



Improve milk quality and economic gain with the Dairy Focus Team's Somatic Cell Count Calculator

The Dairy Focus Team at the University of Illinois at Urbana-Champaign has developed the Dairy Focus Somatic Cell Count Calculator, which allows producers to analyze their test day milk numbers and take appropriate action regarding somatic cell count. The main goal of the Dairy Focus Somatic Cell Count Calculator is to assist dairy producers in making management decisions on an individual herd level, which will improve overall health and decrease economic losses due to mastitis. Making these beneficial management decisions may then allow the dairy to improve milk quality and dairy efficiency, all while increasing overall economic gain.

The goal of most dairy producers is to maintain a healthy herd while maximizing economic efficiencies. Mastitis is the most prevalent disease that restricts producers from achieving this goal. In 2014, a survey from the National Animal Health Monitoring System showed that roughly 24.1% of all cows in the top 17 dairy producing states suffered from some either clinical or subclinical mastitis. It is estimated that the U.S Dairy Industry loses roughly \$1 billion in total milk revenue and about \$110/cow annually from production losses due to mastitis. Most milk cooperatives award producers with incentives for reaching higher milk quality. If a dairy producer is not receiving a milk quality bonus due to high SCC cows, they could be losing out on a substantial amount of increased income. Most producers are aware of their bulk tank SCC; however, what they lack is a way of determining how much monetary loss is incurred by not receiving a milk quality bonus. The University of Illinois Dairy Focus team has developed a solution to this problem.

The Dairy Focus Somatic Cell Count Calculator allows producers to identify cows in the herd that are contributing the highest percentage to the bulk tank SCC. Also, the calculator identifies cows that have chronic or new cases of mastitis by sorting cows by highest current and previous test day SCC. Not only is the user able to find problem cows, but they are also able to see the benefits that would result from removing certain cows from the herd by viewing the Economic Gains table. This key aspect of the calculator allows the user to view the differences between bulk tank values with and without high SCC cows. These values are influenced by the bulk tank milk amount, bulk tank SCC, current milk price, and milk quality bonuses per CWT if a SCC parameter is achieved once a cow is removed. This table gives the producer an actual figure for the amount of money they are missing out on by keeping certain cows in the milking string instead using their milk for alternate purposes and receiving a milk quality bonus.

The Dairy Focus Somatic Cell Count Calculator is very easy to operate and is free to download. There are currently versions available for DairyComp 305 and PCDart, as well as a version for dairy producers who prefer to enter their data manually. Users can visit www.dairyfocus.illinois.edu and click on the 'Tools' page, where they will find a link to download the calculator. An instructional video is also available (http://go.illinois.edu/SCC_Calculator) that shows users how to import data from their management program, while giving the user beneficial information on how to use the calculator to analyze their herd and assist in making critical management decisions.

—Russell Pate, Kelly Ryan, and Dr. Phil Cardoso

