Management Factors That Affect Herd SCC Values

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It is always interesting to read different research reports that have studied the effects of various dairy management practices on herd somatic cell counts (SCC). The results of another study conducted about 5 years ago in France were recently published in the Journal of Dairy Science. What made this report interesting to me was how low the SCC values were in the two groups of herds that were studied.

The researchers used DHIA records from 208 herds classified as having medium SCC values, and 326 herds with low SCC values. The SCC values were the averages from the 36 months prior to the study. Various management practices used by the dairymen were recorded through questionnaire surveys, and then statistically evaluated with the SCC values to see which practices might potentially explain why the SCC scores were what they were.

The mean milk SCC was 270,000 cells/ml for the 208 herds in the medium group, versus only 125,000 cells/ml in the 326 low group herds. There were 2.7 times more cows in the medium group herds with a monthly SCC value greater than 800,000 cells/ml than there were in the low group herds. Surveyed farmers declared that their present SCC levels had been stable for 7 years (5.2 years in the medium herds versus 8.1 years in the low herds). The SCC values for both the medium and low groups would be considered very acceptable by most U.S. dairy producers.

The results of the regression analysis of the answers to the management practices surveys with the herd SCC values showed that herds in the low group were associated primarily with the following: 1) teat spraying was used regularly (teat dipping is preferred in the U.S.); 2) herdsman was precise in his techniques used at milking time; 3) use of disinfection before and use of teat dip after mammary infusion at dry off time; 4) heifers were kept in a calving pen around the time of parturition; 5) cows were locked in feed-line lockups after milking; 6) heifers were kept on a non-damp pasture; and 7) cows were culled when having at least one damaged teat.

These results should not be surprising, since they are all associated with reducing the bacteria load that the teat ends of both cows and heifers are subjected before freshening, both before and after milking, and at the time of dry-off. Herds in the medium group were associated with practices that were not as protective or helpful in preventing udder infections from occurring.

Dairy producers should not be content with their herd’s SCC values, unless they are already under 200,000/ml. Producers desiring a review of their management practices that can have an effect on herd udder infection level and SCC values should contact their Extension agent, veterinarian, milk handler field representative, or other knowledgeable consultant for assistance.