

Economics of SCC Management

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Sub-clinical mastitis is a major profit thief on NE Iowa dairies and accounts for 70% of mastitis. Midwest dairy processors have paid milk quality premiums as a reward for lower somatic cell count milk as the higher quality milk puts more money in their pockets as well. **What is your somatic cell count (SCC) costing you?**

Let's consider an average NE Iowa Dairy of 72 cows with a 300,000 SCC and a goal of reducing it to 150,000. This would reduce the linear score by one point. The milk yield losses are approximately 1.6 pounds per cow per day. By decreasing our SCC by one-half, first lactation cows will increase production 200 pounds per lactation while older cows will increase production 400 pounds per lactation based on UW-Madison research.

	Example	Your Herd
Number of Cows	70	_____
2 Year Olds	20	_____
Older Cows	50	_____
Total Annual Milk Production (18,000 lbs x 70 cows)	1,260,000 lbs.	_____ lbs.
Present SCC	300,000	_____
SCC Goal (1/2 present)	150,000	_____

Milk Production Increase

2 year olds	200 lbs x 20 cows =	4,000 lbs.	_____ cows	_____ lbs.
Older cows	400 lbs x 50 cows =	<u>20,000 lbs.</u>	_____ cows	_____ lbs.
Total Increase		24,000 lbs.		_____ lbs.
Milk Price	x \$12.00/cwt			_____ cwt.
Value of Increased Production		\$2,880		_____

Treatment Savings

\$20/cow x 70 =	\$1,400	_____ cows	_____
(estimated annual savings)			

Increased Premiums

Present Production	1,260,000 lbs.	_____ lbs.
Increased Production	<u>+ 24,000 lbs.</u>	_____ lbs.
Total Production	1,284,000 lbs.	_____ lbs.
Increased Premium per cwt. (\$.94-\$.23)	\$.71/cwt	_____ /cwt.
Total Value of Increased Premiums	\$9,116	_____

Overall Summary

Value of Increased Production	\$2,880	_____
Treatment Savings	\$1,400	_____
Total Value of Increased Premiums	\$9,116	_____

Economic Benefit of SCC Decrease **\$13,396** _____ *is Your Profit!*

Milk Quality Tip Sheet

- Milk quality begins with clean cows: docked tails, singed udders and clean stalls.
- Use CMT paddle on every quarter of every cow to identify bad quarters.
- Use quarter milker to divert extremely high SCC quarters out of bulk tank.
- Keep any bloody-tinted quarters out of the bulk tank as blood is high in SCC.
- Have an established milking order and milk high SCC cows last and/or with a separate unit. Put colored electrical tape on tails of high SCC cows.
- Use clean gloves to keep hands clean and not spread mastitis pathogens.
- Rub gloved hand across udder to remove dry dirt before prepping.
- Consider the practice of forestripping as first strips are highest in SCC. Avoid forestripping onto hands as hands are a major source of spreading bacteria.
- If using pre-dip, realize pre-dip needs minimum of 30 seconds to kill bacteria.
- If washing udders, use single service paper or cloth towels, then discard or wash.
- Dry the teat dip or udder wash completely and only milk clean, dry teats.
- Stimulate the udder a minimum of 20-25 seconds for proper oxytocin letdown.
- Attach the unit promptly by kinking milk tubes so air is not injected into the system.
- Realize the half-life of oxytocin is 2-3 minutes so pull the milk while the cow is pushing. The cow has 20-25 pounds of pressure being applied to the udder area to force milk out of the udder and this lasts 4-6 minutes to any significant degree.
- If units are not being applied within 30-60 seconds after prepping, consider milking with one less unit and you may even get done milking faster.
- Make sure units are aligned properly without double loops or hangers that kink hoses. Hoses should be hung tight to the cow's shoulder if in a stall barn.
- Realize that slipping liners and improper attachment can create impacts into the teat end at speeds of 100-200 mph which can lead bacteria into the teat and quarter.
- Do not machine strip or pinch inflations as cows learn to not milk out fast by themselves. Up to two pounds milk can be left in the udder without a production loss and spending a minute to get an extra ounce of milk is not a good use of time.
- Shut off the vacuum and allow the unit to fall off by itself. Never detach unit under pressure as that can create some extreme impacts of bacteria into the udder.
- Consider end of point sensors or automatic detachers for more consistent milking.
- Immediately dip teats using an effective product. Cover two-thirds of the teat as milk film left by the teat cup liner is a haven for bacteria. If spraying, make sure teats are covered.
- Clean the cow stall before and after milking a cow as her tendency will be to lay down after milking. This also means the milker dips the teats immediately.
- Utilize herd production testing for individual cow records to identify problem cows in conjunction with CMT paddle to determine which quarters are infected.
- Be mindful of percent contribution of SCC to the bulk tank and manage accordingly.
- Remember one can have their head in the oven and their feet in a freezer and on average they may be OK but there can be serious issues at the extremes. Bulk tank SCC averages tell of a herd problem. Average linear score helps determine SCC distribution of herd.

- Whenever one loses interest in being better at something, chances are they've already stopped being good at it.
- Plan, don't just hope, to reduce SCC as Quality Counts! Have pride and produce a Quality product.
- Can producers be in business today using yesterday's management and expect to survive tomorrow?
- Old habits take 6 weeks to overcome. New habits take 2 weeks to get started. Develop good milking habits.
- What value can one put on a dairy producer's attitude—think clean and high quality.
- The key to milking is like love—it's the approach that often counts the most.
- The Economics of SCC Management can greatly impact the profit level of a dairy farm.