Pennsylvania's DHIA Offers New Somatic Cell Management Report

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STATE COLLEGE (Centre) — The most costly disease in dairy cattle is mastitis, and the most accurate measure of udder health that appears on DHIA records is the linear score of somatic cell counts. Estimates of mastitis costs are $150-$200 per cow per year, and nearly 70% of the dollars lost to mastitis are due to subclinical, or hidden mastitis. The only practical way to measure this hidden mastitis is with DHIA somatic cell counting monthly,

Starting this month, of you are enrolled in the somatic cell testing program, you will find a new "Somatic Cell Management Report" included with the more familiar DHIA monthly reports. This report contains expanded analysis in a different format from the information already available on the Herd Summary Report. To keep costs to you as low as possible, the report is laser-printed on both sides of a sheet of plain white paper. The front side includes current test and historical information for your herd. The back side lists individual cow data for the highest fifty somatic cell cows in your herd, or less if your herd has fewer than 50 cows. Information in related area is logically grouped in boxes on this page.

Linear Scoring

The first of these boxes shows a distribution of cows by SCC linear score for the current test date in a manner similar to that already available on the monthly herd summary. The mean linear score for your herd as well as the average weighted SCC/ml for the sampled herd are given here. The first of these can be used as an indicator of overall herd health, while the second should correspond roughly with the measured bulk tank somatic cell count on this sample day if all of the cows in the herd contribute milk to the tank. This can vary greatly from the processing plant test. One cow can produce 40% of the cells in the tank, and, if her milk is withheld from DHIA or tank milk, a large difference can be see in SCC/ml. Herd average linear scores of 3.0 and below are best for maximum milk and profit.

In the next box, a monthly comparison of the average linear score for the herd on each test date over the last year appears. For the corresponding test dates, you will see the number of new infections that began on the indicated date, and the number of chronic infections in the herd at that time. A cow is considered to be infected when her linear score is 4.0 or greater, severely infected when her linear score is 5.0 or greater, and chronically infected when her linear score is 5.0 or greater for more than one test in a lactation. The totals given may help you to evaluate the overall effectiveness of your mastitis treatment program.

You should be careful to observe two things: first, because this is a new program, some of the trends for these items will not be available for all past months. Over time, the report will become more complete. Second, once a cow is chronic during a lactation, she remains chronic regardless of whether she has mastitis on the current test. Therefore, the totals given for some items need to be considered carefully in evaluating the udder health of your herd. A chart in the middle box of the page is intended to graphically summarize mean linear scores for your herd over the last year. This chart corresponds to the mean linear scores from most to least recent test, just as they are shown in the box above.

Immediately at the right of this graph are numbers indicating the amount of milk in pounds and number of dollars lost due to high somatic cell levels. Note that the dollar adjustment is based on the observation that a cow loses about 1.5 pounds of milk per day for each linear score count above 2.0. It does not attempt to take into account intangible (but significant) effects of high SCC such as the loss of dollars on premium programs when infected cows' milk is used in the bulk tank, or the cost of treatment for mastitis.

A current infection status box in the middle left, gives a breakdown of newly infected, and chronically infected cows based on the first and later lactations. These same categories are used in the boxes at the very bottom of the herd SCC page, which attempts to break down the herd into groups based on the number of days in milk. For each of these stages of lactation, the number of cows, amount of testday milk, mean linear score, and number of new infections are shown. First lactation groups should obviously have fewer new infections and lower linear SCC scores because of their less frequent exposure to mastitis causing bacteria.

The back page is an individual cow summary which shows the indentity of the animal by barn name and control number. Cows are ranked in decreasing order from high testday SCC to low. The mean linear score for this lactation appears in the next column. Production information including testday milk, an estimated (or actual) 305, days in milk, and milk lost due to SCC appear in the next columns. The percentage of this individual's contribution to the bulk tank appears next. You should note that even though the severity of an infection is based on the linear score, the amount of somatic cell in the bulk tank is based on the raw SCC/ml. So a handful of cows, or even a single, severely infected animal, may make the largest percentage contributions to the bulk tank. Frequently this milk should be withheld from the tank until additional SCC tests give a result nearer herd goal.

Finally, some historical and reproductive information is given for each of the cows that appears on this page. Cows confirmed pregnant are marked in the last column with a 'Y'. For bred cows, a due date will also appear. In order to help you identify problem animals, the number of times a cow has had a severe infection is given for each with linear score 5.0 or greater. You can track seasonal problems, or the progress of your mastitis program by noting the first infection dates given for those animals that have had some history of infection. Determine the cause of the new infections and correct the situation to protect uninfected cows. For help see your county agent or herd veterinarian.

This is intended to give you some idea of the items that are available on this new somatic cell report. It was not designed to explain the value of somatic cell testing or to show you how to use information given. More on the value of mastitis treatment and the use of somatic cell testing and reporting is available in the booklet "How to Read Your DHIA Reports". Or, you can request fact sheet DSE-87-52, "Using DHI Somatic Cell Counts to Increase Production and Profits" from your County Extension office. As always, if you suspect problems with the information contained here, or with any of your DHIA records, you should contact Dixie Burris at 1-800-DHI-TEST.

PENNSYLVANIA DHIA

DHIA SAMPLE HERD-2
ORCHARD ROAD
UNIV PARK, PA
16802
23-43-0395

SCC MANAGEMENT REPORT 05/17/88

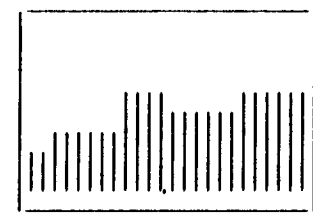
DISTRIBUTION OF COWS BY SCC LINEAR SCORE

DATE TESTED	MEAN LS	RAW SCC LEVEL	9+ NO	9+ PCT	8 NO	8 PCT	7 NO	7 PCT	6 NO	6 PCT	5 NO	5 PCT	4 NO	4 PCT	3 NO	3 PCT	2 NO	2 PCT	1 & 0 NO	1 & 0 PCT
1/21/88	2 7	83,000	0	0 0	0	0 0	1	9 0	0	0 0	0	0 0	2	18 1	1	9 0	3	27 2	4	36 3

MONTHLY COMPARISON

DATE TESTED	1/21/88	12/20/87	11/17/87	10/17/87	9/17/87	8/17/87	6/12/87	5/04/87	4/11/87	3/07/87	2/07/87	1/11/87
MEAN SCORE	2 7	3 6	3 8	3 4	6 0	5 9	4 5	4 1	4 8	5 9	5 4	5 4
NEW INFECTIONS	1											
CHRONIC INFECTS	1											

MEAN LS (LAST 12 MONTHS)



CURRENT INFECTION STATUS

FIRST LACTATION CURRENT NO	FIRST LACTATION CURRENT PCT	FIRST LACTATION NEW NO	FIRST LACTATION NEW PCT	FIRST LACTATION CHRONIC NO	FIRST LACTATION CHRONIC PCT
0	0 0	0	0 0	0	0 0

SECOND(+) LACTATION CURRENT NO	SECOND(+) LACTATION CURRENT PCT	SECOND(+) LACTATION NEW NO	SECOND(+) LACTATION NEW PCT	SECOND(+) LACTATION CHRONIC NO	SECOND(+) LACTATION CHRONIC PCT
1	10 0	1	10 0	1	10 0

LOSSES DUE TO HIGH SCC LEVELS

MILK	MONEY
421	$49 93

DAYS IN MILK	FIRST LACTATION NO COWS	FIRST LACTATION TESTDAY MILK	FIRST LACTATION MEAN LS	FIRST LACTATION N I	SECOND(+) LACTATIONS NO COWS	SECOND(+) LACTATIONS TESTDAY MILK	SECOND(+) LACTATIONS MEAN LS	SECOND(+) LACTATIONS N I
0 - 30	0	0	0	0	0	0	0	0
31 - 99	0	0	0	0	4	100	1 5	0
100 - 199	1	85	5	0	2	47	2 2	1
200 - 299	0	0	0	0	3	60	2 9	0
300 +	0	0	0	0	1	52	5 2	0
AVG/TOTAL	1	85	5	0	10	72	2 4	1

Rocky-Mount Tops Delaware Holstein Show

NEWARK, DE — Rocky-Mount Lily, owned by Norman W. Voss, Jr. of Clayton was selected as the 1988 Delaware Holstein Show Grand Champion on Saturday, April 23, by show judge Jack King from Ocean City, Maryland.

Grand champion of the junior show went to Dixiedel Wileeda Dixiemyr owned by George Dixon also of Clayton. Junior champion of the open show went to Vossmon Dingo Mandi owned by Norman W. Voss, Jr.

Sam Dixon and Family of Clayton were named the Premier Breeder and Exhibitor of the show.

1988 DELAWARE HOLSTEIN SHOW RESULTS

Junior Fitting
1 Gina Pierson, Clayton, 2 Debby Warren, Kenton, 3 Sam Dixon, Clayton

Junior Showmanship
1 Debby Warren, Kenton, 2 Sam Dixon, IV, Clayton, 3 Randy Dixon, Clayton

Senior Fitting
1 Nicole Givens, Clayton, 2 Kenny Warren, Kenton, 3 George Dixon, Clayton

Senior Showmanship
1 Kenny Warren, Kenton, 2 George Dixon, Clayton, 3 Shawn Cook, Kenton

Intermediate Calf
1 Vossmon Mandingo Della owned by Norman W Voss, Jr, Clayton

Senior Heifer Calf
1 Strawberry Acres Mandingo Angl owned by Norman W Voss, Jr, Clayton

Summer Yearling Heifer
1 Vossmon Warden Anita owned by Norman W Voss, Jr, Clayton

Junior Yearling Heifer
1 Dixiedel Ned Boy Goldy owned by Samuel Dixon, IV, Clayton

Senior Yearling Heifer
1 Vossmon Dingo Mandi owned by Norman W Voss, Jr, Clayton.

Junior Champion - Junior Show
Dixiedel Ned Boy Goldy owned by Samuel Dixon, IV, Clayton

Junior Champion - Open Show
Vossmon Dingo Mandi owned by Norman W Voss, Jr, Clayton

Novice Fitting & Showmanship
1 Gina Pierson, Clayton, 2 Philip Busker, Harrington, 3 Nicole Jacobs, Kenton

Two Year Old Cow
1 Cool-Del Valor Heather owned by University of Delaware

Three Year Old Cow
1 Dixiedel Mil-Nor Povaro owned by Sam Dixon, Jr & Sons, Clayton, 2 Dixiedel Wileeda Dixiemyr owned by George Dixon, Clayton

Four Year Old Cow
1 Dixiedel Chairman Charity owned by Kenny Warren, Kenton

Aged Cow
1 Rocky-Mount Lily owned by Norman W Voss, Jr, Clayton

Dry Cow
1 Vossmon Creek Claret owned by Norman W Voss, Jr, Clayton.

Senior Champion - Junior Show
Dixiedel Wileeda Dixiemyr owned by George Dixon, Clayton

Grand Champion - Junior Show
Dixiedel Wileeda Dixiemyr owned by George Dixon, Clayton

Senior Champion - Open Show
Rocky-Mount Lily EX-92 owned by Norman W Voss, Jr, Clayton

Grand Champion - Open Show
Rocky-Mount Lily EX-92 owned by Norman W Voss, Jr, Clayton

Udder Class
1 Rocky-Mount Lily EX-92 owned by Norman W Voss, Jr, Clayton

Produce of Dam
1 Sam Dixon, Jr & Sons, Clayton

Junior Best Three Females
1 Norman W Voss, Jr, Clayton

Senior Best Three Females
1 Sam Dixon, Jr & Sons, Clayton

Premier Breeder/Exhibitor
Sam Dixon & Family, Clayton