

# *Milk Quality Management Protocol: Fresh Cows*

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## **Fresh Cow Milk Sampling Protocol:**

1. Use the PortaSCC<sup>®</sup> milk test or other on-farm mastitis test to check individual cow quarters between the 3<sup>rd</sup> and 5<sup>th</sup> milking after calving to catch any possible new infections.
  - Somatic cell counts greater than or equal to 200,000 cells/mL are recommended for bacteriological culture; if bacteria are detected during culture, treatment may be considered (*pending organisms identified*)
2. Additional milk testing can be performed at 14 and 30 days in milk (DIM) for a more comprehensive assessment of cow milk quality. The following options for sampling are recommended:
  - Re-test individual quarters at 14 DIM; if somatic cell counts are greater than or equal to 200,000 cells/mL, culture high quarters for bacteria. If bacteria are detected during culture, treatment may be considered (*pending organisms identified*)
  - Re-test individual quarters at 30 DIM if somatic cell counts were greater than or equal to 200,000 cells/mL at previous test and no-growth was detected at culture.

# The Role of Somatic Cell Count Monitoring

## Managing Fresh Cows

The cornerstone of every successful dairy is a good fresh cow monitoring program. The purpose of a monitoring program is to detect problems in your herd as quickly as possible so that you can implement an effective action plan.

Cows that freshen with high SCC (> 200,000 cells/ml) appear to be more likely to experience clinical mastitis in early lactation.

Despite proper dry cow therapy and an effective dry cow management program to reduce bacterial contamination, well managed herds may still see infected quarters at calving. The greatest incidence of both clinical and subclinical mastitis is during early lactation.

Mastitis is one of the leading causes of early herd removal and decreased milk production; the impact of which is major economic loss.

Dairies that use fresh cow screening should see benefits of lower SCC, lower bacteria counts and less clinical mastitis.

### SCC and Production Percent (%) Loss

SCC	% Loss
100,000	2.5
200,000	5
300,000	6
400,000	7
600,000	8
800,000	9
1,000,000	10

A somatic cell count should be taken prior to dry off and compared to a somatic cell count postpartum. The changes from dry-off to calving allow you to evaluate your dry cow management, antibiotic efficacy, and infection status of the cow.

### Monitor fresh cows by screening for subclinical infections.

- Uninfected cows will have SCC <100,000 cells/ml
- Cows with SCC >200,000 cells/ml

should be suspect of having sub-clinical mastitis.

### Determine somatic cell count for individual cow quarters 3 to 6 days after calving.

- Early detection of new or reoccurant infection allows for rapid intervention opportunities including treatment, segregation or culling.
  - Early detection of an udder infection and possible treatment may reduce the period of time bacteria is shed into the bulk tank.
  - Allows for early identification of potential infections and may preclude severe mastitis outbreaks.
- Culture high SCC cow to determine if antibiotic therapy is appropriate.**
- SCC allows producer to monitor response to treatment.
  - High SCC are related to increased risk of antibiotics in milk.

Cow side somatic cell testing allows the producer to overcome the subjectivity of other procedures and allows for the testing of bulk tanks and individuals on a more timely basis. *The use of SCC alone is not always adequate to determine if a quarter is infected or uninfected.*

Monitoring your herds somatic cell counts can save you money. Approximately 67% of the total economic loss from mastitis is from lost milk production. By keeping your herds somatic cell count below 200,000; you are improving herd health, increasing milk production, and inflating your bottom line.

Fresh cow screening allows the opportunity to increase milk production by lowering SCC and reducing the number of clinical cases of mastitis.

Monitoring individual and bulk tank somatic cell counts is an important part of a sound mastitis control program.