Congratulations
High Herd Winners!!

The 2004 high herd winners will be honored at the Dairylea/Dairy One Annual Meeting banquet to be held in Syracuse, New York October 10-12, 2005.

Low somatic cell winners attributed most of their success to having clean cows and staying attentive. Congratulations to the following Dairy One members for having the lowest cell count in the Northeast:

Merrymead Farm, Lansdale, PA
(average SCC 41,000)

Shoemaker Farm,
New Woodstock, NY
(average SCC 55,000)

Jon & Kim Mcelwain,
Jersey Shore, PA
(average SCC 57,000)

Davenport Farm, Herd 3,
Ancramdale, NY
(average SCC, 71,000)

Youdale Farm, Basom, NY
(average SCC 73,000)

This year's high herd production award goes to Melvin and Judy Peachy of Belleville, PA. Judy feels that "..working together as a family, milking 3x and providing cows with 6 feedings a day" has allowed them to achieve a rolling herd average of 32,354 for the 2004 year.

High herd winner of fat, Robert Drummond of Gloversville, New York attributes his success to "paying attention to detail". This philosophy has paid off with an average of 1316 pounds of fat for the 2004 year.

Paying attention to detail is also the motto for Sally Tanis of Center Hall, Pennsylvania. Jacob and Sally are the winners of this year's high protein award at 985 pounds.

We extend Congratulations to all of our winners and wish each of them continued success.

Nitrate Newsletter - Version 1

by Janet B. Fallon, CCA

This summer's high temperatures have been accompanied by drought in many parts of the northeast. Nitrates are the preferred form of Nitrogen taken up by plants. Unfortunately, high temperatures and drought interfere with a plant's ability to convert nitrates into plant proteins. This can result in nitrate levels that are toxic to livestock. A drought ending rain may add insult to injury, especially if the weather remains cloudy and cool. Fortunately, nitrates should return to normal levels as growing conditions improve and the conversion of nitrate to plant proteins resumes.

Of course, the only way to know if nitrate levels in a forage pose a risk to livestock is to test it. The Dairy One Forage Lab provides forage nitrate testing along with a complete line of forage analysis services. Take at least 5 separate samples from different loads as the forage is harvested. If testing standing corn or forage sorghum, etc. cut 15 whole plants at the same height as the field chopper. Some weeds, like redroot pigweed and lambsquarters, are notorious for accumulating nitrates so make sure you get a sample that is representative of what the livestock will eat…weeds included! Chop plants into ½ inch lengths. Mix it well and send about 1/2 pound for testing (do not send the intact plants). Seal samples in an airtight plastic bag and freeze it for 24 hours before shipping to the lab. Ship samples early in the week to avoid delays over a weekend. Submit a water sample along with forage samples to make sure nitrates in the water are not adding to the problem. Contact the Dairy One Forage Lab at 800.496.3344 ext. 2172 if you need test packets or visit our web site at www.dairyone.com.

Contact your nutrition consultant or certified crop advisor for additional guidelines to reduce the risk of toxic levels of nitrate in the field and in the feedbunk. Below are some guidelines for nitrate levels in forages for mature cattle.

% Nitrate ion (NO3-) (dry matter basis)	Content of nitrate Nitrogen (dry matter basis)		Comments
	%	Ppm	
<0.44	0.0-0.10	0-1,000	Safe to feed if adequate feed and water are available.
0.44-0.66	0.1-0.15	1,000-1,500	Safe for non-pregnant animals. Limit to 50% of ration DM for pregnant animals; animals may go off feed, have a slow drop in production, some abortions possible.
0.66-0.88	0.15-0.20	1,500-2,000	Limit to 50% of total ration DM for all animals; may experience some symptoms, possibly death.
0.88-1.54	0.20-0.35	2,000-3,500	Limit to 35-40% total ration DM. DO NOT FEED TO PREGNANT ANIMALS.
1.54-1.76	0.35-0.40	3,500-4,000	Limit to 25% total ration DM. DO NOT FEED TO PREGNANT ANIMALS.
>1.76	>0.40	>4,000	TOXIC. DO NOT FEED!

Nitrate ion x 0.226 = NO3¯N
Percentage x 10,000 = parts per million (ppm)

Nitrate ion divided by 4.43 = NO3¯N
Parts per million (ppm) ÷ 10,000 = Percentage

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Dairy One NEWS
Where Information Creates Opportunity

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Mark your Calendars

Dairy One Annual Meeting
October 10-11, Syracuse, NY.
For more information call
1.800.496.3344

Quick Tips

Calling the Dairy One Office

The telephone menu system can be used to speed up your call and make it easy for you to get to the right place. For best results, use the following extensions.

Dial 1.800.344.2697 or 1.800.496.3344

When the automated attendant answers press...

- **1 -** for Sales and Information
- **3 -** DHI records questions, or software support
- **4 -** Feed and forage analysis results
- **5 -** Milk laboratory (Ithaca)
- **6 -** Accounting Department
- **7 -** Staff support

If you cannot reach anyone in the department, you can help us to serve you better by leaving a clear message stating your account number (herdcode), the purpose of the call, and the best way to reach you.

From the desk of Jamie Zimmerman, General Manager

In many parts of our territory, the summer of 2005 will be remembered as one of the warmest and driest on record with some areas experiencing significant drought. Despite the heat, milk production has remained strong in the Northeast as a testament to the management abilities the dairy producer of the region.

The first half of 2005 has been very successful for Dairy One. The business is on target with its financial goals and we have seen strong new member signups for DHIA services in all the areas served by Dairy One in the Northeast. The farm signups have come from all sizes of farms recognizing that dairy businesses cannot be managed without solid management information. During this same period we have seen increased usage of the milk culturing services to assist with the management of udder health. If you are not familiar with this service, please ask your technician or call Dairy One.

Since the spring, Dairy One's participation in the Pennsylvania Radio Frequency Identification (RFID) Pilot Project has moved ahead rapidly. The goal of the project is to tag 50,000 cows in PA with RFID tags and to electronically gather and transmit ID information to the PA Department of Agriculture through the DHIA system. The project is funded through a grant from the USDA. The pilot project is important to farmers so that existing data systems already in use can be leveraged and to avoid unnecessary duplication and farmer investment as the National Animal Identification System is implemented over the next few years. The response by our Pennsylvania members has been outstanding and the systems for capturing and transmitting data are working smoothly. As we move toward mandatory implementation of the NAIS in 2008 and 2009 it will continue to be a goal of ours to find practical, management oriented uses for RFID.

Over the summer we have completed the development of a soil analysis laboratory and will be providing soil analysis services later this fall. The soil lab will complement our DHIA services and the other analytical services offered by Dairy One for forage, milk, manure, and water analyses. With the completion of the soil lab, Dairy One will be able to provide most, if not all, of the pieces of information needed for nutrient management planning, cattle nutrition, and dairy herd management. More information on soil analysis from Dairy One will be provided as the service becomes commercially available.

Find out more about all of Dairy One's services at the Dairy One web site www.dairyone.com. If you do not have web access, please ask your technician or call our toll free number 800-496-3344.

Jamie

Prepay now- $ave later

If you have not considered participating in Dairy One's prepay program, 2006 might be the year to begin. This popular program allows members to prepay charges before December 31st and enjoy savings throughout the following year. Look for information soon or contact Dairy One's accounting department at 1.800.344.2697, ext 6.

Benefits of prepaying

1. One percent of the prepay amount will be added to your account when we post your prepayment. Example: If you prepay $1000, we will add an additional 1% of $1,000 or $10 to that prepay amount, so your total prepayment credit is $1010.

2. A 2% discount for herd records services will be applied to your account each month.

3. You will not need to worry about having a check ready for your technician on test day.

4. Your 2005 tax liability may be lowered (please consult your tax advisor regarding prepay services).

5. Dairy Comp 305 or Scout rental users will get one monthn of FREE rental with 2006 prepayment.

Dairy One has recently updated its web site to make it much more useful and informative. Please access it at www.dairyone.com.

layout/design produced by Jyll Strothmann

No Risk Pregnancy Risk

by Jack van Almelo

Pregnancy Risk, (PR) (also referred to as pregnancy rate) represents a major innovation in measuring and managing dairy herd reproductive efficiency. In a nutshell, PR is the percentage of animals that became pregnant of those that were eligible to become pregnant with in a 21 day period.

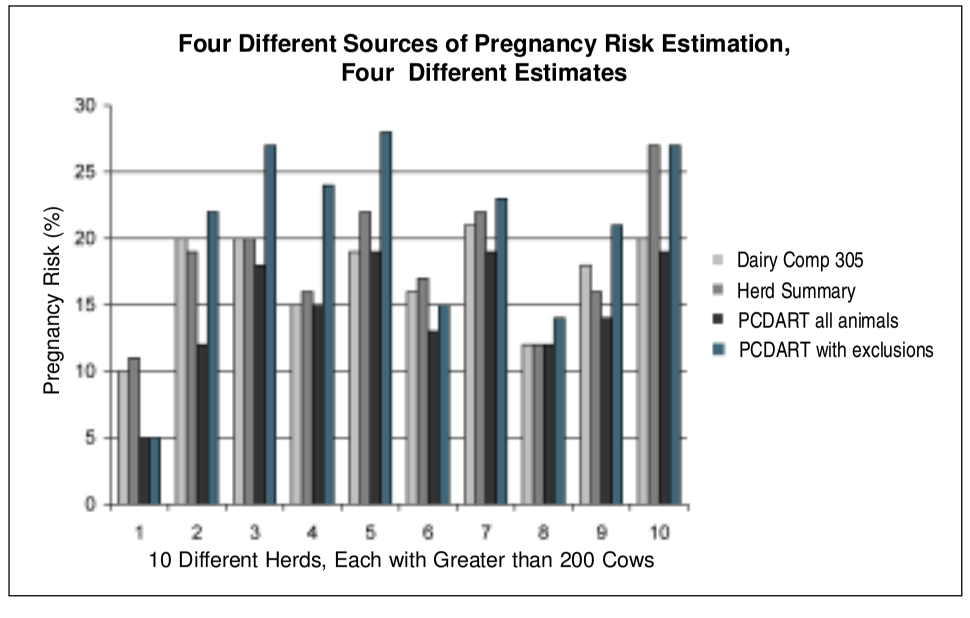
PR = Number eligible to become pregnant/number that became pregnant * 100

The Pregnancy Risk calculation can vary substantially by source. We recommend that you use the PR that you can get from your Dairy One Technician through their Dairy Comp 305 field technician program, or your own Scout or Dairy Comp 305 program, to measure your herd's reproductive performance.

Before "PR" we relied on measures like "Days Open", "Days to First Breeding", "Services per Conception" and "Calving Interval". Even after looking at all of these different measures we still were not able to tell how we were doing at getting animals pregnant, or even determine if the breeding program is getting better or worse. Most of the traditional numbers indicated you were doing worse right after you fixed a problem and began getting animals bred and pregnant.

The industry has rapidly made the transition to using PR and it has become available from several different sources. The three most common sources for PR are Dairy Comp 305, the DRMS Herd Summary report and PCDART.

We compared the PR from four different calculations on ten large dairies to help us understand how much the values can vary between sources. We intentionally selected large dairies that we know had good reproductive records so that our results would be significant.



There are many subtle reasons PR varies by source, but the big reason is the number of animals considered eligible or "at risk" of becoming pregnant.

Animals eligible to become pregnant meet at least these four criteria.
1. They are past their voluntary wait period.
2. They are not already pregnant.
3. They are not yet determined "Not to Breed" or "Do not Breed" (DNB).
4. For AI breeding analysis, they are not yet in a bull pen (although for this comparison we left bull pen animals in the Dairy Comp calculation).

Because of constraints in the various records systems, the only source from our comparison above that can handle each of these circumstances correctly is Dairy Comp 305. The biggest reason is that Dairy Comp and Scout keep dates for when animals were put with a bull, or were determined "do not breed" (DNB) cows. Those dates allow the software to consider an animal eligible to become pregnant up until the day she is put in a bull pen or made a DNB and then have her become ineligible.

For PCDART to remove a DNB animal or a bull pen animal from the eligible group, we must remove her as eligible for her entire lactation. Also in order to remove natural service animals from the calculation it will also remove animals that have never had a service, because it can not tell which animals are with a bull. Only Dairy Comp 305 and Scout can evaluate the effectiveness of bull pens because it can consider animals' breeding performance past the date they moved to the bull pen, while also holding their earlier reproductive performance against the AI program.

You can see from the graph of example herds that these subtle differences can make a big difference. One other difference that should be pointed out is that the PR from Dairy Comp 305 is based on the last 12 months to consider all seasons, and PCDART is based on the last 9 months.

Pregnancy Risk is clearly the best way to summarize and monitor herd reproduction. However, depending on the characteristics of your herd, PR can vary widely among sources. Based on the way it determines eligible animals, we recommend using the Dairy Comp 305 or Scout value, which can also be calculated for you by your Dairy One technician.

Dairy Comp 305 **Pregnancy Risk** (BREDSUM\E)

Date	Br Elig	Bred	Pct	Pg Elig	Preg	Pct	Aborts	
2/09/04	100	28	28	98	18	18	1	
3/01/04	**81**	**34**	**42**	**78**	**14**	**18**	**1**	
3/22/04	77	23	30	76	12	16	2	
Middle periods excluded to save space								
11/08/04	81	37	46	81	18	22	0	
11/29/04	75	27	36	74	9	12	0	
12/20/04	70	19	27	61	2	3	0	
1/10/05	78	26	33	0	0	0	0	?? Preg Stat
1/31/05	53	25	47	0	0	0	0	?? Preg Stat
Total	**1159**	**454**	**39**	**1128**	**187**	**17**	**6**	

Typical Pregnancy Risk in the Northeast is about 14%, Good is over 17%, the best are over 20%.

Above is a sample of a Dairy Comp 305 Pregnancy Risk report. The last year is divided into 21 day periods.

Eligible animals (Br Elig) are those past their voluntary wait period, who are not already pregnant, and not yet declared "Do Not Breed".

Look at the second period on the above report.
- 81 animals are eligible to be bred in the 21 day period beginning 3/1/04
- 34 were bred That makes the heat detection, (or service rate) 34 / 81 = 42%
- 14 animals conceived in the period

Notice that only 78 of the animals are considered eligible for the Pregnancy Risk calculations. That means that three animals were bred in the period, but left the herd before we learned the result of the breeding they received in the period so we eliminate them from the calculation.

14 / 78 = 18% pregnancy risk for that period

If you add up all of the columns you have the total number of eligible cycles, breedings, pregnancies and can repeat the calculation (using the eligible column for pregnancy) or 187 / 1128 = 17%. The calculation is not made for the last two periods since it is too soon to have animals diagnosed pregnant.

The aborts column shows the number of pregnancies from any given period that were lost.

Pregnancy Risk vs. Conception Rate

Do not confuse Pregnancy Risk with Conception Rate (people often do). If you had 100 animals eligible for pregnancy in a 21 period and bred 40 of them, and 10 became pregnant that would result in a 10/40 = 25% conception rate, but a 10/100 = 10% Pregnancy Risk.

Summary

PR, commonly known as Pregnancy Risk or Pregnancy Rate, is the best way to evaluate a herd's reproductive efficiency. The industry's rapid adoption of PR has given rise to it being calculated by several sources. The different sources and methods of calculation can result in substantially different results – primarily because of which animals are considered eligible to be pregnant but also because of different spans of time being considered. Because of these wide variations, and Dairy Comp 305 and Scout's ability to handle DNB and Bull pen animals smartly, we recommend the calculation from those two softwares as the preferred method of evaluating a herd's PR.