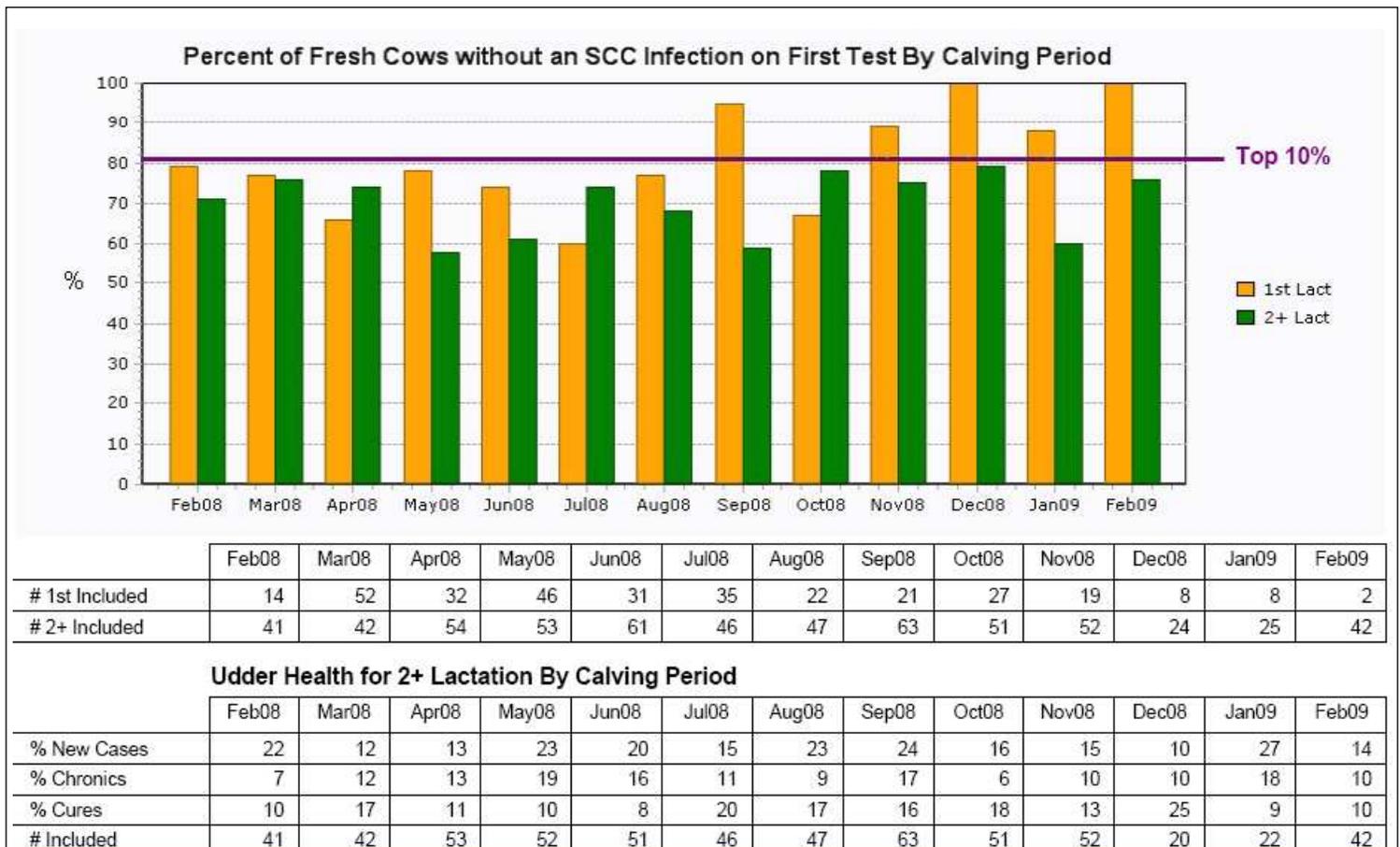# Data Becomes Information

Reporting data can be considered the first important step in managing a dairy herd. Step two involves turning that data into information we can use to make managing the cows more successful. Having the information one piece at a time, although useful, sometimes falls short in evaluating herd management plans and actions. Dairy One is promoting a brand new tool this month that uses a number of pieces of information to measure a very important part of managing a cow, and that is the "transition period".

Transition is the time of a cow's life from dry off date to 40 days after calving. This gives each cow ample opportunity to rebound from the stress she experiences giving birth. Successful transition can be defined as our ability to change a cow from dry status to production at a level equal to or better than the genetic potential that she possesses. For the purpose of the DHI-403 we will monitor 7 measures of transition performance.

The first measure we have in this evaluation looks at the number of days dry and what percent of the time do we achieve our goal of 30 - 70 days. The current belief is that while we can shorten days dry from the traditional 60 day goal, we must strive to manage for at least 30 days. Dropping below this threshold and we are likely to see a 5% - 15% drop in milk. On the other hand cows with extended dry periods of more than 70 days may produce 10% less milk. We should strive for 80% or higher success.

The second measure looks at milk produced on the first test day. This milk is used to project the chance that milk will be at least equal to the current RHA milk on a mature equivalent basis. We can use this to evaluate adequate dry matter intake. Higher milk starts can lead to higher peak milk and higher total production.

Third is a measure also associated with starting milk production. Butterfat and protein comparison on the first test using a Fat Protein Ratio (FPR) gives insight to intakes, bodyweight maintenance, and metabolic disorders. A large percentage fpr the cows should be between 1.0 and 1.6 using this ratio. Benchmark data says we should see 82% of the cows in this range.

Percent of Fresh Cows without an SCC Infection on First Test By Calving Period

	Feb08	Mar08	Apr08	May08	Jun08	Jul08	Aug08	Sep08	Oct08	Nov08	Dec08	Jan09	Feb09
# 1st Included	14	52	32	46	31	35	22	21	27	19	8	8	2
# 2+ Included	41	42	54	53	61	46	47	63	51	52	24	25	42

Udder Health for 2+ Lactation By Calving Period

|	Feb08	Mar08	Apr08	May08	Jun08	Jul08	Aug08	Sep08	Oct08	Nov08	Dec08	Jan09	Feb09
% New Cases	22	12	13	23	20	15	23	24	16	15	10	27	14
% Chronics	7	12	13	19	16	11	9	17	6	10	10	18	10
% Cures	10	17	11	10	8	20	17	16	18	13	25	9	10
# Included	41	42	53	52	51	46	47	63	51	52	20	22	42

Graph1: Udder Health

The fourth and last measure based on first test milk examines success in udder health. High SCC on first test may point to problems with dry cow treatment or dry pen conditions. The percent cows not infected or a SCC score less than 4.0 at first test is tracked. The top 10% of the industry achieves 80% cows not infected. Additional information is also included by breaking the herd into new cases, chronics, and cures. New infections are described as cows low at dry off and high at calving. Chronic cows are high at both times. Cures are high at dry and low at calving.

A fifth measure looks at reproduction of the herd. This measure cannot be as current as those already listed because it takes longer for us to be able to evaluate. The time may be different for each herd and is based what we select for the VWP plus 30 days. Successful transition will prepare cows to be healthy enough to cycle and be bred during this time. The top 10% of the industry achieves 80% plus on this measure.

The sixth measure looks at one of the biggest losses on many dairies. Successful transition increases the chance that cows will survive past their first 60 DIM. Not only have the cows that left in the first 60 days not paid for their dry period, but we loose the most profitable period of the lactation at peak milk. It is also good to track cows leaving because they are broke but have salvage value versus those that die with none. We should strive for 90% or more cows staying in the herd more than 60 days after calving.

The last measure considered is the percent of cows that go through transition in an unstressed state using some of the six measures above as well as others like calving ease, twins, stillbirths and abortions. The list provided shows current cows with stressors and we may be able to still react to them.
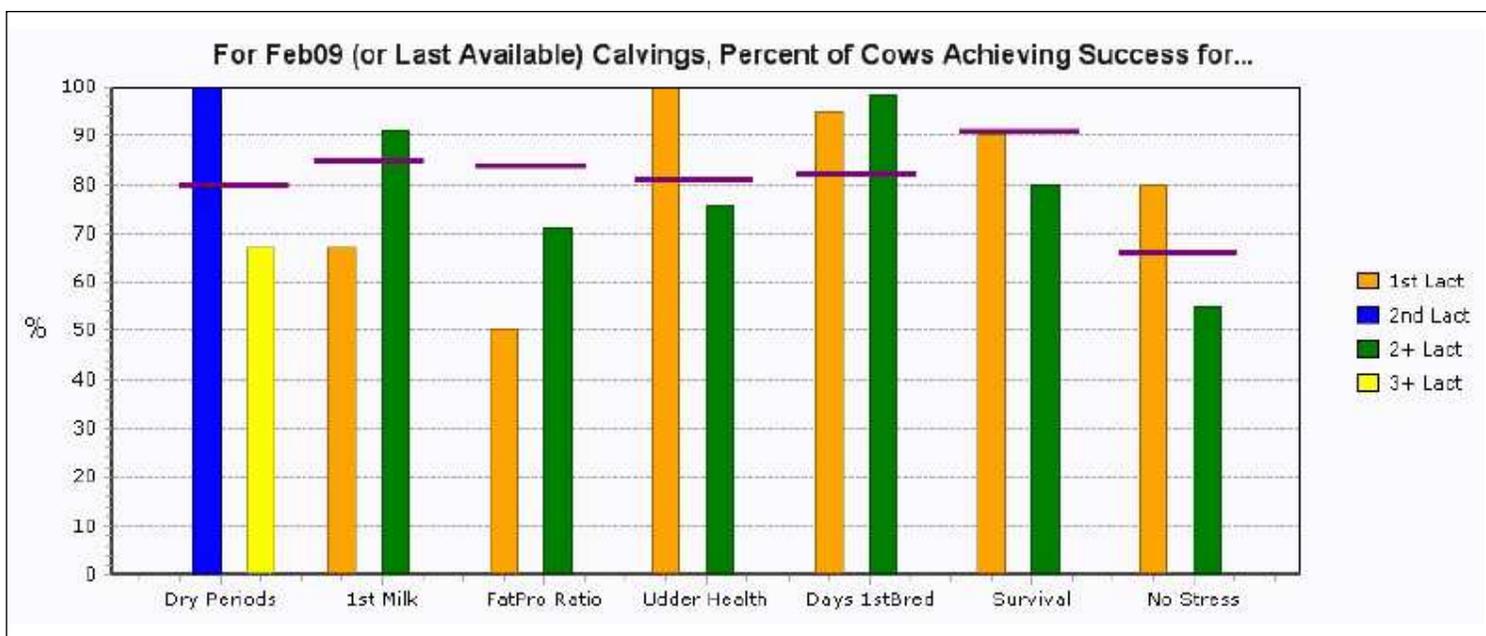
Graph2: Overview

The DHI-403 for DRMS at Raleigh is a new tool that summarizes transition cow management using a number of measures. The data collected on cows has been turned into information and is presented in a graphical format. Both large and small herds will find the information useful and the number of calvings per month will determine if the data is monthly, bi-monthly or quarterly. Each measure used will be on a 100 point scale indicating the level of success we experience. Goals are set using benchmark data for the top 10% of herds within a similar herd size range. Five of the measures use information during the period from dry off to 40 days in milk. Two measures use time period beyond and the graphs may look a bit different. The report finishes with a list of cows that have calved recently and have low production or high SCC or both. With those cows listed others stressors that may have played a role in are highlighted.

Milk Quality & Mastitis Conference
Joint National Mastitis Council (NMC) Regional Meeting and Mid-Atlantic Consortium (MAC) Conference
May 27-28, 2009; Woodlands Inn & Resort, Wilkes-Barre, Pennsylvania

Join dairy extension educators and specialists, producers, veterinarians, consultants, equipment and pharmaceutical suppliers, field reps, students and others in Wilkes-Barre, Pa., for the Joint NMC Regional Meeting and Mid-Atlantic Consortium (MAC) Conference. Enhance your knowledge of practical, on-farm aspects of udder health, mastitis control, milking management and milk quality.

The event starts **Wednesday, May 27**, with the opportunity to enroll in one short course (limited enrollment):

- Animal Welfare evaluation for mastitis control and improved milk quality (on-farm) – Jim Reynolds and John Champagne, University of California-Davis
- Understanding the interactions between the milking machine and dairy cow – Paul Rapnicki, University of Minnesota, and Steve Stewart, Valley Ag Software
- Problem-solving case study: what did and didn't work to resolve mastitis concerns on a dairy – Ernest Hovingh, Bhushan Jayarao and David Wolfgang, Penn State University, and John Shapiro, Straley Veterinary Associates
- Tools to assess and monitor subclinical mastitis – Sandy Costello and Rob Goodling, Penn State Extension
- Integrating therapy into a milk quality program – Gary Neubauer, Pfizer Animal Health, and Ron Erskine, Michigan State University

The general session is **Thursday, May 28**, 9 a.m.- 4:30 p.m., and features:

- Successful cow management with robotic milkers (panel discussion) – Doyle Waybright, Mason Dixon Farms; Josiah Garber, Spring Lawn Farm; Mike LaClair, Hinsdale Farm; and Pete Maslyn, Hemdale Farms
- Everyday observations to improve milk quality and udder health – David Reid, BouMatic
- Standard operating procedures for milkers – Rich Stup, AgChoice Farm Credit
- On-farm welfare concepts and challenges – Jim Reynolds, University of California-Davis
- Milk quality assessment tools – Steve Oliver, University of Tennessee
- Fine-tuning mastitis control – Pam Ruegg, University of Wisconsin-Madison
- Enhanced mastitis resistance via nutrition and feeding – Bill Weiss, Ohio State University

The registration fee for the main general session program (May 28) is $75 in advance, $85 at the door. The registration fee for each short course (May 27) is $50, except for the on-farm animal welfare course, which costs $75. Short courses require pre-registration, and will be held from 1 p.m.-5 p.m., except for the on-farm course (10 a.m.-5 p.m.). Early registration is advised since short courses may fill up before the deadline. Visit the NMC website or call the NMC office for further details. Registration is available online at www.nmconline.org. The pre-registration deadline is May 20.

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