

# Dairy Comp Tips for Tracking Somatic Cell Count

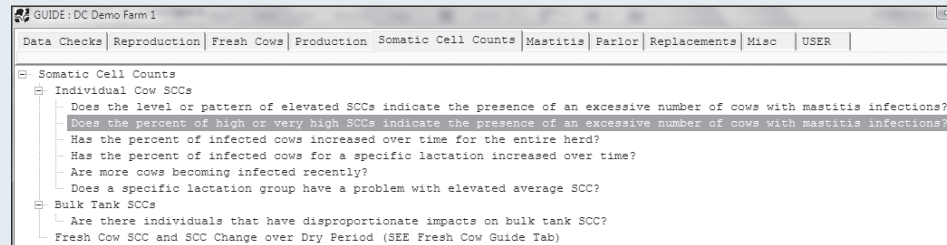
Econ SCC Report										
ID	PSCC	MILK	Value	SCC	%Tank	Price @SCC	Income	Price @SCC	Income	
2952	0	92	14.31	9999	7.9	15.65	255 6611.15	15.65	255 6611.15	
2919	7352	98	15.24	7352	6.2	15.65	260 6610.21	15.70	238 6616.88	
2446	9999	66	10.27	9999	5.6	15.65	261 6615.22	15.70	223 6606.52	
2862	8445	78	12.13	8445	5.6	15.65	261 6613.35	15.70	208 6594.27	
2447	3940	108	16.80	3940	3.6	15.66	267 6611.18	15.80	198 6619.19	
344	5199	78	12.13	5199	3.5	15.65	267 6613.35	15.81	189 6609.37	

## Contribution to bulk tank:

Type **ECON ID PSCC\SP** on the command line to bring up a list of your test days. After you choose a test day, you will see a report that shows SCC, previous SCC (PSCC), and the cow's percent contribution to total SCC in the bulk tank.

## Guide:

Type **GUIDE** on the command line and click on the Somatic Cell Counts tab. This will bring up a list of common questions that farms have about SCC in their herd. Click on any of the questions to see a graph or report that will help answer the question.



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# Dairy One NEWS

WHERE INFORMATION CREATES OPPORTUNITY  
SPRING 2012

## From the Desk of Jamie Zimmerman, General Manager

Our recent winter was a non-event in most of the Northeast compared to a "normal" year. With the exception of snowmobilers and skiers, I don't think most of us minded a break from the normal cold and snow.

The mild winter has moved in to an earlier than normal spring across the region. I have never experience "green up" and forsythia blooming in mid-March. Manure spreading and seedings are ahead of schedule, and hopefully we don't get excessive amounts of rain between now and corn planting time. Our expectation is that 1st cutting will be much earlier than normal this year—a welcome event for many people short on forage as a result of last year's severe weather.

In a few short months, we witnessed the implementation of market-driven forces to effectively move the maximum U.S. somatic cell count (SCC) level to 400,000. For most farms and a vast majority of our milk supply, this is not an issue. The average SCC for farms using Dairy One DHIA services is well below 300,000. The inside of this edition of the Dairy One News is dedicated to the economic benefits of improving herd SCC in general. Dairy One has been working with Quality Milk Production Services (QMPS) over the past 18 months to develop the 400K Beat It! program. Originally targeted at herds needing to meet the new SCC standard, the program can help any farm at any level of SCC to improve if they desire. The thing that is special about the program is that it assists

the farm in developing a team to systematically look at herd udder health, develop a plan, and work with the farm to implement and monitor the plan for improvement. We gained valuable experience through a pilot program during 2011 and are now ready to work with all interested farms. More information is available through the Dairy One or QMPS websites, or contact George Cudoc at extension 2114 at Dairy One.

With spring making an early appearance this year, the timing of planting and 1st cutting will likely be much different than an average year. If you have questions regarding any of your cropping and or nutrient management operations, we have resources to assist through Farmland Environmental and Agricultural Consulting Services. In addition, we are able to assist farms in the rapidly developing areas of GPS technology, forage harvester yield monitors, and variable rate seeding, fertilizer application, and manure application. Please contact Jack van Almelo at extension 2129.

The Dairy One Agricultural Management Resources Group (AMR) has been very busy during the early part of 2012. A growing business for the group is the installation and support of on-farm computer networks and camera systems. Farms are finding it beneficial and profitable to have camera systems through which they can observe critical operations areas of the farm—milking parlors, bulk tanks, calving pens, feed alleys, fuel

tanks, and more. I heard a recent anecdote from an AMR team member that following the installation of a camera on a farm's feed alley, the farm realized that there were periods of time during the day that cows were going without feed. Feeding times were thereafter adjusted, and the farm is able to easily monitor daily feed alley levels.

Over the past year, Dairy One has been working with AgriTech Analytics (ATA), owned by the Holstein Association USA, to develop a system through which Dairy One members can have the option of processing herd records at ATA. We have successfully implemented that process and are now able to process records through ATA. Dairy One is now the only DHIA organization in the country that provides the option to process records at any of the four records processing centers in the U.S. If you are interested in the merits of records processing through ATA, please contact your Holstein Association USA representative. A majority of Dairy One member records are processed at DRMS Raleigh and we anticipate that will continue to be the case.

Dairy One stands ready meet your information needs for managing all of the production areas of your dairy farm business—cattle, milk, feed, soil, water, and manure. For more information on all Dairy One services, please visit our website.

*Jamie*

# Soil Fertility Issues After Flooding

by Janet Fallon

We are off to a record-setting start this year. Peepers are 2 weeks early, and fields are dry enough for early manure applications and tillage. Everyone is optimistic about getting off to an early start this year...quite a switch from 2011's wet spring and wetter fall.

Unfortunately, last year's flooding can have some short- and long-term effects on soil fertility and crop performance, especially with regard to phosphorus. Zinc can be an issue as well. Flooding that destroys crops or prevents planting altogether can result in a decreased population of beneficial mycorrhizae (fungi) that colonize the roots of some crop plants and enhance P and Zn uptake. Damaged mycorrhizae populations can limit P and Zn availability for future crops.

There can be other effects as well, including soil erosion, soil deposition, soil



Photo courtesy of Dr. Doug Beegle, PSU

compaction and damage to other important soil microbes. Soil compaction can limit the availability of nutrients because roots just can't get to them, even if they are there. There may actually be leftover nutrients due to crops that were left in the field or never planted as a result of the flooding. For all of these reasons, it is a good idea to pull a new soil sample from all flooded fields to see what you really have.

Consider other management changes as

well. For example, band applications of phosphorus, potassium and zinc may be more beneficial than broadcast applications after a year like 2011, especially if soils are compacted. A double dose of a rhizobium inoculant, needed for N fixation, is highly recommended when you plant any legume crop (alfalfa, clover, soybeans), especially after flooding. Likewise, in-season N testing on corn (PSNT) may be more helpful this year as well, due to additional N losses resulting from leaching and denitrification last year.

The Agro-One soil lab at Dairy One can perform the routine soil analysis and PSNT analysis for you, and the folks at Farmland Environmental and Agricultural Consulting Services can put you in touch with a certified crop adviser for help with soil sampling and other management practices that may help restore the health of your flooded soils. Give us a call today at 1-800-344-2697!

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**Empire Farm Days: August 7-9, 2012**  
**Ag Progress Days: August 14-16, 2012**

# Economics of Milk Quality Management

The most immediate way that a milk producer can add value to their milk and farm income is to capture any and all quality premiums available that are based on cell count. Quality premiums are tangible and immediately available. Added income based on premiums for improved cell counts can be seen in Figure 1 below. The average herd in New York State (100 cows averaging 70 pounds of milk per cow per day) will increase milk income by \$315/month if BTSCC remains between 200,000 and 250,000 cells/ml. A similar herd with cell counts between 100,000 and 150,000 cells/mL will see a net gain of \$840 per month. That is an increase in income from premiums of more than \$10,000 annually for the average herd in New York. (Note: income premiums vary between milk market cooperative agreements, therefore increased income from cooperative premiums will be based on your milk market premium levels). Gains increase proportionally with increased milk production and herd size.

Losses incurred from chronically high BTSCC have additional (though less visible) costs that take away from farm productivity and income. Damage to udder tissue created by

both clinical mastitis and chronic subclinical mastitis will reduce productivity of an infected animal, often for the remaining productive life of that animal. Milk loss from clinically infected animals is obvious to most farmers. However, the lifetime production losses associated with chronic subclinical mastitis are responsible for the bulk of the financial losses associated with mastitis. Typically, 70% or more of the mastitis infections present on the farm take the form of subclinical infections. Milk from these high cell-count quarters shortens the shelf life of fluid milk and manufactured dairy products, and detracts from their quality and value.

Figure 2 illustrates the impact of mastitis based on somatic cell linear score on the productivity and profitability of a herd. Because many of these infections are chronic in duration, the financial losses are accumulating continuously. A average New York herd of 100 cows with a BTSCC average of 200,000 cells/ml (Linear Score = 4) incurs lost income of \$1530/month with a milk price of \$17.00/cwt. This same herd with a BTSCC average of 400,000 cells/ml (Linear

Pounds of Milk per Cow per Day									
SCC	Per Cwt Premium	55	60	65	70	75	80	85	90
<101,000	\$0.60	\$990	\$1080	\$1170	\$1260	\$1350	\$1440	\$1530	\$1620
	\$0.55	\$908	\$990	\$1073	\$1155	\$1238	\$1320	\$1430	\$1485
	\$0.50	\$825	\$900	\$975	\$1050	\$1125	\$1200	\$1275	\$1350
	\$0.45	\$743	\$810	\$878	\$945	\$1013	\$1080	\$1148	\$1215
101-150	\$0.40	\$660	\$720	\$780	\$840	\$900	\$960	\$1020	\$1080
	\$0.35	\$578	\$630	\$683	\$735	\$788	\$840	\$893	\$945
151-200	\$0.30	\$495	\$540	\$585	\$630	\$675	\$720	\$765	\$810
	\$0.25	\$413	\$450	\$488	\$525	\$563	\$600	\$638	\$675
201-250	\$0.20	\$330	\$360	\$390	\$420	\$450	\$480	\$510	\$540
	\$0.15	\$248	\$270	\$293	\$315	\$338	\$360	\$383	\$405
251-300	\$0.10	\$165	\$180	\$195	\$210	\$225	\$240	\$255	\$270
	\$0.05	\$83	\$90	\$98	\$105	\$113	\$120	\$128	\$135
301-600	\$0.00	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	-\$0.05	-\$83	-\$90	-\$98	-\$105	-\$113	-\$120	-\$128	-\$135
	-\$0.10	-\$165	-\$180	-\$195	-\$210	-\$225	-\$240	-\$255	-\$270
601-750	-\$0.15	-\$248	-\$270	-\$293	-\$315	-\$338	-\$360	-\$383	-\$405
	-\$0.20	-\$330	-\$360	-\$390	-\$420	-\$450	-\$480	-\$510	-\$540
>751	-\$0.25	-\$413	-\$450	-\$488	-\$525	-\$563	-\$600	-\$638	-\$675
	-\$0.30	-\$495	-\$540	-\$585	-\$630	-\$675	-\$720	-\$765	-\$810
	-\$0.35	-\$578	-\$630	-\$683	-\$735	-\$788	-\$840	-\$893	-\$945
	-\$0.40	-\$660	-\$720	-\$780	-\$840	-\$900	-\$960	-\$1020	-\$1080

Figure 1. Quick Reference for Various Milk Quality Payments. Total Value per Month, per 100 Cows (to gross milk price).

Total Value Lost Milk per Month, per 100 Cows								
Linear Score	LS-SCC Reference	Milk Lost cow/day	Milk Price per Hundred Weight					
			\$11	\$13	\$15	\$17	\$19	\$21
0	0-17,000	0.0	\$0	\$0	\$0	\$0	\$0	\$0
1	18-35,000	0.0	\$0	\$0	\$0	\$0	\$0	\$0
2	36-70,000	0.0	\$0	\$0	\$0	\$0	\$0	\$0
3	71-141,000	1.5	\$495	\$585	\$675	\$765	\$855	\$945
4	142-282,000	3.0	\$990	\$1170	\$1350	\$1530	\$1710	\$1890
5	283-565,000	4.5	\$1485	\$1755	\$2025	\$2295	\$2565	\$2835
6	566-1,130,000	6.0	\$1980	\$2340	\$2700	\$3060	\$3420	\$3780
7	1131-2,261,000	7.5	\$2475	\$2925	\$3375	\$3825	\$4275	\$4725
8	2262-4,523,000	9.0	\$2970	\$3510	\$4050	\$4590	\$5130	\$5670
9	over 4,523,000	10.5	\$3465	\$4095	\$4725	\$5355	\$5985	\$6615

Figure 2. Quick Reference for Milk Lost by Higher SCC.

Score = 5) has lost and additional \$765/month pushing total losses to \$2295/month. As milk prices and BTSCC increase, economic losses continue to grow.

It is clear that cows with subclinical mastitis produce less milk, often 10% to 20% less milk over a lactation. The greatest economic losses attributed to high BTSCC are due to loss of quality premiums. The monetary loss due to mastitis in general is due to lower milk production. Additional

losses are linked to higher replacement costs: treatment, labor, drug, and veterinary costs associated with clinical mastitis. The costs associated with improving udder health and milk quality are small compared to the returns that a farmer is likely to receive. The costs of implementing mastitis control procedures and changing management's perspective concerning mastitis control are often returned to the farm in a matter of weeks to months. In addition, higher quality milk leads to assurances of continued access to milk markets.

**FINANCIAL BENEFITS** of improved bulk tank somatic cell counts (SCC) can be achieved relatively quickly for most herds. The most tangible income improvement opportunities come from increased milk value or milk quality premiums. Benefits that are less tangible but of greater long-term benefit include:

- Increased productivity of the herd
- Lower infection levels and pressure for new infection
- Reduced treatment costs
- Less milk dumped
- Less labor required to manage treated cows
- Reduced risk for drug residue violations