Milk Quality—Using the Days in Milk SCC Averages

by J.R. Dunham

Subclinical mastitis is the most costly disease on dairy farms. The DHIA Somatic Cell Count (SCC) Summary (DHIA-230) is a valuable tool for evaluating and managing mammary health in a dairy herd.

The Days in Milk Averages is an important section on the DHIA-230 for evaluating dry cow treatment and management programs and for evaluating milking management.

The Days in Milk Averages shown in Figure 1 is actually a stage of lactation profile for SCC. Cows’ SCC on each test day are grouped according to their stage of lactation.

The averages for the top 25 percent of herds in the Mid-States DRPC also is shown in this section. Notice that the lowest SCC cows are 50 to 100 days in milk. Then the cell count increases slightly after 100 days. It also shows that 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, 1st lactation cows also will be high.

A thorough evaluation of the dry cows’ environment should be made; determine if sanitation of the lots and housing system can be improved. Also, make sure that cows and heifers are not in mud around the hay and feed bunks.

Continued on page 2

Figure 1. Days in Milk Averages. From DHIA-230.

<table>
<thead>
<tr>
<th>Days in Milk Averages</th>
<th>Your Herd</th>
<th>Mid-States Top 25%</th>
<th>Animals &gt; 400</th>
<th>% &gt; 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh Under 50 Days</td>
<td>268</td>
<td>129</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Fresh 50-100 Days</td>
<td>87</td>
<td>121</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Fresh 101-200 Days</td>
<td>142</td>
<td>144</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Fresh 201-300 Days</td>
<td>163</td>
<td>161</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Fresh Over 300 Days</td>
<td>187</td>
<td>200</td>
<td>1</td>
<td>6</td>
</tr>
</tbody>
</table>
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 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 that may not be comfortable for cows, including 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—this area becomes sloppy and high SCC usually follow.

High producing dairy herds can consistently average <200,000 SCC. Herds with consistently higher averages can improve the count and realize higher profit. Days in Milk SCC Averages can disclose the pitfalls in many herds needing to be removed before improvement can be made.

### New!

**Dairy Factsheets**

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These factsheets were developed by the Department of Animal Sciences and Industry at K-State.
Do You Want to Renovate the Milking Parlor?

by John F. Smith, Dennis V. Armstrong and Mike J. Gamroth

With today’s growing herds, people are spending more and more time in the parlor, but it’s a big investment.

What about converting your herringbone to a parallel? We’ve looked at converted parlors and compared them to new ones. It looks like “steadystate throughput” is 10 to 12 percent higher in new versus renovated parlors. For example, you might expect to get 104 cows an hour through a new double-12 parallel and about 95 per hour through a double-6 herringbone converted to a double-12 parallel. Comparable figures for a double-20 parallel would be 187 cows per hour for a new parlor and 161 for a conversion. We assume the same automation and number of operators.

The major reason converted parlors are slower is that there is less cow exit space. This adds to the time needed for cows to leave the parlor. Essentially, you’re putting larger groups of cows through the same facility.

Before renovating an existing parlor, dairy producers may want to ask the following questions:

1. What are my long term goals?
2. How many cows do I want to work in the future?
3. Is there room for additional cow housing near the existing parlor?
4. Do I have sufficient acreage to expand the waste management system?
5. How will renovating the parlor affect my bottom line?
6. What is the return on investment?

Remodeling the milking parlor is an important decision. If the goal is to expand the number of cows during the process, careful planning must take place to expand cow housing and the waste management system. This process often is very difficult on facilities that have already been remodeled over the years.