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Dairy Lines

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Upcoming Events

■ **Area DHIA Meetings**
Jan. 29–Feb 7, 1997
See inside for dates & locations

■ **Western Dairy Management Conference**
March 13–15, 1997
See inside for details

The SCC Report… A Diagnostic Tool

By J. R. Dunham

The DHIA Somatic Cell Count (SCC) Report is a valuable tool for diagnosing udder health problems. Now is a good time to review the SCC Summary to determine why the SCC is higher than desired and to evaluate potential problems.

Mammary health and milk quality have a direct effect on a dairy's profit. In fact, these problems are the most costly health problems on dairy farms. Yet, many producers are unaware of losses due to mammary health because subclinical mastitis is the most common problem. In most cases, high Somatic Cell Count (SCC) is the only indication that mammary health and milk quality need to be improved.

The individual cow SCC report shows each cow's SCC for the last six test dates. The profile for each cow is useful for selecting potential mammary health culls. Cows with several consecutive high counts should be considered for culling. However, a cow with an occasional high count may be curing herself (spontaneous recovery). This indicates the cow's somatic cells were able to control the mammary infection.

The herd average SCC for the last six test dates and the current average for the best 25 percent of herds in the Mid-States area is shown on the SCC Summary. The last six test date history shows the trend of the mammary health profile. A realistic goal for a herd is to consistently average less than 200,000 SCC.

Cows with SCC >300,000 are shown on the SCC Summary. These animals are assumed to be infected with mastitis pathogens and most have subclinical mastitis. Those with an asterisk are new on the list since the last test.

The percent contribution value indicates each of the high SCC cow's contribution to the herd average SCC. This report is useful for saving milk from cows with high percent contribution for calf milk. In many herds, two or three cows can be contributing 30 to 40 percent to the herd average SCC. These cows should not be culled since their milk production is usually high and their SCC count will likely be lower in the next month or two.

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Heart of America Dairy Herd Improvement Summary (November)

	Quartiles				Your Herd
	1	2	3	4	
Aryshire					
Rolling Herd Average	17,272	14,572	13,386	11,429	
Summit Milk Yield 1st	61	51.3	50.1	45.6	
Summit Milk Yield 2nd	71.3	63.1	60.3	56.4	
Summit Milk Yield 3rd	82	68.2	65.9	58.1	
Summit Milk Yield Avg.	72.1	61.4	58.8	54.3	
Income/Feed Cost	1,283	827	958	849	
SCC 1st LACT	187	141	174	284	
SCC 2nd LACT	224	188	327	493	
SCC 3rd+ LACT	419	328	367	385	
SCC Average	286	236	294	372	
Days to 1st Service	92	85	93	92	
Days Open	127	130	135	147	
Projected Calving Interval	408	412	417	429	
Holstein					
Rolling Herd Average	21,796	18,794	16,889	13,914	
Summit Milk Yield 1st	69.9	62.8	58	50	
Summit Milk Yield 2nd	89.4	79.5	72.4	60.5	
Summit Milk Yield 3rd	94.0	83.6	76.9	64.9	
Summit Milk Yield Avg.	83.4	74.8	69.2	59.3	
Income/Feed Cost	1,817	1,528	1,444	1,009	
SCC 1st LACT	207	223	247	274	
SCC 2nd LACT	240	263	289	351	
SCC 3rd+ LACT	375	401	438	550	
SCC Average	278	304	339	423	
Days to 1st Service	92	93	97	100	
Days Open	144	142	141	145	
Projected Calving Interval	424	422	420	435	
Milking Shorthorn					
Rolling Herd Average	14,716	13,610	12,813	10,906	
Summit Milk Yield 1st	52.7	48.2	48.6	47.1	
Summit Milk Yield 2nd	68.1	69.9	55.6	54.1	
Summit Milk Yield 3rd	71.8	75.2	62.6	62.1	
Summit Milk Yield Avg.	64.2	61.9	57.2	54.5	
Income/Feed Cost	1,354	1,194	1,033	620	
SCC 1st LACT	172	231	138	283	
SCC 2nd LACT	162	185	221	191	
SCC 3rd+ LACT	209	428	373	225	
SCC Average	181	277	268	240	
Days to 1st Service	94	133	82	104	
Days Open	122	164	134	124	
Projected Calving Interval	404	446	415	406	
Jersey					
Rolling Herd Average	15,898	13,595	11,957	9,929	
Summit Milk Yield 1st	51.1	45.6	40.1	36.2	
Summit Milk Yield 2nd	62.5	56.1	49.6	43.1	
Summit Milk Yield 3rd	67.2	58.9	53.2	46.1	
Summit Milk Yield Avg.	60.5	53.9	48.8	42.3	
Income/Feed Cost	1,583	1,169	1008	824	
SCC 1st LACT	198	200	227	368	
SCC 2nd LACT	236	264	278	442	
SCC 3rd+ LACT	415	402	460	574	
SCC Average	302	307	357	486	
Days to 1st Service	81	86	91	90	
Days Open	114	122	128	124	
Projected Calving Interval	393	399	406	403	

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Some dairy farmers have used this list to select cows for antibiotic treatment in an attempt to lower herd average SCC. However, treating lactating cows to lower SCC is usually not worthwhile, and, in most cases, will be futile. Dry cow treatment has been shown to be the only effective antibiotic treatment program for lowering SCC.

The average SCC by lactation number illustrates the effects of age on SCC. Almost every herd's report will show first lactation cows are lower than second lactation cows who in turn are lower then 3+ lactation cows. Note this trend in the Quartile Rankings in this report.

This section is very useful when evaluating problem herd situations. Even though the ranking by SCC by lactation number in high SCC herds will be normal, the first lactation cows may be too high and the following lactations will be higher. In this situation the herd average SCC could be improved by freshening heifers with lower SCC.

The goal for first lactation cows should be <100,000 SCC average and for 5 percent or less of the heifers with >300,000 counts. If this is not the case, then the heifers are likely becoming infected with mastitis pathogens prior to calving. Look for wet and/or unsanitary conditions in the springer lot.

The Days in Milk Averages is useful for evaluating dry cow programs and milking management. This is actually a stage of lactation profile for SCC.

The top 25 percent of herds show the lowest SCC cows are 50 to 100 days in milk. Then the cell count increases slightly after 100 days. It also shows cows in milk <50 days have lower SCC than those in milk >300 days. In many high SCC herds this is not the profile.

When the cows in milk <50 days are higher than late lactation cows, suspect a problem during the dry period. It may be dry cow treatments that are ineffective. However, in many cases, it is caused by cows becoming infected as they approach parturition. If the SCC average of cows during early lactation are higher than late lactation cows, usually, first lactation cows will also be high.

To evaluate milking management, compare the SCC of cows in milk <50 days to those in milk 50 to 100 days. If the second group is higher, suspect a problem with milking management. A higher SCC indicates that the milking management program is stressful and the cows respond with

higher SCC after 50 days in milk. Usually the SCC will increase in each stage of lactation.

The stress causing higher SCC as cows go through lactation can be due to poor milking techniques, poor sanitation in the parlor, and/or faulty milking equipment. Suspect the first two situations first.

If milking management does not seem to be the cause of higher SCC as cows go through lactation, then the problem is probably narrowed down to the lots and housing system. Systems that do not provide dry and comfortable conditions in the feeding and lounging areas can certainly cause high SCC.

In too many systems cows will not use free stalls unless the weather is extremely severe. Look for conditions of the free stall barns which may not be comfortable for cows. These include: condition of the free stall surface and ventilation in the barn. In too many systems the cows will congregate in the allies of the free stall barn where there is air movement. Of course this area becomes sloppy and high SCC usually follow.

High producing dairy herds consistently have lower average SCCs than lower producing herds (see Quartile Ranking). Herds with consistently higher averages can improve the count and realize higher profit. Now that the fall fresheners are included in the SCC report, each dairy herd should review the SCC report to diagnose potential udder health problems.

Area DHIA Meetings

Date	Location
January 29	Seneca—Valentino's
January 30	Ottawa—Extension Meeting Rooms
February 4	Whiteside—Amish Community Building
February 5	Hillsboro—Methodist Church
February 6	Wichita—Extension Building
February 7	Hays—Holidome

Have a Safe and Happy Holiday Season!

Hay Prices*

	Location	Quality	Price ($/ton)
Alfalfa	Southwestern Kansas	Premium	120–130
Alfalfa	Southwestern Kansas	Good	115–120
Alfalfa	South Central Kansas	Premium	100–110
Alfalfa	South Central Kansas	Good	90–100
Alfalfa	Southeastern Kansas	Premium	110–120
Alfalfa	Southeastern Kansas	Good	95–110
Alfalfa	Northwestern Kansas	Premium	110–115
Alfalfa	Northwestern Kansas	Good	80–90
Alfalfa	North Central Kansas	Premium	100–110
Alfalfa	North Central Kansas	Good	90–100

Source: USDA Weekly Hay Report, *Week ending December 6, 1996*

*Premium Hay RFV = 170–200
Good Hay RFV = 150–170

Feed Stuffs Prices

	Location	Price ($/ton)
SBM 48%	Kansas City	251–254
Cotton Seed Meal	Kansas City	230–240
Whole Cottonseed	Memphis	140
Meat and Bone Meal	Central United States	270–280
Blood Meal	Central United States	585–590
Corn Hominy	Kansas City	100–103
Corn Gluten Feed	Kansas City	110–112
Corn Gluten Meal 60%	Kansas City	350–355
Distillers Dried Grain	Central Illinois	136–145
Brewers Dried Grain	St. Louis	134
Wheat Middlings	Kansas City	96–99

Source: USDA Weekly Feed Stuffs Report, *Week ending December 6, 1996*

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