

An Introduction to



Thursday May 22, 2014

Kevin Haase

***NorthStar Cooperative – DHI
Manager***

Introduction

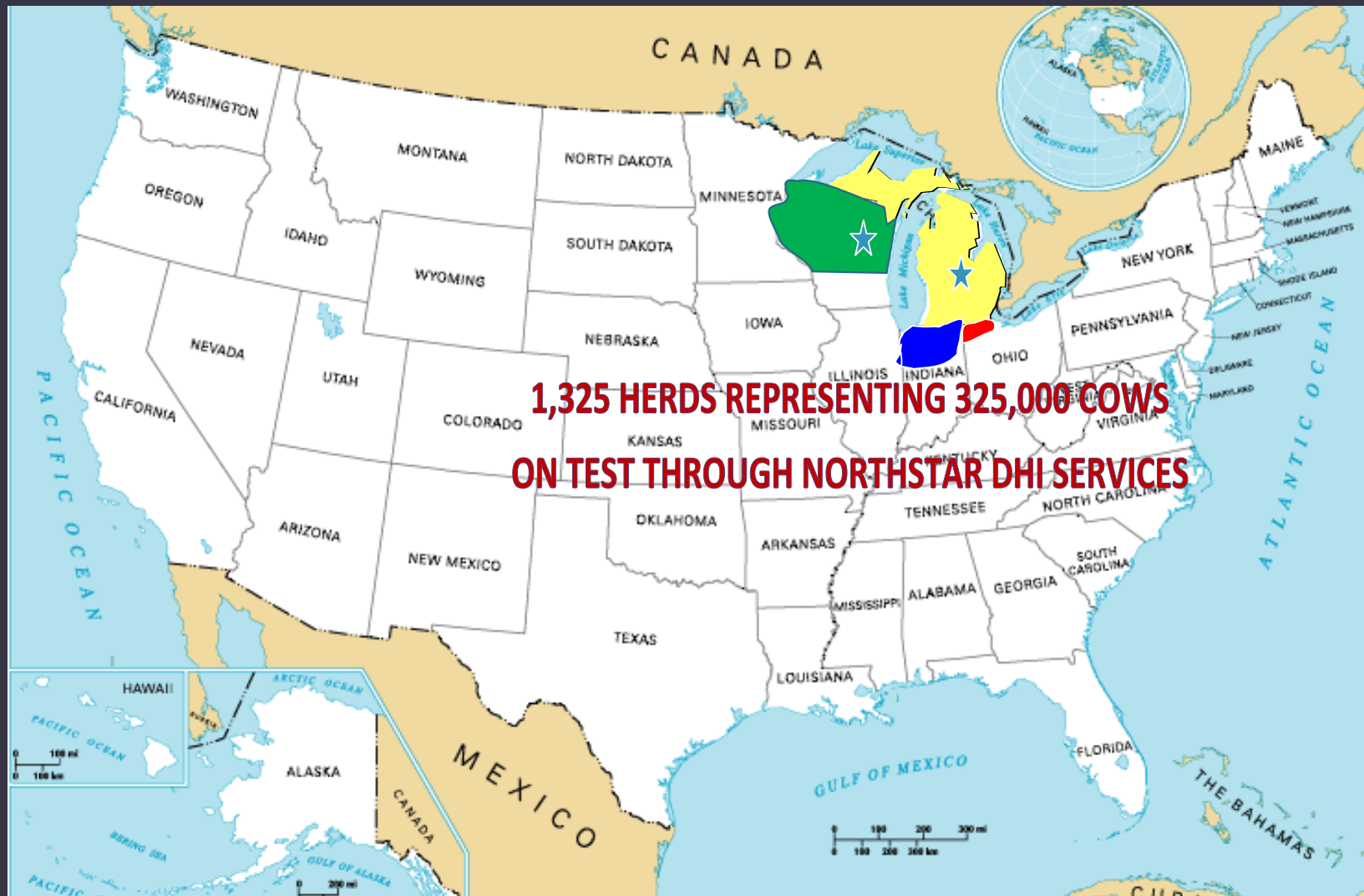


AntelBio®

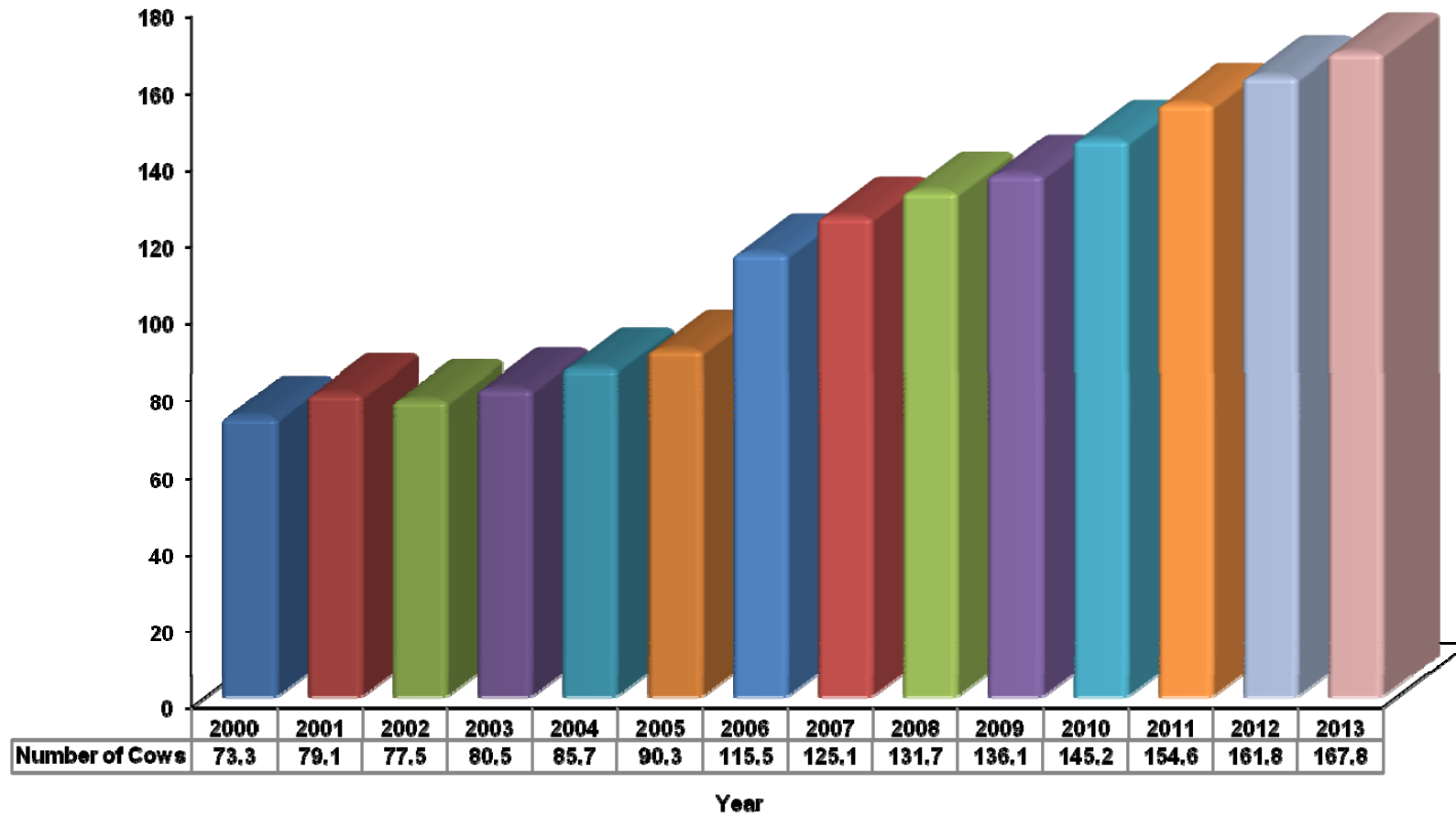
DHI

- 240 Total Employees
- Serving MI, IN, Northern WI
- 8000 Customers
- \$26 Million in Annual Sales





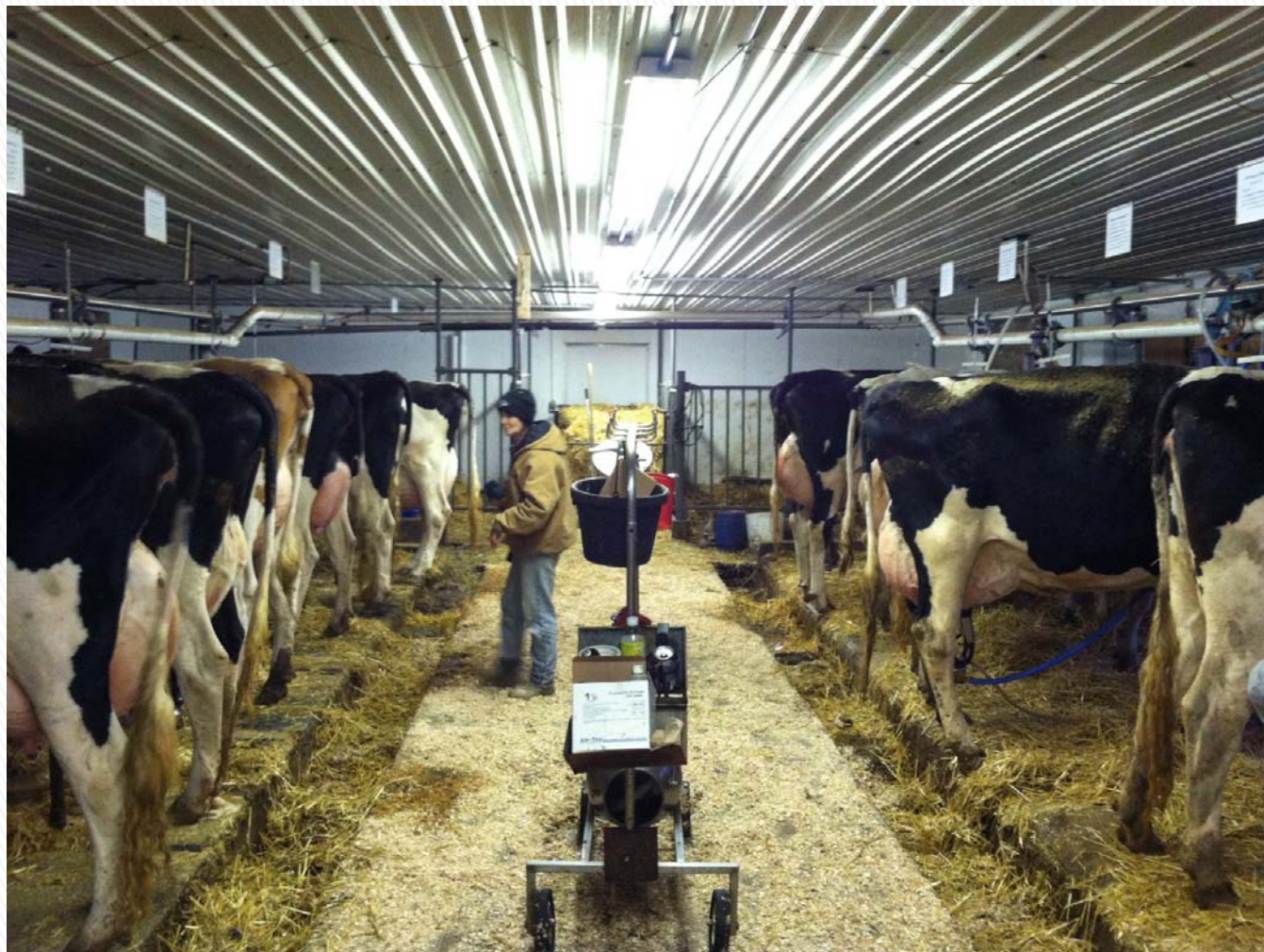
Average Size of DHI Herds



Continuous Years of DHI Growth!

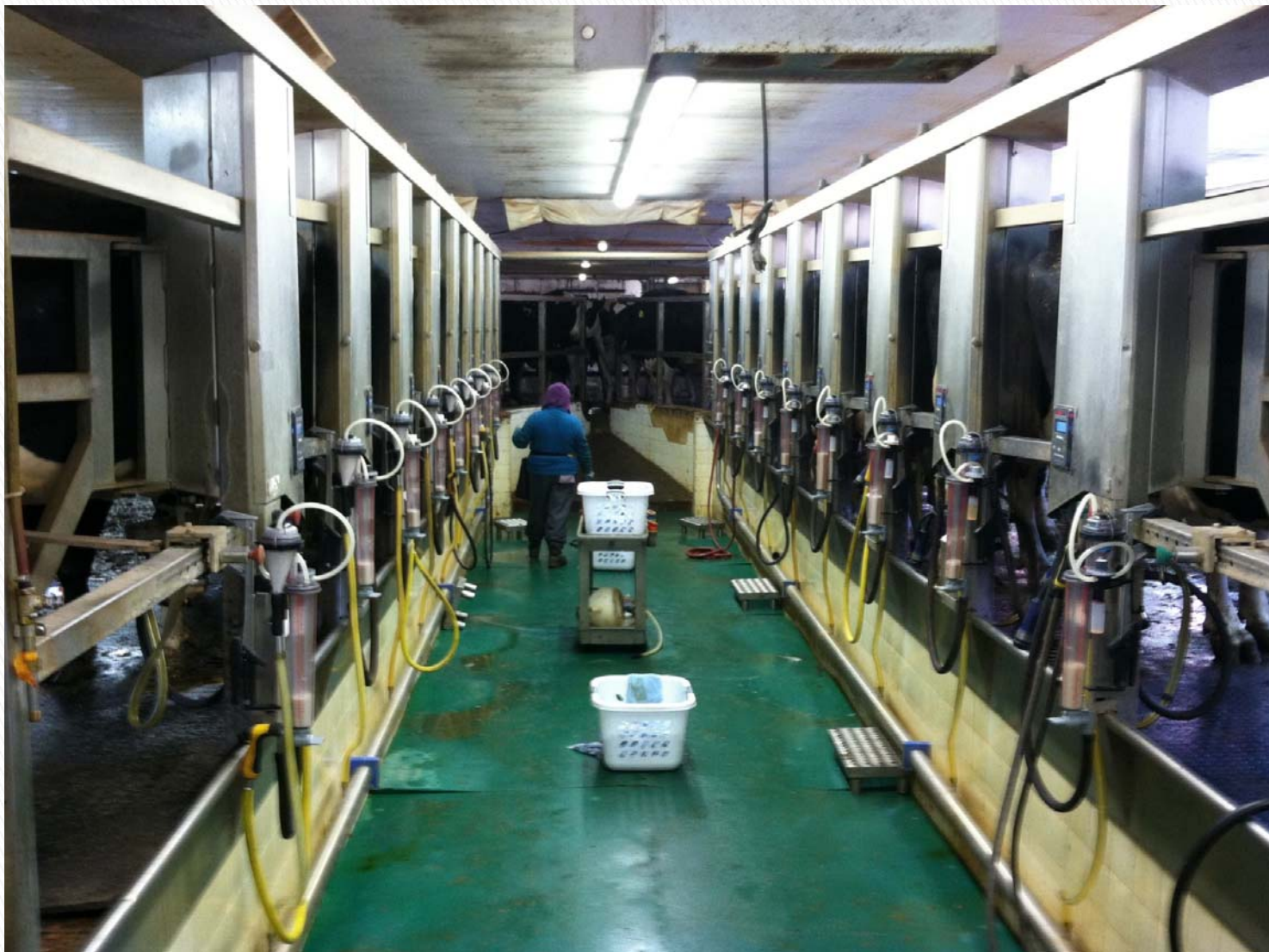
<u>Year</u>	<u>Herds</u>	<u>Enrolled Cows</u>	<u>Monthly Samples</u>
2000	1,197	169,433	130,463
2001	1,322	185,749	148,224
2002	1,257	180,485	152,849
2003	1,228	186,816	153,753
2004	1,478	219,649	188,737
2005	1,486	228,913	207,073
2006	1,497	235,686	192,979
2007	1,440	251,595	197,028
2008	1,363	265,127	206,138
2009	1,306	261,507	201,956
2010	1,300	274,696	212,280
2011	1,296	290,335	225,743
2012	1,287	298,470	232,761
2013	1,316	323,622	249,207
2014	1,336	336,634	276,793

















Challenges

- ▶ **Speed**
 - Larger pen size increases milking time
 - Less time to test
- ▶ **Variable milkings**
 - 2x, 3x, 4x or more
- ▶ **Computer data exchanges**
- ▶ **Proper trained workforce for large herds**

Pre-milking computer work

- ▶ **Interface w/ on-farm dairy management system for ID & milk weights**
- ▶ **Manual Systems**
 - Proper cow information for test day procedures i.e. – Dates & Cow Data
 - Extra health & management data requested i.e. – Pregnancy, Johne's, BVD, Leukosis, MUN, Mastitis, Progesterone, Neospora, NEFA
 - Sampling format – names, numbers, milking order, etc.
 - Print test day worksheets – If needed

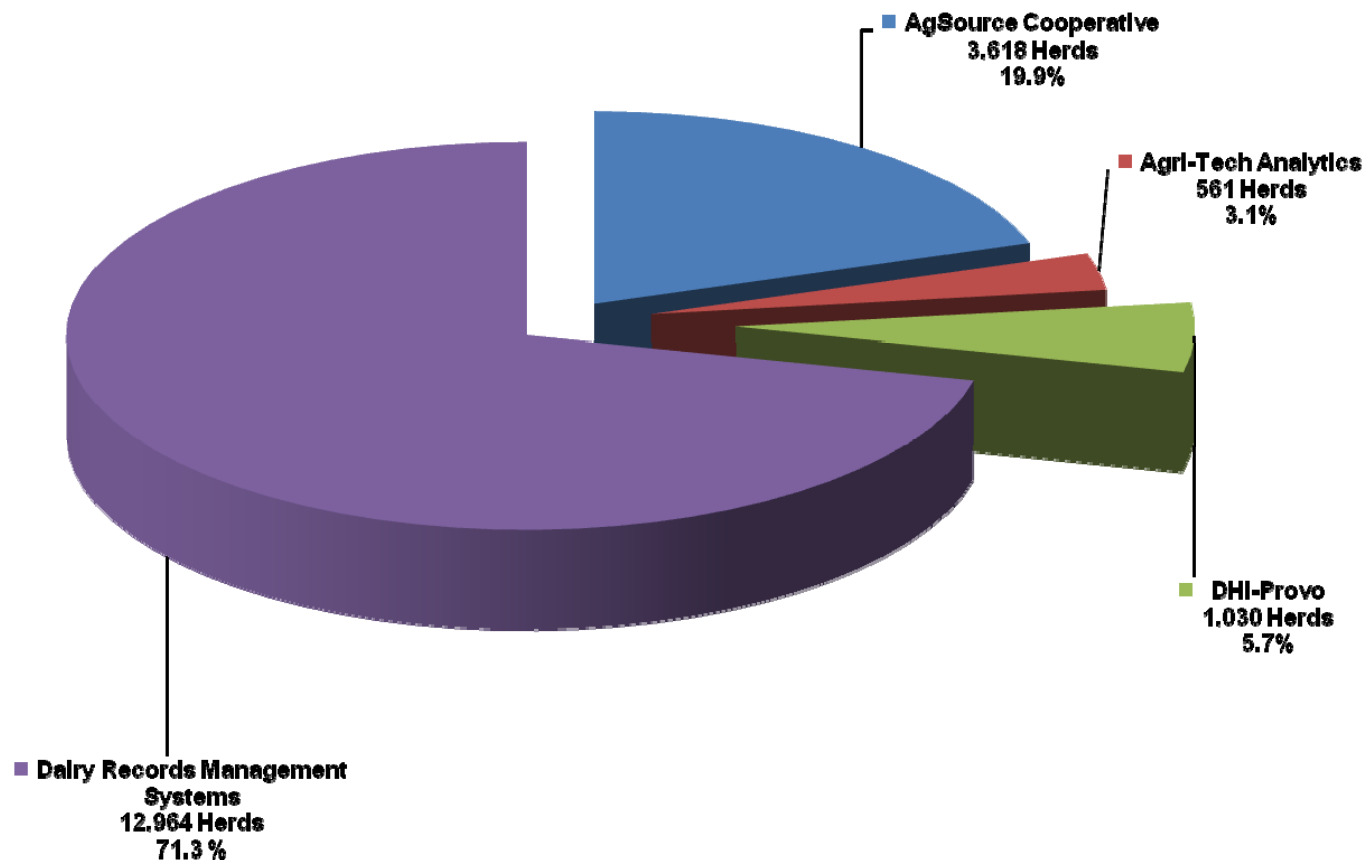


Dairy Management Software

Economical * User friendly * Top-notch on-farm support

*“We’ve found PCDART to be very easy
to use and the support is great.”*

DHI Herds by DRPC During 2013



DAIRY MANAGEMENT

- AFI FARM
- COW SEARCH
- DAIRY COMP-305
- DAIRY PLAN
- DAIRY QUEST
- DELAVAL (ALPRO)
- DELAVAL (DELPRO)
- HERDMETRIX
- LELY

MILK RECORDING SYSTEM

- AFIKIM – AFMILK
- DELAVAL – ALPRO/DELPRO
- BOUMATIC – AGRICOMP
- AFIKIM – AFIFARM
- GEA – DAIRY PLAN
- GERMANIA
- DAIRY MASTER
- BECO
- LELY

HEAT MONITORING SYSTEM

- SELECT DETECT
- SCR HEATIME HR
- SCR
DATAFLOW/HEATIME PRO
- AFIFARM
- BOUMATIC HEATSEEKER II
- DELAVAL – ALPRO
- ENGs – TRACK A COW
- SENSOOR
- AI24

Larger herds bring challenges:

- ▶ More meters/different samplers
- ▶ Proper training
- ▶ More DHI specialists needed per herd
- ▶ Robotic Specialists





























817 - Milking Report - Electronic Milk Meter Monitoring Report - Date 04-14-2014

817 - Milking Report - Electronic Milk Meter Monitoring Report - Date 04-14-2014

Electronic Milk Meter Monitoring Report (EMMR) Detail

Percent Difference From Expected By Milking

***** Date/Milking Number *****										
Stall	04-14	04-14	04-14	04-13	04-13	04-13	04-12	04-12	04-12	04-11
No.	1	2	3	1	2	3	1	2	3	1
1	+1.8	+10.5	+4.8	+0.4	+0.8	0.0	+3.4	+0.6	+2.7	+0.3
2	-4.0	+4.3	+2.6	+0.6	+2.7	-2.7	+0.9	-1.0	+1.2	-4.1
3	-2.6	0.0	+0.3	-7.0	+1.5	-0.4	-0.8	-2.8	-2.3	+0.9
4	-4.4	-3.1	-0.5	-3.4	-0.7	+1.7	+0.1	-3.0	-1.0	+3.3
5	-2.1	-0.8	-0.5	+0.6	-0.9	+3.8	-4.2	+1.1	-0.5	-8.1
6	-4.3	+4.1	+2.1	+3.3	+0.9	+3.5	-1.6	+4.4	+2.6	+6.2
7	-0.9	-5.8	-1.3	-0.8	-1.5	+3.4	+2.9	+0.1	+0.5	+0.2
8	+1.7	-2.1	+0.1	+2.0	-3.0	+0.0	-2.2	-6.0	+1.9	-0.3
9	-0.3	+2.6	-5.5	-0.3	-1.0	+1.3	-1.8	+1.2	+1.6	-1.7
10	+1.9	+0.1	-0.7	+4.7	-2.2	-0.8	+0.3	+1.1	+4.3	+4.7
11	-4.5	+2.0	-1.9	-1.9	+1.3	-1.3	+1.2	-1.2	-0.8	+0.8
12	+2.4	-4.9	-2.1	+0.3	+1.7	+1.3	+2.3	-1.2	-1.8	-0.2
13	-0.7	+2.8	+2.9	-0.4	+0.3	-4.6	-2.0	-4.4	-2.8	-1.6
14	+1.0	+3.2	+0.8	+1.8	+4.6	-1.2	-1.1	+4.6	+4.8	+0.5
15	+2.4	+0.8	-3.6	-0.4	-1.5	-0.6	+7.2	+3.1	+2.0	+4.8
16	-1.1	+0.5	+2.8	-1.4	+1.2	-0.6	-2.2	+2.0	-2.1	+0.1
17	-0.9	+3.0	-0.9	-4.1	-1.1	+1.3	-1.1	-0.5	-0.3	+0.1
18	+2.0	+0.3	+0.6	-1.9	+2.3	-2.9	-1.0	-0.2	+1.9	+0.1
19	+0.5	-1.5	-1.5	-2.6	-2.2	-1.4	-1.5	+1.5	+1.8	-0.1
20	+1.6	-0.2	+2.9	+0.6	+0.3	+1.7	+4.3	-1.0	-6.8	+0.7
21	-0.7	-2.9	+5.3	-0.5	+0.7	-1.0	-0.5	+2.4	-1.8	-2.0
22	+4.8	-1.9	-1.6	+5.6	+1.1	+2.5	+2.4	-1.6	+2.2	+0.3
23	+1.5	-4.7	-3.1	+1.3	-1.6	-0.4	+1.1	-1.3	-3.8	-1.4
24	-3.9	-1.9	+0.4	+0.7	-5.3	-4.1	-3.8	+1.6	-3.7	-4.0
AV.	-0.4	+0.2	+0.1	-0.1	-0.1	-0.1	+0.1	0.0	0.0	0.0

Detail information for each milking for each cow is stored in file MeterDtl.csv
File is located in C:\PCDART\34731026. Open file with spreadsheet program.





Northstar DHI Services
Electronic ID Verification

Herd Owner: _____

Herd Number: _____

Technician : _____

Technician Number: _____

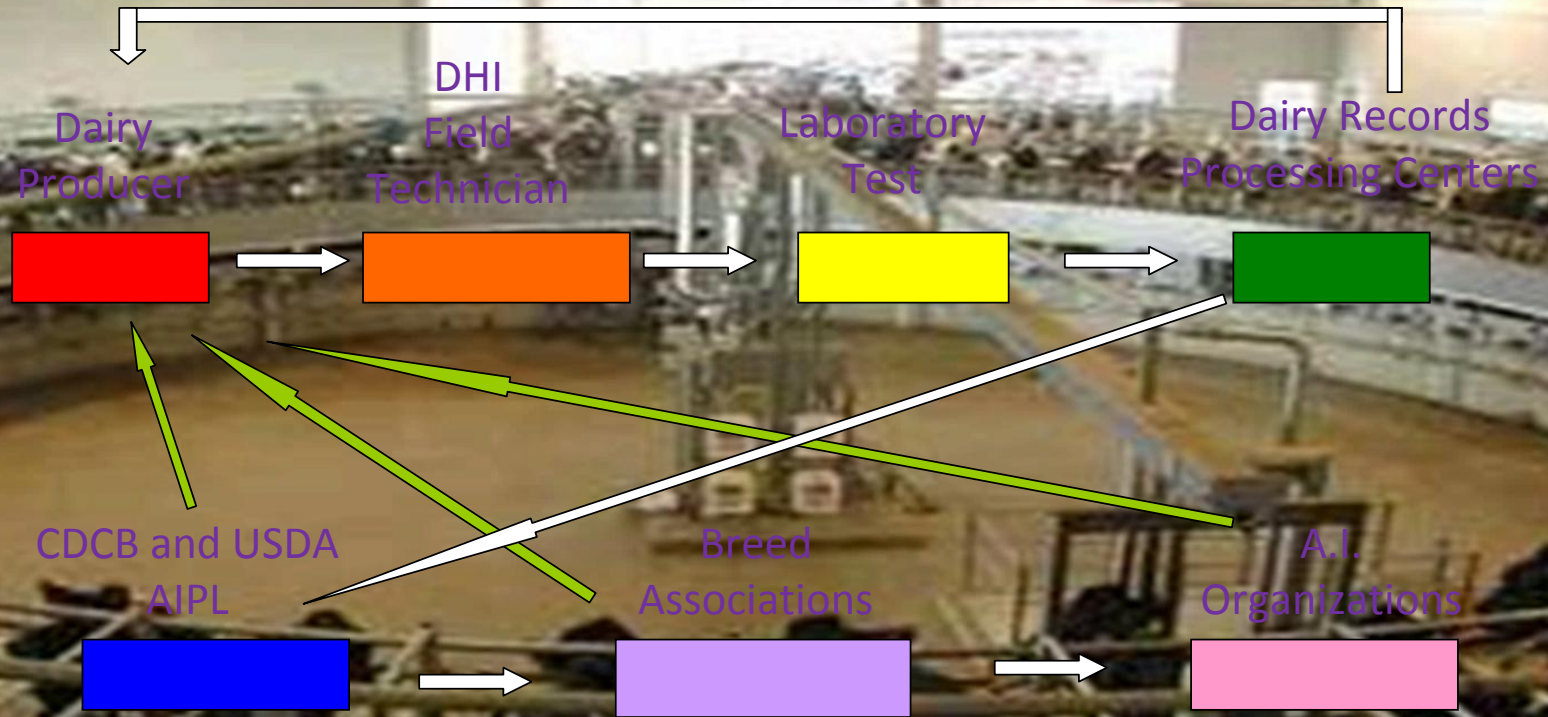
Date of Test: _____

Stall #	Elect. ID	Visual ID	Correct	Stall #	Elect. ID	Visual ID	Correct
1				1			
2				2			
3				3			
4				4			
5				5			
6				6			
7				7			
8				8			
9				9			
10				10			
11				11			
12				12			
13				13			
14				14			
15				15			
16				16			
17				17			
18				18			
19				19			
20				20			
21				21			
22				22			
23				23			
24				24			
25				25			
26				26			
27				27			
28				28			
29				29			
30				30			
31				31			
32				32			

Correct Identification _____ out of _____ stalls % Correct _____

G:\Customer service\DHI\QCS\Electronic ID Verification

U.S.A. DHI Data Transfer



RFID Improves Test Day Accuracy

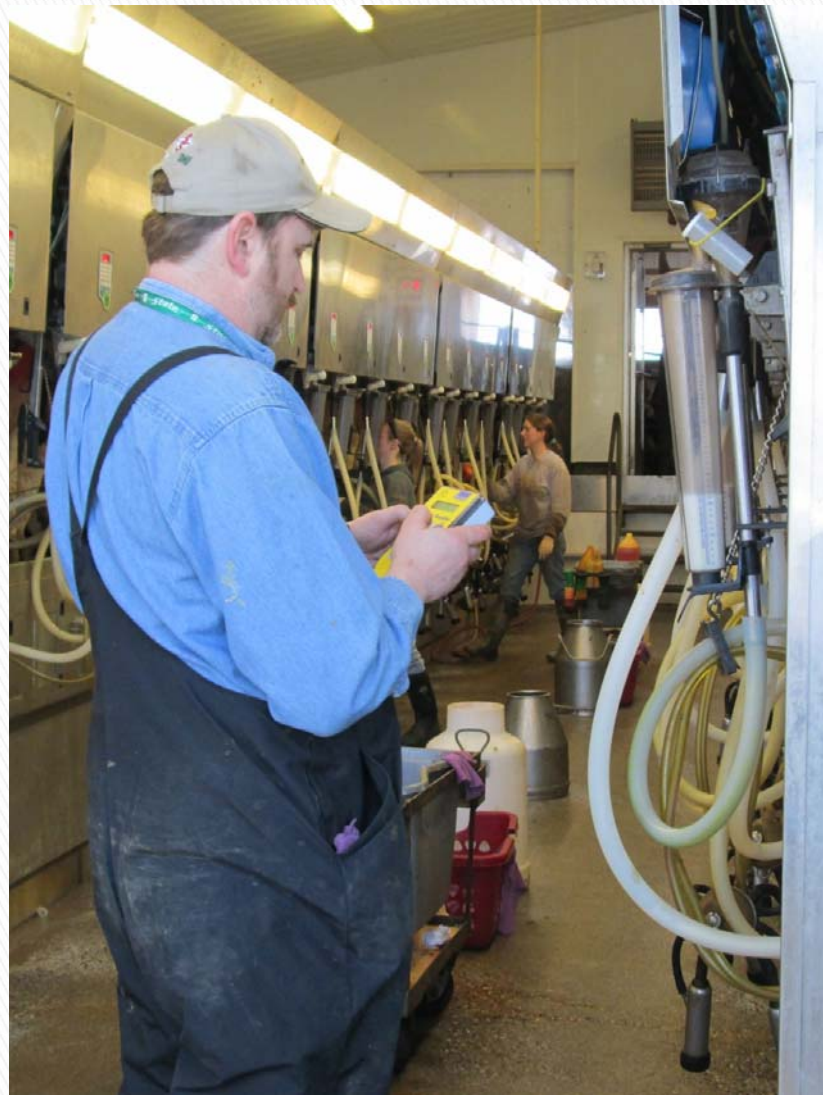
- Eliminate issues with:
 - Dirty visual tags
 - Transposition of visual tag numbers
 - Transposition of cow order in the parlor
- Reduce errors by:
 - Only handle the data once
 - Real-time cow side information is available







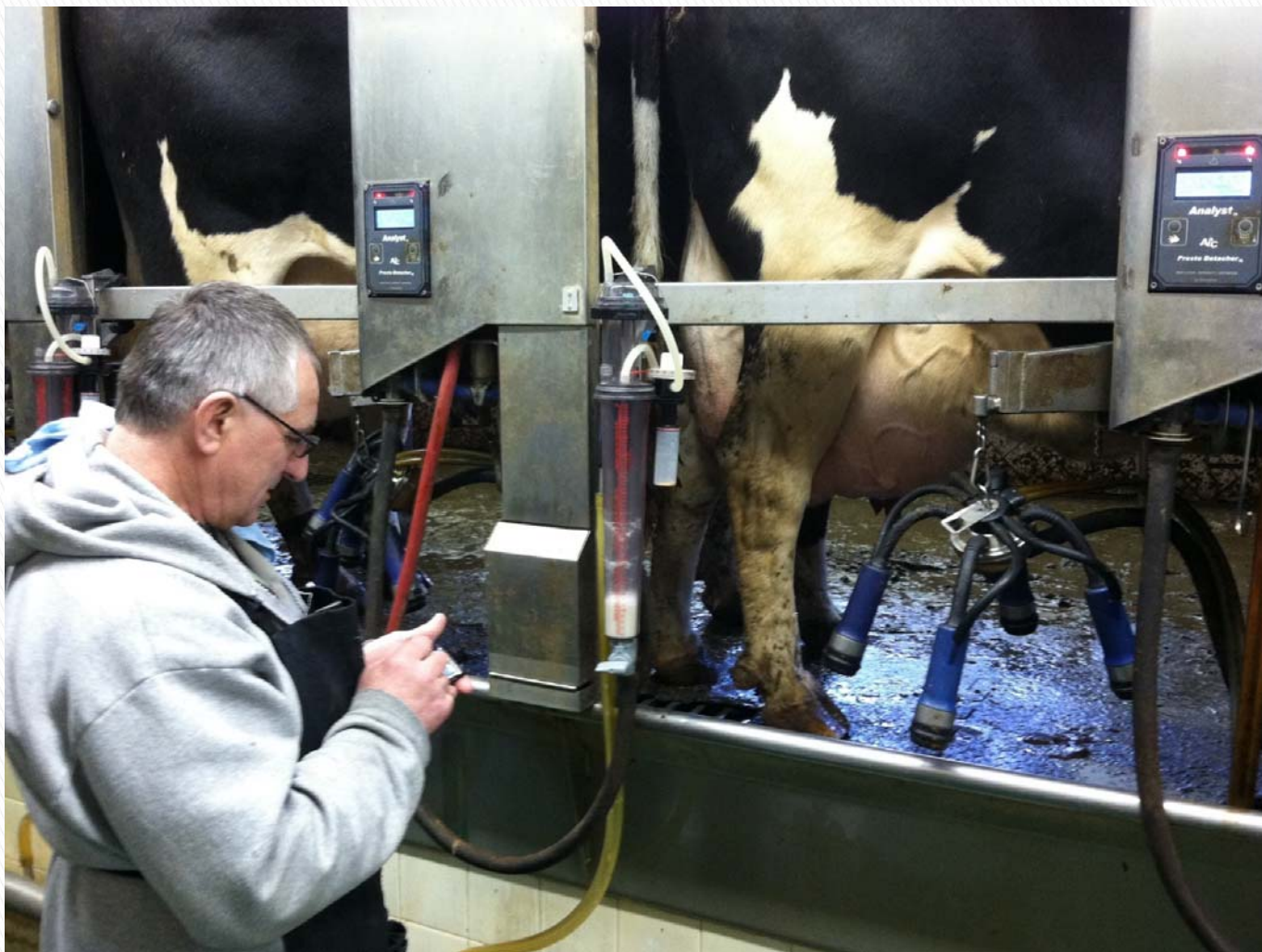




Continued challenges for the future:

- ▶ ICAR approved meters
- ▶ Correct Cow Identification
- ▶ Parlor Speed
- ▶ Animal behavior-disposition and temperament
- ▶ Expanded health diagnostic testing













Test routine DHI milk samples for:

- Johne's
- Leukosis
- BVD
- Contagious Mastitis
- Progesterone
- Neospora
- Pregnancy



S	F	R	G	T	S	I	H	J	F	Z	S	J	G	Z
C	J	V	A	J	U	V	B	V	D	I	T	I	S	D
T	G	X	D	W	Q	H	C	K	T	U	A	G	V	W
N	K	S	M	S	X	I	A	O	K	M	P	O	A	W
G	Q	T	K	G	D	B	T	N	S	A	H	L	G	W
O	P	R	E	G	N	A	N	C	Y	K	N	N	Y	G
N	N	E	C	U	L	E	U	K	O	S	I	S	B	J
E	B	P	J	D	F	L	E	T	Y	Q	P	A	I	O
O	M	Y	C	O	P	L	A	S	M	A	H	Z	U	H
S	V	T	H	Z	N	E	F	A	I	N	I	Z	A	N
P	O	R	U	L	Q	J	K	V	H	T	S	N	V	E
O	A	Z	Y	L	W	Y	J	S	V	E	W	D	L	S
R	Q	M	Z	B	M	R	R	Z	K	E	H	X	A	B
A	L	X	X	B	R	F	E	F	J	O	U	B	Q	R
Z	I	U	V	T	E	T	B	K	U	Z	J	E	K	Y

Individual, group and whole-herd test options with milk, blood and tissue samples. To learn more, call 800.631.3510 or talk to your [NorthStar](#) specialist.

MILK PREGNANCY TEST



NorthStar Cooperative
INC.



AntelBio

DHI

PREGNANCY
CONFIRMATION
MADE EASY

Mastitis DNA Testing

Advantages of DNA-based mastitis detection over culture:

Speed • Identify organisms in as little as 24 hours

Flexibility • Test treated cows & preserved samples

Versatility • Detects most major mastitis causing organisms in one assay

Convenience • Allows sample analysis on routinely collected DHI samples

Sensitivity • 5-10 time greater; detects dead/dying organisms that result in 'no growth' on culture

Cost Savings • Samples can be effectively pooled, reducing costs

Target Organism (Gram Staining)	Contagious 3	Complete 16
<i>Staphylococcus aureus</i> (+)	X	X
<i>Staphylococcus species</i> (+)		X
<i>Streptococcus agalactiae</i> (+)	X	X
<i>Streptococcus dysgalactiae</i> (+)		X
<i>Streptococcus uberis</i> (+)		X
<i>Escherichia coli</i> (-)		X
<i>Corynebacterium bovis</i> (+)		X
<i>Enterococcus faecalis</i> & <i>faecium</i> (+)		X
<i>Klebsiella pneumoniae</i> & <i>oxytoca</i> (-)		X
<i>Serratia marcescens</i> (-)		X
<i>Arcanobacterium pyogenes</i> & <i>Peptostreptococcus indolicus</i> (+)		X
Staphylococcal beta-lactamase gene		X
<i>Mycoplasma bovis</i>	X	X
<i>Mycoplasma species</i>		X
Yeast		X
<i>Prototheca species</i>		X











Future Opportunities to record data:

- ▶ Milking speed
- ▶ Robots-teat placement/body weight/body condition
- ▶ Health Data
- ▶ Disposition/ Temperament
- ▶ Calving Ease-Real Time
- ▶ Pregnancy Conception Rates- Real Time
- ▶ In Parlor- Laboratories
- ▶ On Farm Training and Support

Continuous Years of DHI Growth!

<u>Year</u>	<u>Herds</u>	<u>Enrolled Cows</u>	<u>Monthly Samples</u>
2000	1,197	169,433	130,463
2001	1,322	185,749	148,224
2002	1,257	180,485	152,849
2003	1,228	186,816	153,753
2004	1,478	219,649	188,737
2005	1,486	228,913	207,073
2006	1,497	235,686	192,979
2007	1,440	251,595	197,028
2008	1,363	265,127	206,138
2009	1,306	261,507	201,956
2010	1,300	274,696	212,280
2011	1,296	290,335	225,743
2012	1,287	298,470	232,761
2013	1,316	323,622	249,207
2014	1,336	336,634	276,793

**Even more change is coming as demographics
continue to change in cow care, management and
real time information**



**...as the worlds population continues to
demand safe, viable dairy products for
public consumption.**

Thank you.



Kevin Haase
NorthStar Cooperative – DHI Manager