

How to Perform the CMT and Interpret Results

Cows with subclinical mastitis seldom have abnormal looking milk or other obvious clinical signs such as a swollen or painful udder. The California Mastitis Test (CMT) is a rapid, cow-side test used to help identify these cows by detecting somatic (body) cells in infected quarters. The photographs below illustrate use of the CMT.



1. Clean each teat end with alcohol.



2. Squirt about a half teaspoon of milk from each quarter into the corresponding quadrant of the CMT paddle.



3. Add about a half teaspoon of CMT reagent to the milk sample in each quadrant.



4. Read the reaction in each quadrant and record according to the table below.

source:
<http://www.infovets.com>

Interpretation and Scoring of the California Mastitis Test

Rating	Meaning	Description of reaction	Interpretation
–	Negative	Mixture remains liquid, homogeneous, with no evidence of thickening.	0 - 200,000 cells/ml
T	Trace	Slight thickening seen when paddle is tipped back and forth. Trace reactions tend to disappear with continued rotation of the paddle.	150,000 - 500,000 cells/ml
1	Weak Positive	A distinct thickening of the liquid but no tendency toward gel formation. Thickening may disappear after prolonged rotation (>20 seconds).	400,000 - 1,500,000 cells/ml
2	Distinct Positive	Mixture thickens immediately, and gel formation is suggested. As the mixture is swirled, it tends to move in toward the center, exposing the bottom of the outer edge of the cup, levelling out and covering bottom of well when motion stops.	800,000 - 5,000,000 cells/ml
3	Strong Positive	A gel is formed, which causes the surface of the mixture to become elevated like a partially fried egg.	> 5,000,000 cells/ml

source : Managing Quality Milk, Institut de technologie agroalimentaire de La Pocatière, 1998