The Effects of Early Lactation SCCs in Heifers

Dr. Donald E. Pritchard
Extension Dairy Specialist, NCSU

In a series of papers published in several recent issues of the Journal of Dairy Science, collaborative researchers from Belgium and Canada reported on various associations and impacts of high somatic cell counts (SCCs) at first calving in heifers. The findings might give dairy producers insight as to how to better manage their heifers.

From the records of nearly 2,000 heifers in 159 Belgium herds, it was found that SCCs between days 5 and 14 of lactation were associated with certain herd characteristics. Higher-producing herds, herds with an average first calving age of less than 27 months, and herds with lower bulk tank milk SCC scores were associated with heifers that had lower SCCs at between days 5 and 14 of lactation. Cleanliness of the calving area was also associated with SCC scores. Heifers calving in cleaner areas (heifers that were on slatted floors) had lower SCC scores than heifers calving in more unclean types of areas (on non-slatted floors). These associations suggest that better managed herds have heifers calving with lower SCC scores.

The researchers further reported that the early lactation SCCs of heifers had an impact on both the milk yield and also the SCCs over the entire first lactation. As the early lactation SCCs increased, the daily milk yield decreased throughout the lactation. Additionally, as the SCCs in early lactation increased, the test-day SCCs throughout the rest of the lactation were correspondingly higher. Thus, it was concluded that the udder health of heifers in early lactation had a lasting impact throughout the lactation.

The association between level of culling of first lactation heifers and their early lactation SCC score was also studied. It was found that udder health problems were the culling reason for 10% of the culled heifers in the study. As the SCC score between days 5 and 14 of lactation increased, the culling level during the first lactation for udder health reasons also increased.

These findings may not be new information for many producers, based upon their experiences. However, I believe the results of the study give all producers further reason to pay closer attention to how they manage heifers and the factors that can affect the udder health of their heifers.

I encourage all dairy producers to review of the heifer management practices used in their herds. Contact your Extension agent, veterinarian, dairy plant/handler fieldman, or other competent consultant and ask for a review of your heifer management practices. Reducing the level of udder infections in heifers at time of calving can have a significant positive impact on the profitability of a dairy operation. The results are worth the time and effort.