

Managing Johne's with Milk Elisa Testing and a new DRMS report

Managing Johne's disease is becoming more important to many dairy producers. While Dairy One has provided screening through the use of Johne's milk ELISA tests for several years, we have now collaborated with Dairy Records Management Systems to develop a comprehensive report specifically designed for Johne's. This report will organize Johne's test information, as well as other pertinent data to aid in the management of this disease.

Dairy One does not submit bulk tank samples for Johne's testing. Dilution here is not the solution but the enemy with milk ELISA testing. A normal DHI sample may be used for the milk ELISA test and results are normally available within 2-5 days after the sample is sent to the lab. The cost is \$6.00 per sample at Cornell with no cost of transportation but requires the identification of the herd veterinarian. If the herd wished not to involve the veterinarian then samples are sent to Antel Bio in Michigan with shipping costs added to the total. Turn-around time will be greater for this option.

Johne's is not easy to manage. We liken the risk of Johne's in a herd to a ship encountering an iceberg. We can avoid the apparent danger by steering clear of what we see. As with an iceberg the danger is what we cannot see or in the case of Johne's what we cannot know. This picture portrays what we may encounter in the Johne's Iceberg.



Cows in stage one of Johne's infection cannot be detected with milk ELISA or fecal culturing, yet they have the disease. Stage 2 cows are only 10% detected by mil ELISA testing, but in stage 3 10-35% of infected animals can be detected. By the time a cow reaches stage 4, she represents 5 to 20 others in the herd in the hidden part of the iceberg.

The DHI-420 Johne's Report from DRMS helps us organize milk ELISA test information. It includes management data like somatic cell count (SCC), milk production, reproductive status, herd rank, and animals at risk of being infected by their dam. The procedure in receiving this report is a bit different than other reports generated at the records processing centers.

The steps are as follows:

1. Identify cows to be tested and sign up for the report.
2. Component samples are run and the herd processes and receives normal test day reports.
3. Samples for milk ELISA Johne's test will be sent to another lab and results are sent to Dairy One as well as the farm.
4. Dairy One sends results to DRMS and the DHI-420 report will be generated and posted on the DRMS web report site.
5. The next test day reports will include the DHI-420 mailed to the farm.

* Herds needing the DHI-420 report prior to their next test will need to sign up for Web Reports and retrieve it via internet access.

Grey highlighting of the "Sample Date" indicates cows tested on the most recent test.

Recent Kept Calves lists animals that may be at higher risk due to dam-to-calf transmission.

Upper section - shows all active animals that have at least one positive or suspect Johne's result while in this herd.

Lower section - lists all active animals that tested negative on the most recent Johne's sample date. A cow, if positive on a prior test, could be listed in both sections

This report will include all positive tests on cows as long as they remain active in the herd. Other pertinent cow data is also listed for positive cows. The report will be sorted by cow ID or Barn Name.

JOHNE'S ANALYSIS DHI-420													55-99-9999	
													HENRY SMITH SMITH DAIRY	
													Test Date: 01-26-2010	
													Processed: 01-29-2010	
Index	Barn Name	Sample Date	Corr. OD	Result	J Value	Lact	DIM	Cur. Mik	Prev. Mik	Cur. SCC	Prev. SCC	# High SCC	305 ME Milk	
309	309	11-25-09	1.381	POS	1361	3	6	125	5.7			1		
733	733	01-26-10	1.374	POS	1374	1	452	51	50	0.5	0.1		31362	
312	312	07-24-09	0.86	POS	86	3	100	71	84	0.2	1.2		29025	
67	67	05-27-09	551	POS	551	1	407	51	50	0.3	0.7			
633	633	08-27-09	.492	POS	492	3	87	79	87	1.1	1.5		19024	
10507	10507	09-25-09	290	POS	290	3	53	145	118	0.1	0.1		27147	
668	668	08-27-09	.175	POS	175	3	53	69	81	0.1	0.1		21746	
553	553	11-25-09	.150	POS	150	2	301	DRY					28751	
173	173	05-25-09	.149	POS	149	3	133	142	126	0.1	0.1		31580	
348	348	11-25-09	.128	POS	128	1	478	DRY				2	24935	
741	741	11-25-09	.086	SUSP	86	2	20	74		1.1				
559	559	09-22-09	.081	SUSP	81	2	212	62	84	5.3	5.8	3	25405	

27 of 28 Cows Tested Negative on Most Recent Johne's Sample Date (01-26-10):													
Index	Barn Name	Sample Date	Corr. OD	Result	J Value	Lact	DIM	Cur. Mik	Prev. Mik	Cur. SCC	Prev. SCC	# High SCC	305 ME Milk
2	16	30	47	54	57	72	60						
465	502	507	515	560	595	679	717						
2021	2021	2043											

Copyright 2010 © Dairy One.
All Rights Reserved. No part of this document may be reproduced in any form or distributed by any means without permission from Dairy One. Layout/design produced by Jyll Strothmann.

730 Warren Road • Ithaca, New York 14850 • Ph: 800-496-3344 • Fax: 607-257-6808 • www.dairyone.com

Dairy One NEWS

Where Information Creates Opportunity

CONTENTS INSIDE

Doing More with Less - A Farmers Mantra — pg. 2

Update Phone Menu Helps with Call Routing — pg. 2

Soils Lab Updates — pg. 2

CLEANEast program has funding available for Northeast farmers — pg. 3

Fields and Crops Manager Software...Now Available — pg. 3

Camera's on the farm can help in a variety of situations — pg. 3

Managing Johne's with Milk Elisa Testing and a new DRMS report — pg. 4

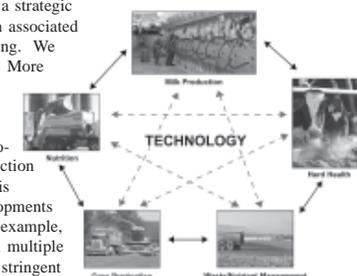
Current Events

August 10, 11, 12
Empire Farm Days
Seneca Falls, NY

August 17, 18, 19
Ag Progress Days
State College, PA

From the desk of Jamie Zimmerman, General Manager

Over the past decade Dairy One has solidified a strategic focus of developing and delivering information associated with the entire production cycle of dairy farming. We have a rich history in DHIA and feed analysis. More recently we have begun delivering information services associated with crop production and nutrient management. Tying all sources of information together through the use of technology is central to the effort. The use of production information to manage farm businesses today is becoming more complex fueled by new developments in all areas of dairy and crop production. For example, precision feeding, complex breeding strategies, multiple milking frequencies, GMO crop varieties, and stringent environmental regulation. Below and throughout this edition of the Dairy One News are examples of our strategy being put in to practice for the benefit of Dairy One members and patrons.



In February Dairy One launched the sale of Fields & Crops Manager software through our subsidiary Farmland Environmental. Fields & Crops was developed over the past few years with a partner with strong experience in agronomy and with the input of many farms using the software. Fields & Crops is tailored to the unique needs of dairy farms growing many different crops and managing manure as a source of nutrients. For more on Fields & Crops, how to set up a demo, and additional opportunities through Farmland Environmental see the articles on page 3.

Following the agronomy theme, the Dairy One soil lab continues to broaden its variety of soil test methodologies. The lab now offers options to meet the needs of farmers and agronomist throughout the Northeast. We are very pleased with our collaboration with Cornell University - Agro-One - through which we have helped preserve soil testing services and crop recommendations previously offered by Cornell. See page 2 for more.

Getting more information from a milk sample regarding the health and nutritional status of a cow is an ongoing quest of Dairy One. The regular DHIA individual milk sample is a convenient method which has traditionally been used to measure butterfat, protein, somatic cells, and MUN (milk urea nitrogen). Recent developments, and those on the horizon, are making it possible to get more information from the DHIA milk sample. One example is Johne's disease screening. Over the past year, Dairy One has partnered with the Cornell Diagnostic Lab to provide Johne's disease screening using the DHIA milk sample. The sample taken on a typical test day serves as the foundation of the test. Coming soon will be additional disease screening analyses performed on a milk sample. See the article on page 4 for more information.

Dairy One continues to seek new ways to bring information to you to aid in managing the production activities of your farm business.

Thank you for your ongoing patronage and have a safe spring and summer.

Doing More with Less - A Farmers Mantra

Most of the people reading this know that modern technology, including the analytical services provided by Dairy One, help today's farmers feed the world (and their cows) and farm their land more efficiently than ever before. Unfortunately, there are many people out there who only know what they see on tv or what they hear from some well intentioned but selectively informed man or woman who has never set foot on any farm....modern or otherwise.

Here are some facts you can share with your non-farm friends the next time someone makes an uninformed comment or perpetuates misinformation about the so called "factory farms" or waxes poetic about the good old days of the small family farm.

A Comparison of Today's Milk Production vs 1944

(as measured per unit of milk as it leaves the farmgate in the USA)

• Milk production per cow	443%
• Number of animals	21%
• Purchased feed	23%
• Water consumption	35%
• Land use	10%
• Manure production	24%
• Carbon footprint	37%
• Industry carbon footprint	59%

US farmers are producing 443% of the milk produced in 1944 with just 21% of the cows and 10% of the land! It is true that CO₂ emissions are more than twice as high per cow today BUT the CO₂ per unit of milk produced today is roughly 1/3rd of that produced in 1944. Our carbon foot print is actually much better than back in the good old days when our grandparents milked 30 - 50 cows. And as for those "factory farms", the 2007 edition of *USDA Structure and Finances of U.S. Farms: Family Farm Report*, reported that **98% of farms in the U.S. are family owned and operated**. Big or small, family farms provide the food and fuel that help run this country; in fact, family farms are responsible for 85% of the total crop production value in the U.S.

New technology is crucial for continued gains in productivity and environmental stewardship in the decades to come. Farming the way it was done in the 40's and 50's may sound good but it is not really an option if we are to feed the world's growing population and protect the environment while we do that. Just as new technology is crucial for future gains in productivity and environmental stewardship, the analytical services provided by Dairy One are an important tool to help modern farmers feed their cows and farm their land more efficiently than ever before.

- Proceedings of the 2010 Cornell Nutrition Conference. J.Capper, Dept. of Animal Science, Washington State University. Demystifying the environmental sustainability of food production. Pages 179 - 195. <http://www.ansci.cornell.edu/pdfs/cnc09web.pdf>



Update Phone Menu Helps with Call Routing

The main Dairy One office in Ithaca, New York, continues to strive for the best, most efficient way to get you to the right place every time you call. With growing options and services, we are challenged to keep things simple, yet complete enough to accommodate the needs of a growing variety of callers. We recently made some slight changes to assist in getting calls routed more efficiently.

Callers who dial the 800-344-2697 number are first greeted by a main menu. The following choices are available from this menu:

- 1 DHI Records, Testing Services
- 3 On farm hardware and software support
- 4 Feed and Forage
- 5 Milk Analysis
- 6 Accounting
- 7 Soils Analysis
- 8 Farmland Environmental

Some options have a submenu which will further define the route your call takes.

Please help us to keep your calls routed appropriately by using the menu whenever possible. We welcome your continued feedback on how our system is working.

Soils Lab Updates

Agro-One

Updated information about the Agro One Soils Lab appeared on our website at the beginning of this year. Cornell University's routine soil testing services moved to Dairy One last summer in a new venture called Agro-One. Agro-One will do the analytical work and Cornell will provide the nutrient guidelines. The new web information includes Agro-One sample input sheets for field crops, tree fruit, commercial vegetables, commercial turf, and lawn, garden and landscape samples. It also includes contact information for key Cornell and Dairy One staff, shipping and handling guidelines, how to order supplies, links to relevant Cornell websites and more. Additional information will be added as new services, including tissue analysis, come on line. Stay tuned.

CLEANeest program has funding available for Northeast farmers

There is still money available for dairy farms East of the Mississippi via the CLEANeest program. Farmland Environmental has the staff and the experience to help our Northeast farms benefit from the Nutrient Management Plan and/or Environmental Assessment that these monies will pay for.

Farmland Environmental, LLC a subsidiary of Dairy One creates and delivers software and services that help farmers organize their field and crop records, optimize their nutrient use and yields, and control the farm's environmental compliance position. In helping farms achieve these goals Farmland Environmental also looks for and promotes relevant funding opportunities.

The CLEANeest project is funded by the Environmental Protection Agency (EPA) to encourage the implementation of livestock farming practices that protect the environment. This program is completely confidential and provides an opportunity for farmers to do something good for their farms, even as we are in the midst of one of the most difficult markets we have ever experienced.

Why get a Nutrient Management Plan (NMP) or NMP update?

- A Nutrient Management Plan will provide crop specific fertility recommendations and help optimize farm nutrient use and crop yields.
- A NMP will provide the information necessary to reduce fertilizer cost by fine tuning nutrient needs for every field and crop, while optimizing the use of the nutrients in the farm's manure.

Why get an Environmental Assessment (EA)?

- Environmental Assessments provide an objective, confidential review of current farm operations by a professional, certified agronomist.
- It will identify, confidentially, areas where there are potential environmental issues. Clear, confidential information can help keep the farm operator in the driver's seat.
- It will identify areas that may benefit from improved efficiency and sustainability efforts.

All livestock farmers can apply for one or both of these services.

For more information call Farmland Environmental 800-344-2697, or visit www.livestock.rti.org

Fields and Crops Manager Software...Now available

Fields and Crops software gives you one place to keep all of your crop records. It can help you get organized, save time, and feel more confident about managing the crop side of your business.

In addition to having more complete records that are in one place and easily accessible, you can use the Rotation Planning tool for planning next year's crops by field, generate a "To Do List" to identify specific fields to take action on, produce FSA reports instantly and make a list of manure applications for compliance reporting. The program is designed so you can do as much tracking and management as you are comfortable with.

If you have high speed internet access, and good field identification, you will *probably* appreciate keeping records this way. If, in addition to high speed and good field ID, you use a spreadsheet for crop records, then you will *definitely* appreciate keeping records this way.

For more information about Fields and Crops Manager software, contact us at 800-540-8716, or e-mail: jack.vanalmelo@farmlandenvironmental.com

Camera's on the farm can help in a variety of situations

The Dairy One, Dairy Management Resources team has been installing cameras on an increasing number of farms throughout the Northeast. Dairy producers vary in the number of cameras they want installed, and can choose from a several options based on functionality and use.

There are three basic reasons why producers have installed cameras on their farms.

Animal monitoring is by far the most common reason dairies are using cameras. In many cases, cameras are set up at different angles in fresh pens to monitor close-up animals. This can mean fewer wasted trips to the fresh cow barn or, using saved video feed, can be very a useful training tool. Other examples for animal monitoring include mounting them in sort pens, feed bunks, or the holding area.

Employee monitoring and safety is another use for cameras. Setting up cameras in the parlor removes the variable of whether protocols are being followed or not, and can pinpoint areas where steps can be modified or streamlined. It is also helpful to have video available when training new parlor employees, and to have a mechanism in place for monitoring visitors to the parlor.

Lastly, some farms use cameras for increased security. Having a camera at the fuel pumps not only acts as a deterrent, it also provides added peace of mind, as does increased security at the milkhouse, and other outbuildings.

Because these cameras are built on a computer network, they can be viewed from any computer on the farm. The camera system is designed to be flexible, so installing a couple, then adding additional units later is easy.

We support and install a number of different models of cameras based on customer needs. Contact the Dairy Management Resources group to discuss which configuration works best for your farm. Call 800-344-2697, extension 3 or e-mail: dmr@dairyone.com.