

My AgSource, an online decision aid and herd management analysis tool developed to address the changing information management needs of US dairy producers and consultants.

By

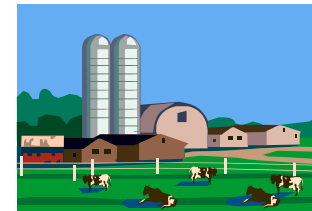
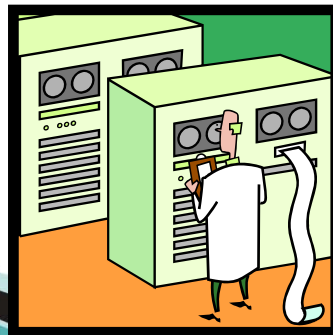
Robert Fourdraine, PhD
Vice President DHI Operations
AgSource Cooperative Services

Presented at 2014 ICAR Meeting,
Berlin, Germany



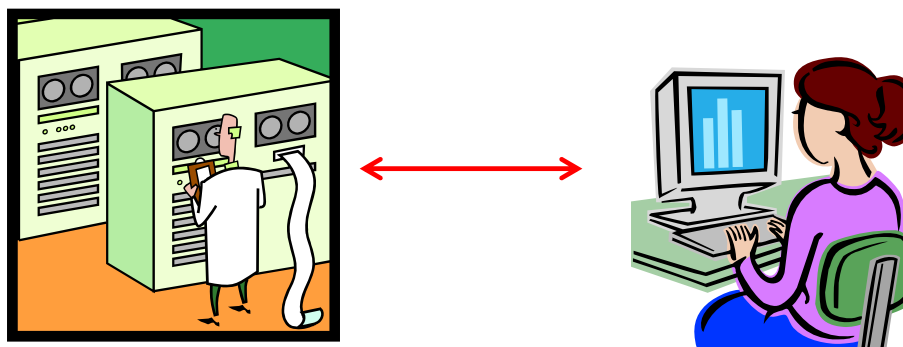
Evolution of IT and DHI (70's and 80's)

- Smaller farms, data collected on a monthly basis
- Centralized computing of records
 - Driven by need for data storage and computing power
 - Cost of equipment
 - Data used for R&D
- Distribution of information via paper



Evolution of IT and DHI (late 80's and 90's)

- Farms size increasing, more data collected on a monthly basis
- Hybrid computing systems
 - Introduction of PC's and herd management software on the farm
 - Centralized computing – PC for data presentation
- Paper and electronic distribution of data files



Evolution of IT and DHI (00's)

- Farms size continues to increase, more data electronically collected on a daily basis
- Hybrid computing systems
 - PC's become more powerful, herd management software use continues to increase
 - Centralized computing systems changes
 - Greater need for data collection for R&D, less for computing of records
 - Servers, virtual machines
 - Paper and electronic data transmission using Internet



Future Direction

- How will the US dairy industry evolve?
 - More data collection on farms
 - Milking Parlors
 - Feeding Systems
 - Real Time monitoring systems
 - More milk diagnostics
 - Collect Phenotypic information for new Genomic Traits
 - Most day to day management information will be computed on the farm
 - Data overload, how can it be turned into meaningful management information?
 - Greater use of “specialists” that need access to information
- How do we get this data from the farm to a centralized system for R&D?



Future Direction (cont.)

- Focus on Value – Added products/services \$\$\$
- Leverage the power of centralized computing to:
 - Collect data for R&D
 - Develop benchmarks and “herd analysis tools”
 - Develop “decision support tools”
- Leverage the power of the internet to transmit data:
 - Collect on-farm generated data
 - Provide information back to the producer and “specialists”
- Leverage the power of new technology to deliver management information
 - Tablets, iPhones, Android phones

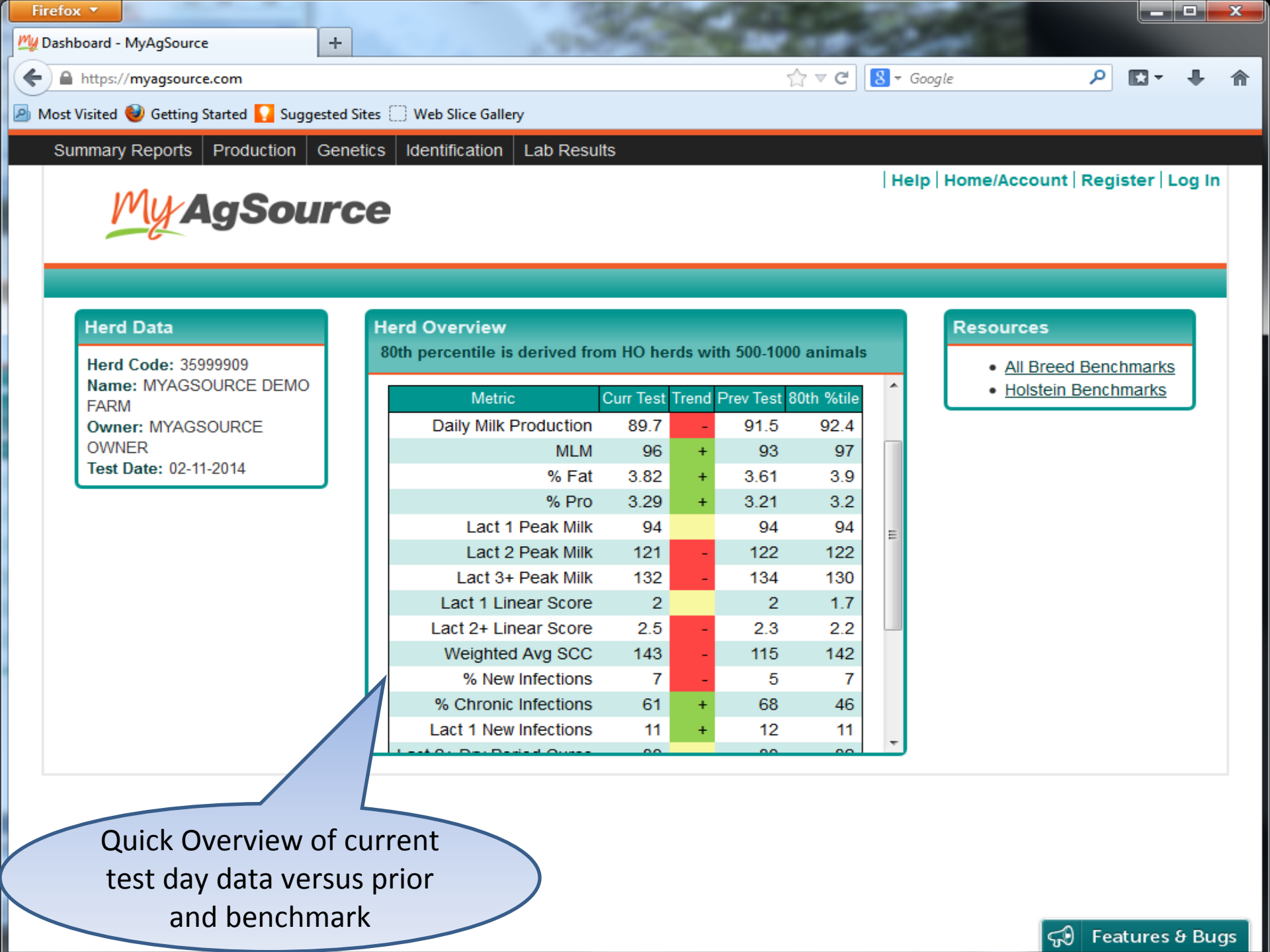


MyAgSource

- Cloud Based Information System housed at a commercial data center
 - Low startup costs
 - Scalable (disk space, memory, processors)
 - 24/7 Infra-structure support
- Microsoft SQL Server database
- Web-Based application using PHP
 - Staff can focus on development
 - Lower ongoing support costs and faster turnaround for updates
 - Access based on web browser, not operating system or local application

Features

- Interaction with DHI data
 - Sorting
 - Criteria
 - Graphs and tables
- Combine data from multiple sources
 - Milk recording
 - Laboratories
 - US genetic evaluation data
- Leverage all data to create benchmarks
- Interact with the Users



Herd Data

Herd Code: 35999909
Name: MYAGSOURCE DEMO FARM
Owner: MYAGSOURCE OWNER
Test Date: 02-11-2014

Herd Overview

80th percentile is derived from HO herds with 500-1000 animals

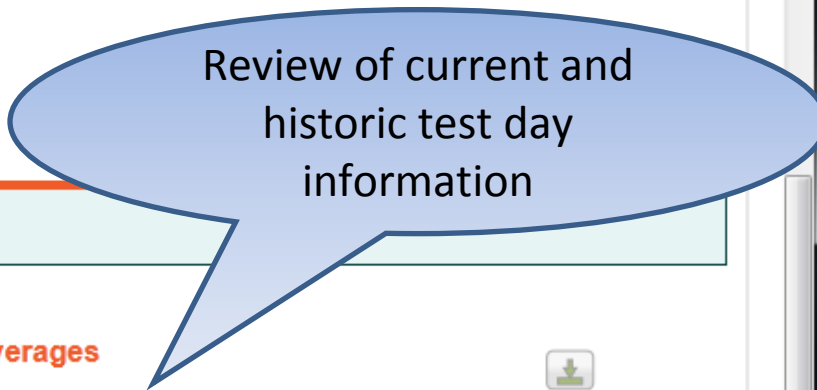
Metric	Curr Test	Trend	Prev Test	80th %tile
Daily Milk Production	89.7	-	91.5	92.4
MLM	96	+	93	97
% Fat	3.82	+	3.61	3.9
% Pro	3.29	+	3.21	3.2
Lact 1 Peak Milk	94		94	94
Lact 2 Peak Milk	121	-	122	122
Lact 3+ Peak Milk	132	-	134	130
Lact 1 Linear Score	2		2	1.7
Lact 2+ Linear Score	2.5	-	2.3	2.2
Weighted Avg SCC	143	-	115	142
% New Infections	7	-	5	7
% Chronic Infections	61	+	68	46
Lact 1 New Infections	11	+	12	11

Resources

- [All Breed Benchmarks](#)
- [Holstein Benchmarks](#)

Quick Overview of current test day data versus prior and benchmark

Herd Code: 35999909
Name: MYAGSOURCE DEMO FARM
Owner: MYAGSOURCE OWNER
Tech Num: 035001
Test Date: 02-11-2014



Select Report Page: Production | Production Charts | Reproduction | Genetics | Inventory

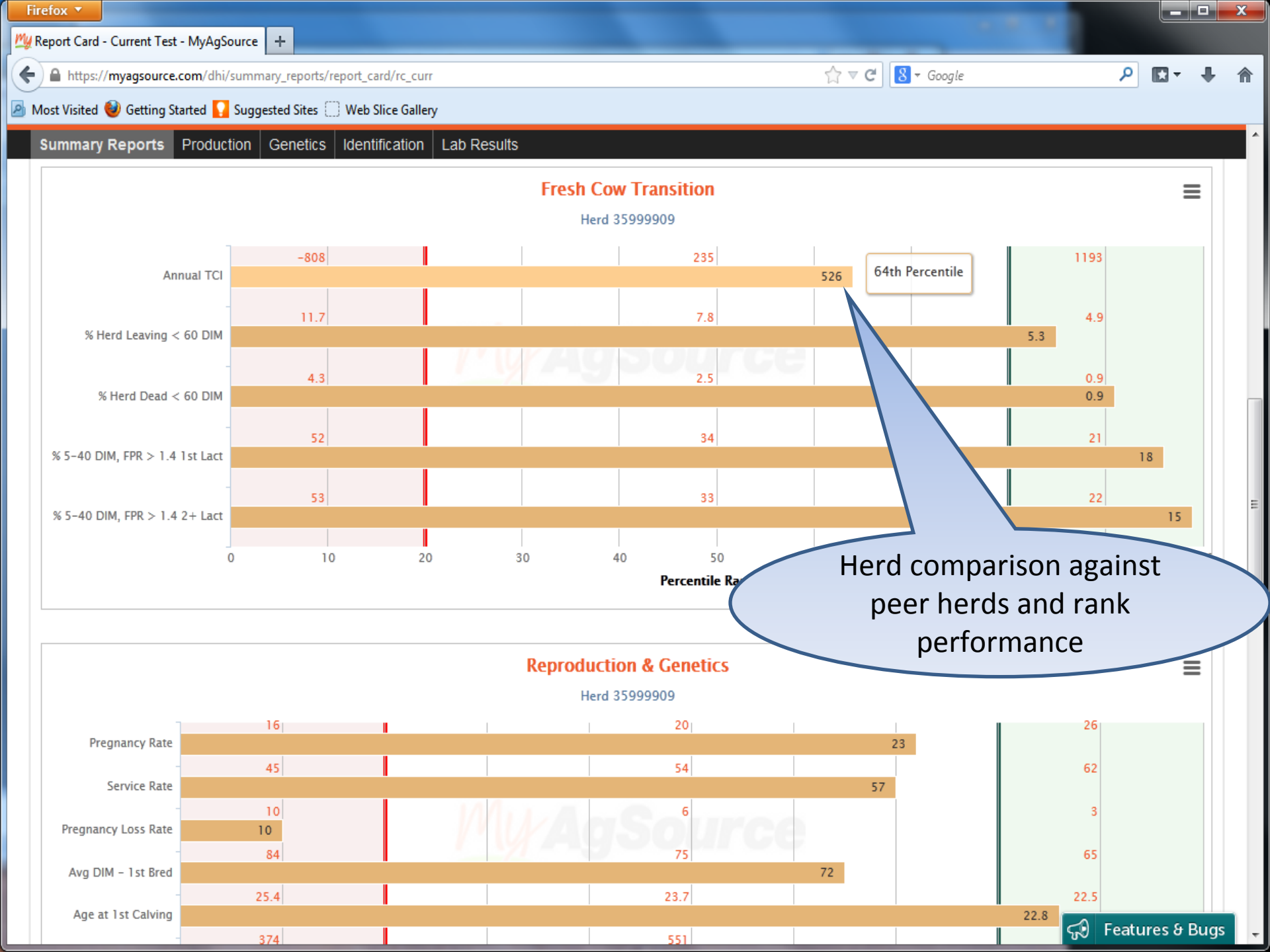
Test Day/RHA Production Averages
Herd 35999909

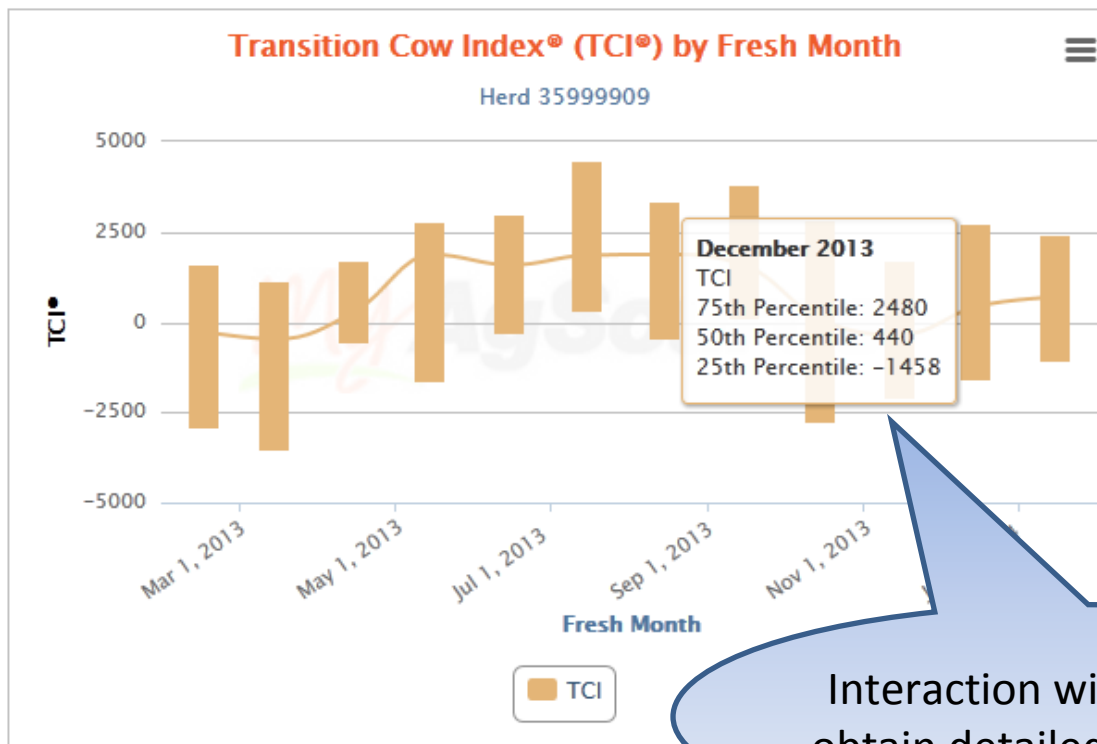


Test Day Average Production										Rolling Herd Averages								
Test Date ▼	Cows		Milking Cows Only							Entire Herd								
	Total	Milk	DIM	% LacD	MLM	Milk	% Fat	% Pro	SCC	MUN	Cd	Cows	LDIM	Milk	% Fat	Fat	% Pro	Pro
02-11-14	653	586	180	92	96	89.7	3.82	3.29	143	3	649	333	30,651	3.34	1,023	3.10	949	2,932
01-14-14	645	586	180	92	93	91.5	3.61	3.21	115	3	650	333	30,814	3.31	1,019	3.08	949	2,926
12-17-13	643	583	176	91	94	92.1	3.72	3.21	140	3	650	332	31,023	3.27	1,013	3.07	953	2,922
11-19-13	651	565	186	88	94	91.8	3.46	3.18	175	3	650	332	31,148	3.23	1,005	3.06	954	2,910
10-23-13	649	560	181	89	94	94.4	3.41	3.22	189	3	650	333	31,160	3.21	1,001	3.05	951	2,900
09-24-13	648	565	190	90	93	94.4	3.19	3.14	191	3	649	333	31,083	3.21	996	3.05	947	2,886
08-27-13	646	582	187	93	90	90.9	3.37	2.97	178	3	649	333	30,984	3.20	990	3.05	945	2,874
07-30-13	649	599	193	92	92	88.0	3.51	3.12	262	3	648	333	30,911	3.18	982	3.05	943	2,858
07-02-13	650	584	193	90	92	95.4	2.92	2.95	205	3	647	333	30,837	3.18	980	3.05	940	2,851
06-04-13	653	575	195	91	95	94.1	3.23	3.06	175	3	647	333	30,788	3.18	980	3.04	936	2,845
05-07-13	650	583	205	91	91	91.3	3.13	2.96	142	3	647	333	30,805	3.19	982	3.04	937	2,850
04-09-13	643	584	201	93	95	95.2	3.12	3.03	130	3	647	334	30,839	3.20	986	3.05	939	2,859
03-12-13	643	596	192	94	92	95.3	3.11	2.98	138	3	647	334	30,792	3.19	984	3.05	938	2,855

Cows Currently in the Herd - Averages







Interaction with graphs to obtain detailed information

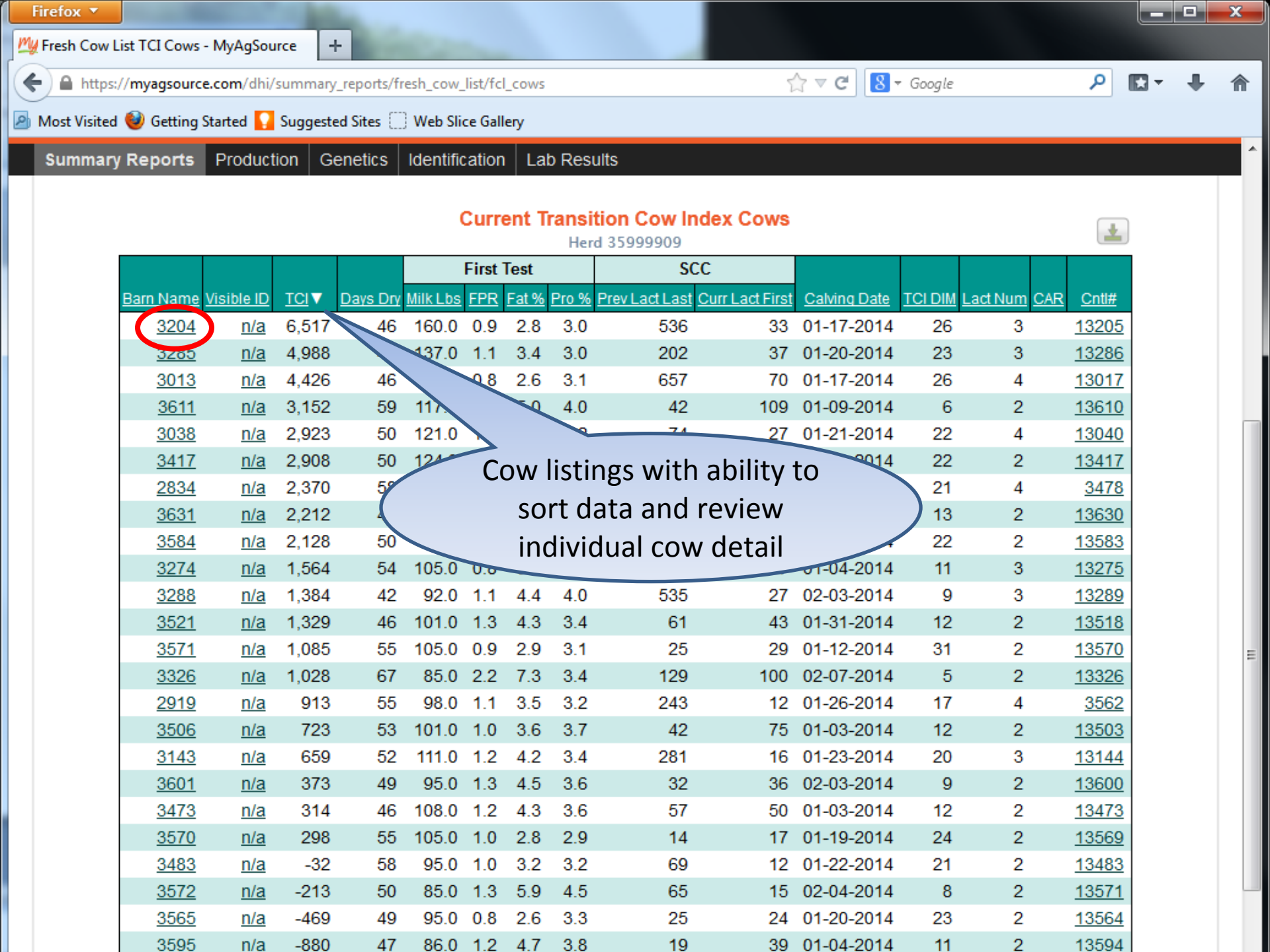
Transition Cow Index

Herd 35999909

Fresh Month	12-15-12	01-15-13	02-15-13	03-15-13	04-15-13	05-15-13	06-15-13	07-15-13	08-15-13	09-15-13	10-15-13	11-15-13	12-15-13	01-15-14	Average
Average TCI	2773	17	-738	-1039	160	782	925	2262	1402	1786	141	-639	302	755	635
Percent With TCI	96	83	87	93	100	98	97	94	100	97	97	94	95	86	94

Ratio of First Test Fat% to Protein% (FPR) by Fresh Month

Herd 35999909



Current Transition Cow Index Cows

Herd 35999909



Barn Name	Visible ID	TCI	Days Dry	First Test				SCC		Calving Date	TCI DIM	Lact Num	CAR	Cntl#
				Milk Lbs	FPR	Fat %	Pro %	Prev Lact Last	Curr Lact First					
3204	n/a	6,517	46	160.0	0.9	2.8	3.0	536	33	01-17-2014	26	3	13205	
3285	n/a	4,988		137.0	1.1	3.4	3.0	202	37	01-20-2014	23	3	13286	
3013	n/a	4,426	46		0.8	2.6	3.1	657	70	01-17-2014	26	4	13017	
3611	n/a	3,152	59	117		5.0	4.0	42	109	01-09-2014	6	2	13610	
3038	n/a	2,923	50	121.0				74	27	01-21-2014	22	4	13040	
3417	n/a	2,908	50	124						2014	22	2	13417	
2834	n/a	2,370	55								21	4	3478	
3631	n/a	2,212									13	2	13630	
3584	n/a	2,128	50								22	2	13583	
3274	n/a	1,564	54	105.0	0.8					01-04-2014	11	3	13275	
3288	n/a	1,384	42	92.0	1.1	4.4	4.0	535	27	02-03-2014	9	3	13289	
3521	n/a	1,329	46	101.0	1.3	4.3	3.4	61	43	01-31-2014	12	2	13518	
3571	n/a	1,085	55	105.0	0.9	2.9	3.1	25	29	01-12-2014	31	2	13570	
3326	n/a	1,028	67	85.0	2.2	7.3	3.4	129	100	02-07-2014	5	2	13326	
2919	n/a	913	55	98.0	1.1	3.5	3.2	243	12	01-26-2014	17	4	3562	
3506	n/a	723	53	101.0	1.0	3.6	3.7	42	75	01-03-2014	12	2	13503	
3143	n/a	659	52	111.0	1.2	4.2	3.4	281	16	01-23-2014	20	3	13144	
3601	n/a	373	49	95.0	1.3	4.5	3.6	32	36	02-03-2014	9	2	13600	
3473	n/a	314	46	108.0	1.2	4.3	3.6	57	50	01-03-2014	12	2	13473	
3570	n/a	298	55	105.0	1.0	2.8	2.9	14	17	01-19-2014	24	2	13569	
3483	n/a	-32	58	95.0	1.0	3.2	3.2	69	12	01-22-2014	21	2	13483	
3572	n/a	-213	50	85.0	1.3	5.9	4.5	65	15	02-04-2014	8	2	13571	
3565	n/a	-469	49	95.0	0.8	2.6	3.3	25	24	01-20-2014	23	2	13564	
3595	n/a	-880	47	86.0	1.2	4.7	3.8	19	39	01-04-2014	11	2	13594	

Cow listings with ability to sort data and review individual cow detail

Current Transition Cow Index Cows

Herd 35999909

Barn Name	Visible ID	TCI	Days Dry	First Test				SCC				Calving Date	TCI DIM	Lact Num	CAR	Cnl#
				Milk Lbs	FPR	Fat %	Pro %	Prev Lact	Last	Curr Lact	First					

3204

- Events
- ID
- Dam
- Sire
- Tests
- Lactations**
- Graphs

Lactation Records

Lact#▲	Age	Fresh Date	LTD DIM	LTD Milk	LTD Fat	LTD Pro	DIM 1st Bred	Days Open	Calv Intvl	Avg LSSCC	305 Milk	305 Fat	305 Pro	305 Milk ME	305 Fat ME	305 Pro ME	365 Milk	365 Fat
1	1-10	10/10/2011	385	37005	1218	1123	78	155		3	29776	974	893	38709	1266	1143	35462	1157
2	3-1	12/12/2012	355	44417	1318	1365	76	125	429	4	39580	1154	1204	41955	1223	1264		
3	4-2	1/17/2014	26	3578	111	121			401	1.4	33731	978	1063	34068	998	1074		

Offspring Records

Calf#	DOB▲	Calf Name	Calf Vis ID	Sex	Twin/ET	Calving Ease	Sire NAAB	Sire Name
13780	10/10/2011	3781		heifer		1	001HO08631	LES
	12/12/2012	SOLD		bull	T	1	001HO10458	DAY
	12/12/2012	SOLD		heifer	T	1	001HO10458	DAY
4433	1/17/2014	4433		heifer		2	001HO10915	TUSCOBIA

3483	n/a	-32	58	95.0	1.0	3.2	3.2	69	12	01-22-2014	21	2	13483
3572	n/a	-213	50	85.0	1.3	5.9	4.5	65	15	02-04-2014	8	2	13571
3565	n/a	-469	49	95.0	0.8	2.6	3.3	25	24	01-20-2014	23	2	13564
3595	n/a	-880	47	86.0	1.2	4.7	3.8	19	39	01-04-2014	11	2	13594



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 Tech Num: 035001
 Test Date: 02-11-2014

Ability to set filters to limit cows showing

▲ Set Filters

Quartile

 None 1st 2nd 3rd 4th

Dam Lactation #

 0 1 2 3+

Apply Filter

Reset Filter

Genetic Selection Guide - Progeny

Herd 35999909



Dam Data			Calf Data							Pedigree			Dam Production Data						
Control Num	Barn Name	Visible Id	Dam Net Merit	Est*	Gen Ind	Sire Net Merit	Quartile Num	Est Net Merit	Due Date ▼	Calf Sire ID	Calf MGS ID	Calf Dam ID	Lact Num	Avg Dev From Herd 305 ME			Avg Days Open	Avg LS	Avg TCI®
														Milk	Fat	Pro			
13245	3244	n/a	35			667	4	351	02-03-2014	1HO10862	507HO06753	USA000068985661	2	5,669	-207	67	94	3.3	2,841
13022	3019	n/a	369			677	2	523	02-07-2014	1HO10865	507HO07313	USA000066745694	3	3,335	249	118	93	1.5	-2,194
13602	3603	n/a	351			677	3	514	02-09-2014	1HO10865	501HO02611	USA000070355291	1	6,249	135	133	82	1.7	
13632	3633	n/a	314			732	2	523	02-10-2014	1HO10838	001HO10055	USA000070355321	1	3,348	69	72	65	1.2	
12986	2986	n/a	215			732	3	474	02-11-2014	1HO10838	001HO07690	USA000066227051	3	4,048	-132	107	106	2.3	4,924
3531	2888	n/a	301			732	3	517	02-11-2014	1HO10838	001HO07169	USA000065862545	3	1,183	-27	-58	149	1.7	526
13172	3171	n/a	147			732	4	440	02-11-2014	1HO10838	001HO05963	USA000068567776	2	11,494	-206	224	175	1.0	-178
13333	3333	n/a	330			732	2	531	02-11-2014	1HO10838	001HO02416	USA000069378982	2	-307	199	7	57	1.4	-6,442
13328	3328	n/a	424			732	2	578	02-11-2014	1HO10838	001HO07169	USA000069378977	2	179	237	-6	72	1.6	-1,848
13327	3327	n/a	331			732	2	532	02-11-2014	1HO10838	001HO09979	USA000069378976	2	5,676	171	93	68	0.9	5,318
13412	3412	n/a	117			816	3	467	02-14-2014	1HO10850	001HO09728	USA000069674964	1	-2,525	117	22	252	1.8	
13930	3931	n/a	329		G2	556	4	443	02-14-2014	1HO10388	001HO10066	USA000071045425	0						
13956	3957	n/a	412		G2	556	3	484	02-15-2014	1HO10388	001HO10064	USA000071045451	0						



Features & Bugs



Benchmarks Prototype for Herd 35999909

This is sample herd data, please [login](#) or [register](#) to see your herd's data.

Herd Code: 35999909
Name: MYAGSOURCE DEMO FARM
Owner: MYAGSOURCE OWNER
Tech: A SUPERVISOR
Test Date: 02-11-2014

Production Measures

Herd 35999909
Benchmark herds determined by Production for HO herd between 5

Benchmark	Current	Top 20% (n=20)
Rha Fat Pct	27,714	27,368
Rha Fat Lbs	1,070	1,038
Rha Pro Lbs	836	851
Rha Cheese Yld	2,849	2,820
Avg Mlm Lbs	85	91
Daily Milk	80.1	86.0
Rha Fat Pct	3.90	3.99

Set Benchmarks

Select Breed:

Select Metric:

Select Criteria:

Enter Herd Size Range: Between and

Next feature to be added is dynamic Benchmarks



Benchmarks Prototype for Herd 35999909

This is sample herd data, please [login](#) or [register](#) to see your herd's data.

Herd Code: 35999909

Name: MYAGSOURCE DEMO FARM

Owner: MYAGSOURCE OWNER

Tech: A SUPERVISOR

Test Date: 02-11-2014

[▼ Set Benchmarks](#)

Production Measures

Herd 35999909



Benchmark herds determined by Production for HO herds between 501 and 2000 animals

Benchmark	Current Test	Top 20% (n=207)
Rha Milk Lbs	27,714	27,368
Rha Fat Lbs	1,070	1,038
Rha Pro Lbs	836	857
Rha Cheese Yld	2,849	2,820
Avg Mlm Lbs	85	91
Daily Milk	80.1	86.0
Rha Fat Pct	3.90	3.99
Rha Pro Pct	0.00	0.00



Questions?

THANK YOU!



AgSource
Cooperative Services

A Subsidiary of Cooperative Resources International