

SCC, CMT, DMSCC, WMT, what do they mean?

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UNIVERSITY PARK — Americans, private and governmental, like to use initials to abbreviate all sorts of things.

Mastitis reporting is no exception. We have an entire "alphabet soup" of abbreviations. What do these letters, and the numbers that go with them mean for your herd?

SCC

Somatic Cell Count - The SCC is a count of somatic or body cells in milk. This includes white blood cells or leukocytes as well as the cells that line the inside of the udder. When the SCC is elevated or increased most of this increase is due to white blood cells migrating to the udder from the bloodstream in response to injury or infection in the udder.

DMSCC

Direct Microscopic Somatic Cell Count - One method of evaluation of bulk tank milk quality is to examine a milk smear under a microscope and count the somatic cells. This is called the DMSCC. Your milk plant may be reporting this count to you on a monthly basis.

WMT

Wisconsin Mastitis Test - This is another test for somatic cells in bulk tank milk. Unlike the DMSCC which is a direct counting method, the WMT is an indirect measurement. Milk is mixed with a chemical that thickens in the presence of somatic cells. The more somatic cells present, the thicker the solution. WMT scores are measured in millimeters or mm.

CMT

California Mastitis Test - like the WMT, the CMT measures thickening of a milk and chemical mixture. Usually, CMT is employed as an on-farm test of individual quarter milk rather than for bulk tank milk. CMT readings are estimated as negative, trace 1,2,3 with higher readings indicating a greater degree of thickening.

DHIA-SCC

Dairy Herd Improvement Association Somatic Cell Count - About half of the DHIA herds in Pennsylvania are on a somatic cell count program. Participating herds have a milk sample from each lactating cow tested monthly for somatic cell count.

The test is run at the DHIA lab on an electronic cell counting machine known as the Fossomatic. The cow counts are coded from 1 to 9 with each code number representing a range of 250,000 cells. Example: Code 1 = 0-250,000; Code 2 = 250,000 to 500,000, etc.

What do these tests mean to your herd? As bulk tank counts, either DMSCC or WMT go up, production goes down. That's because the count is directly related to the number of infected quarters in your herd and infected quarters produce less milk than non-infected.

	WMT	% infected quarters	% reduction in herd milk production
DMSCC			
250,000	3	8	0
500,000	3	16	2
750,000	11	24	4
1,000,000	14	32	6
1,250,000	17	40	8
1,500,000	20-22	48	10

The CMT run on individual quarter milk also shows a direct correlation between test reading, infection, and somatic cell count. As CMT reading increases, milk production from that quarter is decreased.

CMT reaction	Somatic cell count	% decrease in production
negative	0-200,000	---
trace	150,000-500,000	7.5
1	400,000-1,500,000	14
2	800,000-5,000,000	23
3	over 5,000,000	34

Herds on the DHIA-SCC receive on their monthly reports SCC's on individual cows. They also receive a summary sheet that includes an average SCC expressed both as a code number (such as 1.8) and as a cell count (such as 325,000). The number and percent of cows in the various code categories are also included in the summary. The average percent of Pennsylvania DHIA-SCC cows by somatic cell counts are: codes 1 and 2 - about 80 percent; codes 3,4,5,6 - about 10 percent; codes 7,8,9 - about 10 percent.

Since high counts whether quarter, cow, or tank result in lost production, high counts cost you money. Why not set some goals for your farm in order to reduce the dollar drain of mastitis? Here are some suggested goals. If you're doing this well already, you may want to set more ambitious goals for your own farm:

- Bulk tank count: DMSCC of 300,000 or less or WMT of 4 or less.
- DHIA-SCC: at least 65 percent Code 1 cows; at least 85 percent Code 1 and 2 cows.
- CMT: at least 90% of quarters negative or trace.



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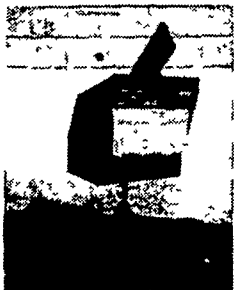
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