

Somatic Cell Counts Continue To Decline In DHIA Herds

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Consumers expect the dairy products they buy to be nutritious and of high quality, and dairy producers strive to produce the highest quality milk they can. One measure of the quality of milk as it leaves the dairy farm is its somatic cell count (SCC). The legal limit for somatic cells in milk is 750,000/ml. Other tests of quality are also conducted on both the unprocessed milk and processed dairy products.

More than half of the dairy herds in the U.S. participate in the DHIA production record keeping program. The quality of milk produced in these DHIA herds, as measured by the SCC scores, continues to improve each year. While SCC average data for all of the non-DHIA herds is not available, the information that is available indicates that the SCC scores for those herds are also improving yearly.

The SCC values for all herds on the DHIA SCC program for 2004 were recently released by the Animal Improvement Programs Laboratory in the ARS branch of USDA. The data show very interesting and encouraging information. The 2004 national average SCC value for DHIA herds was 295,000 cells/ml. This is the first time that the yearly average value has gone below 300,000. Eighteen states averaged fewer than 300,000 for the year, while only 7 states averaged over 400,000. No states averaged above 500,000 which is a very encouraging indicator of the continual improvement in milk quality in the U.S.

Other data reported for 2004 showed that the SCC averages decreased as the size of the dairy herds increased. Larger herds usually have people specialized in and responsible for only certain tasks, which allow them the time to do their jobs more thoroughly and accurately. Consequently, the factors that affect cow udder health (as indicated by SCC values) are usually given closer attention in larger herds, with the result being lower average SCC values.

Another bit of information in the 2004 report was that SCCs rose somewhat in the more humid-high temperature months of the year. This fact is expected by most dairy producers, as the warmer temperatures and more humid conditions promote bacteria growth in the cows' environment, thus increasing the bacteria challenge to the cows' udders. Various management practices can minimize the increase in bacteria load, thereby helping to reduce the increase in SCC values.

Regional differences in average SCC values occurred in 2004 just as they have in previous years. Values generally were lower in the western states and higher in the southeastern/southern states. However, even within a region, neighboring states with similar climatic conditions had differences in their SCC average values. This indicates that mastitis prevention and control programs can be effective, regardless of the weather conditions. It also suggests that there may be differences in the mastitis programs used by producers in different states.

While most dairy producers see the economic returns from lowering their herd's SCC scores, educators and industry representatives must continue to emphasize to dairy producers the importance of following an effective and complete mastitis prevention program. By continuing to focus on following production practices that lower SCC values, U.S. dairy producers can maintain the downward trend in national SCC values shown in the 2004 DHIA data. Producers should contact their Extension agent/specialist, veterinarian, milk handler field representative, or other competent consultant for assistance in reviewing their mastitis management program.