       1,015       3.2       6.5       35,745         48       *       Dean Meyer, New Albin, IA       HO       2,587       28,723       1,459       5.1       956       3.3       6.6       35,542         50       Devon & Doreen Zimmerman, Claypool, IN       HO       533       32,464       1,337       4.1       10,91       3.3       6.5       35,542         51       Rusk-Rose Holsteins, Ladysmith, WI       HO       530       32,464       1,337       4.1       10,91       3.1       6.4       35,528         52       Maly Farms, Bryant, WI       HO       510<	41									3.3		
44       • Grass Ridge Farm LLC, Pittsville, WI       H0       598       31,037       1,355       4.4       1,057       3.4       6.6       35,782         45       • Quantum Dairy LLC, Weyauwega, WI       H0       3,801       30,228       1,403       4.6       1,008       3.3       6.6       35,765         46       • Douglas Scheider, Freeport, IL       H0       797       32,567       1,330       4.1       1,029       3.2       6.5       35,745         47       • Brad & Laura Friesen, Barron, WI       H0       222       31,683       1,333       4.3       1,015       3.2       6.5       35,646         48       Dean Meyer, New Albin, IA       HO       2,287       2,8723       1,459       5.1       956       3.3       6.5       35,569         50       Devon & Doreen Zimmerman, Claypool, IN       HO       332       31,689       1,319       4.1       1,015       3.3       6.5       35,528         51       * Rusk-Rose Holsteins, Ladysmith, WI       HO       510       33,804       1,282       3.8       1,012       3.2       6.5       35,528         52       * Maly Farms, Bryant, WI       HO       510       33,804       1,328       4.3 <td></td> <td>*</td> <td>, , , , , , , , , , , , , , , , , , , ,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		*	, , , , , , , , , , , , , , , , , , , ,									
45       *       Quantum Dairy LLC, Weyauwega, WI       HO       3,801       30,228       1,403       4.6       1,008       3.3       6.6       35,765         46       *       Douglas Scheider, Freeport, IL       HO       797       32,567       1,330       4.1       1,029       3.2       6.5       35,745         47       *       Brad & Laura Friesen, Barron, WI       HO       222       31,683       1,333       4.2       1,015       3.2       6.5       35,646         48       *       Dean Meyer, New Albin, IA       HO       2,587       28,723       1,459       5.1       956       3.3       6.5       35,542         50       Devon & Dorene Zimmerman, Claypool, IN       HO       332       31,869       1,337       4.1       994       3.1       6.4       35,542         51       *       Rusk-Rose Holsteins, Ladysmith, WI       HO       510       33,804       1,282       3.8       1,029       3.0       6.3       35,552         53       *       Ed Walter Farm Inc, Oshkosh, WI       HO       329       31,608       1,347       4.3       1,012       3.2       6.5       35,330         54       *       Tony Rosebrugh, West Bran		*										
46       *       Douglas Scheider, Freeport, IL       HO       907       32,567       1,330       4.1       1,029       3.2       6.5       35,745         47       *       Brad & Laura Friesen, Barron, WI       HO       222       31,683       1,353       4.3       1,029       3.2       6.5       35,745         48       *       Dean Meyer, New Albin, IA       HO       2,587       28,723       1,459       5.1       956       3.3       6.6       35,640         49       *       Joseph & Susan Rieden, Mount Calvary, WI       XX       633       31,889       1,333       4.1       1,051       3.3       6.5       35,542         50       Devon & Doreen Zimmerman, Claypool, IN       HO       533       32,464       1,337       4.1       1,094       3.1       6.4       35,542         51       * Rusk-Rose Holsteins, Ladysmith, WI       HO       530       32,464       1,337       4.1       1,094       3.1       6.4       35,542         52       * Maly Farms, Bryant, WI       HO       510       33,804       1,282       3.8       1,029       3.0       6.3       35,528         53       * Ed Walter Farm Inc, Oshkosh, WI       HO       329 <td></td> <td>*</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		*	-									
47       *       Brack Laura Friesen, Barron, WI       HO       222       31,683       1,353       4.3       1,015       3.2       6.5       35,646         48       *       Dean Meyer, New Albin, IA       HO       2,587       28,723       1,459       5.1       956       3.3       6.6       35,600         49       *       Joseph & Susan Rieden, Mount Calvary, WI       XX       633       31,838       1,333       4.2       1,036       3.3       6.5       35,549         50       Devon & Doreen Zimmerman, Claypool, IN       HO       332       31,869       1,319       4.1       1,051       3.3       6.5       35,542         51       *       Rusk-Rose Holsteins, Ladysmith, WI       HO       510       33,804       1,327       4.1       994       3.1       6.4       35,528         52       *       Maly Farms, Bryant, WI       HO       510       33,804       1,347       4.3       1,012       3.2       6.6       35,528         53       *       Ed Walter Farm Inc, Oshkosh, WI       HO       32,937       1,310       4.0       1,014       3.1       6.4       35,430         54       *       Tong Rosebrugh, West Branch, MI												
48       *       Dean Meyer, New Albin, IA       HO       2,587       28,723       1,459       5.1       956       3.3       6.6       35,600         49       *       Joseph & Susan Rieden, Mount Calvary, WI       XX       633       31,838       1,333       4.2       1,036       3.3       6.5       35,599         50       Devon & Doreen Zimmerman, Claypool, IN       HO       332       31,869       1,319       4.1       1,051       3.3       6.5       35,524         51       *       Rusk-Rose Holsteins, Ladysmith, WI       HO       510       33,804       1,282       3.8       1,029       3.0       6.3       35,528         53       *       Ed Walter Farm Inc, Oshkosh, WI       HO       329       31,608       1,347       4.3       1,012       3.2       6.5       35,521         54       *       Tony Rosebrugh, West Branch, MI       XX       788       32,871       1,310       4.4       1,011       3.3       6.5       35,332         55       Moonlight Dairy Farm, Alcester, SD       HO       441       28,349       1,451       5.1       957       3.4       6.6       35,332         56       Lehman Dairy, Sherrill, IA       HO												
49       *       Joseph & Susan Rieden, Mount Calvary, WI       XX       633       31,838       1,333       4.2       1,036       3.3       6.5       35,599         50       Devon & Doreen Zimmerman, Claypool, IN       HO       332       31,869       1,319       4.1       1,051       3.3       6.5       35,542         51       *       Rusk-Rose Holsteins, Ladysmith, WI       HO       533       32,464       1,337       4.1       994       3.1       6.4       35,534         52       *       Maly Farms, Bryant, WI       HO       510       33,804       1,282       3.8       1,029       3.0       6.3       35,528         53       *       Ed Walter Farm Inc, Oshkosh, WI       HO       329       31,608       1,347       4.3       1,012       3.2       6.5       35,521         54       *       Tony Rosebrugh, West Branch, MI       XX       788       32,871       1,310       4.0       1,014       3.1       6.4       35,470         55       Lehman Dairy, Sherrill, IA       HO       441       28,349       1,451       5.1       957       3.4       6.6       35,326         56       Lehman Dairy, Mosinee, WI       HO       404<												
50         Devon & Doreen Zimmerman, Claypool, IN         HO         332         31,869         1,319         4.1         1,051         3.3         6.5         35,542           51         *         Rusk-Rose Holsteins, Ladysmith, WI         HO         533         32,464         1,337         4.1         994         3.1         6.4         35,534           52         *         Maly Farms, Bryant, WI         HO         510         33,804         1,282         3.8         1,029         3.0         6.3         35,528           53         *         Ed Walter Farm Inc, Oshkosh, WI         HO         329         31,608         1,347         4.3         1,012         3.2         6.5         35,521           54         *         Tony Rosebrugh, West Branch, MI         XX         788         32,871         1,310         4.0         1,014         3.1         6.4         35,420           55         Moonlight Dairy Farm, Alcester, SD         HO         441         28,349         1,451         5.1         957         3.4         6.6         35,326           56         Lehman Dairy, Mosinee, WI         HO         400         30,968         1,349         4.4         1,011         3.3         6.5												
51       * Rusk-Rose Holsteins, Ladysmith, WI       HO       533       32,464       1,337       4.1       994       3.1       6.4       35,534         52       * Maly Farms, Bryant, WI       HO       510       33,804       1,282       3.8       1,029       3.0       6.3       35,528         53       * Ed Walter Farm Inc, Oshkosh, WI       HO       329       31,608       1,347       4.3       1,012       3.2       6.5       35,521         54       * Tony Rosebrugh, West Branch, MI       XX       788       32,871       1,310       4.0       1,014       3.1       6.4       35,470         55       Moonlight Dairy Farm, Alcester, SD       HO       441       28,349       1,451       5.1       957       3.4       6.6       35,382         56       Lehman Dairy, Sherrill, IA       HO       250       30,536       1,358       4.4       1,015       3.3       6.5       35,330         58       * Todd Mark, Elmwood, WI       HO       139       31,563       1,302       4.1       1,005       3.4       6.5       35,285         60       * Furseth Farms Inc, Stoughton, WI       HO       201       31,887       1,403       4.7       956			·									
52       Maly Farms, Bryant, WI       HO       510       33,804       1,282       3.8       1,029       3.0       6.3       35,528         53       Ed Walter Farm Inc, Oshkosh, WI       HO       329       31,608       1,347       4.3       1,012       3.2       6.5       35,521         54       Tony Rosebrugh, West Branch, MI       XX       788       32,871       1,310       4.0       1,014       3.1       6.4       35,470         55       Moonlight Dairy Farm, Alcester, SD       HO       441       28,349       1,451       5.1       957       3.4       6.6       35,382         56       Lehman Dairy, Sherrill, IA       HO       250       30,536       1,358       4.4       1,015       3.3       6.5       35,330         57       Granitehill Dairy, Mosinee, WI       HO       400       30,968       1,349       4.4       1,011       3.3       6.5       35,329         58       Todd Mark, Elmwood, WI       HO       139       31,563       1,302       4.1       1,065       3.4       6.5       35,285         60       Furseth Farms Inc, Stoughton, WI       HO       201       31,887       1,305       4.1       1,030       3.2<		*										
53       *       Ed Walter Farm Inc, Oshkosh, WI       HO       329       31,608       1,347       4.3       1,012       3.2       6.5       35,521         54       *       Tony Rosebrugh, West Branch, MI       XX       788       32,871       1,310       4.0       1,014       3.1       6.4       35,470         55       Moonlight Dairy Farm, Alcester, SD       HO       441       28,349       1,451       5.1       957       3.4       6.6       35,382         56       Lehman Dairy, Sherrill, IA       HO       250       30,536       1,358       4.4       1,011       3.3       6.5       35,330         57       *       Granitehill Dairy, Mosinee, WI       HO       400       30,968       1,349       4.4       1,011       3.3       6.5       35,330         58       *       Todd Mark, Elmwood, WI       HO       139       31,563       1,302       4.1       1,065       3.4       6.5       35,285         60       *       Furseth Farms Inc, Stoughton, WI       HO       201       31,887       1,305       4.1       1,030       3.2       6.4       35,205         62       *       Mike Zagata, Sebewaing, MI       HO		*	, , , , , , , , , , , , , , , , , , ,									
55         Moonlight Dairy Farm, Alcester, SD         HO         441         28,349         1,451         5.1         957         3.4         6.6         35,382           56         Lehman Dairy, Sherrill, IA         HO         250         30,536         1,358         4.4         1,015         3.3         6.5         35,336           57         *         Granitehill Dairy, Mosinee, WI         HO         400         30,968         1,349         4.4         1,011         3.3         6.5         35,330           58         *         Todd Mark, Elmwood, WI         HO         139         31,563         1,302         4.1         1,065         3.4         6.5         35,285           60         *         Furseth Farms Inc, Stoughton, WI         HO         234         28,524         1,474         5.2         898         3.1         6.5         35,285           60         *         Furseth Farms Inc, Stoughton, WI         HO         201         31,887         1,305         4.1         1,030         3.2         6.4         35,205           61         *         W-R-L Daniels Farm, Whittemore, MI         HO         709         31,395         1,352         4.3         969         3.1         6.4		*										
56         Lehman Dairy, Sherrill, IA         HO         250         30,536         1,358         4.4         1,015         3.3         6.5         35,336           57         *         Granitehill Dairy, Mosinee, WI         HO         400         30,968         1,349         4.4         1,011         3.3         6.5         35,330           58         *         Todd Mark, Elmwood, WI         HO         139         31,563         1,302         4.1         1,065         3.4         6.5         35,285           60         *         Furseth Farms Inc, Stoughton, WI         HO         28,524         1,474         5.2         898         3.1         6.5         35,205           60         *         Furseth Farms Inc, Stoughton, WI         HO         201         31,887         1,305         4.1         1,030         3.2         6.4         35,206           61         *         W-R-L Daniels Farm, Whittemore, MI         HO         709         31,395         1,352         4.3         969         3.1         6.4         35,187           62         *         Mike Zagata, Sebewaing, MI         HO         709         31,395         1,322         4.3         969         3.1         6.4	54	*	Tony Rosebrugh, West Branch, MI	XX	788	32,871	1,310	4.0	1,014	3.1	6.4	35,470
57       *       Granitehill Dairy, Mosinee, WI       HO       400       30,968       1,349       4.4       1,011       3.3       6.5       35,330         58       *       Todd Mark, Elmwood, WI       HO       139       31,563       1,302       4.1       1,065       3.4       6.5       35,329         59       Jeff Lambrecht, Kewaunee, WI       HO       334       28,524       1,474       5.2       898       3.1       6.5       35,285         60       *       Furseth Farms Inc, Stoughton, WI       HO       201       31,887       1,305       4.1       1,030       3.2       6.4       35,206         61       *       W-R-L Daniels Farm, Whittemore, MI       HO       671       29,734       1,403       4.7       956       3.2       6.5       35,205         62       *       Mike Zagata, Sebewaing, MI       HO       709       31,395       1,352       4.3       969       3.1       6.4       35,187         63       River Crest Dairy LLC, Greenwood, WI       HO       258       30,467       1,338       4.4       1,022       3.4       6.5       35,081         64       *       Brickstead Dairy LLC, Greenleaf, WI       HO	55			HO	441	28,349	1,451	5.1	957	3.4	6.6	35,382
58       *       Todd Mark, Elmwood, WI       HO       139       31,563       1,302       4.1       1,065       3.4       6.5       35,329         59       Jeff Lambrecht, Kewaunee, WI       HO       334       28,524       1,474       5.2       898       3.1       6.5       35,285         60       *       Furseth Farms Inc, Stoughton, WI       HO       201       31,887       1,305       4.1       1,030       3.2       6.4       35,206         61       *       W-R-L Daniels Farm, Whittemore, MI       HO       671       29,734       1,403       4.7       956       3.2       6.5       35,205         62       *       Mike Zagata, Sebewaing, MI       HO       709       31,395       1,352       4.3       969       3.1       6.4       35,187         63       River Crest Dairy LLC, Greenwood, WI       HO       258       30,467       1,338       4.4       1,022       3.4       6.5       35,081         64       *       Brickstead Dairy LLC, Greenleaf, WI       HO       1,032       31,090       1,319       4.2       1,024       3.3       6.4       35,081         65       *       Whitetail Valley Dairy LLC, Waupaca, WI					250			4.4				
59       Jeff Lambrecht, Kewaunee, WI       HO       334       28,524       1,474       5.2       898       3.1       6.5       35,285         60       *       Furseth Farms Inc, Stoughton, WI       HO       201       31,887       1,305       4.1       1,030       3.2       6.4       35,205         61       *       W-R-L Daniels Farm, Whittemore, MI       HO       671       29,734       1,403       4.7       956       3.2       6.5       35,205         62       *       Mike Zagata, Sebewaing, MI       HO       709       31,395       1,352       4.3       969       3.1       6.4       35,187         63       River Crest Dairy LLC, Greenwood, WI       HO       258       30,467       1,338       4.4       1,022       3.4       6.5       35,081         64       *       Brickstead Dairy LLC, Greenleaf, WI       HO       1,032       31,090       1,319       4.2       1,024       3.3       6.4       35,081         65       *       Whitetail Valley Dairy LLC, Waupaca, WI       HO       291       32,253       1,287       4.0       1,025       3.2       6.3       34,974         66       *       JMax, Fremont, MI       HO <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			-									
60       *       Furseth Farms Inc, Stoughton, WI       HO       201       31,887       1,305       4.1       1,030       3.2       6.4       35,206         61       *       W-R-L Daniels Farm, Whittemore, MI       HO       671       29,734       1,403       4.7       956       3.2       6.5       35,205         62       *       Mike Zagata, Sebewaing, MI       HO       709       31,395       1,352       4.3       969       3.1       6.4       35,187         63       River Crest Dairy LLC, Greenwood, WI       HO       258       30,467       1,338       4.4       1,022       3.4       6.5       35,108         64       *       Brickstead Dairy LLC, Greenleaf, WI       HO       1,032       31,090       1,319       4.2       1,024       3.3       6.4       35,081         65       *       Whitetail Valley Dairy LLC, Waupaca, WI       HO       291       32,253       1,287       4.0       1,025       3.2       6.3       34,974         65       *       JMax, Fremont, MI       HO       1,634       32,469       1,296       4.0       990       3.0       6.3       34,974         67       Neil Christianson, Shiocton, WI		*										
61       *       W-R-L Daniels Farm, Whittemore, MI       HO       671       29,734       1,403       4.7       956       3.2       6.5       35,205         62       *       Mike Zagata, Sebewaing, MI       HO       709       31,395       1,352       4.3       969       3.1       6.4       35,187         63       River Crest Dairy LLC, Greenwood, WI       HO       258       30,467       1,338       4.4       1,022       3.4       6.5       35,081         64       *       Brickstead Dairy LLC, Greenleaf, WI       HO       1,032       31,090       1,319       4.2       1,024       3.3       6.4       35,081         65       *       Whitetail Valley Dairy LLC, Greenleaf, WI       HO       1,032       31,090       1,319       4.2       1,024       3.3       6.4       35,081         65       *       Whitetail Valley Dairy LLC, Waupaca, WI       HO       291       32,253       1,287       4.0       1,025       3.2       6.3       35,055         66       *       JMax, Fremont, MI       HO       1,634       32,469       1,296       4.0       990       3.0       6.3       34,974         67       Neil Christianson, Shiocton, WI		÷										
62       *       Mike Zagata, Sebewaing, MI       HO       709       31,395       1,352       4.3       969       3.1       6.4       35,187         63       River Crest Dairy LLC, Greenwood, WI       HO       258       30,467       1,338       4.4       1,022       3.4       6.5       35,108         64       *       Brickstead Dairy LLC, Greenleaf, WI       HO       1,032       31,090       1,319       4.2       1,024       3.3       6.4       35,081         65       *       Whitetail Valley Dairy LLC, Greenleaf, WI       HO       291       32,253       1,287       4.0       1,025       3.2       6.3       35,055         66       *       JMax, Fremont, MI       HO       1,634       32,469       1,296       4.0       990       3.0       6.3       34,974         67       *       Neil Christianson, Shiocton, WI       HO       195       30,824       1,322       4.3       1,012       3.3       6.4       34,941         68       Stuart Farms, Lowell, MI       HO       195       30,693       1,325       4.3       1,007       3.3       6.4       34,869         69       *       Car Mer Farm, Galena, IL       HO												
63         River Crest Dairy LLC, Greenwood, WI         HO         258         30,467         1,338         4.4         1,022         3.4         6.5         35,108           64         *         Brickstead Dairy LLC, Greenleaf, WI         HO         1,032         31,090         1,319         4.2         1,024         3.3         6.4         35,081           65         *         Whitetail Valley Dairy LLC, Waupaca, WI         HO         291         32,253         1,287         4.0         1,025         3.2         6.3         35,055           66         *         JMax, Fremont, MI         HO         1,634         32,469         1,296         4.0         990         3.0         6.3         34,974           67         *         Neil Christianson, Shiocton, WI         HO         195         30,824         1,322         4.3         1,012         3.3         6.4         34,941           68         Stuart Farms, Lowell, MI         HO         433         30,693         1,325         4.3         1,007         3.3         6.4         34,869           69         *         Car Mer Farm, Galena, IL         HO         576         31,634         1,287         4.1         1,027         3.2 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>												
64       *       Brickstead Dairy LLC, Greenleaf, WI       HO       1,032       31,090       1,319       4.2       1,024       3.3       6.4       35,081         65       *       Whitetail Valley Dairy LLC, Waupaca, WI       HO       291       32,253       1,287       4.0       1,025       3.2       6.3       35,055         66       *       JMax, Fremont, MI       HO       1,634       32,469       1,296       4.0       990       3.0       6.3       34,974         67       *       Neil Christianson, Shiocton, WI       HO       195       30,824       1,322       4.3       1,012       3.3       6.4       34,941         68       Stuart Farms, Lowell, MI       HO       433       30,693       1,325       4.3       1,007       3.3       6.4       34,899         69       *       Car Mer Farm, Galena, IL       HO       576       31,634       1,287       4.1       1,027       3.2       6.3       34,868			· ·									
65       *       Whitetail Valley Dairy LLC, Waupaca, WI       HO       291       32,253       1,287       4.0       1,025       3.2       6.3       35,055         66       *       JMax, Fremont, MI       HO       1,634       32,469       1,296       4.0       990       3.0       6.3       34,974         67       *       Neil Christianson, Shiocton, WI       HO       195       30,824       1,322       4.3       1,012       3.3       6.4       34,941         68       Stuart Farms, Lowell, MI       HO       433       30,693       1,325       4.3       1,007       3.3       6.4       34,899         69       *       Car Mer Farm, Galena, IL       HO       576       31,634       1,287       4.1       1,027       3.2       6.3       34,868		*	-									
66*JMax, Fremont, MIHO1,63432,4691,2964.09903.06.334,97467*Neil Christianson, Shiocton, WIHO19530,8241,3224.31,0123.36.434,94168Stuart Farms, Lowell, MIHO43330,6931,3254.31,0073.36.434,89969*Car Mer Farm, Galena, ILHO57631,6341,2874.11,0273.26.334,868			3									
67         *         Neil Christianson, Shiocton, WI         HO         195         30,824         1,322         4.3         1,012         3.3         6.4         34,941           68         Stuart Farms, Lowell, MI         HO         433         30,693         1,325         4.3         1,007         3.3         6.4         34,899           69         *         Car Mer Farm, Galena, IL         HO         576         31,634         1,287         4.1         1,027         3.2         6.3         34,868		*	, , , , , , , , , , , , , , , , , , ,									
68         Stuart Farms, Lowell, MI         HO         433         30,693         1,325         4.3         1,007         3.3         6.4         34,899           69         *         Car Mer Farm, Galena, IL         HO         576         31,634         1,287         4.1         1,027         3.2         6.3         34,868		*										
69         *         Car Mer Farm, Galena, IL         HO         576         31,634         1,287         4.1         1,027         3.2         6.3         34,868												
70 * Buning Dairy LLC, Falmouth, MI HO 710 32,791 1,253 3.8 1,025 3.1 6.2 34,790	69	*	Car Mer Farm, Galena, IL	HO	576			4.1	1,027	3.2	6.3	
	70	*	Buning Dairy LLC, Falmouth, MI	HO	710	32,791	1,253	3.8	1,025	3.1	6.2	34,790





	3X	Herd	Breed	Size	Milk	Fat	F%	Prot.	P%	CFP	ECM
71	*	Wilnore Holsteins, Milton, WI	HO	83	32,190	1,267	3.9	1,022	3.2	6.3	34,752
72 73	*	Stutzman Family Farms LLC, Conrath, WI Yonkman Dairy, McBain, MI	HO HO	368 1,885	31,258 31,481	1,312 1,312	4.2 4.2	973 952	3.1 3.0	6.3 6.2	34,655 34,567
74		Dale Brinks, McBain, MI	HO	205	31,461	1,312	4.2 4.1	952 1,010	3.0	6.3	34,507 34,539
75		Marty Bahl, Dubuque, IA	НО	203	30,143	1,315	4.4	999	3.3	6.3	34,528
76	*	Neal Burken, Galesville, WI	HO	475	31,042	1,311	4.2	967	3.1	6.2	34,526
77	*	Pickart Dairy LLC, Malone, WI	HO	774	31,938	1,269	4.0	996	3.1	6.2	34,497
78	*	Oesch Swisslane, Alto, MI	HO	516	31,491	1,264	4.0	1,019	3.2	6.3	34,462
79		Darren Rusch, Pound, WI	HO	396	30,085	1,337	4.4	953	3.2	6.3	34,442
80	*	Jason & Sara Menne, Postville, IA	HO	159	30,071	1,318	4.4	985	3.3	6.3	34,437
81 82	*	EI-Na Farms LLC, Algoma, WI Egan Bros & Trevor Crain, New London, WI	HO HO	2,397 951	31,992 31,385	1,261 1,274	3.9 4.1	998 1,001	3.1 3.2	6.2 6.2	34,426 34,419
82 83		Nathan & Kristy Mulder, Ridott, IL	HO	60	33,161	1,274	4.1 3.6	1,001	3.2 3.2	6.2	34,419 34,396
84	*	Brightside Dairy LLC, Greenleaf, WI	HO	848	32,812	1,197	3.6	1,063	3.2	6.2	34,363
85		Tim Greer, West Branch, MI	HO	633	29,946	1,371	4.6	889	3.0	6.2	34,348
86	*	Kevin & Diane Skinner, Junction City, WI	HO	548	30,975	1,285	4.1	987	3.2	6.2	34,320
87	*	Country Dairy, New Era, MI	HO	65	33,954	1,173	3.5	1,049	3.1	6.1	34,318
88	*	Gene & Connie Duschner, Farley, IA	HO	617	30,678	1,272	4.1	1,021	3.3	6.3	34,315
89 90	*	Jeremy Seiler, Carson City, MI Hopeless Dairy Inc, Sheldon, WI	HO HO	379 447	32,588 28,242	1,222 1,389	3.7 4.9	1,018 920	3.1 3.3	6.1 6.3	34,269 34,261
90 91	*	Todd Augustian, Kewaunee, WI	HO	1,161	31,222	1,254	4.9	1,021	3.3	6.2	34,201
92	*	Nichols Hill Dairy, Krakow, WI	HO	334	30,376	1,296	4.0	983	3.2	6.2	34,236
93	*	Pebble Knolls Dairy, Brandon, WI	HO	806	30,409	1,265	4.2	1,027	3.4	6.3	34,182
94		Ron & Nicole Wussow, Cecil, WI	НО	44	30,660	1,275	4.2	998	3.3	6.2	34,172
95	*	Stempfle Holsteins, Maynard, IA	HO	911	30,538	1,288	4.2	981	3.2	6.2	34,170
96		Charles & Christopher Weber, Elmwood, WI	HO	189	28,424	1,336	4.7	987	3.5	6.4	34,146
97	*	Royal Vista Holsteins LLC, Pickett, WI	HO	398	31,137	1,261	4.0	995	3.2	6.2	34,124
98 99	*	United Pride Dairy LLC, Phillips, WI Wesselcrest, Greeley, IA	HO HO	1,770 305	29,932 29,083	1,289 1,308	4.3 4.5	996 1,000	3.3 3.4	6.3 6.3	34,100 34,099
99 100		Derek Brimeyer, Sherrill, IA	HO	166	32,023	1,230	4.5 3.8	1,000	3.4	6.1	34,099
100	*	Rolling Hills Dairy LLC, Luxemburg, WI	HO	1,781	30,236	1,290	4.3	976	3.2	6.2	34,059
102		Schuh View Dairy LLC, Kaukauna, WI	HO	1,380	28,832	1,391	4.8	864	3.0	6.2	34,051
103		Ronald & Nancy Felten, St. Cloud, WI	HO	486	30,117	1,279	4.2	996	3.3	6.2	34,031
104		Silvershea Holsteins LLC, Omro, WI	HO	177	31,816	1,249	3.9	974	3.1	6.1	34,029
105	*	Craig Hedrich, Brillion, WI	HO	440	30,926	1,263	4.1	986	3.2	6.2	34,012
106	*	Cross Farms, Oshkosh, WI	HO	2,000	30,668	1,254	4.1	1,011	3.3	6.2	34,002
107 108	î	Kenealy Dairy Farms, Cadott, WI Hillebrand Farms, Cornell, WI	HO HO	663 53	29,490 28,961	1,314 1,331	4.5 4.6	958 948	3.2 3.3	6.2 6.2	33,988 33,959
108	*	Olson's Best Dairy LLC, Shiocton, WI	HO	301	31,459	1,236	3.9	940 995	3.3	6.1	33,905
110	*	Blanchard Family Dairy, Charlotte, IA	XX	1,763	29,139	1,319	4.5	951	3.3	6.2	33,885
111		Bill & Lisa Holland, Apple River, IL	HO	356	31,489	1,232	3.9	996	3.2	6.1	33,871
112	*	Pagels Ponderosa, Kewaunee, WI	ΧХ	6,877	27,214	1,364	5.0	947	3.5	6.3	33,807
113	*	Doug Fairbanks, Anamosa, IA	HO	267	30,420	1,271	4.2	966	3.2	6.1	33,797
114		New-Day Dairy Robert Strack, Athens, WI	HO	102	30,800	1,242	4.0	998	3.2	6.1	33,790
115		Tom & Sara Kruse, Dyersville, IA Dustin & Jason Martin, Conrath, WI	HO	75	29,345	1,290	4.4 5.5	976	3.3	6.2	33,768
116 117		Jerangle Dairy, Wakarusa, IN	HO HO	55 234	26,314 29,822	1,456 1,259	5.5 4.2	823 1,006	3.1 3.4	6.2 6.2	33,756 33,752
118	*	Many Blessings Dairy Inc, McBain, MI	HO	1,906	31,582	1,224	4.2 3.9	987	3.4	6.1	33,729
119		David Martin, Fenwick, MI	HO	70	26,415	1,448	5.5	826	3.1	6.2	33,708
120	*	Oesch Swisslane, Alto, MI	HO	1,571	29,436	1,292	4.4	960	3.3	6.2	33,701
121		Bergan Dairy LLC, Elkader, IA	НО	248	32,639	1,177	3.6	1,015	3.1	6.0	33,680
122	*	Sugar Creek LLC, New London, WI	HO	1,717	29,830	1,291	4.3	936	3.1	6.1	33,633
123 124	*	Pasch Mbm, Weidman, MI	HO	370	32,469	1,187	3.7	999 078	3.1	6.0	33,631
124 125	*	Voight Acres, Shiocton, WI United Vision Dairy LLC, MIshicot, WI	HO HO	270 1,176	30,581 31,425	1,244 1,239	4.1 3.9	978 950	3.2 3.0	6.1 6.0	33,591 33,589
125		Golden Corners Dairy, Oconto Falls, WI	HO	288	29,765	1,259	4.2	930 986	3.3	6.2	33,580
127	*	Jay & Amy Krahn, Brillion, WI	HO	173	31,071	1,257	4.0	930	3.0	6.0	33,553
128		Brumm Dairy, LLP, Stacyville, IA	HO	270	29,129	1,282	4.4	966	3.3	6.2	33,517
129		David Dezeeuw, Falmouth, MI	HO	173	30,802	1,247	4.0	947	3.1	6.0	33,465
130	*	Collins Dairy LLC, Greenleaf, WI	HO	1,559	30,108	1,244	4.1	978	3.2	6.1	33,437
131	*	Bill, Clarice, Tony & Jacob Brey, Sturgeon Bay, WI	HO	1,118	31,468	1,206	3.8 4 E	984	3.1	6.0	33,435
132 133		Hendel Farms, Caledonia, MN Charles & Kappy Koch, Tremont, II	HO HO	383	28,527 27,831	1,290	4.5	953 969	3.3	6.1	33,324
133 134	*	Charles & Kappy Koch, Tremont, IL Ryan Litwiller, Middleton, MI	HO HO	168 317	27,831 32,240	1,295 1,152	4.7 3.6	969 1,015	3.5 3.1	6.2 5.9	33,284 33,226
134	*	Prairie View Dairy LLC, Fairbury, IL	HO	222	30,952	1,211	3.0 3.9	970	3.1	6.0	33,220
136		Production Unlimited LLC, Twin Lakes, WI	HO	123	28,685	1,263	4.4	970	3.4	6.1	33,156
137		Leon Henneman, Ellsworth, WI	HO	48	29,942	1,210	4.0	1,002	3.3	6.1	33,126
	*	Foresight Farms, LLC, Decorah, IA	HO	1,181	29,913	1,232	4.1	962	3.2	6.0	33,095
138 139 140		Blair Farms, Winslow, IL Daryl & Pam Nunes, Deerfield,Wi	HO HO	211 40	29,699 28,514	1,241 1,293	4.2 4.5	954 915	3.2 3.2	6.0 6.0	33,081 33,068

	3X	Herd	Breed	Size	Milk	Fat	F%	Prot.	<b>P%</b>	CFP	ECM
141	*	Dairy Dreams, Casco, WI	XX	4,967	27,414	1,305	4.8	939	3.4	6.1	33,047
142	*	Heller Farm Inc, Alma Center, WI	HO	1,094	29,117	1,241	4.3	974	3.3	6.1	33,043
143		Lyle & Carla Weaver, Goshen, IN	HO	142	29,539	1,243	4.2	950	3.2	6.0	33,024
144	*	Mitchell Dairy & Grain LLC, Winnebago, IL	HO	492	30,216	1,231	4.1	940	3.1	5.9	33,013
145	*	Kinnard Farms Inc, Casco, WI	HO	8,814	30,815	1,187	3.9	985	3.2	6.0	32,983
146	*	Rem-Jem Dairy, LLC, Unity, WI	HO	568	30,907	1,210	3.9	936	3.0	5.9	32,936
147	*	Tinedale Dairy, Wrightstown, WI	HO	3,130	29,575	1,234	4.2	947	3.2	6.0	32,896
48	*	Meissner, Chili, WI	HO	305	28,840	1,260	4.4	931	3.2	6.0	32,870
49		Burke Larsen, Scottville, MI	HO	688	30,418	1,218	4.0	931	3.1	5.9	32,842
150		Jonas Zimmerman, Wakarusa, IN	HO	127	26,958	1,335	5.0	875	3.2	6.1	32,797
51		Andrew Houlberg, Monticello, WI	HO	128	28,853	1,238	4.3	958	3.3	6.0	32,796
52		Greg & Jenny Conway, Lansing, IA	HO	187	28,568	1,268	4.4	914	3.2	6.0	32,754
153		Doug Roth, Mt. Pleasant, IA	HO	172	28,902	1,237	4.3	952	3.3	6.0	32,753
154	*	Rickland Dairy LLC, Eldorado, WI	HO	1,058	30,700	1,179	3.8	973	3.2	5.9	32,750
55	*	Norm & Derrick Hammond, Dowling, MI	HO	521	30,933	1,182	3.8	957	3.1	5.9	32,743
156	Ŷ	Craig & Katharine Edler, Browntown, IL	HO	833	29,622	1,248	4.2	900	3.0	5.9	32,733
57		Charles & Kappy Koch, Tremont, IL	XX	143	25,891	1,317	5.1	942	3.6	6.2	32,728
58		Petro Farms, Gobles, MI	HO	977	30,762	1,169	3.8	982	3.2	5.9 E 0	32,710 32,702
59 60	*	Tracy Lacrosse & Dale Uecker, Forestville, WI Bauduin's Grandview Dairy LLC, Casco, WI	HO HO	88 830	29,772 29,215	1,220 1,234	4.1 4.2	937 935	3.1 3.2	5.9 5.9	32,702
61	*	Bruce & Julie Buddenberg, Decorah, IA	HO	332	29,215	1,234	4.2 4.1	935 941	3.2 3.2	5.9	32,080
62	*	Tubergen Dairy Farm LLC, Ionia, MI	HO	2,366	29,704 29,856	1,218	4.1	941	3.2 3.1	5.9	32,085
63	*	Darryl, Donna, Shawn & Levi Banowetz, Charlotte, IA	XX	373	28,479	1,245	4.4	946	3.3	6.0	32,672
64	*	Neighborhood Dairy, Kaukauna, WI	HO	1,217	29,113	1,243	4.2	932	3.2	5.9	32,669
65		Earl & Jeff Horning, Manchester, MI	HO	437	29,675	1,227	4.1	924	3.1	5.9	32,662
66		Charles Maurer, Chilton, WI	HO	119	30,348	1,194	3.9	951	3.1	5.9	32,661
67		Duane, Jeanne & Dave Meier, Monticello, WI	HO	72	28,422	1,236	4.3	960	3.4	6.0	32,644
68	*	Rick & Connie Schuessler, Antigo, WI	HO	444	28,765	1,214	4.2	982	3.4	6.0	32,640
69		Martin Kevin, Warren, IL	НО	113	29,351	1,225	4.2	936	3.2	5.9	32,622
Т	*	Country Aire Farms, Greenleaf, WI	НО	4,267	29,595	1,207	4.1	956	3.2	5.9	32,622
71	*	Maple Leaf Acres, Elk Mound, WI	HO	349	28,406	1,249	4.4	927	3.3	6.0	32,555
72		Amy Karpinski, Waupaca, WI	XX	367	29,850	1,194	4.0	958	3.2	5.9	32,552
73	*	Oesch Swisslane, Alto, MI	HO	1,792	28,150	1,258	4.5	922	3.3	6.0	32,549
74	*	Brand Dairy Farm, Waterloo, IN	HO	402	30,189	1,189	3.9	949	3.1	5.9	32,529
75		Jeff & Kate Hendrickson, Belleville, WI	HO	116	29,639	1,197	4.0	956	3.2	5.9	32,507
76		Reuben Nolt, Alta Vista, IA	HO	79	27,974	1,253	4.5	927	3.3	6.0	32,465
77		Larry & Jennifer Meyer, Chilton, WI	HO	111	30,935	1,149	3.7	975	3.2	5.8	32,454
78	*	River Ridge Dairy, Coopersville, MI	HO	1,858	28,266	1,261	4.5	892	3.2	5.9	32,397
79		Auburnvale Swiss, Fremont, WI	XX	187	28,267	1,239	4.4	925	3.3	5.9	32,365
80		Adam Delfosse, Brussels, WI	HO	78	30,426	1,161	3.8	964	3.2	5.8	32,359
Т		Troy & Sara Blazek, Oconto Falls, WI	HO	203	29,167	1,194	4.1	962	3.3	5.9	32,359
82		Glendale Farms, Clintonville, WI	HO	301	29,079	1,204	4.1	945	3.2	5.9	32,330
83	*	Jeff & Melinda Walz, West Union, IA	HO	121	29,648	1,216	4.1	900	3.0	5.8	32,327
84	*	Jo-Eng Dairy Farms, German Valley, IL	HO	825	30,546	1,192	3.9	902	3.0	5.7	32,325
85		Gary & Heather Krogmann, Winthrop, IA	XX	72	29,063	1,201	4.1	948	3.3	5.9	32,309
86		Terry Deutmeyer, Dyersville, IA	HO	109	28,636	1,235	4.3	908	3.2	5.9	32,303
87		Rick Demmer, Peosta, IA	HO	86	28,481	1,219	4.3	941	3.3	5.9	32,298
88	*	Kandy-Bahr Holsteins, Waukon, IA	HO	67 1.047	30,267	1,152	3.8	976	3.2	5.8 E 0	32,282
89	*	Ro-Linda Acres, Waterville, IA	HO	1,067	28,613	1,209	4.2	949	3.3	5.9 5.9	32,273
90 91	*	Nathan & Tajia Retzlaff, Shawano, WI	XX HO	50 559	29,732	1,194 1,214	4.0	921 906	3.1 2.1	5.8 5.8	32,230
91 92		James & Marlene Decker, Bernard, IA Grog Illig & Sons Wost Branch MI	HO	558	29,120 27,252	1,214	4.2	906 832	3.1 2.1	5.8 5.8	32,174
92 93	*	Greg Illig & Sons, West Branch, MI John & Edwin Maxwell, Donahue, IA	HO JE	462 249	27,252 26,127	1,300 1,241	4.8 4.7	832 976	3.1 3.7	5.8 6.1	32,111 32,081
93 94		Tom Engelken, Earlville, IA	XX	249	20,127 27,476	1,241	4.7 4.5	978 948	3.7 3.5	5.9	32,081
94 95		Jack & Tom Jeppesen, Stanton, MI	HO	273	27,478	1,223	4.5 4.0	940 935	3.5 3.2	5.9 5.8	32,075
96	*	Greenleaf Ledge Dairy, Greenleaf, WI	HO	584	30,505	1,183	3.8	935 940	3.1	5.7	32,007
90 97	*	Allen Martin, Goshen, IN	HO	482	30,303	1,140	3.8	940	3.1	5.7	31,962
98	*	James & Brad Ritter, Byron, MI	HO	269	29,101	1,199	4.1	903	3.1	5.8	31,951
99	*	Jeff Brenner, Hopkins, MI	HO	670	28,261	1,227	4.3	891	3.2	5.8	31,947
00	*	Brooks Dairy Farms, Waupaca, WI	HO	677	27,447	1,241	4.5	902	3.3	5.9	31,946
01	*	Carson Acres LLC, Hesperia, MI	HO	139	29,875	1,150	3.8	952	3.2	5.8	31,944
02	*	Robert Getzloff, Wilson, Mi	HO	465	28,466	1,224	4.3	883	3.1	5.8	31,914
203		Matthew & Susan Smith, Hudson, MI	HO	72	29,163	1,181	4.0	925	3.2	5.8	31,907
204		Coonridge Holsteins, Anamosa, IA	HO	164	29,518	1,184	4.0	903	3.1	5.7	31,893
05		Bill & Bob Gruppen, Zeeland, MI	HO	86	30,893	1,115	3.6	951	3.1	5.7	31,816
206		John & Ryan Sparrgrove, Castalia, IA	HO	224	28,536	1,187	4.2	929	3.3	5.8	31,810
207		Jim Goldsmith, Earlville, IA	HO	168	27,934	1,226	4.4	888	3.2	5.8	31,804
208		Brent & Carrie Pollard, Rockford, IL	HO	69	27,746	1,230	4.4	889	3.2	5.8	31,802
Т		C-Dar Dairy LLC, Elkhart, IN	HO	253	29,481	1,172	4.0	913	3.1	5.7	31,802
		Keith Wood, Kingston, MI	HO	137	28,410	1,178	4.1	945	3.3	5.8	31,774

P 0 2 Ĵ, 2 HERDS



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211	3X *	Herd Nathan & Taija Retzlaff, Shawano, WI	Breed XX	Size 26	Milk 30,592	Fat 1,157	<b>F%</b> 3.8	Prot. 885	<b>P%</b> 2.9	CFP 5.6	ECM 31,757
211	*	Nathan & Tajia Retzlaff, Shawano, WI Stencil Farms, Denmark, WI	HO	20 1,654	30,392 27,852	1,157	3.0 4.4	884	2.9 3.2	5.8	31,757
212		Rolling Valley Jerseys, Waterville, IA	XX	30	27,698	1,220	4.4 4.3	939	3.2 3.4	5.8 5.9	31,747
213	*	Kohn Dairy LLC, Cecil, WI	HO	274	28,936	1,188	4.1	901	3.1	5.7	31,739
215	*	Gilde Farms LLC, Lake City, MI	HO	247	27,720	1,267	4.6	814	2.9	5.7	31,699
216	*	Vande Hei Dairy Farms, De Pere, WI	HO	458	29,657	1,145	3.9	937	3.2	5.7	31,694
217	*	23 Dairy LLC, Middleton, MI	HO	483	30,221	1,129	3.7	938	3.1	5.7	31,679
218	*	Lance & Jonna Schutte, Monona, IA	HO	123	28,799	1,158	4.0	940	3.3	5.7	31,604
219	*	Second Look Holsteins LLC, Eden, WI	HO	1,293	29,025	1,159	4.0	928	3.2	5.7	31,599
220	*	Dale Bogart, Kewaunee, WI	HO	2,027	28,987	1,150	4.0	942	3.2	5.7	31,578
221	*	Bob Van Daalwyk, Hilbert, WI	HO	181	29,738	1,139	3.8	927	3.1	5.7	31,566
222 223		Murphy Family Farm, New London, WI Trent & Kelsey Hendrickson, Blanchardville, WI	HO HO	200 419	28,034 28,950	1,209 1,153	4.3 4.0	878 931	3.1 3.2	5.7 5.7	31,540
223	*	Sand Creek Dairy LLC, Hastings, MI	JE	419	28,950	1,155	4.0 5.1	931 928	3.2 3.8	6.0	31,520 31,514
225		Eric Frahm, Frankenmuth, MI	HO	133	29,452	1,135	3.9	938	3.2	5.7	31,505
226	*	Seven Oaks Dairy, LLC, Kaukauna, WI	HO	1,332	29,044	1,162	4.0	909	3.1	5.7	31,499
Т	*	Green Meadow Farms Inc, Elsie, MI	HO	4,026	27,730	1,207	4.4	889	3.2	5.7	31,499
228		Ros-Lor Dairy LLC, Newton, WI	HO	110	30,236	1,143	3.8	890	2.9	5.6	31,498
229		Ron Brinks, McBain, MI	HO	133	28,972	1,142	3.9	943	3.3	5.7	31,477
230	*	Sunny Slope Dairy LLC, Reedsville, WI	HO	1,242	29,268	1,158	4.0	902	3.1	5.6	31,467
231	*	Craig & Sarah Thiel, Hilbert, WI	HO	495	29,512	1,167	4.0	871	3.0	5.6	31,426
232		Marvin Martin, Carson City, MI	HO	76	29,340	1,136	3.9	929	3.2	5.7	31,412
233		Dale & Sharon Fertig, Wall Lake, IA	HO	231	28,184	1,175	4.2	912	3.2	5.7	31,409
234 235		Greg & Rosie Piggott, Waukon, IA Todd Martin, Claypool, IN	HO HO	99 448	28,241 30,128	1,158 1,109	4.1 3.7	936 938	3.3 3.1	5.7 5.6	31,391 31,389
235		Foxland Farms LLC, Greenleaf, WI	HO	119	30,301	1,107	3.7	897	3.0	5.5	31,365
237		Ron Folkema, Fremont, MI	XX	1,063	28,869	1,173	4.1	880	3.0	5.6	31,363
238	*	Landstad Dairy LLC, Bonduel, WI	HO	294	30,017	1,125	3.7	911	3.0	5.6	31,353
239	*	Preston Farms, Quincy, MI	HO	940	27,745	1,180	4.3	912	3.3	5.7	31,330
240		Steven Weaver, Goshen, IN	HO	665	27,541	1,191	4.3	900	3.3	5.7	31,314
241	*	David & Susan Granskog, Stephenson, MI	HO	261	30,026	1,106	3.7	937	3.1	5.6	31,309
242		Stephen Burkholder, Orleans, MI	HO	120	28,175	1,185	4.2	882	3.1	5.7	31,306
243		Jerry & Stephanie Kauffman, Farley, IA	HO	252	28,914	1,139	3.9	928	3.2	5.7	31,304
Т	*	Hanson Farms, Pine River, WI	HO	392	28,521	1,156	4.1	916	3.2	5.7	31,304
245 246		Loehr Dairy LLC, Mount Calvary, WI Norris Dairy Farm Inc, Hesperia, MI	XX HO	47 723	26,471 28,372	1,213 1,171	4.6 4.1	904 892	3.4 3.1	5.8 5.7	31,280 31,266
240	*	United Pride Dairy LLC, Phillips, WI	XX	301	25,200	1,171	4.1	917	3.6	5.9	31,200
248		Dutch Meadows LLC, Zeeland, MI	HO	190	27,925	1,167	4.2	909	3.3	5.7	31,198
249	*	Vagts Dairy LLC, West Union, IA	HO	543	28,709	1,176	4.1	858	3.0	5.6	31,181
250		Bruce Martin, Whittemore, MI	XX	105	28,060	1,166	4.2	901	3.2	5.7	31,168
251	*	Noll Farms, Coleman, WI	HO	702	31,210	1,069	3.4	930	3.0	5.5	31,164
252		Golden Sun Dairy LLC, Shiocton, WI	HO	215	27,465	1,170	4.3	915	3.3	5.7	31,132
253		Alan & Ruth Hageman, Decorah, IA	HO	117	29,285	1,113	3.8	933	3.2	5.6	31,127
Т		Robert Lee, Marion, MI	HO	125	27,378	1,173	4.3	913	3.3	5.7	31,127
255 256		Dave & Rick Tacoma, Falmouth, MI Kemridge Farm 2 Inc, Westfield, WI	HO HO	405 317	29,122 28,537	1,107 1,142	3.8	943 908	3.2 3.2	5.6 5.6	31,072 31,067
250 257		Brian & Monica Enyart, Postville, IA	HO	130	28,879	1,142	4.0 4.0	908 876	3.2 3.0	5.6	31,067
258		Eric Schoenfuss, Edgar, WI	HO	38	28,628	1,120	3.9	936	3.3	5.6	31,026
259		Claytop Holsteins, Howard City, MI	HO	292	27,391	1,179	4.3	887	3.2	5.7	31,010
260	*	Andy Belter, Athens, WI	HO	234	28,090	1,154	4.1	895	3.2	5.6	30,976
261		Troy & Don Meyer, Maynard, IA	HO	99	27,614	1,163	4.2	899	3.3	5.6	30,968
262		Dave Wenger & Sons Dairy, Marlette, MI	HO	222	27,459	1,171	4.3	892	3.2	5.7	30,967
263		Terry & Diane Cox, Shullsburg, IL	HO	362	27,768	1,172	4.2	874	3.1	5.6	30,944
264		Johnson Family Dairy LLC, Juda, WI	HO	90	27,604	1,151	4.2	914	3.3	5.7	30,924
265	*	Elusive Hill Dairy LLC, Marshfield, WI	HO	968	28,625	1,130	4.0	902	3.2	5.6	30,894
266		Andy Kortman, McBain, MI	HO	254	28,893	1,121	3.9	905	3.1	5.6	30,888
267 268	*	Adam & Karen Voigts, Wilton, WI Cole Riverview Farms, Bancroft, MI	HO HO	275 316	26,914 27,981	1,182 1,162	4.4 4.2	880 868	3.3 3.1	5.6 5.6	30,840 30,838
269		William Fabry, Oconto Falls, WI	HO	142	28,301	1,138	4.0	894	3.2	5.6	30,831
270		Von View Dairy Inc, Stewardson, IL	HO	172	29,073	1,100	3.8	923	3.2	5.5	30,826
271	*	MSU Dairy Dept, Lansing, MI	HO	247	29,103	1,096	3.8	929	3.2	5.5	30,817
272		Raterink Dairy Farm, Zeeland, MI	HO	121	28,525	1,151	4.0	858	3.0	5.5	30,797
273		McCulloch Farms, Rockford, IL	HO	87	28,570	1,136	4.0	874	3.1	5.5	30,740
274		Bob & Nancy Johnson, Baldwin, WI	HO	357	26,357	1,177	4.5	895	3.4	5.7	30,708
275	-	Ken Zuiderveen, Falmouth, MI	HO	399	28,289	1,123	4.0	899	3.2	5.5	30,671
276	*	Mayer Farm, Chippewa Falls, WI	HO	170	27,429	1,161	4.2	871	3.2	5.6	30,667
277 279	*	Rich Byma, Grant, MI	HO HO	1,205 01	28,294	1,133	4.0 3.8	877 901	3.1 2.1	5.5 5.5	30,634
278 279	*	Volkman Farms, Black Creek, WI Terry Lenth, Luana, IA	HO HO	91 106	29,104 28,059	1,104 1,138	3.8 4.1	891 877	3.1 3.1	5.5 5.5	30,630 30,621
279	*	Roger & Jan Bauman, Nokomis, IL	HO	100	28,039	1,130	4.1 3.9	861	3.1	5.4	30,621
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	3X	Herd	Breed	Size	Milk	Fat	F%	Prot.	P%	CFP	ECM
281		Duane & Joan Lisowe, Chilton, WI	HO	135	27,579	1,150	4.2	873	3.2	5.5	30,589
282		Wolf Farms LLC, Bonduel, WI	HO	266	28,101	1,136	4.0	873	3.1	5.5	30,579
283		Twinkle-Hill Brown Swiss, Watertown, WI	BS	48	26,184	1,156	4.4	921	3.5	5.7	30,578
284	*	Andre Weaver, Friendship, WI	HO	118	27,319	1,153	4.2	873	3.2	5.6	30,543
285	*	Tom Rahmlow, Mishicot, WI	HO	1,263	27,390	1,144	4.2	885	3.2	5.6	30,542
286		Bollinger Farms LLC, Vestaburg, MI	HO	213	28,309	1,114	3.9	896	3.2	5.5	30,538
287		Jesse & Rachel Thoma, Manawa, WI	HO	78	27,559	1,131	4.1	895	3.2	5.6	30,505
288		Skyvue Farm, Sheldon, WI	HO	76	25,260	1,224	4.8	833	3.3	5.6	30,483
289		Derrick & Doug Nelson, Eau Claire, WI	HO	208	27,727	1,127	4.1	891	3.2	5.5	30,478
290		Andy Schmitz, Fredericksburg, IA	HO	247	27,498	1,141	4.1	876	3.2	5.5	30,469
291		Jeff Knuver, Fremont, MI	HO	161	28,664	1,122	3.9	857	3.0	5.4	30,459
292		Hardy Spring Lake Farms, Stanton, MI	HO	220	27,417	1,141	4.2	878	3.2	5.5	30,458
293		John Welter, Croswell, MI	HO	122	27,702	1,129	4.1	886	3.2	5.5	30,457
294	*	Brown-Star Farm LLC, Gillett, WI	HO	595	27,527	1,130	4.1	891	3.2	5.5	30,451
295		John & Meghan Palmer, Waukon, IA	HO	177	28,085	1,107	3.9	906	3.2	5.5	30,450
296		C & J Farms Inc, Bear Creek, WI	HO	315	28,775	1,102	3.8	884	3.1	5.4	30,443
297		Tim Bates, Elmwood, WI	HO	90	26,568	1,167	4.4	867	3.3	5.6	30,433
298		Matt Schelling, Orange City, IA	HO	130	26,625	1,143	4.3	904	3.4	5.6	30,424
299		Don Grezeszak, Whittemore, MI	HO	655	27,080	1,158	4.3	858	3.2	5.5	30,415
300		James Reid, Jeddo, MI	HO	260	27,996	1,088	3.9	935	3.3	5.5	30,397
301		Duane & Joan Lisowe, Chilton, WI	HO	91	27,155	1,141	4.2	874	3.2	5.5	30,342
302		Bill Deruiter, Marion, MI	HO	377	29,996	1,045	3.5	914	3.0	5.4	30,334
303		Andy Lodahl, Theresa, WI	HO	313	26,926	1,150	4.3	867	3.2	5.5	30,330
304		Volmering Family Dairy, Harbor Beach, MI	HO	192	28,607	1,088	3.8	900	3.1	5.4	30,329
305		Steve & Doug Kamphuis, Brandon, WI	HO	327	27,590	1,116	4.0	895	3.2	5.5	30,321
Т	*	Quality Dairy, Luxemburg, WI	HO	2,389	28,973	1,087	3.8	885	3.1	5.4	30,321
307	*	Regancrest Farm, Waukon, IA	HO	1,009	26,719	1,161	4.3	850	3.2	5.5	30,275
308		Ephraim & Esther Martin, Sheridan, MI	HO	114	27,917	1,120	4.0	867	3.1	5.4	30,265
309		Anderegg Farms LLC, Guttenberg, IA	HO	180	28,353	1,102	3.9	875	3.1	5.4	30,236
310		Chad Beck, West Branch, MI	HO	941	28,102	1,109	3.9	872	3.1	5.4	30,222



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#### Mycotoxin binders: **PEDUCING NUTRIENT AVAILABILITY** and neglecting mycotoxins

Many products claim to bind mycotoxins and protect dairy cows, but recent research suggests they may not be as effective as advertised. Research indicates clay binders have limited success in binding aflatoxin, which is rarely found in the Midwest. However, they are even less effective against vomitoxin and zearalenone, which are more prevalent in this region. Even more concerning, these binders can reduce the availability of critical vitamins and amino acids, potentially affecting cow health, milk production, and overall herd performance.

Curious about the effectiveness of your mycotoxin binder or concerned about mycotoxin exposure? Scan the QR code to *get more* details on this resarch, or connect with your local CentralStar team.

 Table 1: The adsorption of different mycotoxin binders against most common mycotoxins (average adsorption ± SEM).

 Aflatoxin
 Deoxynivalenol

Mycotoxin binders	Aflatoxin B1	Deoxynivalenol (Vomitoxin)	Fumonisin	Ochratoxin A	T-2 toxin	Zearalenone	Average
Activated carbon	93ª ± 0.8	69ª ± 0.8	83ª ± 1.7	88ª ± 1.8	53 ± 7.9	93ª ± 1.6	81ª ± 0.4
Bentonite	86 <sup>a,x</sup> ± 0.3	18 <sup>b,y</sup> ± 1.4	32 <sup>b,y</sup> ± 4.2	30 <sup>b,y</sup> ± 0.6	22 <sup>y</sup> ± 6.9	29 <sup>b,y</sup> ± 1.1	45 <sup>b</sup> ± 0.2
Clinoptilolite	75 <sup>ab,x</sup> ± 1.5				29 <sup>×y</sup> ± 15.9	14 <sup>b,y</sup> ± 2.8	32 <sup>b</sup> ± 1.2
HSCAS <sup>1</sup>	83 <sup>a,x</sup> ± 0.8	11 <sup>b,y</sup> ± 1.6	52 <sup>ab,xy</sup> ± 2.8	43 <sup>ab,xy</sup> ± 5.1	32 <sup>xy</sup> ± 12.6	52 <sup>b,x</sup> ± 1.4	48 <sup>b</sup> ± 0.5
Montmorillonite	88 <sup>a,x</sup> ± 1.0	9 <sup>b,y</sup> ± 6.3	42 <sup>ab,y</sup> ± 12.7	26 <sup>ab,y</sup> ± 11.9	24 <sup>y</sup> ± 13.1	47 <sup>b,y</sup> ± 1.7	48 <sup>b</sup> ± 0.8
Sepiolite	95 <sup>ab</sup> ± 8.3	13 <sup>ab</sup> ± 12.6				39 <sup>ab</sup> ± 11.3	46 <sup>b</sup> ± 3.9
Zeolite	61 <sup>ab,x</sup> ± 1.5	10 <sup>b,y</sup> ± 2.9	26 <sup>b,x</sup> ± 2.3	44 <sup>ab,x</sup> ± 1.3	5 <sup>×</sup> ± 13.5	33 <sup>b,x</sup> ± 2.1	32 <sup>b</sup> ± 0.5
Yeast cell wall	49 <sup>b</sup> ± 0.4	20 <sup>b</sup> ± 1.2	30 <sup>b</sup> ± 2.5	43 <sup>b</sup> ± 0.4	28 ± 3.8	48 <sup>b</sup> ± 0.4	34 <sup>b</sup> ± 0.2
Average	77 <sup>×</sup> ± 0.1	23 <sup>z</sup> ± 0.5	45 <sup>yz</sup> ± 1.0	47 <sup>y</sup> ± 0.3	31 <sup>yz</sup> ± 2.3	50 <sup>y</sup> ± 0.3	

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<sup>abc</sup> Different superscripts in the same column indicate a significant effect between binders (P<0.05). <sup>xyz</sup> Different superscripts in the same row indicate a significant effect between mycotoxins (P<0.05). <sup>1</sup>HSCAS = Hydrated sodium calcium aluminosilicate.



311       Böge Max Dany, Manul, MI       HO       432       428,45       1.073       3.2       9.00       3.1       5.4       3.0180         313       Horran Elay, Fair Okas, N       HO       5.01       824,41       1.022       5.0       88,63       3.5       5.4       3.0186         315       Perk Farms, Clappen Faix, W       HO       7.0       4.2       824,61       1.113       4.0       86,64       3.0       5.4       3.0120         317       Autrin Akins Sluis, Fallon, M       HO       1.40       7.255       1.117       4.0       833       5.5       3.0025         318       Wares Muchelle Sluis, Floring JL       XX       1.64       2.0488       1.131       4.0       8.4       3.0       5.5       3.0027         319       Rasing & Muchelle Sluis, Floring JL       XX       1.64       2.0481       1.122       3.0       8.00       3.1       5.4       3.0010         321       Rasing & Muchelle Sluis, Floring JL       HO       3.0       8.01       3.4       3.00       3.1       5.4       3.0010         322       Dasing Alexan, M       HO       8.0       8.0       8.1       5.4       3.0010         323		3X	Herd	Breed	Size	Milk	Fat	F%	Prot.	P%	CFP	ECM
B13       Harrome Daily Fair Coles, IN       HO       Soft Dis       Zass       10.12       2.2       7.4       2.0       5.4       2.0       0.161         B15       Peak Farms, Chigowa Fais, Vu       HO       D12       2.6.08       1.113       4.0       846       3.0       5.4       3.0.30         B15       Amon & Alm Sker, Hulton, MI       HO       1.24       2.2.0.65       1.117       4.0       653       3.1       5.4       3.0.049         S17       Amon & Alm Sker, Hulton, MI       HO       1.44       2.2.0.5       1.117       4.0       653       3.1       5.4       3.0.049         S18       Warren Kultonse Skers, Frencon, WI       HO       7.47       2.2.0.01       3.1       5.4       3.0.012         S21       Dirk Lorense Skers, Frencon, WI       HO       3.8       2.6.0       1.112       4.1       8.9       3.4       2.4       2.4       2.9.992         S21       Dirk Lasson MIL, Taleglein, MI       HO       3.8       2.6.0       1.112       4.0       8.97       3.1       5.4       2.9.992         S22       Dirk Lasson MIL, Taleglein, MI       HO       3.98       2.2.5.4       2.9.994         S237       David			· ·		633		1,073	3.7	900	3.1		30,215
314       Phile Muxnik Agen, Mu       HO       152       26.87       1.12       4.0       854       30       5.5       9.018         316       Steve Lands, Cotene, N       HO       32       26.62       1.13       4.0       854       30.       5.4       30.100         317       Aarto Akin Sacke, Holino, Okcola, Wi       HO       149       22.89       1.13       4.2       871       3.4       5.5       30.037         318       Parting Murche Bueine, Fightand, II       XK       16.4       16.98       3.80       1.1       4.3       891       3.4       5.5       30.037         320       Michande Sacks, Fienmari, Wi       HO       382       2.8.81       1.10       3.9       3.4       5.5       30.030         322       Michands, Azon, M       HO       392       2.9.81       1.10       3.8       381       3.1       5.4       2.9.947         323       Parting Karak, Azon, M       HO       392       2.2.1       1.10       3.8       375       3.3       5.2       3.9.496         324       Parting Karak, Azon, M       HO       100       2.2.17       1.10       4.0       8.05       3.1       5.4       2.9.947 </td <td></td>												
315         Psch Fame, Chippene Falls, Wi         H0         212         280.00         1.115         4.0         8.00         5.4         0.01.00           317         Arron & Alam Suler, Holms, Mi         H0         1.64         27.55         1.117         4.0         68.0         3.1         5.4         0.009           318         Warren Michael, Colors, Highland, L.         XX         1.64         2.8.08         1.13         4.1         89.7         3.3         5.5         0.0012           319         Randy & Michael Eschne, Highland, L.         XX         1.64         2.8.08         1.12         4.1         89.7         3.3         5.5         0.0012           310         L.C. Warren, Mi         H0         3.8         2.8.08         1.12         4.0         87.7         1.12         4.0         87.7         1.12         4.0         87.7         1.12         4.0         87.7         1.12         4.0         87.7         1.12         4.0         87.7         1.12         4.0         87.7         1.12         4.0         87.7         1.13         4.0         87.7         1.13         4.0         87.7         1.13         4.0         87.7         1.13         4.0         87.7		*										
316       Store Landis, Grönen, N.       H0       34       26,22       1,17       4.       410       30       5.4       30,20         318       Varanen M. Johrson, Oxecela, W.       H0       164       25.6       111       40       873       31       5.5       30,007         318       Varanen M. Johrson, Oxecela, W.       H0       164       26.80       1131       41       894       31       5.5       30,007         300       Auburnole Swiss, Fernoni, W.       H0       318       25.65       1107       44       887       34       55.6       30,037         310       Weltman, Erris, Inc., Applentom, WI       H0       328       25.65       11.0       4.4       887       31       5.4       29.957         326       Prilis Merin, Karne, IN       H0       329       27.73       1078       1.0       4.0       85.7       2.0       5.4       29.957         326       Dank Jasan WI.       H0       102       2.1.6       1.12       1.3       81       32       5.4       29.957         327       Dank Jasan WI.       H0       4.0       27.3       1.11       4.1       8.8       3.1       5.4       29.957		*										
317       Arana Allen Steer, Indon, Mi       H0       194       278.8       1.11       4.0       847.3       3.1       5.4       90094         318       Waran Mohesno, Cascal, Mi       177       2.8       177       2.2       877       3.2       877       3.2       877       3.3       5.5       90072         319       Mathema Sexis, Francin, Mi       H0       787       787       1.1       4.4       848       3.4       5.5       90037         321       Michans Sexis, Francin, Mi       H0       3.8       7.87       1.1       8.4       8004       3.1       5.4       9092         323       Philip Metrin, Almon, Mi       H0       3.0       2.7       1.10       4.0       8.7       3.1       5.4       9992         325       Philip Metrin, Almon, Mi       H0       1.00       2.013       1.08       4.0       8.7       3.1       5.5       9.9910         326       Philip Metrin, Almon, Mi       H0       1.00       2.013       1.08       4.0       8.90       3.1       5.4       9.9910         326       Philip Metrin, Almon, Mi       H0       1.00       2.013       1.10       1.0       1.0       1.0 </td <td></td>												
318         Warrer M Johnson Osconk, Wi         HO         473         26.801         1131         4.2         871         3.2         5.5         30.047           300         Adarmale Sviss, Formar, Wi         B5         7.6         26.001         11.3         4.1         874         3.4         5.5         30.037           310         Weithen Farris Lie, Spiellow, Wi         HO         282         28.88         11.02         4.1         884         3.4         5.5         20.037           312         Medina Farris Lie, Spiellow, Wi         HO         302         28.988         11.02         4.1         88.97         3.4         6.6         29.997           313         Fraigh Markin, Altoni, IN         HO         900         22.973         1.044         4.8         87.6         3.1         5.4         29.996           326         Fraigh Martin, Altoni, IN         HO         120         28.017         1.054         4.0         850         3.1         5.4         29.896           327         David Altoni, Altoni, IN         HO         7.10         1.04         4.0         850         3.1         5.4         29.897           328         Potopacoliny, Hu, I.         HO		*										
319         Analy Michael Solves, Ferrorius VII         XX         164         20.800         11.20         4.1         894         3.2         5.5         30.003           321         Wichman-Farms in C., Appleton, WI         HO         332         20.85         80.01         11.02         4.8         871         4.4         887         4.4         887         4.4         887         4.4         887         4.4         887         4.4         887         4.4         887         4.4         887         4.4         887         4.4         887         4.4         887         4.5         2.9982           244         Wenchs Darp Farn, Zuch, NM         HO         329         2.179         1.102         4.0         8.87         3.1         5.5         2.9961           250         David A Deel Score, Dorcelle, WI         HO         120         2.101         1.08         4.8         3.6         5.5         2.9861           230         Flatter Stuck, Nove Holstein, WI         HO         120         2.110         4.8         8.8         3.6         5.6         2.9849           331         Mark Unschalt, MI         HO         170         2.42         1.110         4.4         8.8		*										
321         Wichman Farms inc, Appelean, Ni         HO         332         82         934         837         5         6         300.33           333         Represend Dary Inc.We Returnend, WI         HO         934         29         904         34         887         34         887         34         887         34         887         34         887         34         887         34         887         34         887         34         887         34         887         34         887         34         887         34         887         34         887         34         887         34         887         34         152         648         99960           326         David & Peter Scue. Bryceville, WI         HO         120         26.168         1132         43         875         33         5         29.9910           337         Paule Scuer, Michain, M         HO         140         430         271         171         43         887         34         123         43         5.5         29.897         333         33         33         33         33         33         33         33         33         33         33         33         33												
322         MAS Dary II C. Watamaa, N         HO         33.         29.888         1.142         4.4         8.87         3.4         5.6         5.000           328         Reymold Dary In. Mow Rehmond, MI         HO         900         227         10.04         3.8         876         3.1         5.4         29.897           324         Menhab Dary Fam. Zendard, MI         HO         330         22.773         10.04         881         32.5         5.4         29.897           326         David & Peter Score, Royceville, WI         HO         122         27.73         10.04         6.85         3.2         5.4         29.897           329         Tucemend Dary Fart, Anni, MI         HO         122         27.13         10.04         4.5         3.8         5.5         29.896           331         Davids & Dean Bary, Hul, X         HO         160         26.33         11.14         4.1         80.8         3.0         5.5         29.896           333         Daugles & Dean Bary, Hul, X         HO         160         20.23         11.31         4.1         80.8         3.6         5.5         29.897           333         Davids for Cargenz, Zeent, Mamawa, WI <thho< th="">         100</thho<>	320		Auburnvale Swiss, Fremont, WI	BS	78	26,301	1,129	4.3	891	3.4	5.5	30,037
323         Raymond Dairy Iran. Zecond. Mi         HO         940         27.93         38         970         32         5.4         29.997           325         Philip Matrin. Altron, IN         HO         340         27.173         1.702         4.0         881         32         5.4         29.997           326         Dond, Jason Will, Foulpoils, II.         HO         129         27.173         1.703         4.3         875         32         5.4         29.997           328         Problem Statis, Neither, Neit	321			HO	281	28,084	1,102	3.9	860	3.1	5.4	
134         Ninhus Dairy Erm, Zenband, MI         HO         304         22.379         10.24         30.8         77         31         5.4         29963           356         Dun & Jason MII. Toutopis, IL         HO         129         27.37         10.43         39         37         32         5.4         29963           356         Dun & Jason MII. Toutopis, IL         HO         129         27.37         11.04         4.0         850         31         5.4         29.991           328         Felder Farms LLC, New Holsien, VII         HO         430         27.213         11.08         4.1         863         32         5.4         29.8991           331         Budgebard         Mark Uness, Valders, VII         HO         646         27.333         11.11         4.1         866         3.3         5.5         29.896           333         Dougles & Deen Beyer, Manaza, VII         HO         646         27.333         11.11         4.1         4.8         866         3.3         5.5         29.785           334         Budgebard         Manaza         Katta         Katta         29.97         1.14         4.2         28.94         1.13         2.5         4         29.775												
325         Philip Matrin, Xaron, IN         HO         329         27,37         1102         4.0         881         3.2         5.4         29940           327         David & Peter Score, Boyceville, WI         HO         120         27,173         1073         39         877         33         5.4         29940           328         Mace Boschen, McBain, MI         HO         120         27,173         1074         4.0         825         31         5.4         29,897           330         Tracerme Dary, Port Assin, MI         HO         420         324         11,84         31         64         29,893           332         Doogles Daris, Maters, Waters, Witter, MI         HO         716         26,334         11,28         43         665         36         5.6         29,893           333         Doogles Dani Reyr, Manae, WI         HO         164         24,834         11,13         48         668         3.6         5.6         29,755           334         Bilk Bab Gruppen, Zeoland, MI         HO         162         29,476         1.144         24         29,43         3.5         2.9         2.9         2.9         2.9         2.9         2.9         2.9         2.9												
Base Neth Teatopols, L         HO         129         27.73         1093         3.9         979         3.2         5.5         29.901           Base Alext Score, Boycenik, W         HO         120         27.87         1.104         4.0         850         3.1         5.4         29.991           S28         Fielder Farms, LLC, New Hostein, M         HO         640         27.13         1.188         4.1         680         3.2         5.4         29.897           S31         Mark Uness, Valders, WI         HO         640         27.33         1.188         4.3         690         3.1         5.3         29.897           333         Doughs A bean Byey, Mansa, WI         HO         640         27.33         1.111         4.1         845         3.1         5.4         29.897           333         Doughs A bean Byey, Mansa, WI         HO         642         26.891         1.134         4.3         866         3.5         5.4         29.765           335         Doughs A bean Byey, Mansa, WI         HO         642         26.391         1.134         4.3         86.3         3.1         5.3         29.745           336         Develoand Dain, Wheeler, IL         HO         642												
327         David & Peter Score, Bryczwile, Wil,         HO         120         24,183         1,132         4,33         0,75         24,999           283         Freider Farns LLC, New Hubsien, Wi         HO         430         27,213         1,108         4,1         868         3.2         5,4         29,999           330         Thuermel Dairy, Jort Auslin, Mi         HO         688         28,719         1,814         3,4         900         3.1         5,3         29,849           331         Dougles Dean Beyer, Manava, Wi         HO         716         26,833         1,112         4,1         807         3.2         5,4         29,895           331         Dougles Dean Beyer, Manava, Wi         HO         616         26,839         1,112         4,1         807         3.1         5,4         29,760           334         Bill & Bob Gruppen, Zeelend, Mi         HO         622         7,277         1.092         4.0         873         3.2         5,4         29,760           337         Jason Martin, Nappannee, IN         HO         632         27,737         1.092         4.0         3.3         5,5         29,731           338         Probostand Aschy Langee C. Westhininini, A         HO												
328       Mike Posscher, McBain, Mi       HO       210       27,8273       1,104       4.0       880       3.1       5.4       29,897         330       Thuenmel Dairy, Port Ausin, Mi       HO       680       28,179       1,054       3.7       800       3.1       5.3       29,887         331       Mark Unless, Valders, Wi       HO       75       26,334       1,124       41       870       3.2       5.4       29,897         333       Douglas & Dean Beyer, Manawa, Wi       HO       665       2,333       1,111       4.1       865       3.6       5.6       29,897         335       Douglas & Dean Beyer, Manawa, Wi       HO       665       2,0333       1,111       4.1       865       3.6       5.4       29,795         335       John W Molt, Orchard, IA       HO       616       2,0334       1,134       4.3       833       3.2       5.4       29,753         336       A GWikes, Middeon, Mi       HO       620       2,324       1,134       4.3       833       3.2       5.4       29,753         337       Prosparous Farms LLC, Fealmouth, Mi       HO       620       2,334       1,13       4.3       28,54       29,724 </td <td></td>												
310         *         Truemmel bairy port Ausin, Mi         H0         688         28.719         1.054         3.7         800         3.1         5.3         29.896           313         Mark Uness, Vulders, Wi         H0         75         26.343         1.12         4.1         807         3.2         5.4         29.896           333         Buil & Bob Crupen, Leend Mi         H0         466         23.33         1.111         4.1         865         3.6         5.4         29.765           335         John W Molt, Orchard, IA         H0         462         26.379         1.134         4.2         8.84         3.1         5.4         29.766           336         A C Wines, Middleon, MI         H0         462         27.377         1.092         4.0         873         3.2         5.4         29.753           337         Prospecturs Jamis LC, Falmuch, MI         H0         405         26.344         1.13         4.2         866         3.3         5.4         29.733           340         William & Kathy Langreek, West Union, IA         H0         135         2.5.797         1.074         89         81         3.5         2.9724           341         Mark Langreek, West Mank Lichti												
311       Mark Uness, Widers, Wi       HO       75       26.334       1.128       4.1       865       3.3       55       29.856         322       Boogerd Dairy, Hull, IA       HO       618       26.330       1.112       4.1       870       3.2       5.4       29.829         334       Douglas & Deam Beyr, Manawa, WI       HO       618       26.344       1.173       4.8       868       3.6       5.6       29.780         335       John Wiol, Orchard, IA       HO       100       26.379       1.134       4.2       28.28       3.1       5.4       29.780         336       A G Wins, Middleon, MI       HO       163       26.079       1.080       3.9       864       3.1       5.4       29.753         337       Drosontain Kaltry, Langerd, West Lino, IA       HO       620       27.57       1.074       3.9       861       3.1       5.3       29.773         338       Probastland Dairy, Mines, KWest Lino, IA       HO       27.57       27.173       3.4       863       3.3       5.5       29.723         341       Bark A Vanna Leichthuss, Daver, WI       HO       27.57       27.173       3.9       861       3.1       5.4       29.7								4.1			5.4	
312         Bongerd Dainy Huil, IA         HO         618         2.6820         1.112         4.1         870         5.4         2.929           333         Daugias & Dean Beyer, Manawa, Wi         HO         465         27.333         1.111         4.1         845         3.1         5.4         29.780           335         John W Net, Orchard, IA         HO         64         2.079         1.134         4.2         828         3.5         5.4         29.780           336         A GWise, Middleon, MI         HO         622         2.7327         1.092         4.0         873         2.2         5.4         29.780           337         Jasan Marin, Nappannee, IN         HO         262         2.7327         1.092         4.0         873         2.2         5.4         29.781           338         Probated Dairy, Meederi, L         HO         4.00         2.579         1.074         3.9         891         3.3         5.2         2.9723           340         William & Kattry Langreek, West Union, IA         HO         4.02         25.63         3.1.18         1.4         4.8         8.33         5.2         2.9723           341         Maria Schutz, Sune Rero, WI         HO	330	*	Thuemmel Dairy, Port Austin, MI	HO	688	28,719	1,054	3.7	890	3.1	5.3	29,849
333         Dauglas & Dean Beyer, Manawa, WI         HO         465         27,333         1,111         4,1         845         3,1         5,4         29,790           334         Bill & Bob Gruppen, Zealand, MI         HO         110         24,324         1,173         48         868         3,1         5,4         29,785           335         John Whol, Ochrand, IA         HO         162         20,793         1,113         42         864         3,1         5,3         29,776           338         Markin, Nappannee, IN         HO         262         27,327         1,128         43         833         2,2         5,4         29,776           339         Prosperous Farms LLC, Falmouth, MI         HO         602         26,644         1,113         4.2         866         3,3         5,4         29,773           341         Mark A Vanna Leichtluss, Two Rivers, WI         HO         1512         27,579         1,014         3,9         661         3,3         5,4         29,772           343         Emeraid Arces, De Perc, WI         HO         551         26,738         1,121         4,2         660         3,3         5,4         29,712           345         White Gold Dairy LLC,												
334         Bill & Bob Gruppen, Zeeland, M.         HO         110         24.324         1,173         4.8         668         3.6         5.4         29.785           335         John W Nolt, Orchard, IA         HO         62         26,789         1,134         4.2         2828         3.1         5.4         29.765           337         Jason Martin, Mappannee, IN         HO         220         23.27         1.092         4.0         873         3.2         5.4         29.765           338         Probstand Dairy, Meeler, IL         HO         402         23.27         1.092         4.0         873         3.3         5.4         29.761           339         Prosperous Farms LLC, Falmouth MI         HO         135         27.579         1.074         3.9         891         3.2         5.4         29.713           340         William & Kalty Langrock, Wost Union, IA         HO         135         27.579         1.074         3.9         891         3.2         5.4         29.723           342         Stanle Dairy Ames, IA         HO         140         27.891         1.038         4.8         803         3.5         5.4         29.723           344         Stanle Dairy Ames, IA </td <td></td> <td></td> <td>с ,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			с ,									
335         John W Nol, Orchard, IA         H0         6.2         2.7.99         1.134         4.2         2.8         1.5.3         5.3         2.9.760           336         A G Wiles, Middion, Mir         H0         163         28.057         1.909         4.0         8.73         3.2         5.4         29.756           338         Probstand Dany, Wheeler, IL         H0         4.05         2.0.371         1.138         4.3         833         3.2         5.4         29.751           340         William K kally Langrock, West Unon, IA         H0         215         27.579         1.074         3.9         861         3.1         5.3         29.721           341         Wark A vana Lichtfuss, Two Rivers, WI         H0         25.175         1.074         3.9         861         3.1         5.3         29.721           343         Emeraid Acres, De Prer, WI         H0         551         23.781         1.103         4.4         866         3.1         5.3         29.712           343         White Gold Dairy, Ames, IA         H0         170         29.780         1.063         3.8         496         3.3         5.4         29.671           344         Salany Earis, Lichauts, Min		*	· ·									
336       A G Wiles, Midelein, Mi       HO       163       28,045       1.080       3.9       8.44       3.1       5.3       29,756         337       Jason Martin, Nappannee, IN       HO       262       27,327       1.092       4.0       873       3.2       5.4       29,756         339       Prospercus Farms LLC, Falmoult, Mi       HO       602       2.6,44       1.13       4.2       863       3.2       5.4       29,751         340       William & Kathly Langer, West Unit, IA       HO       602       2.6,644       1.113       4.2       860       3.3       5.4       29,724         341       Mark & Vanna Leichtfuss, Two Rivers, WI       HO       216       2.7,628       1.089       3.9       8.61       3.1       5.3       29,724         342       I O Stale Dairy Ames, IA       HO       422       2.8,73       1.138       4.4       853       3.5       2.9,723         344       Stalinky Foris, Cement City, MI       HO       2.8,975       1.039       3.6       86       3.1       5.3       2.9,721         344       Palme Roys LL C, Plainfied, LA       HO       2.9,732       1.016       4.1       8.33       5.4       2.9,761												
337       Jason Martin, Nappannee, IN       HO       262       27,327       1.092       4.0       873       3.2       5.4       29,756         338       Probstland Dairy, Wheeler, IL       HO       405       26,394       1.139       4.3       833       3.2       5.4       29,751         340       William & Kahny Langreck, West Union, IA       HO       105       27,579       1.074       3.9       891       3.1       5.3       29,774         341       Mark & Vanna Leichtluss, Two Rivers, WI       HO       215       27,628       1.089       3.9       891       3.1       5.3       29,774         342       IO State Dairy, Ames, IA       HO       429       25,873       1.138       4.4       853       3.3       5.4       29,723         343       Emeraid-Arces, De Pere, WI       HO       455       28,784       1.063       3.8       866       3.1       5.4       29,714         345       White Gold Dairy LLC, Plainfield, IA       HO       65       27,804       1.063       3.8       866       3.2       5.4       29,712         346       Palms Boys LLC, Plains, MI       HO       22,171       26,558       1.064       4.1       853												
338         Probland Diry, Wheeler, IL         HO         405         26,394         1,139         4.3         833         3.2         5.4         29,751           339         Writema K afty Langenck, West Union, IA         HO         602         26,644         1,113         4.2         866         3.3         5.4         29,751           341         Mark & Vanna Lichtituss, Two Rhvers, WI         HO         216         27,628         1,009         3.9         861         3.3         5.4         29,723           342         LO Stale Dairy, Ames, IA         HO         216         27,628         1,109         3.9         861         3.3         5.4         29,723           343         Emerald-Acres, De Pere, WI         HO         551         26,378         1,121         4.2         860         3.3         5.4         29,772           344         Staley, Chemen City, MI         HO         22,6588         1,064         4.0         879         3.1         5.4         29,679           347         Robert Nusbisch, Holy Cross, IA         HO         21,71         26,910         1,094         4.0         859         3.1         5.3         29,667           348         Patins boy LLC, Palmink IA												
340       *       William & Kathy Langreck, West Union, IA       HO       135       27,72       10,74       3.9       961       3.2       5.4       29,723         341       Mark & Vanna Leichtluss, Two Rivers, WI       HO       216       27,628       1,089       3.9       861       3.1       5.3       29,723         342       I.O State Dairy, Ames, IA       HO       102       25,873       1,138       44       853       3.3       5.5       29,723         344       Stanley Ferris, Cement City, MI       HO       551       26,378       1,121       4.2       8.06       3.3       5.4       29,723         346       Mihe Gold Dairy LLC, Planified, IA       HO       652       7,804       1,003       3.6       886       3.1       5.4       29,703         348       *       Palms Boys LLC, Palms, MI       HO       217       26,910       1,003       4.1       878       3.3       5.4       29,679         348       *       Palms Boys LLC, Palms, MI       HO       21,71       26,910       1,003       4.1       853       3.2       5.4       29,679         348       *       Palms Boys LLC, Palms, MI       HO       21,71       26,91												
341       Mark & Vanna Leichifuss, Two Rivers, WI       HO       216       27,628       1,09       3.9       661       3.1       5.3       29,724         342       I.O State Dairy, Ames, IA       HO       429       25,873       1,121       4.4       853       3.3       5.4       29,723         343       EmeraldAcres, De Pere, WI       HO       551       26,373       1,121       42       860       3.3       5.4       29,721         344       Stanley Ferris, Cement City, MI       XX       164       28,995       1,033       3.6       886       3.1       5.3       29,771         346       Arlen Zimmerman, Cass City, MI       HO       228       22,888       1,106       4.2       874       3.3       5.4       29,671         348       Pains Boys LLC, Pains, MI       HO       27,71       26,910       1,093       4.1       853       3.2       5.4       29,671         350       Starward Farm, Sebewaing, MI       HO       977       27,019       1,118       4.1       821       3.0       2.5       2.4       2.5       2.5       3.4       2.5       2.5       3.4       2.5       2.5       3.4       2.5       2.5       3	339			HO	602	26,644	1,113	4.2	866	3.3	5.4	
342       I O State Dairy, Ames, IA       HO       429       25,873       1,138       4.4       853       3.3       5.5       29,723         343       Emerald-Acres, De Pere, WI       HO       551       26,378       1,121       4.2       860       3.3       5.4       29,722         346       Withe God Dairy LLC, Plainfield, IA       HO       656       27,604       1,063       3.8       896       3.2       5.4       29,712         346       Arlen Zimmeman, Cass City, MI       HO       282       26,588       1,106       4.2       877       3.3       5.4       29,677         348       P alms Boys LLC, Palms, MI       HO       27,77       26,710       1,013       4.1       878       3.2       5.4       29,677         348       P alms Boys LLC, Palms, MI       HO       477       27,019       1,118       4.1       853       3.2       5.4       29,594         351       Kohlman Dairy LLC, Chilton, WI       HO       477       27,019       1,118       4.1       851       3.2       5.4       29,593         352       *       NE dawair Farms, Scowain, MI       HO       320       5.1,112       4.2       848       3.2	340	*	WIlliam & Kathy Langreck, West Union, IA	HO	135	27,579	1,074	3.9	891	3.2	5.4	29,743
343       Emerald Acres, De Pere, WI       HO       551       26,378       1,121       4.2       860       3.3       5.4       29,722         344       Stanley Ferris, Cement City, MI       XX       164       28,995       1.039       3.6       886       3.1       5.3       29,712         346       Arten Zimmerman, Cass City, MI       HO       652       7.804       1.063       3.8       896       3.3       5.4       29,703         347       Robert Nositisch, Holy Cross, IA       HO       170       27,339       1.094       4.0       859       3.1       5.4       29,679         348       Palms Boys LLC, Palms, MI       HO       21,71       26,709       3.9       862       3.1       5.3       29,667         350       Stanward Farm, Sbebewaing, MI       HO       470       27,019       1,118       4.1       821       3.4       2.5,52       29,593         353       McCayland Farm, Tippecanoe, IN       HO       132       2,735       1,112       4.2       843       3.2       5.4       29,590         355       Dave Klamer, Conklin, MI       HO       132       2,732       1,104       4.7       842       3.4       2.5							1,089					
344       Stanley Ferris, Cement City, MI       XX       164       28.995       1.039       3.6       886       3.1       5.3       29.714         345       White Gold Dairy LLC, Plainfield, IA       HO       65       27.804       1.063       3.8       896       3.2       5.4       29.712         346       Adher Zimmerran, Cass City, MI       HO       228       26.588       1.106       4.2       874       3.3       5.4       29.679         347       Robert Nosbisch, Holy Cross, IA       HO       1.71       2.6510       1.093       4.1       878       3.3       5.4       29.671         348       Paints Boys LLC, Palms, MI       HO       2.171       2.6762       1.106       4.1       873       3.2       5.4       29.597         351       Kohinan Dairy LLC, Chillon, WI       HO       477       27.019       1.118       4.1       821       3.0       5.3       29.597         352       * NE lowa Dairy Foundation, Calmar, IA       HO       2.116       2.655       1.105       4.1       858       3.2       5.4       29.593         355       Dave Klamer, Conklin, MI       HO       2.116       2.6655       1.105       4.1       858 <td></td>												
345         White Gold Dairy LLC, Plainfield, IA         HO         65         27,804         1,063         3.8         896         3.2         5.4         29,712           346         Arlen Zimmerman, Cass City, MI         HO         27,339         1,004         4.0         859         3.1         5.4         29,703           348         *         Palms Boys LLC, Palms, MI         HO         170         27,339         1,004         4.0         859         3.1         5.3         29,671           348         *         Palms Boys LLC, Palms, MI         HO         477         26,702         1,106         4.1         853         3.2         5.4         29,697           350         Starward Fams, Sbeewaing, MI         HO         477         27,019         1,118         4.1         821         3.0         5.3         29,594           352         *         Nclova Dairy Foundation, Calmar, IA         HO         132         26,735         1,112         4.2         843         3.2         5.4         29,593           354         Leroy Maassen, Maurice, IA         HO         2,112         2,41         868         3.1         5.3         29,543           355         Dave Klamer, Conklin, MI <td></td>												
346       Arten Zimmerman, Cass City, Mi       HO       228       26,588       1,106       4.2       874       3.3       5.4       29,703         347       Robert Nosbisch, Holy Cross, IA       HO       170       27,339       1,094       4.0       859       3.1       5.4       29,679         348       Paims Boys LLC, Paims, MI       HO       2,712       6,910       1,093       4.1       878       3.3       5.4       29,671         349       David & Julie Marcks, Black Creek, WI       HO       4.5       27,829       1,079       3.9       862       3.1       5.3       29,594         351       Kohtman Dairy LLC, Chilton, WI       HO       477       27,019       1,118       4.1       821       3.0       5.3       29,594         353       McCayland Farm, Tippecanoe, IN       HO       133       26,735       1,112       4.2       843       3.2       5.4       29,593         354       Leroy Massen, Maurice, IA       HO       2116       26,692       1,102       4.1       858       3.1       5.3       29,561         355       Dave Klamer, Condith, MI       HO       716       27,523       1,070       3.8       858       3.1<												
347       Robert Nosbisch, Holy Cross, IA       H0       170       27,339       1,094       4.0       859       3.1       5.4       29,671         348       Paims Boys LLC, Palms, MI       H0       2,171       26,910       1,093       4.1       878       3.3       5.4       29,671         349       David & Julie Marcks, Black Creek, WI       H0       49       26,762       1,106       4.1       853       3.2       5.4       29,697         351       Kohman Daiy LLC, Chillon, WI       H0       477       27,019       1,118       4.1       821       3.0       5.3       29,593         352       NE lowa Dairy Foundation, Calmar, IA       H0       132       24,702       1,164       4.1       858       3.2       5.4       29,592         354       Leroy Maassen, Maurice, IA       H0       2,116       26,655       1,105       4.1       858       3.2       5.4       29,592         355       Dave Klamer, Conklin, MI       H0       316       27,352       1,007       3.8       858       3.1       5.3       29,561         356       Roth Farms, Lowell, MI       H0       10       27,322       1,084       4.0       859       3.1 <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			•									
348       *       Palms Boys LLC, Palms, MI       H0       2,171       26,910       1,093       4.1       878       3.3       5.4       29,671         349       David & Julie Marcks, Black Creek, WI       H0       45       27,829       1,079       64,11       853       3.2       5.4       29,591         350       Starward Farms, Sebewaing, MI       H0       477       27,019       1,118       4.1       823       3.2       5.4       29,593         353       Mc Cohlman Dairy LC, Chilton, WI       H0       177       27,019       1,118       4.1       821       3.2       5.4       29,593         353       Mc Cayland Farm, Tippecance, IN       H0       171       26,655       1,105       4.1       881       3.2       5.4       29,590         355       Dave Klamer, Conklin, MI       H0       610       27,522       1,064       4.0       859       3.1       5.3       29,561         357       Chuck & Judy Kehl, Lena, WI       H0       71       27,664       1,087       4.0       859       3.1       5.3       29,563         356       VII-Edge Farms, Lowell, MI       H0       170       27,464       1,087       4.0       858 <td></td>												
350       Starward Farms, Sebewaing, MI       HO       99       26,762       1,106       4.1       853       3.2       5.4       29,599         351       Kohlman Dairy LLC, Chilon, WI       HO       477       27,019       1,118       4.1       821       3.0       5.3       29,593         352       NE lowa Dairy Foundation, Calmar, IA       HO       192       24,702       1,164       4.7       842       3.4       5.5       29,593         354       Leroy Massen, Maurice, IA       HO       2116       26,655       1,105       4.1       858       3.2       5.4       29,593         355       Dave Klamer, Conklin, MI       HO       610       26,692       1,102       4.1       861       3.2       5.4       29,593         356       Roth Farms, Lovell, MI       HO       316       27,923       1,087       4.0       859       3.1       5.3       29,543         357       Chuck & Judy Kehl, Lena, WI       HO       71       27,264       1,087       4.0       858       3.2       5.4       29,495         359       Steve Olson, Boyceville, WI       HO       72,849       1,060       3.8       868       3.1       5.3       2	348	*		HO	2,171	26,910	1,093	4.1	878	3.3	5.4	
351       Kohlman Daity LLC, Chillton, Wil       HO       477       27,019       1,118       4.1       821       3.0       5.3       29,594         352       *       NE lowa Daity Foundation, Calmar, IA       HO       192       24,702       1,164       4.7       842       3.4       5.5       29,593         353       McCayland Farm, Tippecanoe, IN       HO       133       26,735       1,112       4.2       843       3.2       5.4       29,592         355       Dave Klamer, Conklin, MI       HO       60       26,692       1,102       4.1       861       3.2       5.4       29,586         356       Roth Farms, Lowell, MI       HO       316       27,953       1,070       3.8       858       3.1       5.3       29,561         357       Chuck & Judy Kehl, Lena, WI       HO       206       27,322       1,084       4.0       855       3.1       5.3       29,543         357       Steve Olson, Boyceville, WI       HO       109       26,484       1,102       4.2       858       3.2       5.4       29,495         360       Cynthia Waegli & Chris Ulke, Cintonville, WI       HO       57       7.889       1,060       3.8       8	349		David & Julie Marcks, Black Creek, WI	HO	45	27,829	1,079	3.9	862	3.1	5.3	29,667
352       * NE lowa Dairy Foundation, Calmar, IA       HO       192       24,702       1,164       4,7       842       3,4       5,5       29,593         353       McCayland Farm, Tippecanoe, IN       HO       133       26,735       1,112       4,2       843       3,2       5,4       29,592         354       Leroy Masseen, Maurice, IA       HO       2,116       26,655       1,102       4,1       851       3,2       5,4       29,593         355       Dave Klamer, Conklin, MI       HO       016       26,692       1,102       4,1       851       3,2       5,4       29,561         356       Roth Farms, Lowell, MI       HO       316       27,953       1,070       3,8       858       3,1       5,3       29,543         357       Chuck & Judy Kehl, Lena, WI       HO       71       27,264       1,087       4,0       855       3,1       5,3       29,543         359       Steve Olson, Boyceville, WI       HO       77       27,889       1,060       3,8       868       3,1       5,3       29,495         360       Cynthia Waegil & Chris Utke, Clintonville, WI       HO       52       27,99       1,080       4,0       866       3	350		0	HO	99	26,762	1,106	4.1	853	3.2	5.4	
353       McCayland Parm, Tippecanoe, IN       HO       133       26,735       1,112       4.2       843       3.2       5.4       29,592         354       Leroy Maassen, Maurice, IA       HO       2,116       26,655       1,105       4.1       858       3.2       5.4       29,590         355       Dave Klamer, Conkin, MI       HO       60       26,692       1,107       3.8       858       3.1       5.3       29,561         357       Chuck & Judy Kehl, Lena, WI       HO       316       27,322       1,084       4.0       859       3.1       5.3       29,533         358       Vil-Edge Farms, Fond du Lac, WI       HO       71       27,264       1,087       4.0       858       3.2       5.4       29,495         360       Cynthla Waegli & Chris Ulke, Clintonville, WI       HO       727,289       1,000       4.0       868       3.2       5.3       29,498         362       Jeff Farms, Lowell, MI       HO       727,899       1,000       3.8       868       3.1       5.3       29,498         364       Stere Olson, Boycewile, MI       HO       101       26,602       1,092       4.1       857       3.2       5.3       29,491												
354       *       Leroy Maassen, Maurice, IA       HO       2,116       26,655       1,105       4.1       858       3.2       5.4       29,590         355       Dave Klamer, Conklin, MI       HO       60       26,692       1,102       4.1       861       3.2       5.4       29,586         356       Roth Farms, Lowell, MI       HO       316       27,953       1,084       4.0       859       3.1       5.3       29,533         357       Chuck & Judy Kehl, Lena, WI       HO       71       27,264       1,087       4.0       855       3.1       5.3       29,533         359       Steve Olson, Boyceville, WI       HO       109       26,484       1,102       4.2       858       3.2       5.4       29,495         360       Cynthia Waegli & Chris Ulke, Clintonville, WI       HO       77       27,889       1,060       3.8       868       3.1       5.3       29,487         361       Roth Farms, Lowell, MI       HO       101       26,602       1,092       4.1       857       3.2       5.3       29,396         364       *       Steffes Holsteins, Elizabeth, IL       HO       101       26,602       1,092       4.1 <td< td=""><td></td><td>*</td><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		*	3									
355       Dave Klamer, Conklin, MI       HO       60       26,692       1,102       4.1       861       3.2       5.4       29,586         356       Roth Farms, Lowell, MI       HO       316       27,953       1,070       3.8       858       3.1       5.3       29,561         357       Chuck & Judy Kehl, Lena, WI       HO       206       27,322       1,084       4.0       859       3.1       5.3       29,533         358       Vil-Edge Farms, Fond du Lac, WI       HO       109       26,484       1,102       4.2       858       3.2       5.4       29,495         360       Cynthia Waegli & Chris Ulke, Clintonville, WI       HO       109       26,484       1,102       4.2       858       3.2       5.3       29,495         361       Roth Farms, Lowell, MI       HO       57       27,899       1,060       3.8       868       3.1       5.3       29,487         362       Jeff Wegner, Marion, WI       HO       101       26,602       1,092       4.1       857       3.2       5.3       29,396         364       Steffes Holsteins, Elizabeth, IL       HO       528       27,386       1,074       3.9       852       3.1		*										
356       Roth Farms, Lowell, MI       HO       316       27,953       1,070       3.8       858       3.1       5.3       29,561         357       Chuck & Judy Kehl, Lena, WI       HO       206       27,322       1,084       4.0       859       3.1       5.3       29,533         358       VII-Edge Farms, Fond du Lac, WI       HO       71       27,264       1,087       4.0       855       3.1       5.3       29,533         359       Steve Olson, Boyceville, WI       HO       107       22,648       1,02       4.2       858       3.2       5.4       29,495         360       Cynthia Waegli & Chris Utke, Clintonville, WI       HO       57       27,899       1,060       3.8       868       3.1       5.3       29,487         363       Jason Ard, Pulaski, WI       HO       101       26,602       1,092       4.1       857       3.2       5.3       29,396         364       *       Steffes Holsteins, Elizabeth, IL       HO       528       27,388       1,074       3.9       852       3.1       5.3       29,396         365       Rolling Valley Jerseys, Waterville, IA       HO       528       27,388       1,022       3.6 <td< td=""><td></td><td></td><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>			5									
357       Chuck & Judy Kehl, Lena, WI       HO       206       27,322       1,084       4.0       859       3.1       5.3       29,543         358       VII-Edge Farms, Fond du Lac, WI       HO       71       27,264       1,087       4.0       855       3.1       5.3       29,533         359       Steve Olson, Boyceville, WI       HO       109       26,484       1,102       4.2       858       3.2       5.4       29,495         360       Cynthia Waegli & Chris Uike, Clintonville, WI       HO       252       27,099       1,080       4.0       868       3.1       5.3       29,487         361       Roth Farms, Lowell, MI       HO       57       27,899       1,060       3.8       868       3.1       5.3       29,487         362       Jason Ard, Pulaski, WI       HO       101       26,602       1,092       4.1       857       3.1       5.3       29,381         364       *       Steffes Holsteins, Elizabeth, IL       HO       528       27,386       1,074       3.9       852       3.1       5.3       29,381         365       Rolling Valley Jerseys, Waterville, IA       XX       25       24,025       1,148       4.8 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>												
358       Vil-Edge Farms, Fond du Lac, WI       HO       71       27,264       1,087       4.0       855       3.1       5.3       29,533         359       Steve Olson, Boyceville, WI       HO       109       26,484       1,102       4.2       858       3.2       5.4       29,495         360       Cynthia Waegli & Chris Ulke, Clintonville, WI       HO       57       27,099       1,080       4.0       868       3.2       5.3       29,488         361       Roth Farms, Lowell, MI       HO       57       27,699       1,080       4.0       868       3.1       5.3       29,487         362       Jeff Wegner, Marion, WI       HO       61       26,602       1,092       4.1       857       3.2       5.3       29,396         364       *       Steffes Holsteins, Elizabeth, IL       HO       528       27,386       1,074       3.9       852       3.1       5.3       29,391         366       Conrad Martin, Millersburg, IN       HO       256       28,483       1,022       3.6       884       3.1       5.2       29,321         366       Conrad Martin, Millersburg, IN       HO       136       27,19       1,066       3.9       855 </td <td></td>												
360       Cynthia Waegli & Chris Ulke, Clintonville, WI       HO       252       27,099       1,080       4.0       868       3.2       5.3       29,488         361       Roth Farms, Lowell, MI       HO       57       27,889       1,060       3.8       868       3.1       5.3       29,487         362       Jeff Wegner, Marion, WI       HO       68       25,944       1,096       4.2       879       3.4       5.4       29,396         364       *       Steffes Holsteins, Elizabeth, IL       HO       528       27,386       1,074       3.9       852       3.1       5.3       29,381         365       Rolling Valley Jerseys, Waterville, IA       XX       25       24,025       1,148       4.8       864       3.6       5.5       29,332         366       Conrad Martin, Millersburg, IN       HO       136       27,119       1,066       3.9       855       3.1       5.3       29,256         368       Mike Richards, Fairbank, IA       HO       136       27,119       1,069       4.0       878       3.3       5.3       29,256         369       *       River-Bridge LLC, Brillion, WI       HO       239       26,547       1,069 <t< td=""><td>358</td><td></td><td>Vil-Edge Farms, Fond du Lac, WI</td><td>HO</td><td>71</td><td>27,264</td><td>1,087</td><td>4.0</td><td>855</td><td>3.1</td><td>5.3</td><td></td></t<>	358		Vil-Edge Farms, Fond du Lac, WI	HO	71	27,264	1,087	4.0	855	3.1	5.3	
361Roth Farms, Lowell, MIHO5727,8891,0603.88683.15.329,487362Jeff Wegner, Marion, WIHO6825,9441,0964.28793.45.429,401363Jason Ard, Pulaski, WIHO10126,6021,0924.18573.25.329,381364*Steffes Holsteins, Elizabeth, ILHO52827,3861,0743.98523.15.329,381365Rolling Valley Jerseys, Waterville, IAXX2524,0251,1484.88643.65.529,332366Conrad Martin, Millersburg, INHO25628,4831,0223.68843.15.229,311367R A Schanbacher Inc, Newhall, IAHO13627,1191,0663.98653.25.329,290368Mike Richards, Fairbank, IAHO14627,0851,0824.08353.15.329,241370* River-Bridge LLC, Brillion, WIHO23926,5471,0694.08783.35.229,225371McAllister Family Dairy LLC, New Vienna, IAJE4127,6081,0643.98473.85.629,211372* Pinecreek Farms, Medford, WIHO19125,9021,1034.38073.15.329,189373Mark Schultz, Eden, WIHO19125,9021,0294.2	359			HO	109	26,484	1,102	4.2	858			
362Jeff Wegner, Marion, WIHO6825,9441,0964.28793.45.429,401363Jason Ard, Pulaski, WIHO10126,6021,0924.18573.25.329,396364*Steffes Holsteins, Elizabeth, ILHO52827,3861,0743.98523.15.329,381365Rolling Valley Jerseys, Waterville, IAXX2524,0251,1484.88643.65.529,332366Conrad Martin, Millersburg, INHO25628,4831,0223.68843.15.229,311367R A Schanbacher Inc, Newhall, IAHO13627,1191,0663.98653.25.329,290368Mike Richards, Fairbank, IAHO14627,0851,0824.08353.15.329,290369*River-Bridge LLC, Brillion, WIHO23926,5471,0694.08783.35.329,210370*Michael Heckaman, Argos, INHO61427,6081,0643.98393.05.229,225371McAllister Family Dairy LLC, New Vienna, IAJE4122,3011,1935.38473.85.629,221372*Pinecreek Farms, Medford, WIHO19125,9301,1234.38073.15.329,184374Mill-Hill Dairy LLC, Juda, ILHO155 </td <td></td>												
363Jason Ard, Pulaski, WIHO10126,6021,0924.18573.25.329,396364*Steffes Holsteins, Elizabeth, ILHO52827,3861,0743.98523.15.329,381365Rolling Valley Jerseys, Waterville, IAXX2524,0251,1484.88643.65.529,332366Conrad Martin, Millersburg, INHO25628,4831,0223.68843.15.229,311367R A Schanbacher Inc, Newhall, IAHO13627,1191,0663.98653.25.329,290368Mike Richards, Fairbank, IAHO14627,0851,0824.08353.15.329,256369*River-Bridge LLC, Brillion, WIHO23926,5471,0694.08783.35.329,214370*Michael Heckaman, Argos, INHO61427,0681,0643.98393.05.229,225371McAllister Family Dairy LLC, New Vienna, IAJE4122,3011,1935.38473.85.629,221372*Pinecreek Farms, Medford, WIHO19125,9301,1234.38073.15.329,196374Mill-Hill Dairy LLC, Juda, ILHO15526,2021,0924.28473.25.329,184375Marlen Martin, Goshen, INHO15												
364       *       Steffes Holsteins, Elizabeth, IL       HO       528       27,386       1,074       3.9       852       3.1       5.3       29,381         365       Rolling Valley Jerseys, Waterville, IA       XX       25       24,025       1,148       4.8       864       3.6       5.5       29,332         366       Conrad Martin, Millersburg, IN       HO       256       28,483       1,022       3.6       884       3.1       5.2       29,311         367       R A Schanbacher Inc, Newhall, IA       HO       136       27,119       1,066       3.9       865       3.2       5.3       29,290         368       Mike Richards, Fairbank, IA       HO       146       27,085       1,082       4.0       835       3.1       5.3       29,256         369       *       River-Bridge LLC, Brillion, WI       HO       239       26,547       1,069       4.0       878       3.3       5.3       29,225         371       MicAllister Family Dairy LLC, New Vienna, IA       JE       41       22,301       1,193       5.3       847       3.8       5.6       29,221         372       *       Pinecreek Farms, Medford, WI       HO       191       25,930 <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			-									
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366       Conrad Martin, Millersburg, IN       HO       256       28,483       1,022       3.6       884       3.1       5.2       29,311         367       R A Schanbacher Inc, Newhall, IA       HO       136       27,119       1,066       3.9       865       3.2       5.3       29,290         368       Mike Richards, Fairbank, IA       HO       146       27,085       1,082       4.0       835       3.1       5.3       29,256         369       *       River-Bridge LLC, Brillion, WI       HO       239       26,547       1,069       4.0       878       3.3       5.3       29,241         370       *       Michael Heckaman, Argos, IN       HO       614       27,608       1,064       3.9       839       3.0       5.2       29,221         371       McAlister Family Dairy LLC, New Vienna, IA       JE       41       22,301       1,193       5.3       847       3.8       5.6       29,221         372       *       Pinecreek Farms, Medford, WI       HO       191       25,930       1,123       4.3       807       3.1       5.2       29,196         374       Mill-Hill Dairy LLC, Juda, IL       HO       155       26,202       1,												
368       Mike Richards, Fairbank, IA       HO       146       27,085       1,082       4.0       835       3.1       5.3       29,256         369       *       River-Bridge LLC, Brillion, WI       HO       239       26,547       1,069       4.0       878       3.3       5.3       29,241         370       *       Michael Heckaman, Argos, IN       HO       614       27,608       1,064       3.9       839       3.0       5.2       29,225         371       *       Michael Heckaman, Argos, IN       HO       614       27,608       1,064       3.9       839       3.0       5.2       29,225         371       *       Michael Heckaman, Argos, IN       HO       614       27,608       1,064       3.9       839       3.0       5.2       29,225         371       *       Pinecreek Farms, Medford, WI       HO       336       27,149       1,081       4.0       829       3.1       5.2       29,219         373       *       Mark Schultz, Eden, WI       HO       191       25,930       1,123       4.3       807       3.1       5.3       29,189         374       Mill-Hill Dairy LLC, Juda, IL       HO       155												
369       *       River-Bridge LLC, Brillion, WI       HO       239       26,547       1,069       4.0       878       3.3       5.3       29,241         370       *       Michael Heckaman, Argos, IN       HO       614       27,608       1,064       3.9       839       3.0       5.2       29,225         371       McAllister Family Dairy LLC, New Vienna, IA       JE       41       22,301       1,193       5.3       847       3.8       5.6       29,221         372       *       Pinecreek Farms, Medford, WI       HO       336       27,149       1,081       4.0       829       3.1       5.2       29,219         373       Mark Schultz, Eden, WI       HO       191       25,930       1,123       4.3       807       3.1       5.3       29,196         374       Mill-Hill Dairy LLC, Juda, IL       HO       195       26,202       1,092       4.2       847       3.2       5.3       29,189         375       Marlen Martin, Goshen, IN       HO       456       26,743       1,075       4.0       852       3.2       5.3       29,184         376       *       Baker Lads Farm, Clayton, MI       HO       530       29,318 <t< td=""><td>367</td><td></td><td>R A Schanbacher Inc, Newhall, IA</td><td>HO</td><td>136</td><td>27,119</td><td>1,066</td><td>3.9</td><td>865</td><td>3.2</td><td>5.3</td><td>29,290</td></t<>	367		R A Schanbacher Inc, Newhall, IA	HO	136	27,119	1,066	3.9	865	3.2	5.3	29,290
300       *       Nich Einge Ec, Binnon, Wi       NO       100       203       20,547       1,003       1.0       0.0												
371       Michael Recaminal, Ngos, N       110       614       27,000       1,004       5.7       607       5.8       5.2       27,223         371       McAlister Family Dairy LLC, New Vienna, IA       JE       41       22,301       1,193       5.3       847       3.8       5.6       29,221         372       *       Pinecreek Farms, Medford, WI       HO       336       27,149       1,081       4.0       829       3.1       5.2       29,219         373       Mark Schultz, Eden, WI       HO       191       25,930       1,123       4.3       807       3.1       5.3       29,196         374       Mill-Hill Dairy LLC, Juda, IL       HO       195       26,202       1,092       4.2       847       3.2       5.3       29,189         375       Marlen Martin, Goshen, IN       HO       456       26,743       1,075       4.0       852       3.2       5.3       29,184         376       *       Baker Lads Farm, Clayton, MI       HO       530       29,318       992       3.4       882       3.0       5.1       29,181         377       Ravendale Farm, Freeburg, IL       HO       193       27,487       1,056       3.8       <			•									
372*Pinecreek Farms, Medford, WIHO33627,1491,0814.08293.15.229,219373Mark Schultz, Eden, WIHO19125,9301,1234.38073.15.329,196374Mill-Hill Dairy LLC, Juda, ILHO15526,2021,0924.28473.25.329,189375Marlen Martin, Goshen, INHO45626,7431,0754.08523.25.329,184376*Baker Lads Farm, Clayton, MIHO53029,3189923.48823.05.129,181377Ravendale Farm, Freeburg, ILHO19327,4871,0563.88513.15.229,174378*Grass Ridge Farm LLC, Pittsville, WIJE11622,5161,1745.28633.85.629,168379*Doug Fairbanks, Anamosa, IABS6825,2081,1114.48503.45.429,133		*										
372       Interfective rams, Medida, Wi       HO       10       330       27,147       1,001       4.0       027       5.1       5.2       27,217         373       Mark Schultz, Eden, WI       HO       191       25,930       1,123       4.3       807       3.1       5.3       29,196         374       Mill-Hill Dairy LLC, Juda, IL       HO       155       26,202       1,092       4.2       847       3.2       5.3       29,189         375       Marlen Martin, Goshen, IN       HO       456       26,743       1,075       4.0       852       3.2       5.3       29,184         376       *       Baker Lads Farm, Clayton, MI       HO       530       29,318       992       3.4       882       3.0       5.1       29,181         377       Ravendale Farm, Freeburg, IL       HO       193       27,487       1,056       3.8       851       3.1       5.2       29,174         378       *       Grass Ridge Farm LLC, Pittsville, WI       JE       116       22,516       1,174       5.2       863       3.8       5.6       29,168         379       *       Doug Fairbanks, Anamosa, IA       BS       68       25,208       1,111 </td <td></td> <td>*</td> <td></td>		*										
374       Mill-Hill Dairy LLC, Juda, IL       HO       155       26,202       1,092       4.2       847       3.2       5.3       29,189         375       Marlen Martin, Goshen, IN       HO       456       26,743       1,075       4.0       852       3.2       5.3       29,189         376       *       Baker Lads Farm, Clayton, MI       HO       530       29,318       992       3.4       882       3.0       5.1       29,181         377       Ravendale Farm, Freeburg, IL       HO       193       27,487       1,056       3.8       851       3.1       5.2       29,174         378       *       Grass Ridge Farm LLC, Pittsville, WI       JE       116       22,516       1,174       5.2       863       3.8       5.6       29,138         379       *       Doug Fairbanks, Anamosa, IA       BS       68       25,208       1,111       4.4       850       3.4       5.4       29,133												
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376       *       Baker Lads Farm, Clayton, MI       HO       530       29,318       992       3.4       882       3.0       5.1       29,181         377       Ravendale Farm, Freeburg, IL       HO       193       27,487       1,056       3.8       851       3.1       5.2       29,174         378       *       Grass Ridge Farm LLC, Pittsville, WI       JE       116       22,516       1,174       5.2       863       3.8       5.6       29,168         379       *       Doug Fairbanks, Anamosa, IA       BS       68       25,208       1,111       4.4       850       3.4       5.4       29,133												
378       *       Grass Ridge Farm LLC, Pittsville, WI       JE       116       22,516       1,174       5.2       863       3.8       5.6       29,168         379       *       Doug Fairbanks, Anamosa, IA       BS       68       25,208       1,111       4.4       850       3.4       5.4       29,133		*										
379         *         Doug Fairbanks, Anamosa, IA         BS         68         25,208         1,111         4.4         850         3.4         5.4         29,133			•									
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380 Haruscraddie Farms, Jim Fails, WI HO 140 26,333 1,076 4.1 856 3.3 5.3 29,093		*										
	380		naiuscrappie Farms, Jim Fails, Wi	HU	140	20,333	1,076	4.1	826	3.3	5.3	29,093

### **FINDING THE SWEET SPOT:** Why beef x dairy can be balanced with replacement needs

Emily Middleton-Gyomory, CentralStar Regional Consulting Manager



Recently, there's been talk in the industry wondering if we've gone too far with beef x dairy strategies that may lead to long-term effects. The dairy-replacement-heifer population has decreased 10% from 2022 to 2024 and is currently at a 20-year low. Consequently,

dairy-cull-cow numbers are way down. Year-over-year, U.S. milk production was down 0.4% in July. The USDA attributes milkproduction declines in 2024 to lower yields from aging cows, adverse weather, and limited replacements. This picture may seem bleak, but it doesn't have to be the case. There are plenty of dairies that are creating adequate replacements, maximizing their genetic progress, gaining milk production, and capitalizing on extra revenue from beef x dairy calves.

The dairy shown here utilizes CentralStar's reproductive and genetic consulting services. We monitor an inventory calculator bimonthly to calculate how many replacements the dairy needs as well as to determine which females will create those replacements.

When we look at a year's worth of heifer inventory in **Figure 1**, we see the herd is creating enough heifers to meet their needs, plus a 20% buffer. The buffer allows the herd to maximize their profit per stall, while also giving them the flexibility to add a few more cows or sell extra heifers.

Combining the inventory calculator with the Select Mating Service<sup>®</sup> (SMS<sup>®</sup>) has helped ensure that future replacements are being created from the top-ranking females in the herd. **Figure 2** shows sexed semen (red dots) is being utilized in the females that rank the highest in HHP\$<sup>®</sup>, while beef semen (blue dots) is being used in the lowest-ranking females. The herd also utilizes NxGEN<sup>®</sup> sires that rank high in HHP\$ and DWP\$<sup>®</sup> to maximize their genetic progress. Their goal is to create long-lasting, healthy, high-producing cows.

**Figure 3** demonstrates how this herd effectively tapped into the high beef x dairy market. Through the use of ProfitSOURCE<sup>®</sup> sires, they consistently produce and sell approximately 135 beef x dairy calves each month, adding a valuable revenue stream to their operation. Over the last four years, this herd has reduced their percentage of first-lactation cows from 40% to 31%. In that same time, average milk production increased by 13 pounds per cow. Excellent management paired with a genetic strategy has allowed this dairy to progress, while also taking advantage of both strong dairy-replacement and beef x dairy markets.

This farm demonstrates, with a balanced strategy, it's possible to find the sweet spot in inventory management, producing the optimal number of heifers, balancing beef x dairy with replacement needs, boosting milk production, and maximizing genetic progress. So, the answer to "Have we gone too far?" may be, "no," when we make every calf count! Work with the CentralStar team to help you **get more** from your inventory management!



Figure 2. High HHP\$ bred to sexed semen







#### **DEFEND & PROTECT FOR A LIFETIME**



### **CONVERT**<sup>™</sup> BIG Calf Powder

A daily dose of CONVERT BIG Calf Powder keeps calves healthier from birth to weaning, resulting in fewer transition challenges. Producers using BIG Calf report:

- ✓ REDUCED SCOURS
- IMPROVED LUNG HEALTH\*
- ✓ INCREASED GROWTH
- ✓ INCREASED APPETITES
- REDUCED MORTALITY





Average Daily Gain Comparison (lbs/day)

**COMPARATIVE STUDY:** A New York commercial dairy farm faced challenges with delays in the age at weaning, attributed to poor body weight gain and low calf starter feed intake. A comparative study was conducted between the existing calf development program and the Agrarian Solutions Calf Program, which includes CONVERT BIG Calf.

**RESULTS:** Calves fed CONVERT had a higher average daily gain and weighed 10.5 lbs. more than the control group at weaning.

New York field study. CONVERT<sup>®</sup> is a trademark of Select Sires Inc. and is manufactured by Agrarian Solutions® Il claims, representation and warranties, expressed or implied, are made only by Agrarian Solutions.



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### GET MORE

### Early-life calf health IMPACTS long-term productivity

The first days, weeks, and months of a calf's life are pivotal for shaping their future health, productivity, and reproductive success. Research shows early-life health challenges, such as scours and respiratory infections, can have lasting effects. Working with a Michigan dairy, CentralStar Records Analysis Consultant Kelly Sporer identified health setbacks in the first few weeks were delaying heifer age at first service, resulting in many being bred later than desired. This issue not only extended the age at first service but also impacted the age at first calving, potentially shortening productive life and reducing milk yield.

To address these challenges, the dairy implemented improvements which led to fewer early-life health incidents and a more consistent age at first service. Now, most heifers calve at the optimal age of 23 months, maximizing energy-corrected-milk production and profitability. Additionally, the farm has seen improved reproductive efficiency.

To ensure the long-term productivity and health of all your calves, talk to your CentralStar team to **get more** strategies for enhancing early-life management practices.



•	Comparison group			months	Feed c	osts: \$3.00 head	d/day
Com	iparison	group	24,314	lbs 305 ECM	Mil	k price: \$19 CW	т
AFC	n	305M	DOF	Feed cost	Milk income	Total income	Difference
20	0		600	\$1,800	\$0	-\$1,800	-\$4,350
21	3	21,849	630	\$1,890	\$4,151	\$2,261	-\$288
22	47	23,248	660	\$1,980	\$4,417	\$2,437	-\$113
23	68	24,314	690	\$2,070	\$4,620	\$2,550	\$0
24	31	23,413	720	\$2,160	\$4,448	\$2,288	-\$261
25	14	24,539	750	\$2,250	\$4,662	\$2,412	-\$137
26	3	25,342	780	\$2,340	\$4,815	\$2,475	-\$75
27	2	24,890	810	\$2,430	\$4,729	\$2,299	-\$251
28	0		840	\$2,520	\$0	-\$2,520	-\$5,070
29	1	26,279	870	\$2,610	\$4,993	\$2,383	-\$167

Comparison of energy-corrected-milk production and income-over-feed cost by age at first calving shows heifers calving in before 23 months are less profitable due to lower production, and those calving in after 23 months yield insufficient energy-corrected milk to justify extra days on feed.

### AWARD REPROSTAR WINNERS

Central**Star** 

Four herds are recognized for excellence in reproduction, each exemplifying key practices that drive their success. Three cow herds maintain a strong population of mature cows (3rd+ lactation), efficient breeding practices, and a sustainable approach to herdmanagement strategies that enhance long-term productivity.

One herd is recognized for their heifer management practices while using a tremendous amount of sexed-semen. They set a high standard with a non-completion rate at just 7%, ensuring youngstock reach their potential as valuable members of the milking herd.

Congratulations to our winners for setting a new standard in reproductive excellence and advancing sustainable herd management.

#### EVERGREEN DAIRY RESORT

At Evergreen Dairy Resort, LLC, in Antigo, Wisc., reproductive performance is much more than a matter of protocol or technology-it's about people, leadership, and culture. While reproductive success is often reduced to numbers, Herd Manager John Freund believes the real secret lies elsewhere.

"All good repro. herds do essentially the same things-follow similar protocols and use similar tools. What sets us apart is our leadership and team," said John." It starts with the ownership group – they are passionate about the industry and encourage us along the way. Then, Connie DeRoos and I, who manage the boots-on-the-ground, carry it forward." It's this philosophy that has driven Evergreen's 1,800-cow Jersey herd to achieve exceptional results, including a 46% pregnancy rate in cows third lactation or greater.

Established in 2006 with just 200 Jersey cows, the dairy was founded by Marc Braun, Pat Prasalowicz, Gary Waldvogel, Larry Shofner, and Kevin Verheyen. The ownership group is deeply passionate about the industry and continues to support and inspire the dairy's progress.

#### **Building a team-first culture**

The foundation of the herd's success is the leadership and team-building philosophy championed by Managing-owner Marc. "Marc brings great energy and passion to our team. His vision and support are responsible for supporting us to achieve extremely high-level results," shared John.

This leadership style has created a teamfirst culture that empowers every member to take ownership of their work and strive for excellence. This approach includes the 18 boots-on-the-ground team members at the dairy, but also extends to the farm's Veterinarian Valerie Baumgard and Nutritionist David Dolittle. "Valerie and Dave are integral members of the team," said John. "They aren't just advisors-they are key players who help guide and support us, helping us continue to move in the right direction."

To support this collaborative culture, Evergreen Dairy holds weekly team meetings, daily huddles, and emphasizes positive reinforcement. "We start every day by

Continued on next page ...





Herdsmen; Dave Doolittle, Nutritionist; John Fruend, Herd Manager: Dr. Valerie Baumgaurt, United Vet Service



connecting with the team—whether it's a thank you, a pat on the back, or a fist bump," says John. "When you start the day positively, people are more open to feedback and can handle challenges with a better mindset."

#### **Best practices and teamwork**

Evergreen Dairy's reproduction metrics tell a story of precision but are just one part of the equation. Their approach involves using double-Ovsynch for the entire herd and an electronic heat detection system to identify open cows. Pregnancy confirmation is performed by ultrasound at 32- and 75-days, and open cows are enrolled in the GGPG protocol. "These tools are essential, but they work on other farms, too. The real difference in getting the results is in our culture and leadership, which supports the entire reproductive process," said John.

Genetic strategy is also key to the herd's longevity and health. Dairy Wellness Profit Index<sup>®</sup> (DWP<sup>®</sup>), Productive Life (PL), and Daughter Pregnancy Rate (DPR) are among key genetic traits the dairy selects for. "Our focus is on building healthy cows that age gracefully and stay in the herd longer," shared John. The performance of the 1,800-cow-Jersey herd underscores the effectiveness of this approach. The herd currently averages 98 pounds of Energy-Corrected Milk (ECM), while maintaining a feed efficiency of 2.1 pounds of ECM per pound of dry-matter intake. Additionally, 75% of the herd is comprised of second-lactationor-greater cows.

Genomic testing and the use of sexeddairy-and-beef semen makes up the genetic strategy for the herd. CentralStar Records Analysis Consultant Laura Styczynski and Area Sales Manager Bob Brock, along with the Zoetis team, are instrumental to managing and evaluating the genetic progress of the herd. **"We currently breed 70% of the herd to beef sires and 30% to sexed-Jersey bulls. This balance allows us to optimize both milk and meat production while maintaining our genetic objectives." John said.** 

#### Healthy calves foundational to success

Beyond genetics, the dairy runs a tight ship managing the calf program. By closely monitoring total proteins, with a goal of 5.8 or higher, 95% of the calves achieve high levels of immunity from colostrum, giving them the best start possible.

The farm diligently collects and tests colostrum year-round, feeding the highestquality colostrum at birth and, again, within six hours. Colostrum that falls short of the standard is used later in the calf's development. "The first immunity calves get is from colostrum, so the better job we do with quality and quantity, the better chance they have to be productive in the future," said John.

#### A future built on people and cows

Evergreen Dairy remains focused on the core elements that have driven their progress: great leadership, a dedicated team, and a commitment to building an exceptional herd. "Reproductive success isn't magic—it's a product of creating an environment where both people and cows can thrive," said John. For John, it's not just about hitting metrics. "It all starts with people. When you build a strong culture where your team feels valued and empowered, everything else—whether it's protocols, technology, or geneticsfollows naturally."

#### OLSON DAIRY FARMS, INC.

At Olson Dairy Farms, Inc., embracing automation to minimize stress and encourage consistency in daily practices is at the cornerstone of their success. Owned by thirdgeneration dairy farmers Kurt and Krysta Olson, along with their four boys, the 610-cow dairy in Birnamwood, Wisc., has mastered the art of low-stress herd management. Through automation integration and commitment to consistency and animal well-being, not only have they improved operational efficiency but also gained improvements in many areas, including the reproduction program.

#### A balanced approach

In 2019, Kurt and Krysta purchased the farm and installed ten robotic milkers in 2020, allowing cows to choose when to be milked, helping maintain their natural rhythm. This freedom reduces stress and contributes to enhanced cow health and performance.

For Kurt, robots are more than just an efficiency tool, they represent a commitment to animal husbandry. "Our cows are low-key and low stress," Kurt explained. "You walk into the barn, and they don't even care what you're doing, they go to the robots, lay down, or eat at their own pace. We let the cows be cows."

This environment certainly contributes to how the dairy has achieved high-pregnancy rates, including 44% in cows with three or more lactations and 36% overall.

#### **Precision breeding**

Central to the dairy's reproductive success is a fine-tuned breeding program. The

farm conducts weekly herd-health checks, including ultrasounds, to closely monitor each cow's reproductive status. First-service breedings are timed using double-OvSynch. After that, the farm relies on the Lely monitoring system to identify open cows. Pregnancy checks are performed at 30 and 60 days by ultrasound, and at dry-off as deemed by the vet.

#### While a consistent program is essential, Kurt credits much of the success to CentralStar A.I. Specialist Zach Wendler. "I've known Zach for years," Kurt said. "His attention to detail is unmatched, and we fully trust him with our breeding program."

The farm's genetic strategy, guided by CentralStar Genetic Consultant Stephani North, emphasizes sires classified as FertilityPRO® and RobotPRO® from the Select Sires lineup. The current cowherd breeding strategy includes using sexed semen on the top 80% of the herd and beef semen on the bottom 20%, a shift from previous practices that has already yielded improvements.

"A year ago, we were using more conventional semen," noted Staphani. "By changing our strategy, we are able to ensure they get the number of heifers they want each month, from the best animals in the herd."

#### Minimize transitions, maximize results

The commitment to consistency and minimizing stress starts at birth. Calves are bottle fed colostrum on day one, and from days two through seven, are individually housed and bottle fed to ensure they are healthy before transitioning to group housing with an automatic feeder. This system has not only reduced labor, but it has significantly improved calf health and growth rates. "With the automatic feeders, calves are pretty much hands-free until about 10 weeks old," Kurt noted. Installed in 2021, the automatic feeders track each calf's intake and flag those that need extra attention. "Our mortality rate dropped to 1-2% after installing the feeders, and we're seeing big weight gains in our calves," added Kurt. Carefully monitoring each calf and minimizing stressful transitions, the dairy ensures heifers grow into strong, productive cows.

#### **Consistency key to long-term success**

Consistency is at the foundation of systems at this dairy. Whether it's mixing feed, implementing breeding protocols, or daily routines, Kurt believes that sticking to a well-established system is key. **"Consistency is the best thing you can do for cows," he said. "It takes a total team effort to deliver consistency, and we have that here, which allows us to get a little better every year.**"

The results of this method speak for themselves. Over the past year, the dairy's cull rate has dropped from 37% to 31%, and age at first calving has improved from 25.1 months to 24. These improvements, combined with rising conception rates and a 73% submission rate are just some of the reasons why the farm has achieved high-pregnancy rates.

For Kurt, achieving these reproductive levels is a collaborative effort that involves the entire team—from the vet and nutritionist to the CentralStar team and farm staff. "It's about finding what works for you and your system and working together to set the cows up for success, before you even breed them," he explains. When technology, teamwork, and animal husbandry come together, outstanding results are possible.

#### REED DAIRY FARM

Tried and true best describes the reproduction program at Reed Dairy Farm, and the results show it. This 300-cow Holstein and Jersey herd, managed by the father-daughterdaughter team of Steve, Elizabeth (Liz), and Malissa Reed, has been a high-performing reproduction herd for many years, and yet continues to improve. Today, the Owosso, Mich., herd has a whole-herd pregnancy rate of 38%, with third- and greater-lactation cows averaging 40%.

PreSynch-Ovsynch and CowManager® make up the reproduction program. Following the synchronization program, first service occurs between 73- and 80-days postcalving; with subsequent breedings initiated by CowManager alerts. An 80% palpation conception rate is what the dairy strives for. "Our conception rate is virtually the same using either method, and 55% of all breedings are completed with Ovsynch and 45% with CowManager, telling me I'm using CowManager correctly," said Steve.

The Reeds are highly disciplined with the entire reproduction program, as Steve and Liz perform all the breeding and administer all synchronization shots to ensure compliance. "Compliance is critical, and timing is key," said Steve. "We give shots at the same time, breed at the same time, and use the same synchronization products we've always used. We keep everything consistent. Along with that we don't cherrypick, we don't even consider breeding a cow that shows a heat from the presynch lute. Likewise, if CowManager tells us a cow is in heat, we trust it and proceed with breeding." Ultrasound pregnancy checks occur at 28 days and, again, between 72-84 days. Open cows

Continued on next page ...





are either re-enrolled in Ovsynch or moved to G6G if they lack a corpus luteum (CL).

"It takes more than just us to get these types of results," shared Steve and Liz. "We have a great practitioner in Dr. Linsey Sanchez from Clinton Vet Service, and Kelly (Sporer, CentralStar Records Analysis Consultant) monitors our data to make sure we stay on track or take advantage of opportunities for improvement."

#### Focused and flexible breeding decisions

"We are more type centric," said Steve. "There's something to be said for an old cow. There's a reason why she's still in the herd – genetics definitely play a role."

Breeding decisions are made on a cowby-cow basis, assessing whether to use conventional or beef semen. Producing 12-14 live heifer calves, monthly, allows for fairly-aggressive culling, while maintaining herd size, and prevents overcrowding in the heifer pen. DPR and Herd Health Profit Dollars® (HHP\$®) are traits included in sire-selection recommendations, which are provided by Malissa, who is a CentralStar Genetic Consultant.

#### Calf health influences long-term results

Calf health is a priority, with Liz taking a hands-on role to support the success of the next generation. She makes sure everyone working with newborns is properly trained, emphasizing attention to detail, timeframes, protocols, cleanliness, and the reasons behind each step in the process.

**"We take calf health very seriously," said Liz.** "I work with Dave (Lindberg, CentralStar Area Sales Manager) to identify products that help support calves' immune systems, digestion and overall growth, especially during vulnerable stages. We are aggressive with proactive care, because they are our future."

Reed Dairy has strict calf-care protocols, including the administration of colostrum within 30 minutes of birth, along with a CONVERT<sup>™</sup> Day-One Calf Bolus. Eight to 12 hours later, calves receive more colostrum. Additionally, for the first 14 days, calves are fed a probiotic (First 21<sup>™</sup>) to bridge the immunity gap and AccelAIRate to protect against respiratory health.

"If a calf doesn't finish its milk or seems a bit off, I take action right away—I don't wait to see if it resolves on its own," shared Liz. "I give a lot of attention to the calves and use supportive products to strengthen their systems; it helps us keep antibiotic use to a minimum. When a two-year-old calves in and has difficulty, I can often trace it back in the health records to an earlier issue, often a respiratory challenge."

#### Pragmatic approach to reproduction

Herd management balances reproductive performance with economics. While achieving a high-pregnancy rate is important, the Reeds shared, "we could sacrifice a bit in that area, as there is little financial benefit once you reach 35%."

Maintaining organization and discipline is key to a dairy's success. Little details—like ensuring cows are in the right pens—make a big difference in results. **"When you see substandard results, it's often due to compliance with your processes," Steve said. With a focus on what works, the Reeds maintain a productive and healthy herd, while keeping systems as simple and effective as possible.** 

#### **Results through consistency**

The unwavering commitment to timing, compliance, and consistent protocols has helped Reed Dairy Farm achieve and maintain impressive reproductive metrics for many years, while fostering a healthy, productive herd. "We focus on what works and don't second-guess our methods," shared Liz and Steve. "We believe if it isn't broke, don't fix it."

#### MAIER FARMS, LLC

A 42% pregnancy rate and 7% non-completion rate doesn't happen by accident—they're the product of careful planning, and a relentless drive for improvement. The team at Maier Farms, LLC, Waunakee, Wisc., has mastered those skills and the art of heifer reproduction, turning their heifer program into a model of consistency and success.

#### Aggressive reproductive strategy

"The best thing we can do with heifers to achieve high-pregnancy rates is to have a high-service rate," shared Maier Farms Herd Manager Max Shenkenberg. "We need to get them to show heats and get semen in them. Consistent heat detection is critical also – doing it at the same time every day. We have an aggressive approach, and it works."

The farm's reproductive program kicks into gear when heifers reach 390 days. At 393 days, prostaglandin is administered to every eligible heifer, which ensures the vast majority are cycling and ready for breeding by 13 months of age. Max performs pregnancy verification by ultrasound between 32-46 days, with a recheck at 70-84 days. Open heifers with a CL are administered prostaglandin, with the balance enrolled in a CIDR®-synch program. Max attributes the herd's low non-completion rate to culling heifers when they pass the four-service threshold or abort in the pregnant pen. **"We don't have many heifers not make it to the milking herd, and that's a testament to creating healthy, fertile animals; excellent comfort; and having proper ventilation so that once they get pregnant, they stay pregnant," said Max.** 

#### Setting the foundation for success

"The biggest thing we can do to set the girls up for success is to make sure they hit the ground running on day one," said Max. **"We** have a great maternity-pen team that ensures every calf gets the attention they need and deserve, including a gallon of colostrum at birth." Calves are born on the farm and moved to a calf ranch within three days, where they stay until six months of age, after which they return to Maier Farm's oversight. "We do daily-pen walks to ensure heifers remain healthy and well-grown."

"Genetic selection absolutely plays a role in our reproduction results," shared Max. "We look at Net Merit Dollars (NM\$) and Combined Fat and Protein (CFP) to create productive girls, but also emphasize DPR and HHP\$ making sure the offspring will be fertile animals. **Our dairy genetics include sexed semen from NxGEN® sires, because we want to use the best of the best that Select Sires has to offer.**"

At Maier Farms, a sexed- and beef-semen approach is used. "We want to be selfsustaining, so we work closely with Susie (Martin, Regional Consulting Manager) and Brad (Fossum, Area Sales Manager) to make sure we are creating the appropriate number of heifers each month. By keeping a steady stream of well-grown heifers, it sets us up for success."

Recently, the breeding strategy has changed from two services of sexed semen to three for their highest genetic animals, ensuring only the highest-quality offspring are produced. **"Nearly 99% of heifers are mated using sexed semen, which is a testament to the genetic improvement we are making," said Max.** 

Max adds, "When we were going through our expansion, we were focused on making as many heifers as possible to help fill our barns. By doing that we created slugs, which stressed out heifers and our partners. About a year ago, we really dialed in our strategy with the help of the CentralStar team to get us out of the waves and lulls of heifers. Once we did that, we saw a lot of relief on our youngstock system, which translates to healthier heifers."

#### Patience, persistence, and teamwork

Behind Maier Farms' success is a well-trained and cohesive team. While Max performs 60% of the breedings, he's quick to credit the rest of the team. "The other team members have a big hand in our results," said Max. "Our intern, Sophie Green, did a heck of a job this summer, and Jeremy Konen (CentralStar A.I. Specialist), who is our relief help, of course does a tremendous job. He's a master."

The farm's reproductive success is not only the result of aggressive strategies but also the team's patience and dedication. "Surround yourself with a good team," Max said. "It always helps to have more eyes on the heifer pen, and when the team can trust each other and value the collective input, it's a recipe for success."



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#### 2 in 1 protection that kills and conditions

#### 4XLA<sup>™</sup> pre and post teat dip

4XLA is specifically designed for daily teat disinfection before and after milking. This powerful, yet gentle, teat dip provides fast kill of mastitis causing organisms and is a time-tested aid in the reduction of hyperkeratosis.

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- Killing rate of greater than 99.999% of mastitis causing pathogens
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#### Efficient

• Maximum kill at 15 seconds



 Residue Safe

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 • Millient with 5% glycerin

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 • Replenishes the skin's natural protective acid mantle

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### GET MORE

### Choosing the best index for LONG-TERM SUCCESS

Maintaining a smaller heifer inventory can lead to fewer culls, enabling more mature cows to contribute at higher production levels. Yet, these high-producing mature cows are also more susceptible to risks such as mastitis and increased Somatic Cell Counts (SCC). How can you ensure your breeding choices, today, foster healthier, longer-living cows?

Herd Health Profit Dollars<sup>®</sup> (HHP\$<sup>®</sup>) is a breeding index that prioritizes health traits, particularly mastitis resistance. The HHP\$ formula places emphasis on mastitis resistance and SCS at 19%, significantly more than the 5% found in TPI<sup>®</sup> and Net Merit (NM\$). It also considers udder depth, ideal teat size and placement, and reduced stature without sacrificing strength.

HHP\$ is designed for sustainable profitability, helping herds withstand market fluctuations by focusing on health and wellness genetics. By choosing HHP\$ over traditional indexes, you can ensure cows stay productive through their third lactation and beyond.

Scan the QR code and talk to your local CentralStar team to *get more* insights on how HHP\$ can transform your herd's health and profitability!

Industry index comparison										
	TPI®	NM\$	CM\$	DWP\$	HHP\$					
Milk	0%	1%	-2%	1%	0%					
CFP	44%	48%	48%	34%	37%					
Mastitis, SCC	5%	3%	4%	13%	19%					
Fertility	13%	6%	5%	12%	11%					
Other cow health	9%	21%	20%	21%	17%					
Calving ability	2%	3%	3%	2%	1%					
Calf health	0%	1%	1%	7%	0%					
Conformation	25%	4%	4%	0%	<b>8</b> %					
Size/RFI	-2%	-13%	-13%	-10%	-7%					

CREATE MORE CASH COWS



	Herd	Breed	Size	Milk	Fat	F%	Prot.	<b>P%</b>	CFP	ECM
1	Fischer & Clark Dairy, Hatley, WI	XX	1,042	33,095	1,432	4.3	1,085	3.3	6.9	37,667
2	Joseph & Susan Rieden, Mount Calvary, WI	XX	633	31,838	1,333	4.2	1,036	3.3	6.5	35,599
3	Tony Rosebrugh, West Branch, MI	XX	788	32,871	1,310	4.0	1,014	3.1	6.4	35,470
4	Blanchard Family Dairy, Charlotte, IA	XX	1,763	29,139	1,319	4.5	951	3.3	6.2	33,885
5 6	Pagels Ponderosa, Kewaunee, WI Dairy Dreams, Casco, WI	XX XX	6,877 4,967	27,214 27,414	1,364 1,305	5.0 4.8	947 939	3.5 3.4	6.3 6.1	33,807 33,047
7	Charles & Kappy Koch, Tremont, IL	XX	143	25,891	1,305	4.0 5.1	939	3.4	6.2	32,728
8	Darryl, Donna, Shawn & Levi Banowetz, Charlotte, IA	XX	373	28,479	1,245	4.4	946	3.3	6.0	32,672
9	Amy Karpinski, Waupaca, WI	ХХ	367	29,850	1,194	4.0	958	3.2	5.9	32,552
10	Auburnvale Swiss, Fremont, WI	ХХ	187	28,267	1,239	4.4	925	3.3	5.9	32,365
11	Gary & Heather Krogmann, Winthrop, IA	XX	72	29,063	1,201	4.1	948	3.3	5.9	32,309
12	Nathan & Tajia Retzlaff, Shawano, WI	ΧХ	50	29,732	1,194	4.0	921	3.1	5.8	32,230
13	John & Edwin Maxwell, Donahue, IA	JE	249	26,127	1,241	4.7	976	3.7	6.1	32,081
14 15	Tom Engelken, Earlville, IA	XX XX	27	27,476	1,223	4.5	948 005	3.5 2.9	5.9 E 4	32,075
15 16	Nathan & Tajia Retzlaff, Shawano, WI Rolling Valley Jerseys, Waterville, IA	XX	26 30	30,592 27,698	1,157 1,197	3.8 4.3	885 939	2.9 3.4	5.6 5.9	31,757 31,742
17	Sand Creek Dairy LLC, Hastings, MI	JE	417	27,098	1,197	4.3 5.1	939 928	3.4 3.8	5.9 6.0	31,742
18	Ron Folkema, Fremont, MI	XX	1,063	28,869	1,173	4.1	880	3.0	5.6	31,363
19	Loehr Dairy LLC, Mount Calvary, WI	ХХ	47	26,471	1,213	4.6	904	3.4	5.8	31,280
20	United Pride Dairy LLC, Phillips, WI	XX	301	25,200	1,234	4.9	917	3.6	5.9	31,236
21	Bruce Martin, Whittemore, MI	ХХ	105	28,060	1,166	4.2	901	3.2	5.7	31,168
22	Twinkle-Hill Brown Swiss, Watertown, WI	BS	48	26,184	1,156	4.4	921	3.5	5.7	30,578
23	Gary Sulzer, Marathon, WI	XX	85	24,084	1,202	5.0	882	3.7	5.7	30,189
24	Randy & Michelle Buehne, Highland, IL	XX	164	26,880	1,113	4.1	894	3.3	5.5	30,042
25 26	Auburnvale Swiss, Fremont, WI	BS XX	78 164	26,301	1,129	4.3	891 886	3.4 3.1	5.5 5.3	30,037
26 27	Stanley Ferris, Cement City, MI Rolling Valley Jerseys, Waterville, IA	XX	164 25	28,995 24,025	1,039 1,148	3.6 4.8	880 864	3.1 3.6	5.3 5.5	29,714 29,332
27	McAllister Family Dairy LLC, New Vienna, IA	JE	41	24,025	1,140	5.3	847	3.8	5.6	29,332
29	Grass Ridge Farm LLC, Pittsville, WI	JE	116	22,516	1,174	5.2	863	3.8	5.6	29,168
30	Doug Fairbanks, Anamosa, IA	BS	68	25,208	1,111	4.4	850	3.4	5.4	29,133
31	Hendel Farms, Caledonia, MN	BS	29	24,347	1,112	4.6	839	3.4	5.3	28,780
32	Wolfdairy LLC, Epworth, IA	XX	275	25,964	1,076	4.1	810	3.1	5.2	28,621
33	Duane, Jeanne & Dave Meier, Monticello, WI	BS	65	23,577	1,093	4.6	863	3.7	5.4	28,466
34	Landstad Dairy LLC, Bonduel, WI	XX	102	25,176	1,067	4.2	827	3.3	5.2	28,377
35	Darga Farms, Pound, WI	XX	326	24,932	1,082	4.3	806	3.2	5.2	28,331
36 37	Tim & Kari Gaul, Guttenberg, IA Bohnert Jerseys, East Moline, IL	XX JE	89 708	26,570 22,242	1,018 1,113	3.8 5.0	835 857	3.1 3.9	5.1 5.4	28,259 28,243
38	Erdman Dairy, Chenoa, IL	XX	53	22,242	1,093	5.0 4.5	784	3.9	5.4 5.1	28,243
39	Merideth & Brandon Maier, Thorp, WI	BS	192	24,411	1,056	4.3	847	3.5	5.2	28,137
40	Bob & John Bennett, Prescott, MI	XX	213	25,122	1,046	4.2	805	3.2	5.1	27,919
41	Ted & Jonathan Keenan, Osseo, MI	ХХ	53	26,894	984	3.7	831	3.1	5.0	27,894
42	Carrie Peissig, Loyal, WI	ХХ	54	25,159	1,037	4.1	814	3.2	5.1	27,883
43	Dan Mauer, Scottville, MI	XX	44	24,927	1,025	4.1	842	3.4	5.1	27,866
44	Fisk Farms, Sand Lake, MI	XX	277	26,273	1,009	3.8	806	3.1	5.0	27,824
45	Martha Imhoff, Goshen, IN	XX	57	23,199	1,124	4.8	736	3.2	5.1	27,772
46 47	Robert Roden, West Bend, WI Petro Farms, Gobles, MI	XX JE	937 49	24,714 22,244	1,052 1,069	4.3 4.8	768 838	3.1 3.8	5.0 5.2	27,580 27,528
47 48	Wes Weaver, Sheldon, WI	JE XX	49 211	22,244 25,481	1,069 995	4.8 3.9	838 818	3.8 3.2	5.2 5.0	27,528 27,475
40	Darren Rusch, Pound, WI	JE	99	21,224	1,127	5.3	757	3.6	5.2	27,326
50	Cal & Barb Marshall, Lupton, MI	XX	609	24,145	1,072	4.4	706	2.9	4.9	27,179
51	Thuemmel Dairy, Port Austin, MI	XX	33	25,693	947	3.7	845	3.3	4.9	27,130
52	Petro Farms, Gobles, MI	ХХ	42	24,901	967	3.9	822	3.3	4.9	26,954
53	Eric Gaul, Farley, IA	XX	134	23,687	1,031	4.4	762	3.2	4.9	26,926
54	United Pride Dairy LLC, Phillips, WI	JE	542	20,390	1,098	5.4	788	3.9	5.2	26,915
55	Eric Frahm, Frankenmuth, MI	BS	25	24,209	975	4.0	818	3.4	4.9	26,800
56 57	John & Wendy Korth, Freeport, IL	BS	78 27	23,420	981 005	4.2	822	3.5 2 F	4.9	26,651
57 58	Jacob Worden, Sumner, IA Ron & Nicole Wussow, Cecil, WI	XX JE	37 66	23,014 20,506	995 1,071	4.3 5.2	801 774	3.5 3.8	4.9 5.1	26,538 26,496
50 59	Doug Fairbanks, Anamosa, IA	JE	00 81	20,508	1,071	5.2 5.1	757	3.0 3.6	5.0	26,496 26,438
60	Deutsch Farms, Sycamore, IL	XX	201	23,199	984	4.2	791	3.4	4.9	26,380
61	Golden Sun Dairy LLC, Shiocton, WI	JE	47	20,041	1,066	5.3	779	3.9	5.1	26,317
62	Lewis Century Stock Farms Inc, Lagrange, IN	BS	145	24,034	958	4.0	789	3.3	4.8	26,301
63	Jacob Worden, Sumner, IA	BS	58	23,622	952	4.0	814	3.4	4.8	26,280
64	Jenks Jersey Farm, Marathon, WI	JE	826	18,993	1,041	5.5	826	3.9	5.1	26,011
65	Roger Mason, Stanley, WI	XX	55	21,442	1,049	4.9	694	3.2	4.8	25,905
66	Saxon Homestead Farms, Cleveland, WI	XX	576	21,654	1,008	4.7	749	3.5	4.8	25,864
67 69	Tom Zenz, Grass Lake, MI	XX	232	24,040	935	3.9	768	3.2	4.7	25,845
68 69	Lee-Ann's Swiss LLC, DeWitt, IA Dean Carrillon, Carlyle, IL	BS XX	78 51	21,924 22,991	969 937	4.4 4.1	791 783	3.6 3.4	4.8 4.7	25,769 25,642
	Doug Fairbanks, Anamosa, IA	XX	34	22,991 21,655	937	4.1	783	3.4 3.4	4.7	25,642 25,538
70		XX	34	21.655	994	46	130	3.4	4 /	25

TOP FORECA PROTEIN BREED HERDS ≥19,000 ECM

	Herd	Breed	Size	Milk	Fat	F%	Prot.	P%	CFP	ECN
71	Richlo Dairy Farms, Engadine, MI	XX	275	22,707	928	4.1	767	3.4	4.6	25,31
72	Tom & Karen Hamlett, Arlington, IA	XX	65	23,954	899	3.8	759	3.2	4.5	25,28
73	I O State Dairy, Ames, IA	JE	37	19,572	1,019	5.2	736	3.8	4.8	25,22
74	Twin Oak Farms, Dorchester, WI	XX	26	22,769	925	4.1	750	3.3	4.6	25,10
75	David Michels, Osage, IA	XX	136	21,960	956	4.4	725	3.3	4.6	25,1
76	Gary & Darlene Kregel, Guttenberg, IA	XX	457	21,405	979	4.6	709	3.3	4.6	25,1
77	Gary Nielsen, Coral, MI	XX	66	22,631	938	4.1	721	3.2	4.5	25,0
78	Peter Kimball, Baldwin, WI	JE	106	19,744	993	5.0	747	3.8	4.8	25,0
79	Twin River Dairy Inc, Freeport, MI	XX	476	20,651	977	4.7	717	3.5	4.6	24,8
80	Anthony Baer, Conrath, WI	XX	70	22,426	952	4.2	681	3.0	4.5	24,8
81	Troy Pauli, New Glarus, WI	BS	78	22,142	882	4.0	778	3.5	4.5	24,6
82	Dan Johnson, Evansville, WI	JE	46	20,353	941	4.6	728	3.6	4.6	24,4
83	Clover Farms, Dundas, IL	JE	1,700	19,221	956	5.0	743	3.9	4.7	24,3
84	Spring Creek Farms Inc, Hixton, WI	JE	43	19,572	966	4.9	699	3.6	4.6	24,2
85	Jason & Mary Hettinga, Orange City, IA	JE	162	19,549	933	4.8	752	3.8	4.6	24,2
86	Redetzkes' No Joke Dairy, Stratford, WI	XX	251	18,538	985	5.3	688	3.7	4.6	24,0
87	Craig Miller & Family, Orangeville, IL	XX	31	23,390	835	3.6	719	3.1	4.3	23,9
88	Todd Kahl-Busch Farms Ltd, Belvidere, IL	XX	130	21,111	896	4.2	708	3.4	4.4	23,9
89	Jake & Colleen Thostenson, Brodhead, WI	BS	51	20,595	880	4.3	745	3.6	4.5	23,8
90	Jordan Martin, Greenwood, WI	JE	76	18,559	961	5.2	685	3.7	4.5	23,7
91 02	Randy D Knapp, Epworth, IA	XX	93	20,422	908	4.4	695	3.4	4.4	23,7
92	Kemridge Farm 2 Inc, Westfield, WI	XX	34	19,570	925	4.7	695 (05	3.6	4.4	23,6
93	Dave & Laurie Kyle, Elkhorn, WI	JE	132	18,795	944	5.0	695	3.7	4.5	23,6
94	Duron & Darin Bratland, Spring Grove, MN	BS	122	21,470	858	4.0	720	3.4	4.3	23,6
95	Randy James, Livingston, WI	FL	445	20,775	885	4.3	702	3.4	4.3	23,6
96	Brain Saunders, Independence, IA	XX	76	20,472	893	4.4	701	3.4	4.4	23,6
97	Hallet Dairy Farm LLC, Casco, WI	XX	88	19,308	952	4.9	649	3.4	4.4	23,6
98	Ramer View Holsteins, Goshen, IN	XX	170	21,555	873	4.1	681	3.2	4.3	23,5
99	Dan & Melissa Fagle, Fayette, IA	XX	36	22,001	852	3.9	691	3.1	4.2	23,5
00	Robert Brandt, Postville, IA	BS	61 120	20,628	864	4.2	727	3.5	4.4	23,4
01	Gucwa Farms, Bad Axe, MI	XX	138	20,901	866	4.1	703	3.4	4.3	23,4
02	Bo-Te Farms Inc, West Branch, MI	XX	297	22,066	838	3.8	678	3.1	4.2	23,2
03	James Hauschildt, Ellsworth, WI	BS	44	20,540	881	4.3	669	3.3 2.5	4.2	23,2
T	Fordyce Family Farm, Aurelia, IA	XX	144	20,600	847	4.1	724	3.5	4.3	23,2
05	Tumbleweed Dairy, Lowell, MI	XX	34	20,799	871	4.2	671	3.2	4.2	23,2
06 07	Larry & Jennifer Meyer, Chilton, WI Loras Krus Family, Holy Cross, IA	BS XX	32 72	21,401 19,873	828 888	3.9 4.5	713 668	3.3 3.4	4.2 4.3	23,1 23,1
07	Grand Central Jerseys LLC, Bristow, IA	JE	165	19,873	906	4.5	683	3.4 3.7	4.3	23,1
08	Pete & Ann Steffel, Oconto Falls, WI	XX	56	20,545	900 841	4.9	695	3.4	4.4	23,0
10	Mark & Rhonda Hefel, Epworth, IA	JE	53	20,545 18,273	872	4.1	704	3.4 3.9	4.2	22,9
10	Michael Heckaman, Argos, IN	JE	221	17,440	929	4.0 5.3	643	3.7	4.3	22,0
12	Ronald Richards, Fairbank, IA	JE	88	17,440	92.9 901	5.1	674	3.7	4.3	22,0
13	Steinhauers Jerseys, Mattoon, WI	JE	95	17,738	887	5.0	680	3.8 3.8	4.3	22,0
14	Abrahamson & Abrahamson LLC, Waupaca, WI	XX	52	20,743	817	3.9	668	3.2	4.5	22,4
14	Andy Dums, Rib Lake, WI	JE	45	18,366	863	4.7	679	3.2	4.1	22,4
16	Lyle Borkholder, Nappanee, IN	JE	83	17,567	920		615	3.7	4.2	22,3
10	Leipprandt Dairy LLC, Pigeon, MI	JE	03 188	17,307	920 920	5.2 5.3	624	3.5 3.6	4.2 4.2	22,3 22,3
18	K & S Farms, Hudson, IN	XX	153	20,664	920 805	3.9	672	3.3	4.2	22,3
10	Doug & Jane Wagner, Marissa, IL	XX	43	20,884 20,100	823	3.9 4.1	665	3.3 3.3	4.0 4.1	22,3 22,3
20	Jake & Colleen Thostenson, Brodhead, WI	JE	150	17,256	887	5.1	675	3.5 3.9	4.1	22,3
20	Hagen Brothers Dairy, Waterville, IA	XX	67	19,440	836	4.3	659	3.4	4.3	22,2
21	Murphy Family Farm, New London, WI	JE	67 97	19,440 16,566	030 916	4.3 5.5	629	3.4 3.8	4.1	22,2
22	Donna Kunde, Manchester, IA	JE	219	17,696	882	5.0	636	3.6 3.6	4.2	22,0
23 24	Thomas Thums, Pickett, WI	XX	38	20,590	793	3.9	660	3.0	4.2	22,0
24 25	Ryan Kluesner, Worthington, IA	XX	38	20,058	797	4.0	673	3.2 3.4	4.0	22,0
25 26	Brad Dietsche & Family, Colfax, WI	BS	30 39	20,038 19,123	817	4.0	670	3.4 3.5	4.0	22,0
20	Aaron Dietsche, Bloomer, WI	XX	120	18,789	821	4.3	662	3.5	4.1	21,9
28	Bill Seyller, Fond du Lac, WI	JE	37	16,952	876	5.2	647	3.8	4.1	21,0
20 29	Nathan & Jody Nus, Arlington, IA	XX	44	20,066	799	4.0	625	3.0 3.1	3.9	21,0
29 30	Andy Hauser, Clarksville, IA	XX	27	19,700	733	4.0	658	3.3	4.0	21,0
31	Paul Hoesly, New Glarus, WI	XX	43	21,007	745	3.5	647	3.1 3.1	3.8	21,0
32	Wayne & Julie Peterson, Amherst, WI	XX	185	19,155	743	4.1	636	3.3	3.9	21,4
32 33	Albern Olson, Stanton, MI	XX	115	19,155	818	4.1	623	3.4	3.9	21,3
33 34	Craig Miller & Family, Orangeville, IL	XX	33	20,389	750	4.4 3.7	623 641	3.4 3.1	3.9 3.8	21,3
34 35	Robrt & Susan Kinney, Durand, IL	XX	42	20,389 19,094	789	3.7 4.1	617	3.1	3.0 3.9	21,2
	Rob Marten, Onondaga, MI	XX	42 66	19,094	769	4.1	654	3.2 3.5	3.9	21,1
			246	18,741	817	4.1 4.7	632	3.5 3.6	3.9 4.0	21,1
36 37					01/	4./	UJZ	J.0	4.U	∠1,U
37	Leo & Keith Schulte, Dorchester, IA	JE							10	<u></u> 21 ∩
	Hickory Grove Dairy, Dakota, IL Wayne & Michael Mormann, Colesburg, IA	JE JE XX	61 30	16,531 17,603	837 839	5.1 4.8	627 577	3.8 3.3	4.0 3.9	21,0 21,0



	Herd	Breed	Size	Milk	Fat	F%	Prot.	<b>P%</b>	CFP	ECM
141	Shawn & Dwight Gibbs, Farley, IA	JE	62	16,878	814	4.8	622	3.7	3.9	20,819
142	Daniel Siegert, Peosta, IA	BS	226	18,781	757	4.0	637	3.4	3.8	20,818
143	Folkersma Farms LLC, Rudyard, MI	XX	122	18,250	788	4.3	607	3.3	3.8	20,816
144	Andy Lemler, Bourbon, IN	XX	85	20,255	705	3.5	661	3.3	3.7	20,810
145	Gucwa Farms, Bad Axe, MI	XX	38	18,435	757	4.1	624	3.4	3.8	20,605
146	Paul Kilgus, Fairbury, IL	JE	229	17,011	795	4.7	618	3.6	3.9	20,586
147	Hubert Rankin, Atlanta, IL	GU	48	17,445	789	4.5	604	3.5	3.8	20,543
148	Steve Klug, Spring Grove, MN	BS	105	18,369	755	4.1	617	3.4	3.8	20,504
149	Todd Bores, Auburndale, WI	XX	51	18,923	739	3.9	607	3.2	3.7	20,401
Т	Robert & Susan Kinney, Durand, IL	XX	78	17,884	764	4.3	609	3.4	3.8	20,401
151	Cedar Hill Dairy Farm, Freeport, IL	XX	129	19,787	718	3.6	599	3.0	3.6	20,351
152	Graybill Farms, Freeport, IL	JE	177	15,804	804	5.1	604	3.8	3.9	20,200
153	Parsons Dairy Farm LLC, Antigo, WI	JE	37	16,723	776	4.6	588	3.5	3.7	20,016
154	Richlo Dairy Farms, Engadine, MI	JE	96	15,473	807	5.2	586	3.8	3.8	19,993
155	Troy & Lindsey Nevil, Juda, WI	BS	69	18,094	727	4.0	593	3.3	3.6	19,868
156	Medlang Swiss - Linda Medlang, Kensett, IA	BS	82	17,991	723	4.0	604	3.4	3.6	19,867
157	Tim Covington, Leon, IA	JE	50	15,917	779	4.9	597	3.8	3.8	19,860
158	Wendy Bok, Defiance, OH	JE	393	15,834	786	5.0	584	3.7	3.8	19,824
159	Matt Brahmer, Spring Valley, WI	GU	31	15,729	796	5.1	565	3.6	3.7	19,774
160	Rolling Prairie Guernsey, Garnavillo, IA	GU	253	16,926	748	4.4	580	3.4	3.6	19,658
161	Jason Weihrouch, Melrose, WI	XX	42	17,339	727	4.2	587	3.4	3.6	19,575
162	Idlegold Guernsey, Comstock, WI	GU	149	16,425	760	4.6	560	3.4	3.6	19,497
163	Valley Gem Farms Inc, Cumberland, WI	JE	29	15,021	787	5.2	571	3.8	3.7	19,472
164	Mackinson Dairy, Pontiac, IL	AY	47	18,591	689	3.7	583	3.1	3.5	19,462
165	John L Schwartz, Bremen, IN	JE	139	15,656	767	4.9	575	3.7	3.7	19,451
166	Marshland Dairy LLC, Spencer, WI	JE	95	15,576	772	5.0	565	3.6	3.7	19,413
167	Flotos Jerseys, Oregon, IL	JE	110	15,670	766	4.9	571	3.6	3.7	19,412
168	Lavern Martin, Decker, MI	XX	65	17,431	725	4.2	564	3.2	3.5	19,403
169	Gary Ihm, East Dubuque, IL	XX	46	18,505	690	3.7	568	3.1	3.4	19,332
170	Bruce Eldred, Blanchard, MI	JE	72	15,732	756	4.8	571	3.6	3.6	19,303
171	Family Af-Ayr Farm LLC, Caledonia, IL	AY	83	18,125	696	3.8	570	3.1	3.5	19,301
172	Mark Blaha, New Auburn, WI	JE	242	14,703	778	5.3	558	3.8	3.7	19,152
173	Kadence, New Glarus, WI	GU	68	16,052	735	4.6	564	3.5	3.6	19,082





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"My job is to work with our team to provide a broad range of information for our farmers that are good tools for decision making. Our manager (Pam) is always available for problem solving if we get stuck with a computer problem or when we need extra help. There is a certain camaraderie within the company that we experience."

DHI SPECIALIST LORETTA BROECKER



"I was interested in working for CentralStar, w because I wanted to work with livestock everv day. What makes this company different is the amazing support it provides: from the A.I. team in the field lending a hand or the people in the office giving us information we need and keeping records organized. CentralStar runs a tight ship. I'm excited to see where my career leads in the future as the cooperative continues to grow."

TEAM A.I. TECHNICIAN BRYCE MONTGOMERY



"What I like most about my career is I get to help make an impact in the dairy and cattle industry. I also love how the company gives off a family feel, so whoever I work with feels like someone I've known forever."

LABORATORY TECHNICIAN KYLE CARPENTER



"I enjoy my job, because every day is different: from early in the morning to late at night and a herd of 30 cows to one of 2,500. In addition, I feel like dairy farmers are the easiest people to work with. They're just hardworking, good people; they're like my family."

SHELLIE VOLKER



"If you have interest in working with dairy cattle, first make sure you have a supportive family on the home front; that really helped me. I also like seeing the different types of farming operations; there's no one size fits all. The A.I. team around me is really helpful: they'll reach out to check on me. I wasn't planning on that when I started with CentralStar. and I really like that part of the culture."

team a.i. technician Sarah Romanowski



The support among my fellow team members creates a positive environment and makes my role enjoyable. As a long-time team member, the flexibility and opportunities available led me to continue my career here. My advice for new team members is if you have a positive attitude and make yourself available to help out when needed, you will have a lasting and rewarding career with CentralStar."

COWMAN AGER AND A.I. SPECIALIST

> MARK AFFOLDER

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3X	Herd	Breed	Size	Milk	Fat	F%	Prot.	P%	CFP	ECM	SCC
*	Nathan & Tajia Retzlaff, Shawano, WI	XX	26	30,592	1,157	3.8	885	2.9	5.6	31,757	28,000
*	Raymond Dairy Inc, New Richmond, WI	HO	90	27,933	1,079	3.9 5.2	900	3.2	5.4	29,992	31,000
	Grass Ridge Farm LLC, Pittsville, WI David & Peter Score, Boyceville, WI	JE HO	116 120	22,516 26,168	1,174 1,132	5.2 4.3	863 875	3.8 3.3	5.6 5.5	29,168 29,910	33,000 41,000
	Al Ledvina, Luxemburg, WI	HO	59	20,100	858	4.5	646	3.5	4.1	22,864	41,000
*	Oesch Swisslane, Alto, MI	HO	1,571	29,436	1,292	4.4	960	3.3	6.2	33,701	42,000
*	Nichols Hill Dairy, Krakow, WI	HO	334	30,376	1,296	4.3	983	3.2	6.2	34,236	43,000
	Kevin & Kim Radloff, Oshkosh, WI	HO	132	24,626	1,000	4.1	780	3.2	4.9	26,970	45,000
	Jacob Worden, Sumner, IA	XX	37	23,014	995	4.3	801	3.5	4.9	26,538	46,000
	Milk Source Genetics LLC, Kaukauna, WI	HO	56	23,401	957	4.1	743	3.2	4.7	25,729	46,000
	Lyle Borkholder, Nappanee, IN	JE	83	17,567	920	5.2	615	3.5	4.2	22,363	47,000
	Mike Bosscher, McBain, MI Welling Farms, Albany, IL	HO HO	211 33	27,827 20,956	1,104 1,026	4.0 4.9	850 643	3.1 3.1	5.4 4.6	29,899 25,058	49,000 49,000
	Ed & Bob Meier, Belleville, WI	HO	54	23,123	1,020	4.5	774	3.3	4.0	26,821	50,000
	Twinkle-Hill Brown Swiss, Watertown, WI	BS	48	26,184	1,156	4.4	921	3.5	5.7	30,578	52,000
	Jonathan Burkholder, Sheridan, MI	HO	82	25,679	1,039	4.0	815	3.2	5.1	28,087	52,000
*	Fischer & Clark Dairy, Hatley, WI	XX	1,042	33,095	1,432	4.3	1,085	3.3	6.9	37,667	55,000
	McAllister Family Dairy LLC, New Vienna, IA	JE	41	22,301	1,193	5.3	847	3.8	5.6	29,221	55,000
	McAllister Family Dairy LLC, New Vienna, IA	HO	276	33,221	1,340	4.0	1,065	3.2	6.6	36,364	57,000
	Leon Henneman, Ellsworth, WI	HO	48	29,942	1,210	4.0	1,002	3.3	6.1	33,126	57,000
*	Hendel Farms, Caledonia, MN Steffes Holsteins, Elizabeth, IL	BS HO	29 528	24,347 27,386	1,112 1,074	4.6 3.9	839 852	3.4 3.1	5.3 5.3	28,780 29,381	59,000 60,000
	Eric Frahm, Frankenmuth, MI	BS	528 25	27,386	1,074 975	3.9 4.0	852 818	3.1 3.4	5.3 4.9	29,381 26,800	60,000 60,000
	Jesse & Rachel Thoma, Manawa, WI	HO	78	24,209	1,131	4.0	895	3.4	5.6	30,505	61,000
	Mike Bosscher, McBain, MI	HO	53	25,963	1,050	4.0	802	3.1	5.1	28,223	61,000
	Brent Mueller, Garden Prairie, IL	HO	39	26,196	991	3.8	806	3.1	4.9	27,565	62,000
	Paige Mier, Prescott, MI	HO	65	19,502	786	4.0	609	3.1	3.8	21,215	62,000
	Amy Karpinski, Waupaca, WI	XX	367	29,850	1,194	4.0	958	3.2	5.9	32,552	63,000
*	Crandall Farms LLC, Battle Creek, MI	HO	355	32,160	1,372	4.3	1,047	3.3	6.6	36,293	64,000
*	Mike Zagata, Sebewaing, MI Brickstead Dairy LLC, Greenleaf, WI	HO HO	709 1,032	31,395 31,090	1,352 1,319	4.3 4.2	969 1,024	3.1 3.3	6.4 6.4	35,187 35,081	64,000 66,000
	David & Julie Marcks, Black Creek, WI	HO	45	27,829	1,079	4.2 3.9	862	3.3 3.1	5.3	29,667	66,000
	R A Schanbacher Inc, Newhall, IA	НО	136	27,119	1,066	3.9	865	3.2	5.3	29,290	66,000
	Stuart Farms, Lowell, MI	HO	433	30,693	1,325	4.3	1,007	3.3	6.4	34,899	67,000
	Eric Frahm, Frankenmuth, MI	HO	133	29,452	1,135	3.9	938	3.2	5.7	31,505	67,000
	McCulloch Farms, Rockford, IL	HO	87	28,570	1,136	4.0	874	3.1	5.5	30,740	67,000
*	Nathan & Tajia Retzlaff, Shawano, WI	XX	50	29,732	1,194	4.0	921	3.1	5.8	32,230	68,000
*	MSU Dairy Dept, Lansing, MI	HO	247	29,103	1,096	3.8	929	3.2	5.5	30,817	68,000
*	Horsens Homestead Farms, Cecil, WI Grass Ridge Farm LLC, Pittsville, WI	HO HO	1,437 598	34,223 31,037	1,469 1,355	4.3 4.4	1,126 1,057	3.3 3.4	7.1 6.6	38,828 35,782	69,000 69,000
	Tom Engelken, Earlville, IA	XX	27	27,476	1,223	4.4	948	3.4	5.9	32,075	69,000
	River Crest Dairy LLC, Greenwood, WI	HO	258	30,467	1,338	4.4	1,022	3.4	6.5	35,108	70,000
*	Ambrosius Dairy Farm, Seymour, WI	HO	128	33,399	1,343	4.0	1,081	3.2	6.6	36,583	72,000
*	Wilnore Holsteins, Mllton, WI	HO	83	32,190	1,267	3.9	1,022	3.2	6.3	34,752	72,000
	Cliff & Curt Simons, Marengo, IL	HO	38	21,013	908	4.3	684	3.3	4.4	23,862	72,000
*	Ed Walter Farm Inc, Oshkosh, WI	HO	329	31,608	1,347	4.3	1,012	3.2	6.5	35,521	74,000
	Dale Brinks, McBain, MI	HO	205	31,147	1,284	4.1	1,010	3.2	6.3	34,539	74,000
*	Ron & Nicole Wussow, Cecil, WI Norm & Derrick Hammond, Dowling, MI	HO HO	44 521	30,660 30,933	1,275 1,182	4.2 3.8	998 957	3.3 3.1	6.2 5.9	34,172 32,743	74,000 74,000
*	Gilde Farms LLC, Lake City, MI	HO	247	27,720	1,162	3.0 4.6	937 814	2.9	5.7	32,743 31,699	75,000
	Volmering Family Dairy, Harbor Beach, MI	НО	192	28,607	1,088	3.8	900	3.1	5.4	30,329	75,000
	Hillebrand Farms, Cornell, WI	HO	53	28,961	1,331	4.6	948	3.3	6.2	33,959	76,000
	John W Nolt, Orchard, IA	HO	62	26,789	1,134	4.2	828	3.1	5.4	29,780	76,000
*	Maly Farms, Bryant, WI	HO	510	33,804	1,282	3.8	1,029	3.0	6.3	35,528	77,000
	Darren Rusch, Pound, WI	HO	396	30,085	1,337	4.4	953	3.2	6.3	34,442	78,000
*	Silvershea Holsteins LLC, Omro, WI	HO	177	31,816	1,249	3.9	974	3.1	6.1	34,029	78,000
*	Olson's Best Dairy LLC, Shiocton, WI Collins Dairy LLC, Greenleaf, WI	HO HO	301 1,559	31,459 30,108	1,236	3.9 4.1	995 978	3.2 3.2	6.1 6.1	33,905 33,437	78,000 78,000
	White Gold Dairy LLC, Greenlear, Wi	HO	1,559 65	30, 108 27,804	1,244 1,063	4.1 3.8	978 896	3.2 3.2	6.1 5.4	33,437 29,712	78,000
	Keith & Cindy Binder, Monticello, WI	HO	86	27,804 25,841	966	3.7	832	3.2	4.9	27,325	78,000
	Gary & Shell Tweito, Spring Grove, IA	HO	43	20,629	898	4.4	679	3.3	4.3	23,569	78,000
*	George Kasbergen, Mansfield, IL	HO	3,737	34,550	1,324	3.8	1,056	3.1	6.5	36,522	79,000
*	Stutzman Family Farms LLC, Conrath, WI	HO	368	31,258	1,312	4.2	973	3.1	6.3	34,655	79,000
	Hendel Farms, Caledonia, MN	HO	383	28,527	1,290	4.5	953	3.3	6.1	33,324	79,000
	Cynthia Waegli & Chris Utke, Clintonville, WI	HO	252	27,099	1,080	4.0	868	3.2	5.3	29,488	79,000
	Jeff Janke, Alma Center, WI	HO	110	23,916	1,021	4.3	797	3.3	5.0	27,140	79,000
	Nelson Miller, Arthur, IL Daryl & Pam Nunes, Deerfield,Wi	HO HO	48 40	23,243 28 514	888 1,293	3.8 4.5	683 915	2.9 3.2	4.3 6.0	24,325 33.068	80,000 82,000
	Bob Van Daalwyk, Hilbert, WI	HO HO	40 181	28,514 29,738	1,293 1,139	4.5 3.8	915 927	3.2 3.1	6.0 5.7	33,068 31,566	82,000 82,000
	Dave & Rick Tacoma, Falmouth, MI	HO	405	29,130	1,137	3.8	943	3.1	5.6	31,000	82,000
	James Reid, Jeddo, MI	HO	260	27,996	1,088	3.9	935	3.3	5.5	30,397	82,000
*	Sue-Dan Farms, Inc, Bloomer, WI	HO	47	26,680	1,055	4.0	824	3.1	5.1	28,690	82,000



	Herd	Breed	Size	Milk	Fat	F%	Prot.	P%	CFP	ECM	SC
*	Srnka Farms LLC, Algoma, WI	HO	490	35,052	1,450 1 101	4.1	1,092	3.1 2.2	7.0 5.9	38,593	83,0
*	Matthew & Susan Smith, Hudson, MI	HO	72	29,163	1,181 1 211	4.0	925	3.2	5.8	31,907 24 5 26	83,0
	Neal Burken, Galesville, WI Royal Vista Holsteins LLC, Pickett, WI	HO HO	475 398	31,042 31,137	1,311 1,261	4.2 4.0	967 995	3.1 3.2	6.2	34,526	84,0 84,0
*	Nathan & Tajia Retzlaff, Shawano, WI	HO HO	398 123	31,137 34,809	1,261	4.0 4.0	995 1,089	3.2 3.1	6.2 6.8	34,124 37,520	84,0 85,0
*	Kevin & Diane Skinner, Junction City, WI	HO	548	30,975	1,285	4.0	987	3.1	6.2	34,320	85,0
	Jeremy Seiler, Carson City, MI	НО	379	32,588	1,222	3.7	1,018	3.1	6.1	34,269	86,0
	Ryan Litwiller, Middleton, MI	HO	317	32,240	1,152	3.6	1,015	3.1	5.9	33,226	86,0
	Earl & Jeff Horning, Manchester, MI	НО	437	29,675	1,227	4.1	924	3.1	5.9	32,662	86,0
	Roth Farms, Lowell, MI	HO	57	27,889	1,060	3.8	868	3.1	5.3	29,487	86,0
	Dave Zellner, Luxemburg, WI	HO	108	25,061	1,061	4.2	786	3.1	5.1	27,948	86,0
	Doug Lyons, Castalia, IA	HO	53	22,592	863	3.8	695	3.1	4.3	23,880	86,0
	Larry & Jennifer Meyer, Chilton, WI	BS	32	21,401	828	3.9	713	3.3	4.2	23,175	86,
	Yonkman Dairy, McBain, MI	HO	1,885	31,481	1,312	4.2	952	3.0	6.2	34,567	87,
	Nienhuis Dairy Farm, Zeeland, MI	HO	304	28,219	1,084	3.8	876	3.1	5.4	29,967	87,0
	Baker Lads Farm, Clayton, MI	HO	530	29,318	992	3.4	882	3.0	5.1	29,181	87,0
	Glen & Julie Lyford, Davis, IL	HO	70	24,316	984	4.0	774	3.2	4.8	26,615	87,0
*	Banner Ridge Farms LLC, Platteville, WI	HO	559	33,365	1,371	4.1	1,067	3.2	6.7	36,827	88,0
	Mervin R Brubaker, Milton, IA	HO	113	26,501	1,069	4.0	832	3.1	5.2	28,874	88,0
	Wesley B Horst, Spencer, WI	HO	55	25,067	1,001	4.0	777	3.1	4.9	27,104	88,
	Adam & Karen Voigts, Wilton, WI	HO	275	26,914	1,182	4.4	880	3.3	5.6	30,840	89,0
	Landstad Dairy LLC, Bonduel, WI Tony Rosebrugh, West Branch, MI	XX XX	102 788	25,176 32,871	1,067 1,310	4.2 4.0	827 1,014	3.3 3.1	5.2 6.4	28,377 35,470	89,( 90,(
	Schuh View Dairy LLC, Kaukauna, WI	HO	788 1,380	32,871 28,832	1,310	4.0 4.8	1,014 864	3.1 3.0	6.4 6.2	35,470 34,051	90,0 90,0
	Vande Hei Dairy Farms, De Pere, WI	HO	458	20,032	1,145	4.0 3.9	937	3.0	6.2 5.7	31,694	90,0 90,0
	Bill Deruiter, Marion, MI	HO	377	29,996	1,045	3.5	914	3.0	5.4	30,334	90,0
	Mark Schultz, Eden, WI	HO	191	25,930	1,123	4.3	807	3.1	5.3	29,196	90,0
	Darren Rusch, Pound, WI	JE	99	21,224	1,127	5.3	757	3.6	5.2	27,326	90,0
*	Rusk-Rose Holsteins, Ladysmith, WI	HO	533	32,464	1,337	4.1	994	3.1	6.4	35,534	91,0
	Doug Roth, Mt. Pleasant, IA	HO	172	28,902	1,237	4.3	952	3.3	6.0	32,753	91,0
	Oneeda Farms LLC, Syracuse, IN	HO	199	25,174	995	4.0	814	3.2	5.0	27,344	91,
	Troy Pauli, New Glarus, WI	BS	78	22,142	882	4.0	778	3.5	4.5	24,614	91,0
*	W-R-L Daniels Farm, Whittemore, MI	HO	671	29,734	1,403	4.7	956	3.2	6.5	35,205	92,
	Jay & Amy Krahn, Brillion, WI	HO	173	31,071	1,257	4.0	930	3.0	6.0	33,553	92,
	Lyle & Carla Weaver, Goshen, IN	HO	142	29,539	1,243	4.2	950	3.2	6.0	33,024	92,
	Tracy Lacrosse & Dale Uecker, Forestville, WI	HO	88	29,772	1,220	4.1	937	3.1	5.9	32,702	92,
	Troy & Sara Blazek, Oconto Falls, WI	HO	203	29,167	1,194	4.1	962	3.3	5.9	32,359	92,
	Ron Folkema, Fremont, MI	XX	1,063	28,869	1,173	4.1	880	3.0	5.6	31,363	92,
	Chad Beck, West Branch, MI	HO HO	941	28,102	1,109	3.9 3.9	872 840	3.1 3.2	5.4	30,222	92,
	Brent Mueller, Garden Prairie, IL Nova Holsteins Vineyard Jerseys, New Richmond, WI	HO	103 183	26,652 24,001	1,041 995	3.9 4.1	840 788	3.2 3.3	5.2 4.9	28,622 26,762	92, 92,
	Nelson & Lorene Miller, Argyle, WI	HO	51	24,001 22,165	945	4.1	758	3.4	4.7	25,284	92, 92,
	Todd & Jessica Ertl, Unity, WI	HO	114	23,003	915	4.0	703	3.1	4.4	24,749	92,0
	Brian & Monica Enyart, Postville, IA	HO	130	28,879	1,152	4.0	876	3.0	5.6	31,063	93,0
*	Shiloh Dairy, Greenleaf, WI	НО	3,163	33,993	1,526	4.5	1,113	3.3	7.2	39,392	94,0
*	Whitetail Valley Dairy LLC, Waupaca, WI	HO	291	32,253	1,287	4.0	1,025	3.2	6.3	35,055	94,0
	Jeremy Beebe, Whittemore, MI	HO	168	24,797	1,029	4.1	797	3.2	5.0	27,531	94,
*	Buning Dairy LLC, Falmouth, MI	HO	710	32,791	1,253	3.8	1,025	3.1	6.2	34,790	95,0
*	Todd Augustian, Kewaunee, WI	HO	1,161	31,222	1,254	4.0	1,021	3.3	6.2	34,260	95,0
*	Bruce & Julie Buddenberg, Decorah, IA	HO	332	29,704	1,218	4.1	941	3.2	5.9	32,685	95,
	Bo-Te Farms Inc, West Branch, MI	XX	297	22,066	838	3.8	678	3.1	4.2	23,254	95,
	Tom & Sara Kruse, Dyersville, IA	HO	75	29,345	1,290	4.4	976	3.3	6.2	33,768	96,
*	Brooks Dairy Farms, Waupaca, WI	HO	677	27,447	1,241	4.5	902	3.3	5.9	31,946	96,
	Foxland Farms LLC, Greenleaf, WI	HO	119	30,301	1,127	3.7	897	3.0	5.5	31,365	96,
*	Kemridge Farm 2 Inc, Westfield, WI	HO	317	28,537	1,142	4.0	908 071	3.2	5.6	31,067	96, 04
	Mayer Farm, Chippewa Falls, WI Pandy & Michelle Buehne, Highland, II	HO XX	170 164	27,429	1,161 1 112	4.2	871 804	3.2	5.6 5.5	30,667	96, 96,
	Randy & Michelle Buehne, Highland, IL Troy Pauli, New Glarus, WI	HO	164 46	26,880 26,973	1,113 1,011	4.1 3.7	894 885	3.3 3.3	5.5 5.2	30,042 28,683	96, 96,
	Andy Kortman, McBain, MI	HO	40 254	28,893	1,121	3.7 3.9	885 905	3.3 3.1	5.2 5.6	20,003 30,888	90,0 97,0
	Stanley & Janet Cook, Lena, WI	HO	254 65	20,093 22,589	805	3.9 3.6	905 690	3.1 3.1	5.0 4.1	30,888 23,090	97, 97,
	Smith Dairy Farm, Fremont, MI	HO	109	22,307	839	3.9	661	3.1	4.1	22,911	97,0
	C & J Farms Inc, Bear Creek, WI	HO	315	28,775	1,102	3.8	884	3.1	5.4	30,443	98,
	Bill & Bob Gruppen, Zeeland, MI	HO	110	24,324	1,173	4.8	868	3.6	5.6	29,785	98,
	Allan Schanbacher, Atkins, IA	HO	318	26,094	992	3.8	847	3.2	5.0	27,859	99,0
	Wilson Brothers, Cuba City, WI	HO	657	23,147	945	4.1	706	3.1	4.5	25,208	99,0
	Carissa Scheider, Browntown, WI	XX	68	19,768	758	3.8	607	3.1	3.7	20,924	99,0
	Ron Brinks, McBain, MI	HO	133	28,972	1,142	3.9	943	3.3	5.7	31,477	100
	Fisk Farms, Sand Lake, MI	XX	277	26,273	1,009	3.8	806	3.1	5.0	27,824	100,
	Ramer & Sons Dairy, New Paris, IN	HO	168	24,563	942	3.8	787	3.2	4.7	26,252	100,
	Rock-N-Hill II, Juda, WI	HO	70	23,695	929	3.9	735	3.1	4.6	25,402	100,
	Anthony Baer, Conrath, WI	XX	70	22,426	952	4.2	681	3.0	4.5	24,871	100,
	Paul Kilgus, Fairbury, IL	JE	229	17,011	795	4.7	618	3.6	3.9	20,586	100,

LÔW

P

HERDS

≤100,000 SCC & ≥20,000 ECM



### GET MORE

### Navigating beef genetics to ENHANCE dairy revenue

Dairies can enhance revenue through a beef x dairy breeding strategy. Record-high beef-calf prices and a shortage of native beef cattle creates an opportunity to supply valuable-crossbred animals. Selecting the right beef genetics, like the approach for dairy replacements, is crucial.

Utilizing beef Expected Progeny Differences (EPDs) allows focus on key traits like fertility, calving ease, growth, and carcass quality. Choosing beef sires with high Calving Ease EPDs ensures smoother births, while Weaning Weight and Marbling directly influence sale value.

Beyond that, it's important to assess whether a sexed- and beef-semen strategy is feasible. A recent collaboration between CentralStar Genetic Consultant Tom Brown and a local dairy demonstrated that while implementing a sexed-NxGEN® and beef-semen strategy increased costs, potential revenue could soar substantially if beef x dairy calves consistently sell for \$35 more than Holstein bull calves.

To help dairies produce high-quality, uniform, and desirable cattle, Select Sires developed the ProfitSOURCE<sup>®</sup> program, and the results speak for themselves, as shown by the impressive data from cattle moving through the supply chains. Talk to your local CentralStar team to help you *get more* from your beef x dairy choices.

#### Percent choice and prime



LEVERAGING Genetics







### EVERY CALF COUNTS:

### Why reducing heifer non-completion is key to herd success

#### Kelly Sporer, CentralStar Records Analysis Consultant



When we think about "making every calf count," heifer non-completion rate is a key performance indicator (KPI) that should definitely be on

producers' minds. Heifer non-completion rate is defined by the number of heifer replacements that never make it to the lactating herd divided by the total number of heifers born alive.

Heifer non-completion rate among more than 50 CentralStar herds in Michigan and Indiana averages 11%, with a range of 4-25%. A good goal to shoot for is: 10%, with anything higher than 15% being a real cause for concern that should be addressed as soon as possible with the reproductive consultant, nutritionist, veterinarian, and farm staff. The team can then consider the following questions:

► At what age are heifers dying or leaving the herd? Is it within the first few days, around weaning, or at breeding age?

► Are some months or seasons worse than others? Do heifers born at night/on the weekend have worse outcomes?

► Why are heifers dying? Keeping detailed records of body temperature, treatments, observations, etc. helps immensely as we evaluate possible solutions.

► If heifers are transported to a different location for raising, how does that transition go? Are you getting adequatelydetailed data from your heifer grower?

A growing area of research shows heifers that struggle with scours, respiratory, and other health issues as calves never perform to their full productive or reproductive potential over the course of their entire lives. They are set back permanently.

As far as breeding-age heifers, I like to see at least 90% of heifers getting pregnant within three services. Heifers taking more services than that are usually reproductively inferior and will become reproductively inferior cows. Reproductive culls in heifers should be minimal.

When we think about the future of the herd and design breeding strategies, we must account for the percent of heifers that don't complete and create additional replacements to make up for them. We have much more flexibility to create an optimal number of genetically-superior replacements, and make greater and faster genetic progress, when we don't have a high non-completion rate.

I still regularly observe farms continuing to make an excess of heifers housed in crowded facilities. This creates a vicious cycle as shown in Figure 1a. CentralStar has tools and resources available to make the optimal number of the best replacements possible and be in the muchmore-favorable cycle shown in Figure 1b.

Profitable herds are making every calf count by having excellent colostrum management and passive transfer at birth, a solid vaccination protocol, a successful weaning transition, proper nutrition at all stages of growth and development, and a strong reproduction program. These management practices will keep heifer non-completion rates in check and lead to success. Talk with the CentralStar team to help manage your non-completion rate and **get more** from your program!



	011	Hand	P. I	<b>C</b> '			For	<b>D</b>	Dat	050	For
25 7	3X	Herd	Breed	Size	Milk	Fat	F%	Prot.	P%	CFP	ECM
<u>25 - 7</u> 1	4 Cow	S Nathan & Kristy Mulder, Ridott, IL	HO	60	33,161	1,199	3.6	1,049	3.2	6.2	34,396
2	*	Country Dairy, New Era, MI	HO	65	33,954	1,173	3.5	1,049	3.1	6.1	34,318
3		Ron & Nicole Wussow, Cecil, WI	НО	44	30,660	1,275	4.2	998	3.3	6.2	34,172
4 5		Hillebrand Farms, Cornell, WI Dustin & Jason Martin, Conrath, WI	HO HO	53 55	28,961 26,314	1,331 1,456	4.6 5.5	948 823	3.3 3.1	6.2 6.2	33,959 33,756
6		David Martin, Fenwick, MI	HO	70	26,415	1,430	5.5	826	3.1	6.2	33,708
7		Leon Henneman, Ellsworth, WI	НО	48	29,942	1,210	4.0	1,002	3.3	6.1	33,126
8		Daryl & Pam Nunes, Deerfield, WI	HO	40	28,514	1,293	4.5	915	3.2	6.0	33,068
9		Duane, Jeanne & Dave Meier, Monticello, WI	HO	72	28,422	1,236	4.3	960	3.4	6.0	32,644
10		Gary & Heather Krogmann, Winthrop, IA	XX	72	29,063	1,201	4.1	948	3.3	5.9	32,309
11 12	*	Kandy-Bahr Holsteins, Waukon, IA Nathan & Tajia Retzlaff, Shawano, WI	HO XX	67 50	30,267 29,732	1,152 1,194	3.8 4.0	976 921	3.2 3.1	5.8 5.8	32,282 32,230
13		Tom Engelken, Earlville, IA	XX	27	27,476	1,223	4.5	948	3.5	5.9	32,075
14		Matthew & Susan Smith, Hudson, MI	HO	72	29,163	1,181	4.0	925	3.2	5.8	31,907
15		Brent & Carrie Pollard, Rockford, IL	HO	69	27,746	1,230	4.4	889	3.2	5.8	31,802
16	*	Nathan & Tajia Retzlaff, Shawano, WI	XX	26	30,592	1,157	3.8	885	2.9	5.6	31,757
17 18	*	Rolling Valley Jerseys, Waterville, IA Loehr Dairy LLC, Mount Calvary, WI	XX XX	30 47	27,698 26,471	1,197 1,213	4.3 4.6	939 904	3.4 3.4	5.9 5.8	31,742 31,280
10		Eric Schoenfuss, Edgar, WI	HO	38	28,628	1,213	4.0 3.9	904 936	3.4	5.6	31,280
20		Twinkle-Hill Brown Swiss, Watertown, WI	BS	48	26,184	1,156	4.4	921	3.5	5.7	30,578
21		Steve Landis, Goshen, IN	НО	34	26,629	1,175	4.4	810	3.0	5.4	30,120
22		John W Nolt, Orchard, IA	HO	62	26,789	1,134	4.2	828	3.1	5.4	29,780
23		White Gold Dairy LLC, Plainfield, IA	HO	65	27,804	1,063	3.8	896	3.2	5.4	29,712
24		David & Julie Marcks, Black Creek, WI	HO	45	27,829	1,079	3.9	862	3.1	5.3	29,667
25 26		Dave Klamer, Conklin, MI Vil-Edge Farms, Fond du Lac, WI	HO HO	60 71	26,692 27,264	1,102 1,087	4.1 4.0	861 855	3.2 3.1	5.4 5.3	29,586 29,533
20		Roth Farms, Lowell, MI	HO	57	27,204	1,060	3.8	868	3.1	5.3	29,333
28		Jeff Wegner, Marion, WI	HO	68	25,944	1,096	4.2	879	3.4	5.4	29,401
29		Rolling Valley Jerseys, Waterville, IA	XX	25	24,025	1,148	4.8	864	3.6	5.5	29,332
30		McAllister Family Dairy LLC, New Vienna, IA	JE	41	22,301	1,193	5.3	847	3.8	5.6	29,221
<u>75 - 1</u> 1	<u>49 Co</u>		110	100	24.000	1 075	4.0	1 000	2.1	( 0	27 520
2	*	Nathan & Tajia Retzlaff, Shawano, WI Ambrosius Dairy Farm, Seymour, WI	HO HO	123 128	34,809 33,399	1,375 1,343	4.0 4.0	1,089 1,081	3.1 3.2	6.8 6.6	37,520 36,583
2	*	Todd Mark, Elmwood, WI	HO	139	31,563	1,343	4.1	1,065	3.4	6.5	35,329
4	*	Wilnore Holsteins, MIlton, WI	НО	83	32,190	1,267	3.9	1,022	3.2	6.3	34,752
5		New-Day Dairy Robert Strack, Athens, WI	HO	102	30,800	1,242	4.0	998	3.2	6.1	33,790
6		Tom & Sara Kruse, Dyersville, IA	HO	75	29,345	1,290	4.4	976	3.3	6.2	33,768
7		Production Unlimited LLC, Twin Lakes, WI	HO	123	28,685	1,263	4.4	970	3.4	6.1	33,156
8 9		Lyle & Carla Weaver, Goshen, IN Jonas Zimmerman, Wakarusa, IN	HO HO	142 127	29,539 26,958	1,243 1,335	4.2 5.0	950 875	3.2 3.2	6.0 6.1	33,024 32,797
10		Andrew Houlberg, Monticello, WI	НО	127	28,853	1,238	4.3	958	3.2	6.0	32,796
11		Charles & Kappy Koch, Tremont, IL	XX	143	25,891	1,317	5.1	942	3.6	6.2	32,728
12		Tracy Lacrosse & Dale Uecker, Forestville, WI	НО	88	29,772	1,220	4.1	937	3.1	5.9	32,702
13		Charles Maurer, Chilton, WI	HO	119	30,348	1,194	3.9	951	3.1	5.9	32,661
14		Kevin Martin, Warren, IL	HO	113	29,351	1,225	4.2	936	3.2	5.9	32,622
15 16		Jeff & Kate Hendrickson, Belleville, WI Reuben Nolt, Alta Vista, IA	HO HO	116 79	29,639 27,974	1,197 1,253	4.0 4.5	956 927	3.2 3.3	5.9 6.0	32,507 32,465
17		Larry & Jennifer Meyer, Chilton, WI	HO	111	30,935	1,255	4.5 3.7	927	3.3	5.8	32,405
18		Adam Delfosse, Brussels, WI	НО	78	30,426	1,161	3.8	964	3.2	5.8	32,359
19	*	Jeff & Melinda Walz, West Union, IA	HO	121	29,648	1,216	4.1	900	3.0	5.8	32,327
20		Terry Deutmeyer, Dyersville, IA	HO	109	28,636	1,235	4.3	908	3.2	5.9	32,303
21	<u>.</u>	Rick Demmer, Peosta, IA	HO	86	28,481	1,219	4.3	941	3.3	5.9	32,298
22	×	Carson Acres LLC, Hesperia, MI	HO	139	29,875	1,150	3.8	952	3.2	5.8	31,944
23 24	*	Bill & Bob Gruppen, Zeeland, MI Keith Wood, Kingston, MI	HO HO	86 137	30,893 28,410	1,115 1,178	3.6 4.1	951 945	3.1 3.3	5.7 5.8	31,816 31,774
24	*	Lance & Jonna Schutte, Monona, IA	НО	123	28,799	1,158	4.0	940 940	3.3	5.7	31,604
26		Eric Frahm, Frankenmuth, MI	HO	133	29,452	1,135	3.9	938	3.2	5.7	31,505
27		Ros-Lor Dairy LLC, Newton, WI	HO	110	30,236	1,143	3.8	890	2.9	5.6	31,498
28		Ron Brinks, McBain, MI	НО	133	28,972	1,142	3.9	943	3.3	5.7	31,477
29		Marvin Martin, Carson City, MI	HO	76	29,340	1,136	3.9	929	3.2	5.7	31,412
30 150 -	299 Co	Greg & Rosie Piggott, Waukon, IA	HO	99	28,241	1,158	4.1	936	3.3	5.7	31,391
<u>150 -</u> 1	*	Tom Kunkel, Cuba City, WI	НО	258	33,550	1,471	4.4	1,026	3.1	6.8	37,869
2	*	Mark Vanderhyde - Spartan Farm, Sparta, MI	НО	269	29,755	1,528	5.1	920	3.1	6.7	36,555
3		Dan & Tim Liner, Van Dyne, WI	HO	245	33,007	1,307	4.0	1,137	3.4	6.7	36,417
4		McAllister Family Dairy LLC, New Vienna, IA	HO	276	33,221	1,340	4.0	1,065	3.2	6.6	36,364
5		Tom Engelken, Earlville, IA	HO	231	31,904	1,346	4.2	1,050	3.3	6.6	35,896

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	3X	Herd	Breed	Size	Milk	Fat	F%	Prot.	<b>P%</b>	CFP	ECM
6	*	Brad & Laura Friesen, Barron, WI	HO	222	31,683	1,353	4.3	1,015	3.2	6.5	35,646
7		Lehman Dairy, Sherrill, IA	HO	250	30,536	1,358	4.4	1,015	3.3	6.5	35,336
8	*	Furseth Farms Inc, Stoughton, WI	HO	201	31,887	1,305	4.1	1,030	3.2	6.4	35,206
9		River Crest Dairy LLC, Greenwood, WI	HO	258	30,467	1,338	4.4	1,022	3.4	6.5	35,108
10	*	Whitetail Valley Dairy LLC, Waupaca, WI	HO	291	32,253	1,287	4.0	1,025	3.2	6.3	35,055
11	*	Neil Christianson, Shiocton, WI	HO	195	30,824	1,322	4.3	1,012	3.3	6.4	34,941
12		Dale Brinks, McBain, MI	HO	205	31,147	1,284	4.1	1,010	3.2	6.3	34,539
13		Marty Bahl, Dubuque, IA	HO	214	30,143	1,315	4.4	999	3.3	6.3	34,528
14		Jason & Sara Menne, Postville, IA	HO	159	30,071	1,318	4.4	985	3.3	6.3	34,437
15		Charles & Christopher Weber, Elmwood, WI	HO	189	28,424	1,336	4.7	987	3.5	6.4	34,146
16		Derek Brimeyer, Sherrill, IA	HO	166	32,023	1,230	3.8	1,004	3.1	6.1	34,081
17		Silvershea Holsteins LLC, Omro, WI	HO	177	31,816	1,249	3.9	974	3.1	6.1	34,029
18	*	Doug Fairbanks, Anamosa, IA	HO	267	30,420	1,271	4.2	966	3.2	6.1	33,797
19		Jerangle Dairy, Wakarusa, IN	HO	234	29,822	1,259	4.2	1,006	3.4	6.2	33,752
20		Bergan Dairy LLC, Elkader, IA	HO	248	32,639	1,177	3.6	1,015	3.1	6.0	33,680
21	*	Voight Acres, Shiocton, WI	HO	270	30,581	1,244	4.1	978	3.2	6.1	33,591
22		Golden Corners Dairy, Oconto Falls, WI	HO	288	29,765	1,259	4.2	986	3.3	6.2	33,580
23	*	Jay & Amy Krahn, Brillion, WI	HO	173	31,071	1,257	4.0	930	3.0	6.0	33,553
24		Brumm Dairy, LLP, Stacyville, IA	HO	270	29,129	1,282	4.4	966	3.3	6.2	33,517
25		David Dezeeuw, Falmouth, MI	HO	173	30,802	1,247	4.0	947	3.1	6.0	33,465
26		Charles & Kappy Koch, Tremont, IL	HO	168	27,831	1,295	4.7	969	3.5	6.2	33,284
27	*	Prairie View Dairy LLC, Fairbury, IL	HO	222	30,952	1,211	3.9	970	3.1	6.0	33,224
28		Blair Farms, Winslow, IL	HO	211	29,699	1,241	4.2	954	3.2	6.0	33,081
29		Greg & Jenny Conway, Lansing, IA	HO	187	28,568	1,268	4.4	914	3.2	6.0	32,754
30		Doug Roth, Mt. Pleasant, IA	HO	172	28,902	1,237	4.3	952	3.3	6.0	32,753
<u> 300 -</u>	499 C										
1	*	Kellercrest Reg Hol Inc, Mount Horeb, WI	HO	340	35,331	1,610	4.6	1,179	3.3	7.6	41,422
2	*	Koester Dairy Inc, Dakota, IL	HO	410	35,700	1,590	4.5	1,136	3.2	7.5	40,955
3	*	M & C Dairy, Lime Springs, IA	HO	396	35,082	1,484	4.2	1,122	3.2	7.1	39,273
4	*	Srnka Farms LLC, Algoma, WI	HO	490	35,052	1,450	4.1	1,092	3.1	7.0	38,593
5	*	Zoromski Family Farms LLC, Custer, WI	HO	475	32,765	1,434	4.4	1,106	3.4	7.0	37,745



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6	3X *	Herd Hulstein Brothers Dairy, Hull, IA	Breed HO	Size	Milk 31,775	Fat	F%	Prot.	<b>P%</b> 3.5	CFP 6.9	ECM
6 7	*	Huistein Brothers Dairy, Huil, IA Weishaar Family Farm, Westfield, WI	HO HO	312 351	31,775	1,400 1,372	4.4 4.1	1,105 1,032	3.5 3.1	6.9 6.6	36,974 36,591
8	*	Crandall Farms LLC, Battle Creek, MI	HO	355	33,422 32,160	1,372	4.1 4.3	1,032	3.1 3.3	0.0 6.6	36,293
9	*	Newell Farms, Trufant, MI	НО	473	33,328	1,372	4.0	1,075	3.2	6.6	36,242
10	*	Harmen Waterlander, Pine River, WI	HO	488	32,267	1,322	4.2	1,018	3.2	6.5	36,029
11	*	Curt Kohls, Gillett, WI	НО	477	31,716	1,364	4.3	1,035	3.3	6.6	35,953
12	*	Verhoef Dairy, Colby, WI	HO	487	31,788	1,365	4.3	1,015	3.2	6.5	35,836
13		Devon & Doreen Zimmerman, Claypool, IN	HO	332	31,869	1,319	4.1	1,051	3.3	6.5	35,542
14	*	Ed Walter Farm Inc, Oshkosh, WI	HO	329	31,608	1,347	4.3	1,012	3.2	6.5	35,521
15		Moonlight Dairy Farm, Alcester, SD	HO	441	28,349	1,451	5.1	957	3.4	6.6	35,382
16	*	Granitehill Dairy, Mosinee, WI	HO	400	30,968	1,349	4.4	1,011	3.3	6.5	35,330
17		Jeff Lambrecht, Kewaunee, WI	HO	334	28,524	1,474	5.2	898	3.1	6.5	35,285
18		Stuart Farms, Lowell, MI	HO	433	30,693	1,325	4.3	1,007	3.3	6.4	34,899
19	*	Stutzman Family Farms LLC, Conrath, WI	HO	368	31,258	1,312	4.2	973	3.1	6.3	34,655
20	*	Neal Burken, Galesville, WI	HO	475	31,042	1,311	4.2	967	3.1	6.2	34,526
21		Darren Rusch, Pound, WI	HO	396	30,085	1,337	4.4	953	3.2	6.3	34,442
22	*	Jeremy Seiler, Carson City, MI	HO	379	32,588	1,222	3.7	1,018	3.1	6.1	34,269
23	*	Hopeless Dairy Inc, Sheldon, WI	HO	447	28,242	1,389	4.9	920	3.3	6.3	34,261
24	*	Nichols Hill Dairy, Krakow, WI	HO	334	30,376	1,296	4.3	983	3.2	6.2	34,236
25	Ŷ.	Royal Vista Holsteins LLC, Pickett, WI	HO	398	31,137	1,261	4.0	995	3.2	6.2	34,124
26	Ŷ	Wesselcrest, Greeley, IA	HO	305	29,083	1,308	4.5	1,000	3.4	6.3	34,099
27	*	Ronald & Nancy Felten, St. Cloud, WI	HO	486	30,117	1,279	4.2	996	3.3	6.2	34,031
28 29	*	Craig Hedrich, Brillion, WI	HO HO	440 301	30,926	1,263	4.1 3.9	986 995	3.2 3.2	6.2	34,012
29 30		Olson's Best Dairy LLC, Shiocton, WI Bill & Lisa Holland, Apple River, IL	HO	356	31,459 31,489	1,236 1,232	3.9	995 996	3.2	6.1 6.1	33,905 33,871
	1 000		ΠŪ	300	31,409	1,232	3.9	990	3.2	0.1	33,071
<u>500 -</u> 1	*	Cows Lew-Max LLC, Belding, MI	НО	690	34,119	1,568	4.6	1,074	3.1	7.2	39,679
2	*	Top-Deck Farms, Westgate, IA	HO	722	33,293	1,587	4.8	1,047	3.1	7.2	39,448
3	*	Sand Creek Dairy LLC, Hastings, MI	НО	962	35,658	1,434	4.0	1,153	3.2	7.1	39,051
4	*	Blaser Farms Inc, Gillett, WI	HO	602	33,852	1,430	4.2	1,092	3.2	6.9	37,942
5	*	Loehr Dairy LLC, Mount Calvary, WI	HO	593	31,570	1,457	4.6	1,036	3.3	6.8	37,117
6	*	First Farms, Ionia, MI	HO	568	33,658	1,388	4.1	1,043	3.1	6.7	36,960
7	*	Gibbs Dairy, Waterville, IA	HO	611	31,688	1,439	4.5	1,028	3.2	6.8	36,861
8	*	Banner Ridge Farms LLC, Platteville, WI	HO	559	33,365	1,371	4.1	1,067	3.2	6.7	36,827
9	*	Harry & Gary Sanborn, Hubbardston, MI	HO	700	33,363	1,353	4.1	1,038	3.1	6.6	36,372
10	*	Heimans Holsteins LLC, Marshfield, WI	HO	576	31,648	1,392	4.4	1,027	3.2	6.6	36,232
11	*	Sugar Creek Dairy, Elkhorn, WI	HO	649	32,829	1,337	4.1	1,056	3.2	6.6	36,128
12	*	Grass Ridge Farm LLC, Pittsville, WI	HO	598	31,037	1,355	4.4	1,057	3.4	6.6	35,782
13	*	Douglas Scheider, Freeport, IL	HO	797	32,567	1,330	4.1	1,029	3.2	6.5	35,745
14	*	Joseph & Susan Rieden, Mount Calvary, WI	XX	633	31,838	1,333	4.2	1,036	3.3	6.5	35,599
15	*	Rusk-Rose Holsteins, Ladysmith, WI	HO	533	32,464	1,337	4.1	994	3.1	6.4	35,534
16	*	Maly Farms, Bryant, WI	HO	510	33,804	1,282	3.8	1,029	3.0	6.3	35,528
17	*	Tony Rosebrugh, West Branch, MI	XX	788	32,871	1,310	4.0	1,014	3.1	6.4	35,470
18 19	*	W-R-L Daniels Farm, Whittemore, MI Mike Zagata, Sebewaing, MI	HO	671	29,734	1,403	4.7	956 969	3.2	6.5	35,205
20	*	Car Mer Farm, Galena, IL	HO	709 576	31,395	1,352	4.3		3.1	6.4	35,187
20 21	*	Buning Dairy LLC, Falmouth, MI	HO HO	576 710	31,634 32,701	1,287 1,253	4.1 3.8	1,027 1,025	3.2 3.1	6.3 6.2	34,868 34,790
21	*	Pickart Dairy LLC, Malone, WI	HO	774	32,791 31,938	1,255	3.0 4.0	1,025 996	3.1 3.1	6.2	34,790 34,497
22	*	Oesch Swisslane, Alto, MI	HO	516	31,491	1,209	4.0	1,019	3.1	6.3	34,497
23 24	*	Egan Bros & Trevor Crain, New London, WI	HO	951	31,491	1,204	4.0 4.1	1,019	3.2	6.2	34,402 34,419
25	*	Brightside Dairy LLC, Greenleaf, WI	HO	848	32,812	1,197	3.6	1,063	3.2	6.2	34,363
26		Tim Greer, West Branch, MI	HO	633	29,946	1,371	4.6	889	3.0	6.2	34,348
27	*	Kevin & Diane Skinner, Junction City, WI	HO	548	30,975	1,285	4.1	987	3.2	6.2	34,320
28	*	Gene & Connie Duschner, Farley, IA	HO	617	30,678	1,272	4.1	1,021	3.3	6.3	34,315
29	*	Pebble Knolls Dairy, Brandon, WI	HO	806	30,409	1,265	4.2	1,027	3.4	6.3	34,182
30	*	Stempfle Holsteins, Maynard, IA	НО	911	30,538	1,288	4.2	981	3.2	6.2	34,170
<u>1,000</u>	<u>+ Cov</u>										
1	*	Shiloh Dairy, Greenleaf, WI	HO	3,163	33,993	1,526	4.5	1,113	3.3	7.2	39,392
2	*	Horsens Homestead Farms, Cecil, WI	HO	1,437	34,223	1,469	4.3	1,126	3.3	7.1	38,828
3	*	Fischer & Clark Dairy, Hatley, WI	XX	1,042	33,095	1,432	4.3	1,085	3.3	6.9	37,667
4	*	Nobis Dairy Farms, St Johns, MI	HO	1,004	35,275	1,382	3.9	1,064	3.0	6.7	37,571
5	*	Abel Dairy Farms, Fond du Lac, WI	HO	4,355	31,840	1,441	4.5	1,022	3.2	6.7	36,891
6	*	Five Star Dairy, Elk Mound, WI	HO	1,041	30,804	1,480	4.8	993	3.2	6.8	36,835
7	*	Wayside Dairy, Greenleaf, WI	HO	2,619	31,024	1,471	4.7	998	3.2	6.8	36,829
8	*	George Kasbergen, Mansfield, IL	HO	3,737	34,550	1,324	3.8	1,056	3.1	6.5	36,522
9	*	Fred & Pat Beer, Milford, IN	HO	1,055	32,678	1,382	4.2	1,028	3.1	6.6	36,447
10	*	Minglewood Inc, Deer Park, WI	HO	1,373	30,770	1,404	4.6	1,053	3.4	6.7	36,299
11		Lucky 7 Dairy, McBain, MI	HO	2,008	34,656	1,295	3.7	1,071	3.1	6.5	36,296

TOP HERDS BY SEE ECM

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	3X	Herd	Breed	Size	Milk	Fat	F%	Prot.	<b>P%</b>	CFP	ECM
12	*	Rosy-Lane Holsteins LLC, Watertown, WI	HO	1,798	30,731	1,417	4.6	1,020	3.3	6.7	36,202
13	*	Seidls Mtn View Dairy, Luxemburg, WI	HO	1,154	33,306	1,314	3.9	1,042	3.1	6.5	35,879
14	*	Quantum Dairy LLC, Weyauwega, WI	HO	3,801	30,228	1,403	4.6	1,008	3.3	6.6	35,765
15	*	Dean Meyer, New Albin, IA	HO	2,587	28,723	1,459	5.1	956	3.3	6.6	35,600
16	*	Brickstead Dairy LLC, Greenleaf, WI	HO	1,032	31,090	1,319	4.2	1,024	3.3	6.4	35,081
17	*	JMax, Fremont, MI	HO	1,634	32,469	1,296	4.0	990	3.0	6.3	34,974
18	*	Yonkman Dairy, McBain, MI	HO	1,885	31,481	1,312	4.2	952	3.0	6.2	34,567
19	*	EI-Na Farms LLC, Algoma, WI	HO	2,397	31,992	1,261	3.9	998	3.1	6.2	34,426
20	*	Todd Augustian, Kewaunee, WI	HO	1,161	31,222	1,254	4.0	1,021	3.3	6.2	34,260
21	*	United Pride Dairy LLC, Phillips, WI	HO	1,770	29,932	1,289	4.3	996	3.3	6.3	34,100
22	*	Rolling Hills Dairy LLC, Luxemburg, WI	HO	1,781	30,236	1,290	4.3	976	3.2	6.2	34,059
23		Schuh View Dairy LLC, Kaukauna, WI	HO	1,380	28,832	1,391	4.8	864	3.0	6.2	34,051
24	*	Cross Farms, Oshkosh, WI	HO	2,000	30,668	1,254	4.1	1,011	3.3	6.2	34,002
25	*	Blanchard Family Dairy, Charlotte, IA	XX	1,763	29,139	1,319	4.5	951	3.3	6.2	33,885
26	*	Pagels Ponderosa, Kewaunee, WI	XX	6,877	27,214	1,364	5.0	947	3.5	6.3	33,807
27	*	Many Blessings Dairy Inc, McBain, MI	HO	1,906	31,582	1,224	3.9	987	3.1	6.1	33,729
28	*	Oesch Swisslane, Alto, MI	HO	1,571	29,436	1,292	4.4	960	3.3	6.2	33,701
29	*	Sugar Creek LLC, New London, WI	HO	1,717	29,830	1,291	4.3	936	3.1	6.1	33,633
30	*	United Vision Dairy LLC, Mishicot, WI	HO	1,176	31,425	1,239	3.9	950	3.0	6.0	33,589
		-									

### Driving HERD SUCCESS through the female side

Brandon Biese, CentralStar Area Sales Manager, northeastern Wisconsin



For nearly six decades, Select Sires has led the industry in providing customer-satisfaction sires for our dairy producers. While our

brand and elite genetics may have become synonymous, we're currently entering an era of dominance unlike that I've ever witnessed, much to thanks of our NxGEN® program.

Sires may be our game, but to our customers, their females are the MVPs. As an on-farm consultant, I've developed a habit of printing Holstein USA's "High Ranking GTPI® Young Females" list on a monthly basis, highlighting the heifers sired by our bulls, and hanging it in my truck for customers to see. Lately, the entire list glows in yellow highlighter.

While Select Sires brands have routinely sired over half of the heifer calves on the list, this past November, we set a record siring 157 of the top 200 GTPI heifers in the U.S. Of those 43 calves not directly sired by a bull from our program, every single calf had a Select Sires bull in their immediate pedigree, many of which are granddaughters of a bull from our lineup. Of those sired by our bulls, a vast majority come directly out of NxGEN sires. In fact, this past August, popular NxGEN sire 7H016276 SHEEPSTER sired nearly half the list, himself!

While historically this level of influence may have been chalked up to chance, that is certainly not the case today. The NxGEN program has allowed our sire department and customers exclusive access to the industry's best sires, who continue to turn out high-testing females for our customers. Moving forward, I expect NxGEN sires such as 7H016276 SHEEPSTER, 7H016485 SUNDANCE, 250H016741 HARDIN, 7H016735 KARL, and numerous others to continue to dominate the heifer charts moving into 2025.

The takeaway? It's not just about using the top bulls, it's about their ability to transmit to their daughters, and the real game-changers are the NxGEN sires. These females are proof of the genetic impact NxGEN delivers, driving tangible improvements. By joining NxGEN, producers can see real, measurable benefits in the females who make up their herds.









Use one of these alone, or for maximum protection, as part of an integrated pest management program!



#### A. Intersect Gold Pour-On

Controls lice and flies on dairy cattle (lactating and non-lactating), beef cattle and calves; controls keds on sheep and lambs when applied as a pour-on; controls flies on horses when applied as a wipe-on, pour-on or spray. Can be used as a pour-on, mist spray or in back rubbers.

#### B. ULD<sup>®</sup> BP-100 Premise

Oil-based solution, can be used in foggers. Broad spectrum treatment, can be used for many pests, as well as indoor and outdoor application as a direct space, area or contact spray.

#### c. Evergreen® Pyrethrum Concentrate Premise

Water based, broad-spectrum insecticide that can be used in **OMRI-certified organic** facilities. Contains pyrethrum, a botanical insecticide. Use indoors in food and non-food areas, and in and around livestock facilities. Rapidly degrades in sunlight with no residual activity. Offers fast, effective control of insects including ants and cockroaches.



### GET MORE

#### Lameness a major cause of herd losses—Why **RETHINKING** selection matters

Conventional thinking often feels reliable, but is it always the best approach? Despite efforts to improve traits like Foot Angle and Feet and Leg Composite (FLC), lameness remains a top reason cows leave the herd, suggesting the indirect-selection methods historically used may not be effective enough.

Recent research highlights traditional conformation traits don't always translate to better lameness resistance. Fortunately, tools like Zoetis' Z-Lame offer a more targeted approach. Z-Lame uses data from CLARIFIDE-tested dairy farms to directly assess lameness resistance through standardized transmitting abilities (STAs). Cows with higher Z-Lame scores not only show stronger resistance to lameness but also tend to excel in traits like Productive Life (PL) and Livability (LIV).

If your current strategy relies heavily on traditional-confirmation traits to combat lameness, it may be time to rethink your approach. To **get more** out of your genetic selection to improve feet and legs, talk with your local CentralStar team.

Z-Lame for improved hoof health						
	Productive Life	Cow Livability				
F&L Composite	-0.10	-0.04				
F&L Score	-0.21	-0.19				
Rear Legs SV	-0.12	-0.01				
Rear Legs RV	-0.18	-0.13				
Foot Angle	-0.15	-0.26				
Z-Lame	0.22	0.23				

Correlation between F&L traits and longevity. All bulls with ≥ 100 PL daughters and Zoetis Lameness, 1,160 bulls.



# How much of the *Plottle* are you missing?

DHI data fills the gaps, giving you a complete picture of each cow's performance. Get the insights to make smarter, more profitable decisions with routine DHI testing.

#### Spotting ketosis & transition troubles

Ketosis can reduce milk production by 300-400 pounds per lactation, costing about \$289 per cow. DHI identifies fat/protein inversion trends, enabling earlier interventions.<sup>23</sup>

#### **Early mastitis detection**

Each 100,000 increase in SCC more than 200,000 costs 1.5 pounds of milk per cow, daily. DHI tracks SCC to identify risks. A case of clinical mastitis within 30 days can cost \$444.<sup>1</sup>

### Reproduction performance

Each extra open day costs \$3-\$5 per cow. DHI tracks days to first service and heat detection accuracy, boosting pregnancy rates.<sup>7</sup>

#### Late-lactation insights

Late lactation is an opportunity to optimize dry-off protocol and screen for diseases like Johne's. Johne's can reduce milk production, extend calving intervals, and increase mortality. Approximately 40% of cows showing clinical signs of Johne's transmit it to their calf in utero, with asymptomatic cows posing a 15% risk. Early detection helps protect the next generation.<sup>4</sup>



#### **Genetic potential**

DHI testing contributes data for accurate PTA evaluations, guiding genetic selection to improve future herd performance.

#### **Keep rations on point**

Feed costs make up to 60% of expenses, so a 1% boost in feed efficiency can save thousands each year. DHI data helps calculate income-over-feed cost per cow, supporting ration and culling decisions.<sup>5</sup>

#### Keep data fresh

Missing data can cause costly errors like delayed breeding or incorrect dry-offs. Monthly DHI testing fills data gaps, preventing \$50-\$100 in annual income loss per cow.<sup>9</sup>

#### Culling decisions, inventory management

DHI identifies poor performers early, reducing feed and housing costs and boosting herd efficiency by 5-10%.<sup>6</sup>

#### Reduce labor, improve performance

Pregnancy and disease testing on DHI samples reduces time handling cows and in headlocks, giving cows more rest. Cows that rest more produce more. Every lost hour of rest can reduce milk yield by 3.5 pounds per cow, daily.<sup>8</sup>





Early-lactation monitoring

Reaching peak milk is critical, with each extra

pound adding 200-250 pounds per lactation.

DHI testing in early lactation helps manage peak

milk, confirm dry-cow-treatment success, detect

metabolic disorders, and flag costly issues like

milk fever or retained placenta, which can cost \$100-\$300 per cow if untreated.<sup>2</sup>

<sup>1</sup>Preventive Veterinary Medicine, Vol. 122, Issue 3, 12/2015, Pages 257-264; <sup>2</sup>https://extension.umn.edu/dairy-milking-cows/transition-dairy-cows#fresh-cow-healthand-events-1741212; <sup>3</sup>https://www.thebullvine.com/news/fresh-milk-fat-protein-ratio-identify-ketosis/, <sup>4</sup>https://g

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MSU Dairy Education offers both 2 and 4 year degree programs that provide in depth, hands on, practical knowledge and experiences in dairy production and management. To learn more about the programs and the opportunities we have to offer, contact us today to set up a visit!

Joe Domecq | Dairy Education Coordinator domecqjo@msu.edu | 517-353-7855

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Michigan State Dairy Education

Develop leadership skills by running for the executive board

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Connect with other students who are passionate about the dairy industry Help run student and industry events

### GET MORE

### A genetic strategy that **BOOSTS** calf health

On-farm results highlight while environment and nutrition are critical for calf rearing, genetics play a key role in health. With U.S. dairies experiencing calf loss rates of 4-30%, it's essential to ensure robust health for calves to reach their genetic potential and successfully transition to the milking herd.

The Calf Wellness Index<sup>™</sup> (CW\$<sup>™</sup>) focuses on calf wellness traits, including livability, respiratory disease, and scours, estimating the impact of these traits on expected lifetime profitability. Although calf-wellness traits have lower heritability than production traits, on-farm evidence demonstrates improvement.



Integrating calf-wellness traits into genetic selection can improve non-completion rates and create more resilient heifers. To learn more about calf-wellness traits and how you can leverage them to **get more** out of your calf-rearing program, contact your local CentralStar team.

Average reliability and average, minimum and maximum genetic values for calf-wellness traits*									
Calf wellness traits <sup>23</sup>	Average reliability	Average (CW\$)	Minimum (CW\$)	Maximum (CW\$)					
Calf livability	42	100	66	116					
Calf repiratory	36	100	83	116					
Calf scours	39	100	85	117					

\*Numbers reflect data from reference population of animals under two years of age.

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### GET MORE

### Calf immunity matters: Tips for **PESILIENCE** year-round

As seasonal challenges arise, strengthening calves' immune systems is critical, with high-quality colostrum providing a strong foundation. Often, the availability of colostrum diminishes during fall and winter due to shorter daylight. To combat this, bank high-quality colostrum or utilize colostrum replacers or supplements. Research indicates calves receiving a second colostrum feeding experience higher growth rates, lower illness risks, and improved milk production during their first lactation.

Respiratory illnesses pose greater risks during cooler months, affecting not just heifer calves, but also beef x dairy and beef calves. To minimize challenges: ensure clean, dry bedding; provide a high-nutrition diet; and keep vaccinations up to date. Additionally, incorporating direct-fed microbials can enhance gut health and boost immune function, providing extra protection for your calves.

Genetics set the potential for your dairy heifers, beef calves, and beef x dairy calves, but it's the care and management that drives their actual performance. Connect with your CentralStar team to learn how strengthening immune systems from birth through weaning helps **get more** out of your calf program year-round.



Percent absorption of antibodies by hour after birth

Efficiency of absorption declines from birth, particularly after 12 hours. Feeding may induce earlier closure, but there is little colostral absorption after 24 hours of age, even if the calf is starved. This principle for timing of colostrum feeding holds true whether the colostrum is directly from the first milk of the dam or supplied by hand feeding previously-obtained colostrum.<sup>2</sup>

45



#### Heat Stress and Mycotoxins: A Profitrobbing Combination

Heat stress and mycotoxin contamination are harmful individually; however, they are more of a challenge when experienced together by dairy cattle. Heat stress occurs when cows cannot dissipate the heat they produce and try to compensate physiologically in ways that result in less milk and poorer reproduction. Why does this happen?

Heat stress results in a cascade of events whereby cows attempt to alleviate internally produced heat via increased respiration; however, there are also consequences including reduced feed intake, lowered nutrient intake, altering of digestive pH, increased digestive pathogen levels and leaky gut syndrome. The immune system attempts to defend an animal during a nutrient restricted time, and nutrients are re-partitioned from productive purposes (growth, milk production and reproduction) to simply keeping the animal alive.

Consuming a mycotoxin-contaminated diet compounds the negative heat stress effects as another inflammationsource to which the cows must respond, and once again diverting nutrients from profitable utilization.



How do we protect our cows from this deadly duo? Cooling systems involving air movement and moisture for evaporative cooling are essential during heat stress periods. It is also critical to feed palatable diets with additions to restrict wild yeast and mold growth from metabolizing nutrients in the TMR as well as creating internal issues. Dairy producers and nutritionists also cite supplementing Select DTX<sup>™</sup> as a profitable practice when feeding a mycotoxin-contaminated diet during heat stress periods. Independent research indicated that DTX feeding may protect cows from harmful mycotoxin effects and with the reduced inflammation enable nutrients to be re-partitioned to profitable uses.

Ask about the role of DTX in your strategy to defend and protect against heat stress and mycotoxins.



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