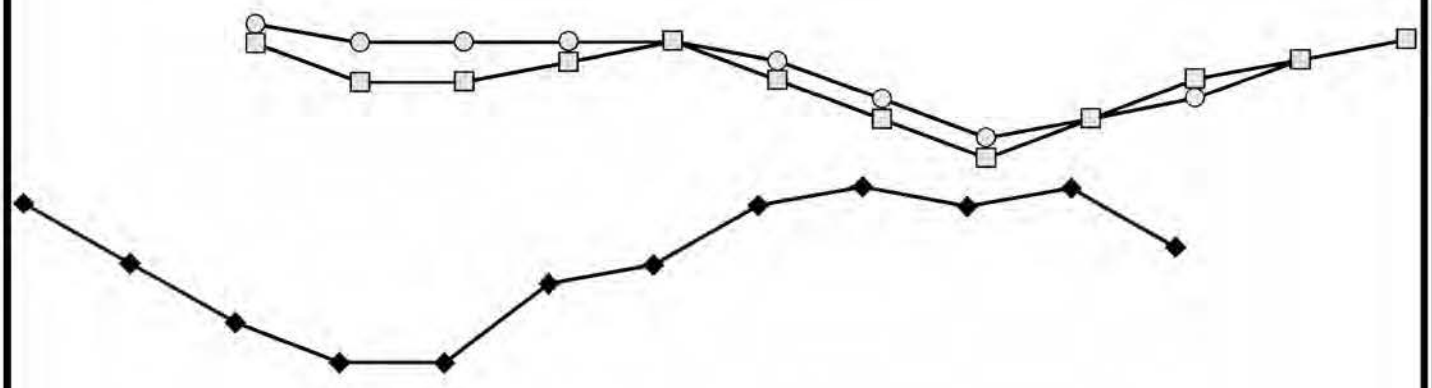
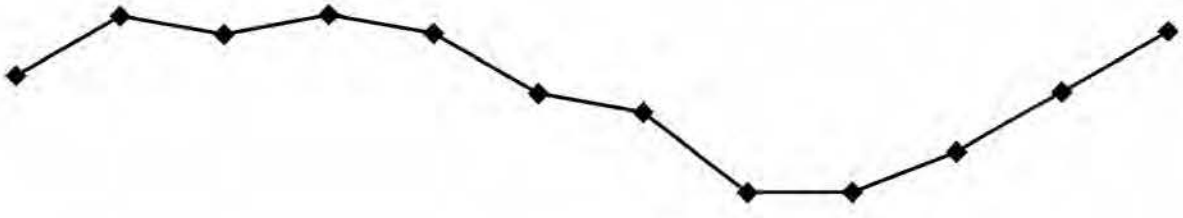


Somatic Cell Count Benchmarks



THE UNIVERSITY OF GEORGIA
COOPERATIVE EXTENSION

College of Agricultural and Environmental Sciences
College of Family and Consumer Sciences

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Somatic Cell Count Benchmarks

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Introduction

The Dairy Records Management Systems (DRMS), Raleigh, North Carolina, provides information and resources for use in dairy herd management analysis. The DHI-202 Herd Summary Report is a valuable source of information. Many herd management strengths and weaknesses can be uncovered using herd summary data.

The purpose of this bulletin is to provide somatic cell count benchmarks for Holstein herds processed by DRMS. Some examples of using and applying benchmark values are provided. However, this bulletin should be viewed primarily as a comprehensive resource of somatic cell count benchmark values. These benchmarks will be useful to dairy producers, dairy managers, consultants, veterinarians and agribusiness representatives as a first step in the analysis of herd management practices. Conduct a more complete analysis of herd management practices in order to pinpoint specific causes and develop solutions.

Methods

Herd summary information was obtained from the DRMS, Raleigh, NC, for Holstein herds last tested in November or December, 1999. Data analysis was performed using the Statistical Analysis System (SAS) (1).

Research has shown that management variables may differ by region of the country, herd size and milk production level. Consequently, benchmark values are presented for Northeast, Mid-south, Midwest and South regions (Figure 1). Within regions, further subdivisions are by herd size or rolling herd average milk production. Values in all tables and graphs were limited to herds with a minimum of 25 cows. Minimum milk production for herds included in percentile tables was 12,000 pounds. Note that all analyses and calculations are based on herd average information and not individual cow data. The number of observations mean, standard deviation and percentile ranks were calculated for certain benchmark values. Following are definitions of these terms:

N: The number of observations (herds) included in a specific analysis. Each variable was analyzed separately so N differs depending upon the number of herds having a specific variable.

Mean: The average calculated as the sum of all observations divided by N.

Standard Deviation (SD): A measure of the variability of the observations. The larger the SD the greater the variation is among the observations.

Percentile Rank: Percentiles are defined as a value such that X% fall short of the value and Y% exceed the value. For example, if a benchmark value is at the 75th percentile, then 75% of the herds analyzed had values below and 25% of the herds had values above the benchmark. A herd value at the 75th percentile is in the top 25% of all herds analyzed.

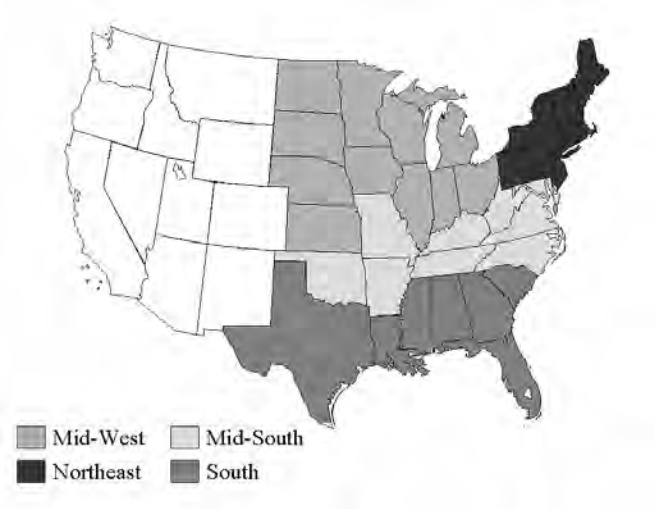

Figure 1. Map of U.S. Showing Four Regions

Mastitis and Somatic Cell Counts

Mastitis is generally considered the most costly disease of dairy cattle, averaging $150-$250 per cow per year. Many factors contribute to these costs including decreased income because of subclinical mastitis, reduced production, treatment costs and increased replacement costs.

The cells found in milk consist of about 75 percent white blood cells or leucocytes and about 25 percent epithelial cells. Leucocyte numbers increase in response to bacterial infection and tissue injury and stress. The epithelial cells originate from udder secretory tissue and increase as a result of injury or infection. Since both types of cells originate from within the cow's body, they are given the name somatic or body cells. An increase in

somatic cell numbers is largely a result of an increase in the number of leucocytes. The concentration of somatic cells serves as an indirect measure of the level of infection in the cow's mammary gland.

Methods of Evaluating Somatic Cell Counts

Three methods of evaluating somatic cell counts (SCC) are (1) Bulk Tank SCC [BTSCC], (2) Weighted SCC [WTSCC] and (3) Somatic Cell Count Score [SCCS]. The BTSCC is usually based on a single sample of milk from the bulk tank. The WTSCC is calculated on samples from individual cows and is weighted or adjusted based on each cow's level of milk production. The WTSCC for all milking cows in a herd should approximate the BTSCC. The SCCS is based on a logarithmic conversion of the actual SCC to a linear score as shown in Table 1.

Each integer increase in linear score is associated with a doubling of the actual SCC and a uniform loss of milk of 1.5 pounds per day. For example, the loss in milk production between scores 2 and 3 is estimated at 1.5 lbs/cow/day based on an actual SCC difference of about 50,000 cells. However, the same loss in production between scores 6 and 7 is associated with an actual SCC difference of about 800,000 cells. With the linear SCC, it is obvious that significant improvements in milk production exist even when actual somatic cell counts are relatively low.

Table 1. Relationship Between SCC Scores and Somatic Cell Counts[1]

SCC Score	SCC Range	Estimated Daily Milk Loss Per Cow
0	0 - 18,000	0
1	19,000 - 35,000	0
2	36,000 - 71,000	0
3	72,000 - 141,000	1.5
4	142,000 - 283,000	3.0
5	284,000 - 565,000	4.5
6	566,000 - 1,130,000	6.0
7	1,131,000 - 2,262,000	7.5
8	2,263,000 - 4,523,000	9.0
9	4,524,000 - 9,999,000	10.5

[1]Shook, G. and A. Saeman 1983. *J. Dairy Sci.* 39(12): 22-23.

Tables 2-5 (beginning on page 6) show herd WTSCC, herd SCCS and SCCS for three lactation groups by herd size group within a region. Example: Mr. Joe Producer has a herd of 125 cows in New York with a WTSCC of 350,000. He refers to the 100-149 herd size group in Table 2 (page 6). The mean or average WTSCC for 528 herds is 330,000. The WTSCC for his herd is above 304,000 (50th percentile) but below 396,000 (25th percentile), which places his herd in the 50th percentile rank or the bottom half of herds of similar size in this region.

High and Low Somatic Cell Count Scores

Cows with a SCCS of 0-3 are generally considered uninfected while cows with a SCCS of 7-9 are considered infected. Herds should strive to maximize the percentage of cows in the 0-3 category and minimize the percentage in the 7-9 category. Expect first lactation cows to have a lower SCCS with a higher percentage in the 0-3 category compared to older cows.

Tables 6-9 (beginning on page 14) provide the percentage of cows with low (0-3) and high (7-9) scores for three lactation groups within four regions by herd size. As an example, Mr. Joe Milker in Georgia has a herd of 225 Holstein cows. He refers to Table 9 and herd size group 150-249 cows. The average or mean percent 0-3 for first lactation cows is 58 percent. Seventy-five percent of his first, 70 percent of his second, and 63 percent of his third and greater lactation cows have a score of 0-3. This places the values for his first and second lactation cows between the 75th and 90th percentiles of herds of similar size in the South region. Additionally, his third and later lactation cows are in the 90th percentile.

Somatic Cell Counts and Herd Milk Production

Mammary gland infections are known to reduce milk production. Tables 10-13 (beginning on page 22) show Herd SCCS, Herd WTSCC and the percentage SCCS distribution by level of milk production within region. The data indicate that as rolling herd average milk production increases, herd average SCCS and WTSCC decline. The distribution of SCCS also indicate that a higher percentage of cows are uninfected (0-3) in high producing herds. The low SCC of higher producing herds is one likely factor contributing to the higher production levels. Example: A herd manager with a 23,250 pound herd average in Indiana refers to Table 12 (page 23). Herds in this region with similar herd averages have an average SCCS of 2.86 and a WTSCC of 276,000. They

also average 65 percent in the 0-3 and 6 percent in the 7-9 categories, respectively. A herd manager can compare his/her herd to other herds with similar production to evaluate current management practices.

Trends in Monthly SCCS

Figures 2-5 show trends in Monthly Somatic Cell Count Scores for SCCS, WTSCC, Percent SCCS (0-3) and Percent SCCS (7-9). These figures provide the opportunity to observe monthly trends as well as regional differences for these somatic cell count parameters. Trends are similar for all figures for all regions. All regions had higher SCCS in the months of July, August and September and the lowest values during the winter and spring months (Figure 2). The WTSCC in Figure 3 shows a similar trend. The percent cows with SCCS (0-3) in the four regions was lowest in August and September when SCCS was highest. Figures 4 and 5 illustrate the percent cows with SCCS 0-3 and 7-9, respectively. These figures correspond closely with Figures 2 and 3, with the highest months during the summer. Although the overall trends are similar, values do vary by region.

Monitoring Stage of Lactation SCC

Somatic cell counts vary by age and stage of lactation. Tables 14-17 (beginning on page 24) show SCCS by stage of lactation for three lactation groups (1, 2, 3+) by herd milk production level in four regions. Herd managers can use this data to evaluate the effectiveness of their mastitis control program throughout the lactation. Bill Dairyman in Florida with a 20,231 pound herd average wants to know the expected SCCS for first lactation cows at days 1-40 in milk. He refers to Table 17 (page 30). First lactation cows with a 20,000-20,999 herd average have an average SCCS of 3.44.

Conclusion

Udder health must be monitored in order to control and reduce the level of mastitis in a herd. Somatic cell count measurements including SCCS and WTSCC provide the opportunity to monitor and evaluate udder health. By comparing herd somatic cell values to benchmark values, producers can identify problems and set goals for improvement.

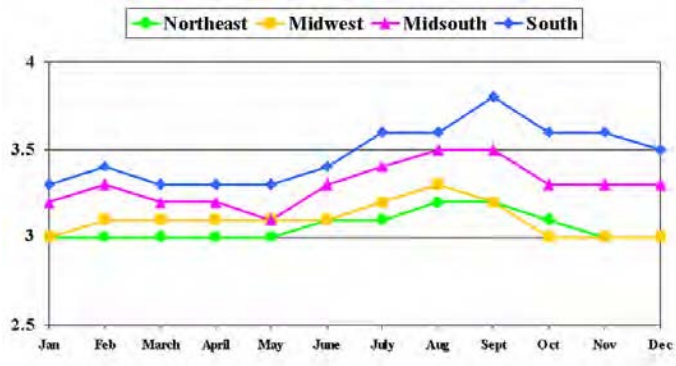

Figure 2. *SCCS by Month*

References

SAS/STAT® User's Guide: Statistics, Version 6.12. 1996. SAS Inst., Inc., Cary, NC.

DHI-202 Herd Summary Fact Sheet: A-1. 1997. Dairy Records Management Systems, Raleigh, NC.

Additional Information

For additional information on somatic cell count management, refer to website: http://www.ads.uga.edu/groups/dairy

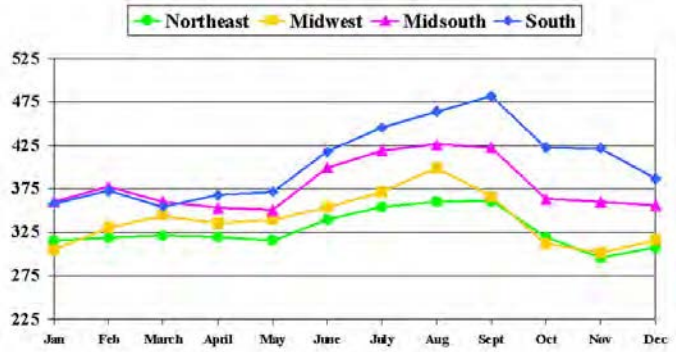

Figure 3. *Weighted SCC by Month*

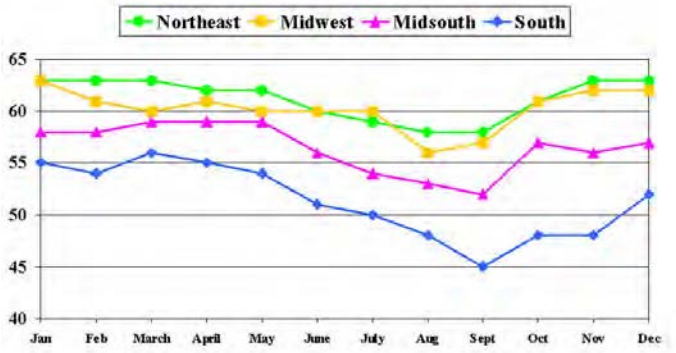

Figure 4. *Percent SCCS (0-3)*

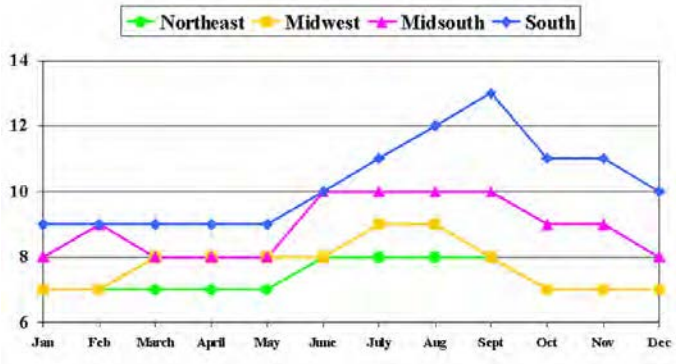

Figure 5. *Percent SCCS (7-9)*

Table 2. Herd Weighted Somatic Cell Count (SCC), Herd Somatic Cell County Score (SCCS),and Somatic Cell County Score by Lactation Group in the Northeast Region by Herd Size.

Northeast

Up to 50 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	1384	326	134	503	407	306	229	171
Herd SCCS	1384	3.1	0.6	3.8	3.5	3.0	2.6	2.3
SCCS (by Lactation)								
1st	403	2.4	0.7	3.3	2.8	2.4	1.9	1.5
2nd	294	2.8	0.8	3.8	3.4	2.7	2.2	1.8
3rd +	799	3.4	0.8	4.6	4.0	3.4	2.8	2.4

Northeast

50 to 99 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	1888	331	135	514	401	311	237	180
Herd SCCS	1888	3.1	0.6	3.9	3.5	3.1	2.7	2.4
SCCS (by Lactation)								
1st	1036	2.4	0.6	3.3	2.9	2.4	2.0	1.7
2nd	967	2.8	0.8	3.9	3.3	2.8	2.3	1.9
3rd +	1473	3.5	0.8	4.5	4.0	3.5	2.9	2.5

Northeast

100 to 149 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	528	330	123	493	396	304	243	194
Herd SCCS	528	3.1	0.5	3.8	3.4	3.0	2.7	2.4
SCCS (by Lactation)								
1st	381	2.4	0.6	3.2	2.8	2.4	2.0	1.7
2nd	393	2.8	0.6	3.7	3.2	2.7	2.3	2.0
3rd +	479	3.4	0.7	4.3	3.9	3.4	3.0	2.6

Table 2 (continued)

Northeast

150 to 249 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	313	313	114	457	378	291	228	193
Herd SCCS	313	3.0	0.5	3.7	3.3	2.9	2.6	2.4
SCCS (by Lactation)								
1st	274	2.4	0.5	3.1	2.6	2.3	2.0	1.8
2nd	283	2.7	0.6	3.6	3.1	2.7	2.3	2.0
3rd +	293	3.4	0.6	4.2	3.7	3.3	2.9	2.6

Northeast

250 to 349 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	125	306	110	418	359	281	228	195
Herd SCCS	125	3.0	0.4	3.5	3.2	2.9	2.6	2.4
SCCS (by Lactation)								
1st	109	2.4	0.6	3.1	2.7	2.3	2.0	1.8
2nd	109	2.8	0.5	3.6	3.1	2.8	2.4	2.1
3rd +	109	3.4	0.6	4.2	3.8	3.4	3.1	2.7

Northeast

350+ cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	161	271	84	359	309	261	214	183
Herd SCCS	161	2.8	0.4	3.2	3.0	2.8	2.5	2.3
SCCS (by Lactation)								
1st	122	2.2	0.4	2.8	2.6	2.2	1.9	1.7
2nd	123	2.7	0.5	3.5	2.9	2.6	2.3	2.1
3rd +	125	3.3	0.6	4.1	3.6	3.3	2.9	2.6

Table 3. Herd Weighted Somatic Cell Count (SCC), Herd Somatic Cell Count Score (SCCS), and Somatic Cell Count Score by Lactation Group in the Mid-South Region by Herd Size.

Mid-South

Up to 50 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	183	370	167	627	463	332	250	186
Herd SCCS	183	3.3	0.6	4.1	3.7	3.3	2.8	2.5
SCCS (by Lactation)								
1st	36	2.6	0.6	3.6	3.0	2.6	2.2	2.0
2nd	46	3.0	0.9	4.1	3.8	2.8	2.4	1.9
3rd +	83	3.7	0.8	4.7	4.2	3.7	3.1	2.8

Mid-South

50 to 99 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	705	375	148	566	452	349	268	210
Herd SCCS	705	3.3	0.6	4.0	3.6	3.2	2.9	2.6
SCCS (by Lactation)								
1st	329	2.7	0.7	3.6	3.2	2.7	2.3	1.9
2nd	359	3.0	0.8	4.0	3.5	3.0	2.5	2.1
3rd +	521	3.7	0.8	4.8	4.3	3.7	3.2	2.7

Mid-South

100 to 149 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	458	372	120	534	436	358	294	228
Herd SCCS	458	3.3	0.5	3.9	3.6	3.2	2.9	2.6
SCCS (by Lactation)								
1st	279	2.8	0.6	3.7	3.2	2.8	2.4	2.1
2nd	329	3.0	0.7	4.0	3.4	3.0	2.6	2.2
3rd +	405	3.7	0.7	4.6	4.1	3.7	3.2	2.8

Table 3 (continued)

Mid-South

150 to 249 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	262	382	131	546	446	358	296	237
Herd SCCS	262	3.3	0.5	4.0	3.7	3.3	3.0	2.7
SCCS (by Lactation)								
1st	199	3.0	0.5	3.7	3.3	3.0	2.7	2.3
2nd	225	3.2	0.6	4.0	3.6	3.1	2.4	2.5
3rd +	245	3.7	0.6	4.6	4.1	3.7	3.3	3.0

Mid-South

250+ cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	112	386	128	545	484	374	284	228
Herd SCCS	112	3.3	0.5	3.9	3.7	3.4	3.0	2.7
SCCS (by Lactation)								
1st	99	3.0	0.5	3.6	3.3	3.0	2.5	2.2
2nd	106	3.2	0.6	4.1	3.6	3.3	2.8	2.5
3rd +	103	3.7	0.6	4.5	4.2	3.8	3.2	3.0

Table 4. Herd Weighted Somatic Cell Count (SCC), Herd Somatic Cell Count Score (SCCS), and Somatic Cell Count Score by Lactation Group in the Midwest Region by Herd Size.

Midwest

Up to 50 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	774	346	160	565	423	314	232	172
Herd SCCS	774	3.2	0.6	4.0	3.6	3.1	2.8	2.4
SCCS (by Lactation)								
1st	232	2.6	0.8	3.6	3.2	2.6	2.1	1.8
2nd	147	2.9	0.8	3.9	3.4	2.8	2.3	1.8
3rd +	382	3.5	0.9	4.7	4.0	3.5	2.9	2.4

Midwest

50 to 99 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	1707	342	141	530	422	321	239	180
Herd SCCS	1707	3.2	0.4	3.9	3.5	3.1	2.7	2.4
SCCS (by Lactation)								
1st	979	2.6	0.7	3.5	3.1	2.6	2.2	1.8
2nd	897	2.9	0.8	3.9	3.4	2.9	2.4	1.9
3rd +	1303	3.5	0.8	4.6	4.1	3.4	2.9	2.5

Midwest

100 to 149 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	650	328	140	500	392	312	231	168
Herd SCCS	650	3.0	0.6	3.8	3.4	3.0	2.7	2.3
SCCS (by Lactation)								
1st	468	2.6	0.6	3.5	3.0	2.6	2.2	1.8
2nd	516	2.9	0.7	3.9	3.4	2.9	2.4	1.9
3rd +	584	3.4	0.8	4.4	4.0	3.4	3.0	2.4

Table 4 (continued)

Midwest

150 to 249 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	356	314	123	483	386	294	224	176
Herd SCCS	356	3.0	0.5	3.7	3.3	3.0	2.6	2.3
SCCS (by Lactation)								
1st	308	2.5	0.6	3.3	2.9	2.5	2.2	1.8
2nd	326	2.8	0.7	3.7	3.3	2.8	2.3	1.9
3rd +	336	3.4	0.7	4.3	3.8	3.4	3.0	2.5

Midwest

250+ cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	217	296	112	433	358	280	211	168
Herd SCCS	217	2.9	0.5	3.5	3.3	2.9	2.5	2.3
SCCS (by Lactation)								
1st	198	2.6	0.5	3.3	2.9	2.5	2.2	2.0
2nd	201	2.9	0.6	3.6	3.3	2.8	2.5	2.1
3rd +	199	3.3	0.6	4.1	3.7	3.3	3.0	2.6

Table 5. Herd Weighted Somatic Cell Count (SCC), Herd Somatic Cell Count Score (SCCS), and Somatic Cell Count Score by Lactation Group in the South Region by Herd Size.

South

Up to 100 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	115	396	133	605	468	383	305	240
Herd SCCS	115	3.4	0.6	4.1	3.8	3.4	3.0	2.7
SCCS (by Lactation)								
1st	39	2.9	0.8	4.0	3.5	2.9	2.3	1.7
2nd	50	3.2	0.7	4.0	3.6	3.2	2.6	2.2
3rd +	75	3.9	0.8	4.8	4.5	4.0	3.3	2.9

South

100 to 149 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	136	416	157	609	463	387	316	253
Herd SCCS	136	3.5	0.5	4.3	3.8	3.5	3.2	2.9
SCCS (by Lactation)								
1st	73	3.0	0.6	3.7	3.3	3.0	2.6	2.3
2nd	86	3.3	0.8	4.3	3.9	3.3	2.7	2.4
3rd +	104	4.0	0.7	4.9	4.4	4.0	3.5	3.0

South

150 to 249 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	157	406	139	579	494	396	299	250
Herd SCCS	157	3.5	0.6	4.2	3.9	3.5	3.1	2.8
SCCS (by Lactation)								
1st	116	3.1	0.6	4.0	3.6	3.1	2.7	2.3
2nd	120	3.4	0.7	4.3	3.8	3.3	2.8	2.6
3rd +	127	4.0	0.6	4.9	4.3	4.0	3.6	3.1

Table 5 (continued)

South

250 to 499 cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	110	409	166	602	509	373	290	232
Herd SCCS	110	3.5	0.6	4.2	3.9	3.4	3.1	2.8
SCCS (by Lactation)								
1st	93	3.3	0.6	4.2	3.5	3.3	3.0	2.6
2nd	96	3.5	0.7	4.3	4.0	3.4	3.0	2.7
3rd +	95	4.0	0.7	4.8	4.5	4.0	3.6	3.2

South

500+ cows

				Percentile Rank				
	N	Mean	SD	10th	25th	50th	75th	90th
Weighted SCC (X 1,000)	69	376	139	542	459	357	275	227
Herd SCCS	69	3.3	0.5	3.8	3.7	3.4	2.9	2.7
SCCS (by Lactation)								
1st	58	3.0	0.6	3.8	3.4	3.0	2.7	2.2
2nd	58	3.3	0.5	4.1	3.6	3.3	3.0	2.7
3rd +	55	3.8	0.5	4.5	4.1	3.8	3.6	3.2

Table 6. Percent Cows with Low (0-3) and High (7-9) Somatic Cell Count Scores by Lactation Group for the Northeast Region by Herd Size.

Northeast
Up to 50 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	1361	74	18	50	63	75	88	100
	Lact 2	1361	64	22	33	50	67	80	90
	Lact 3 +	1364	53	18	29	40	53	67	75
	All	1367	62	14	43	53	63	72	79
% 7-9	Lact 1	1361	4	7	13	7	0	0	0
	Lact 2	1364	6	10	17	10	0	0	0
	Lact 3	1364	10	10	23	15	8	0	0
	All	1367	7	6	15	10	6	3	0

Northeast
50 to 99 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	1842	75	15	56	67	77	86	92
	Lact 2	1844	66	18	42	55	68	79	88
	Lact 3 +	1845	52	16	30	41	53	64	74
	All	1846	63	13	46	55	65	73	79
% 7-9	Lact 1	1842	4	5	11	6	0	0	0
	Lact 2	1844	5	7	14	9	0	0	0
	Lact 3	1845	11	8	22	15	10	5	0
	All	1846	7	5	14	10	6	4	2

Northeast
100 to 149 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	499	76	12	60	69	77	85	90
	Lact 2	499	67	14	48	58	69	77	84
	Lact 3 +	499	54	14	35	45	55	64	71
	All	499	65	11	50	58	66	73	75
% 7-9	Lact 1	499	4	4	9	6	3	0	0
	Lact 2	499	6	6	14	8	4	0	0
	Lact 3	499	10	7	19	14	9	5	2
	All	499	7	4	13	9	6	4	2

Table 6 (continued)

Northeast
150 to 249 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	298	76	11	59	71	78	84	88
	Lact 2	298	68	12	51	61	70	77	83
	Lact 3 +	298	56	12	39	49	57	64	70
	All	298	67	10	53	61	68	74	78
% 7-9	Lact 1	298	4	3	8	5	3	2	0
	Lact 2	298	5	5	12	8	4	2	0
	Lact 3	298	10	6	19	14	9	6	3
	All	298	6	4	11	8	6	4	2

Northeast
250 to 349 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	110	77	10	62	71	79	85	88
	Lact 2	110	67	11	50	61	68	76	82
	Lact 3 +	110	54	11	39	47	54	62	67
	All	110	67	10	55	61	68	74	78
% 7-9	Lact 1	110	4	3	8	5	3	1	1
	Lact 2	110	5	4	11	7	5	3	1
	Lact 3	110	11	6	18	14	10	7	4
	All	110	6	3	11	8	6	4	2

Northeast
350+ cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	123	78	9	69	74	80	84	88
	Lact 2	123	69	10	55	65	70	75	82
	Lact 3 +	123	56	10	42	49	56	63	69
	All	123	69	8	59	64	69	75	79
% 7-9	Lact 1	123	3	2	6	4	3	2	1
	Lact 2	123	5	3	9	7	4	3	1
	Lact 3	123	9	5	15	12	9	6	4
	All	123	6	3	9	6	5	4	3

Table 7. Percent Cows with Low (0-3) and High (7-9) Somatic Cell Count Scores by Lactation Group for the Mid-South Region by Herd Size.

Mid-South
Up to 50 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	178	67	20	43	56	69	82	90
	Lact 2	182	60	25	25	43	63	75	100
	Lact 3 +	182	47	20	22	33	47	60	71
	All	183	56	16	37	45	56	67	77
% 7-9	Lact 1	178	4	8	13	7	0	0	0
	Lact 2	182	7	12	25	11	0	0	0
	Lact 3	182	11	11	25	17	10	0	0
	All	183	8	8	17	12	7	3	0

Mid-South
50 to 99 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	684	68	17	45	58	70	79	87
	Lact 2	688	62	19	36	50	64	75	86
	Lact 3 +	686	47	17	24	36	46	59	69
	All	688	57	14	38	49	58	68	74
% 7-9	Lact 1	684	4	6	11	7	3	0	0
	Lact 2	688	6	8	16	10	5	0	0
	Lact 3	686	13	10	25	18	11	6	0
	All	688	8	6	16	11	7	4	2

Table 7 (continued)

Mid-South
100 to 149 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	447	66	14	48	57	67	76	83
	Lact 2	447	61	15	41	52	61	72	80
	Lact 3 +	447	49	14	30	39	48	60	68
	All	447	58	12	42	50	58	66	73
% 7-9	Lact 1	447	5	5	11	8	4	0	0
	Lact 2	447	6	6	14	10	5	0	0
	Lact 3	447	12	8	23	16	11	6	3
	All	447	8	5	14	11	7	5	3

Mid-South
150 to 249 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	253	64	12	47	56	64	72	79
	Lact 2	253	59	14	41	51	60	69	76
	Lact 3 +	253	48	13	30	39	48	57	63
	All	253	56	11	43	50	57	64	69
% 7-9	Lact 1	253	6	0.5	12	8	5	2	0
	Lact 2	253	7	0.6	14	10	6	3	0
	Lact 3	253	7	0.7	22	17	12	7	4
	All	253	9	0.5	15	11	8	5	4

Mid-South
250+ cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	106	64	12	50	56	64	74	80
	Lact 2	106	58	12	43	51	58	68	75
	Lact 3 +	106	48	11	34	41	48	56	63
	All	106	57	10	44	51	56	65	72
% 7-9	Lact 1	106	6	4	10	8	6	4	2
	Lact 2	106	8	5	16	11	8	4	2
	Lact 3	106	13	6	21	17	12	8	5
	All	106	9	4	14	12	8	6	4

Table 8. Percent Cows with Low (0-3) and High (7-9) Somatic Cell County Scores by Lactation Group for the Midwest Region by Herd Size.

Midwest
Up to 50 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	766	70	20	45	57	71	85	93
	Lact 2	768	64	23	33	50	67	80	91
	Lact 3 +	769	51	20	25	38	50	67	78
	All	770	61	15	40	51	62	71	80
% 7-9	Lact 1	766	4	7	13	7	0	0	0
	Lact 2	768	5	9	17	9	0	0	0
	Lact 3	769	10	11	25	18	8	0	0
	All	770	7	6	16	10	6	3	0

Midwest
50 to 99 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	1686	71	15	50	61	72	82	89
	Lact 2	1687	64	18	41	53	67	77	87
	Lact 3 +	1684	52	17	29	40	53	64	73
	All	1688	62	13	44	53	63	72	78
% 7-9	Lact 1	1686	5	6	13	7	3	0	0
	Lact 2	1687	6	7	15	9	4	0	0
	Lact 3	1684	10	9	22	15	9	4	0
	All	1688	7	5	14	10	6	3	2

Table 8 (continued)

Midwest
100 to 149 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	636	71	14	53	63	71	80	87
	Lact 2	637	64	16	44	53	65	75	83
	Lact 3 +	636	53	15	33	43	53	63	73
	All	637	62	12	46	55	63	71	78
% 7-9	Lact 1	636	4	4	10	6	3	0	0
	Lact 2	637	6	6	14	9	4	0	0
	Lact 3	636	10	8	20	14	9	4	2
	All	637	7	5	13	9	6	4	2

Midwest
150 to 249 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	344	71	12	56	65	73	79	87
	Lact 2	344	65	14	47	56	66	75	81
	Lact 3 +	344	53	14	35	44	54	63	70
	All	344	63	12	48	57	64	71	77
% 7-9	Lact 1	344	4	4	9	6	3	2	0
	Lact 2	344	6	5	13	8	4	2	0
	Lact 3	344	10	6	19	14	9	5	3
	All	344	6	4	12	9	6	4	2

Midwest
250+ cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	204	72	9	58	66	72	78	83
	Lact 2	204	64	12	49	55	66	73	79
	Lact 3 +	204	55	12	39	47	56	62	69
	All	204	64	9	51	58	65	71	77
% 7-9	Lact 1	204	4	3	8	5	4	2	1
	Lact 2	204	6	4	10	7	5	3	1
	Lact 3	204	9	5	17	12	8	6	3
	All	204	6	3	10	8	6	4	2

Table 9. Percent Cows with Low (0-3) and High (7-9) Somatic Cell Count Scores by Lactation Group for the South Region by Herd Size.

South
Up to 100 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	106	59	18	32	48	60	72	82
	Lact 2	105	56	20	27	43	59	69	82
	Lact 3 +	106	42	17	22	30	40	52	63
	All	106	52	15	33	40	52	62	72
% 7-9	Lact 1	106	6	7	15	9	4	0	0
	Lact 2	105	7	8	17	10	5	0	0
	Lact 3	106	15	9	25	19	13	8	5
	All	106	10	5	16	13	9	6	3

South
100 to 149 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	120	59	16	40	50	60	70	78
	Lact 2	121	54	18	29	41	55	67	75
	Lact 3 +	121	42	16	19	32	42	52	61
	All	121	50	15	33	43	51	59	68
% 7-9	Lact 1	120	6	5	12	8	4	2	0
	Lact 2	121	8	7	18	11	7	0	0
	Lact 3	121	15	9	25	20	14	7	4
	All	121	10	6	17	13	10	6	3

Table 9 (continued)

South
150 to 249 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	138	58	15	39	48	61	68	76
	Lact 2	138	55	15	34	45	57	65	73
	Lact 3 +	138	42	12	24	36	42	50	61
	All	138	51	12	34	44	53	60	66
% 7-9	Lact 1	138	6	5	13	9	6	3	2
	Lact 2	138	8	6	16	13	8	4	0
	Lact 3	138	15	8	27	19	14	9	6
	All	138	10	5	17	13	9	7	5

South
250 to 499 cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	99	55	14	33	48	57	65	71
	Lact 2	99	51	15	32	43	53	62	71
	Lact 3 +	99	41	13	26	33	41	49	57
	All	99	50	13	32	42	51	58	68
% 7-9	Lact 1	99	8	5	16	10	6	4	3
	Lact 2	99	9	6	17	13	8	5	2
	Lact 3	99	16	8	27	20	15	9	6
	All	99	11	6	20	14	10	7	5

South
500+ cows

					Percentile Rank				
		N	Mean	SD	10th	25th	50th	75th	90th
% 0-3	Lact 1	58	62	11	46	54	61	71	75
	Lact 2	58	55	10	41	47	56	62	70
	Lact 3 +	58	46	11	32	40	43	51	60
	All	58	55	10	41	48	55	62	67
% 7-9	Lact 1	58	7	4	13	10	6	4	2
	Lact 2	58	9	4	15	12	8	5	4
	Lact 3	58	14	6	23	16	13	10	8
	All	58	10	4	16	12	9	7	5

Table 10. Percent of Cows with SCCS of 0-3, 4, 5, 6 and 7-9, Herd SCCS, and Weighted SCC for Herds in the Northeast Region by Production Level.

Northeast								
Herd Average (lbs)	N	0-3	4	5	6	7-9	Herd SCCS	Weighted SCC (X 1,000)
		---------- (%) ----------						
14000-14999	68	49	17	13	9	11	3.74	466
15000-15999	128	52	17	12	8	10	3.54	413
16000-16999	200	56	16	11	8	9	3.35	382
17000-17999	333	57	16	11	7	8	3.28	366
18000-18999	426	60	14	10	7	8	3.13	336
19000-19999	547	59	14	10	7	8	3.17	349
20000-20999	570	62	14	9	6	7	3.00	314
21000-21999	616	63	14	9	6	7	2.97	306
22000-22999	458	63	14	9	6	7	2.94	304
23000-23999	373	65	14	9	6	6	2.83	277
24000-24999	260	65	13	8	6	7	2.86	294
25000-25999	158	69	12	8	5	6	2.72	259
26000-26999	94	66	13	9	6	6	2.77	272
27000+	96	66	12	8	5	6	2.79	279

Table 11. Percent of Cows with SCCS of 0-3, 4, 5, 6 and 7-9, Herd SCCS, and Weighted SCC for Herds in the Mid-South Region by Production Level.

Mid-South								
Herd Average (lbs)	N	0-3	4	5	6	7-9	Herd SCCS	Weighted SCC (X 1,000)
		---------- (%) ----------						
14000-14999	85	49	17	13	9	11	3.67	473
15000-15999	117	53	16	12	8	10	3.48	422
16000-16999	158	56	16	12	8	9	3.34	388
17000-17999	169	55	16	12	8	10	3.40	415
18000-18999	220	57	15	11	7	9	3.26	374
19000-19999	213	58	15	11	7	9	3.25	366
20000-20999	198	59	15	10	7	8	3.22	335
21000-22999	197	60	15	10	7	8	3.13	332
22000-22999	128	63	14	10	6	7	3.04	309
23000-23999	59	63	14	10	6	7	3.00	302
24000+	96	61	14	10	7	8	3.09	331

Table 12. Percent of Cows with SCCS of 0-3, 4, 5, 6 and 7-9, Herd SCCS, and Weighted SCC for Herds in the Midwest Region by Production Level.

Midwest								
Herd Average (lbs)	N	0-3	4	5	6	7-9	Herd SCCS	Weighted SCC (X 1,000)
		---------- (%) ----------						
14000-14999	81	53	16	12	8	10	3.50	440
15000-15999	153	55	16	11	8	10	3.41	416
16000-16999	268	55	16	12	8	10	4.05	406
17000-17999	316	58	15	11	7	8.6	3.25	370
18000-18999	378	59	15	11	7	8	3.19	356
19000-19999	444	60	15	10	7	8	3.16	345
20000-20999	483	61	15	10	6	7	3.05	323
21000-21999	413	62	15	10	6	7	3.02	310
22000-22999	362	63	14	9	6	7	2.96	302
23000-23999	264	65	14	9	6	6	2.86	276
24000-24999	184	66	14	9	6	6	2.80	267
25000-25999	117	66	14	8	6	6	2.79	275
26000-26999	76	67	14	8	5	5	2.68	242
27000+	91	67	13	8	6	6	2.70	253

Table 13. Percent of Cows with SCCS of 0-3, 4, 5, 6 and 7-9, Herd SCCS, and Weighted SCC for Herds in the South Region by Production Level.

South								
Herd Average (lbs)	N	0-3	4	5	6	7-9	Herd SCCS	Weighted SCC (X 1,000)
		---------- (%) ----------						
14000-14999	45	48	17	13	10	12	3.70	464
15000-15999	52	48	17	14	10	11	3.62	430
16000-16999	49	49	17	13	9	12	3.60	447
17000-17999	67	50	17	13	9	11	3.56	419
18000-18999	66	52	16	13	9	10	3.46	401
19000-19999	58	53	16	13	9	10	3.48	405
20000-20999	61	55	16	12	8	9	3.36	372
21000-21999	45	58	15	11	8	8	3.18	339
22000+	92	59	15	11	7	8	3.12	318

Table 14. Average Somatic Cell Count Score by Stage of Lactation for the Northeast Region by Herd Milk Production Level.

Northeast							
		Stage of Lactation (Days)					
Herd Average (lbs)	Lact	1-40	41-100	101-199	200-305	306+	Avg
14000-14999	1	2.99	2.34	2.60	3.09	3.36	2.81
	2	3.28	2.62	3.34	3.83	4.14	3.69
	3+	4.15	3.48	3.87	4.37	4.57	4.08
	All	3.79	2.97	3.47	3.86	4.00	3.88
15000-15999	1	2.66	2.39	2.63	2.86	3.12	2.84
	2	3.05	2.82	3.32	3.63	4.05	3.42
	3+	3.49	3.55	3.68	4.29	4.72	3.84
	All	3.08	3.00	3.24	3.67	4.08	3.38
16000-16999	1	2.76	2.41	2.55	2.85	2.98	2.75
	2	3.01	2.53	2.96	3.46	3.77	3.06
	3+	3.44	3.17	3.67	4.13	4.50	3.78
	All	3.02	2.70	3.19	3.56	3.83	3.21
17000-17999	1	2.65	2.30	2.54	2.80	3.08	2.61
	2	2.50	2.43	2.88	3.30	3.87	2.94
	3+	3.30	3.10	3.57	3.98	4.44	3.61
	All	2.75	2.58	3.05	3.38	3.83	2.92
18000-18999	1	2.78	2.13	2.41	2.51	3.04	2.48
	2	2.43	2.18	2.82	3.28	3.62	2.83
	3+	3.25	2.84	3.45	3.99	4.30	3.50
	All	2.86	2.39	2.96	3.23	3.71	2.99
19000-19999	1	2.68	2.22	2.50	2.66	3.04	2.57
	2	2.40	2.33	2.78	3.19	3.87	2.85
	3+	3.23	3.06	3.48	3.92	4.38	3.54
	All	2.85	2.48	3.02	3.24	3.74	3.05
20000-20999	1	2.74	2.03	2.33	2.43	2.88	2.42
	2	2.38	2.15	2.67	3.18	3.66	2.79
	3+	3.05	2.87	3.24	3.79	4.21	3.40
	All	2.72	2.34	2.78	3.12	3.58	2.87

Table 14. Average Somatic Cell Count Score by Stage of Lactation for the Northeast Region by Herd Milk Production Level.

Northeast							
		Stage of Lactation (Days)					
Herd Average (lbs)	Lact	1-40	41-100	101-199	200-305	306+	Avg
21000-21999	1	2.55	1.99	2.38	2.53	2.86	2.41
	2	2.29	2.20	2.59	3.10	3.58	2.72
	3+	3.11	2.73	3.29	3.78	4.18	3.33
	All	2.54	2.28	2.77	3.08	3.58	2.81
22000-22999	1	2.47	1.95	2.19	2.46	2.83	2.30
	2	2.31	2.17	2.61	3.22	3.66	2.74
	3+	3.04	2.78	3.23	3.74	4.29	3.36
	All	2.64	2.23	2.70	3.12	3.58	2.83
23000-23999	1	2.38	2.04	2.19	2.45	2.78	2.33
	2	2.22	2.07	2.51	2.99	3.50	2.62
	3+	3.03	2.62	3.11	3.63	4.07	3.24
	All	2.49	2.19	2.63	2.96	3.47	2.73
24000-24999	1	2.44	1.95	2.22	2.38	2.91	2.30
	2	2.49	2.03	2.63	3.07	3.62	2.74
	3+	3.18	2.72	3.34	3.82	4.27	3.41
	All	2.67	2.19	2.73	2.99	3.59	2.80
25000-25999	1	2.23	1.94	2.09	2.28	2.63	2.17
	2	2.12	2.08	2.51	2.92	3.61	2.63
	3+	3.00	2.69	3.03	3.57	4.10	3.22
	All	2.35	2.18	2.57	2.84	3.42	2.64
26000-26999	1	2.23	1.71	2.03	2.29	2.80	2.16
	2	2.46	1.90	2.43	3.04	3.43	2.66
	3+	3.08	2.88	3.16	3.71	3.85	3.30
	All	2.39	2.17	2.52	2.87	3.31	2.62
27000+	1	2.16	1.73	2.11	2.47	2.78	2.22
	2	2.34	1.98	2.48	3.11	3.72	2.61
	3+	2.67	2.90	3.23	3.73	4.07	3.30
	All	2.30	2.15	2.61	2.97	3.48	2.70

Table 15. Average Somatic Cell Count Score by Stage of Lactation for the Midwest Region by Herd Milk Production Level.

Midwest							
		Stage of Lactation (Days)					
Herd Average (lbs)	Lact	1-40	41-100	101-199	200-305	306+	Avg
14000-14999	1	3.68	2.65	3.12	3.06	3.14	2.96
	2	3.14	2.77	3.17	3.71	3.97	3.44
	3+	4.04	3.50	4.11	4.33	4.64	4.03
	All	3.54	2.99	3.50	3.65	4.01	3.63
15000-15999	1	3.12	2.63	2.90	3.05	3.19	2.94
	2	3.01	2.78	3.02	3.64	3.74	3.32
	3+	3.41	3.39	3.81	4.16	4.61	3.84
	All	3.22	2.91	3.35	3.53	3.99	3.36
16000-16999	1	3.17	2.50	2.90	2.86	3.22	2.93
	2	2.96	2.77	3.18	3.50	3.78	3.19
	3+	3.70	3.32	3.66	3.95	4.43	3.78
	All	3.20	2.79	3.27	3.39	3.93	3.24
17000-17999	1	2.92	2.46	2.73	2.74	3.15	2.78
	2	2.78	2.51	3.00	3.34	3.76	3.04
	3+	3.27	3.15	3.51	3.96	4.32	3.61
	All	2.96	2.65	3.10	3.25	3.73	3.06
18000-18999	1	3.06	2.36	2.71	2.66	3.11	2.76
	2	2.67	2.47	2.95	3.33	3.85	3.02
	3+	3.29	3.05	3.39	3.98	4.29	3.57
	All	3.07	2.60	3.07	3.26	3.78	3.17
19000-19999	1	2.90	2.35	2.63	2.76	3.09	2.66
	2	2.76	2.42	2.91	3.25	3.70	2.95
	3+	3.32	2.87	3.46	3.85	4.34	3.53
	All	2.97	2.53	3.00	3.20	3.71	3.06
20000-20999	1	2.84	2.31	2.63	2.65	2.99	2.65
	2	2.68	2.33	2.71	3.16	3.64	2.85
	3+	3.20	2.94	3.39	3.68	4.24	3.43
	All	2.87	2.49	2.93	3.06	3.64	2.98

Table 15. Average Somatic Cell Count Score by Stage of Lactation for the Midwest Region by Herd Milk Production Level.

Midwest							
		Stage of Lactation (Days)					
Herd Average (lbs)	Lact	1-40	41-100	101-199	200-305	306+	Avg
21000-21999	1	2.84	2.27	2.55	2.64	2.95	2.60
	2	2.62	2.35	2.75	3.20	3.67	2.88
	3+	3.18	2.84	3.32	3.74	4.13	3.41
	All	2.89	2.49	2.88	3.08	3.58	2.99
22000-22999	1	2.63	2.24	2.46	2.52	2.95	2.53
	2	2.60	2.24	2.65	3.10	3.63	2.75
	3+	3.12	2.83	3.23	3.60	4.07	3.34
	All	2.75	2.40	2.76	2.97	3.52	2.87
23000-23999	1	2.63	2.13	2.34	2.52	2.82	2.49
	2	2.38	2.13	2.54	3.02	3.61	2.67
	3+	2.96	2.63	3.13	3.56	3.99	3.17
	All	2.62	2.25	2.68	2.93	3.44	2.79
24000-24999	1	2.58	2.05	2.32	2.38	2.96	2.39
	2	2.35	2.04	2.60	2.95	3.42	2.68
	3+	2.95	2.53	3.11	3.64	4.05	3.16
	All	2.59	2.20	2.68	2.84	3.44	2.66
25000-25999	1	2.49	2.06	2.32	2.52	2.84	2.41
	2	2.41	2.16	2.67	2.88	3.64	2.74
	3+	2.91	2.76	2.96	3.42	4.13	3.15
	All	2.56	2.27	2.66	2.82	3.44	2.76
26000-26999	1	2.58	1.91	2.12	2.34	2.72	2.30
	2	2.13	2.26	2.59	2.92	3.35	2.58
	3+	3.11	2.67	3.00	3.39	3.83	3.12
	All	2.55	2.23	2.53	2.76	3.28	2.61
27000+	1	2.75	1.96	2.02	2.26	2.61	2.22
	2	2.04	1.96	2.55	2.92	3.57	2.60
	3+	2.75	2.54	3.00	3.47	3.90	3.12
	All	2.40	2.16	2.52	2.81	3.30	2.61

Table 16. Average Somatic Cell Count Score by Stage of Lactation for the Mid-South Region by Herd Milk Production Level.

Mid-South							
		Stage of Lactation (Days)					
Herd Average (lbs)	Lact	1-40	41-100	101-199	200-305	306+	Avg
14000-14999	1	3.12	2.73	3.04	3.18	3.14	3.08
	2	3.26	3.07	3.33	3.66	4.25	3.60
	3+	3.82	3.66	4.15	4.76	4.87	4.33
	All	3.38	3.29	3.72	3.88	4.20	3.80
15000-15999	1	3.14	2.64	3.04	2.99	3.26	2.91
	2	2.91	2.86	3.04	3.72	3.81	3.29
	3+	3.65	3.47	3.92	4.31	4.68	3.99
	All	3.34	3.07	3.41	3.59	4.13	3.50
16000-16999	1	3.31	2.41	2.90	2.80	3.27	2.97
	2	2.74	2.72	3.23	3.33	4.08	3.13
	3+	3.53	3.28	3.90	4.16	4.66	3.85
	All	3.25	2.85	3.46	3.50	4.09	3.46
17000-17999	1	3.01	2.50	2.86	2.98	3.31	2.94
	2	2.85	2.59	3.30	3.35	3.71	3.19
	3+	3.73	3.25	3.80	4.13	4.64	3.88
	All	3.23	2.93	3.35	3.44	3.96	3.35
18000-18999	1	2.97	2.37	2.73	2.84	3.24	2.90
	2	2.75	2.50	3.06	3.46	3.84	3.04
	3+	3.48	3.07	3.62	3.83	4.45	3.63
	All	3.21	2.67	3.17	3.28	3.91	3.20
19000-19999	1	2.97	2.69	2.91	2.84	3.22	2.86
	2	2.82	2.65	3.09	3.34	3.93	3.17
	3+	3.37	3.28	3.66	4.08	4.49	3.69
	All	3.09	2.84	3.29	3.30	3.87	3.20
20000-20999	1	3.01	2.55	2.93	2.89	3.29	2.85
	2	2.63	2.54	3.05	3.22	3.89	3.04
	3+	3.39	3.17	3.51	4.00	4.53	3.62
	All	3.06	2.79	3.17	3.30	3.88	3.19

Table 16. Average Somatic Cell Count Score by Stage of Lactation for the Mid-South Region by Herd Milk Production Level.

Mid-South							
		Stage of Lactation (Days)					
Herd Average (lbs)	Lact	1-40	41-100	101-199	200-305	306+	Avg
21000-21999	1	3.04	2.38	2.75	2.85	3.03	2.77
	2	2.58	2.50	2.94	3.20	3.71	2.92
	3+	3.25	2.98	3.38	3.79	4.41	3.47
	All	3.00	2.63	3.01	3.20	3.79	3.12
22000-22999	1	2.74	2.28	2.69	2.83	3.00	2.72
	2	2.37	2.24	2.86	3.22	3.45	2.87
	3+	3.14	2.96	3.39	3.81	4.24	3.45
	All	2.86	2.54	3.00	3.16	3.58	3.01
23000-23999	1	2.43	2.28	2.69	2.64	3.05	2.56
	2	2.46	2.34	2.84	3.19	3.45	2.89
	3+	3.40	2.98	3.51	3.81	4.31	3.56
	All	2.78	2.55	3.06	3.05	3.69	3.03
24000+	1	2.72	2.26	2.71	2.80	3.11	2.74
	2	2.72	2.63	3.05	3.13	3.45	3.01
	3+	3.27	3.12	3.40	3.74	4.18	3.53
	All	2.96	2.67	3.03	3.12	3.63	3.09

Table 17. Average Somatic Cell Count Score by Stage of Lactation for the South Region by Herd Milk Production Level.

South							
		Stage of Lactation (Days)					
Herd Average (lbs)	Lact	1-40	41-100	101-199	200-305	306+	Avg
14000-14999	1	3.29	2.95	3.25	3.74	3.53	3.38
	2	2.96	3.00	3.59	3.84	4.26	3.52
	3+	3.77	3.80	4.11	4.59	5.02	4.20
	All	3.62	3.35	3.84	3.92	4.39	3.72
15000-15999	1	3.01	2.90	3.36	3.29	3.88	3.28
	2	3.12	3.09	3.55	3.85	3.72	3.55
	3+	3.95	3.66	3.98	4.48	4.94	4.09
	All	3.40	3.43	3.81	3.81	4.24	3.72
16000-16999	1	3.06	2.70	3.52	3.10	3.53	3.14
	2	2.95	2.70	3.35	4.09	4.04	3.38
	3+	3.69	3.78	4.12	4.44	4.88	4.06
	All	3.26	3.23	3.71	3.82	4.17	3.57
17000-17999	1	3.14	3.07	3.41	3.41	3.65	3.27
	2	2.92	2.77	3.68	3.92	4.44	3.54
	3+	3.75	3.74	3.76	4.54	4.84	4.08
	All	3.32	3.22	3.57	3.84	4.24	3.74
18000-18999	1	2.92	2.78	3.06	3.20	3.43	3.10
	2	2.66	2.83	3.41	3.65	4.21	3.34
	3+	3.88	3.41	3.72	4.36	4.56	3.84
	All	3.14	3.01	3.47	3.67	4.04	3.47
19000-19999	1	3.06	2.75	3.23	3.25	3.65	3.17
	2	2.81	2.82	3.36	3.72	4.13	3.30
	3+	3.58	3.40	3.86	4.45	4.83	3.94
	All	3.20	3.04	3.43	3.72	4.23	3.53
20000-20999	1	3.44	2.76	3.05	3.10	3.30	3.11
	2	2.80	2.86	3.37	3.71	3.99	3.35
	3+	3.58	3.29	3.74	4.12	4.69	3.81
	All	3.40	2.97	3.32	3.56	3.96	3.40
21000-21999	1	2.69	2.37	3.02	3.06	3.42	2.82
	2	2.53	2.47	3.18	3.46	3.75	3.06
	3+	3.55	3.29	3.93	4.13	4.49	3.72
	All	2.91	2.70	3.28	3.37	3.96	3.19
22000+	1	2.97	2.39	2.93	3.06	3.31	2.90
	2	2.63	2.60	2.97	3.49	3.89	3.03
	3+	3.55	3.27	3.42	3.96	4.41	3.67
	All	3.09	2.80	3.09	3.37	3.85	3.22

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Bulletin 1194 **Reviewed March 2012**