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Barbara Reed
Farm Advisor

2003 North Valley Dairy Day

I have tentatively scheduled the 11th Annual North Valley Dairy Day for **Tuesday, January 28, 2003** at the Kountry Kitchen Restaurant in Orland. Please let me know if there are specific topics you would like to see presented on the program.

Call me at my direct line, 530-865-1156 or e-mail me at bareed@ucdavis.edu with your ideas.

Environmental Stewardship Class Update

For individuals interested in completing the educational component of the Environmental Stewardship Module of the California Dairy Quality Assurance Program, we have scheduled a set of classes in Sonoma/Marin Counties. If someone has attended class and they aren't sure which class they still need, they can call the CDQAP number 530-574-0524, and request this information. The Sonoma/Marin classes will be held at the Rohnert Park 4-H Center, 6445 Commerce Blvd. in Rohnert Park from 10:00 a.m. until noon.

- August 21 Class 1
- September 4 Class 2
- September 18 Class 3

For information, contact Melissa Cheda or Stephanie Larson at the Marin County UCCE, (707) 565-2621. Please contact me if you would like to schedule local classes for late this fall. The Glenn County Extension Office number is 530-865-1107.

Culturing For Staph aureus

John Kirk, DVM, MPVM , Extension Veterinarian, School of Veterinary Medicine University of California Davis, Tulare

Have you ever wanted to take a milk sample from a particular cow for milk culture and had the milker get the milking machine on the cow before you got the milk sample? A recent paper in the Canadian Veterinary Journal suggests that if you are sampling for Staph aureus, all is not lost. They took milk samples from 55 cows with subclinical infection of Staph aureus.

They sampled both before and after the cows were milked. Each of the samples was divided in half. Half of the samples were cultured from fresh milk and the other half was frozen prior to culture. There was no difference in their ability to detect Staph aureus in pre-milking samples whether fresh or frozen or post-milking samples that were frozen. Fresh post-milking samples, however, were inferior to the other samples.

As most dairies are freezing their mastitis milk samples prior to submission as batches, the ability to detect Staph aureus will be equally effective when sampling before or after milking.

Is Your Mastitis Treatment Working?

John Kirk, DVM, MPVM, Extension Veterinarian
School of Veterinary Medicine, University of California Davis, Tulare

Mastitis continues to be a fact of life on dairies, and because of these infections, cows are being treated in hopes of curing the infections.

How can you decide if your mastitis treatment is really working or not? Well, most of the time, we feel that the treatment was successful if the milk looks normal in appearance within a few milkings after the treatment. The purist would call that a "clinical cure". Many folks would prefer a bacteriological cure where the milk not only returns to normal appearance,. but the causative bacteria is removed from the quarter. Here are some ideas to consider when you want to decide about cures.

Clinical cures -a clinical cure results when a cow is treated for mastitis, the milk returns to normal or near normal and the milkers put the milk in the tank. In fact, this cow may not be cured and the infection may remain inactive, only to flare up again in the near future.

"Cows with repeated cases with the same bacteria and treatments in the same quarter are probably not cured."

Mastitis records - on dairies that culture all clinical cases and keep records of mastitis treatment by quarters, one might suspect that there was a true bacteriological cure when no additional cases occur within 4-6 weeks. Cows
with repeated cases with the same bacteria and treatments in the same quarter are probably not cured. Accurate records are necessary to decide when the treatments are successful based solely on clinical cures.

Somatic cell counts - on dairies using DHI or some other cell counting management tool, the somatic cell counts give a good indication when a true bacteriological cure has occurred. After treatment, the somatic cell count for the quarter should drop below 300,000 cell/ml even though the bacteria have

"When the counts remain consistently above the 500,000 cell/ml, even though the milk may look normal, the infection remains"

been destroyed. It may take 3-4 weeks for the count to drop back to the normal, non-infected range. When the counts remain consistently above the 500,000 cell/ml, even though the milk may look normal, the infection remains.

The CMT paddle test can also be used to check an individual quarter. Any CMT reaction greater than a trace indicates a persisting infection. Remember that the SCC or CMT takes 3-4 weeks to fall, so don't be too anxious and test the quarter too soon.

Milk culture - quarters can be re-cultured following treatment to check for a bacteriological cure. It is probably best to wait 10-14 days after the last treatment before taking the milk sample for re-culture. If a true bacteriological cure has taken place, the mastitis pathogen found on the initial culture
should not be found on the follow-up sample.

These strategies can be used together to increase your confidence in knowing that a cure has taken place. First, there should be improvement in the character of the milk. On the next SCC test, the SCC should be reduced and a milk culture should reveal no bacterial growth. All three of these in tandem, strongly suggest that the treatment has been successful. A check of the health record for the cow at the end of her lactation would be expected to show no further cases of mastitis in the treated quarter.

It is a good management practice to continually check to see that the mastitis treatments being used on a dairy are working successfully. Routine uses of these strategies can prevent chronic infections, loss of quarters and deteriorating milk quality.

COOPERATIVE EXTENSION
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June DHIA Averages for N. Sacramento Valley Herds

DATA	BREED				Overall Average
	Brown Swiss	Holstein	Jersey	Other	
Average # of COWS	55	318	270	122	278
Rolling Herd Averages Lbs. Milk	22178	20951	13623	16165	18518
% Fat	3.96	3.59	4.55	4.12	3.93
# Fat	879	753	619	666	714
% Protein	3.38	2.89	3.64	3.31	3.17
# Protein	750	649	497	535	596
Somatic Cell Count (1,000)	428	350	287	323	330
% CULL	30	31	28	28	30
Calving Interval	14.6	14.5	13.7	14.2	14.3
Average Services/Conception	3.2	3.0	2.6	2.7	2.8
Average days open	156	159	132	158	151
Percent conception at 1st service	24.0	35.6	48.3	41.3	39.4