

LactiCyte™ HD Somatic Cell Counter



PRECISE SOMATIC CELL COUNT

- ✓ Rapid method (Test time < 1 minute)
- ✓ Accommodates raw & preserved milk
- ✓ Cow, Goat, Sheep & Buffalo
- ✓ Wide range (0.1 to 10,000,000 SCC/mL.)
- ✓ Wide screen, printout and USB Interface
- ✓ Customer defined thresholds
 - Warning Level
 - Critical Level

The new robust PC driven LactiCyte-HD provides rapid, accurate and affordable somatic cell counts for cow, goat, sheep and buffalo milk.

Based upon a fluorescent microscope technique and magnification approach to cell counting, the results are recorded by a charged-coupled device (CCD) camera digitalization of the actual cells. Excellent correlation with Direct Microscopic Somatic Cell Count (DMSCC).



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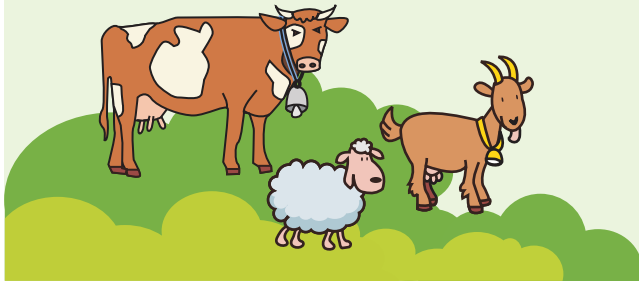
LactiCyte™ HD

Somatic Cell Counter

Key Benefits OF REAL-TIME SCC

Farm-level Benefits

- ✓ Detect symptoms of sub-clinical mastitis that are not always visible
- ✓ Implement effective cost efficient treatment
- ✓ Differentiate between Yeast and Bacterial Mastitis
- ✓ Access overall herd health; by animal, milking group or bulk tank
- ✓ Ensure animals are producing maximum milk in their prime production years
- ✓ Assist with breeding & culling decisions



Process and Research Benefits

1. Benefits to cultured dairy products processors (cheese & yogurt)

- ✓ Optimize cheese yield
- ✓ Maintain consistent quality

2. Fluid Milk Processors Benefits

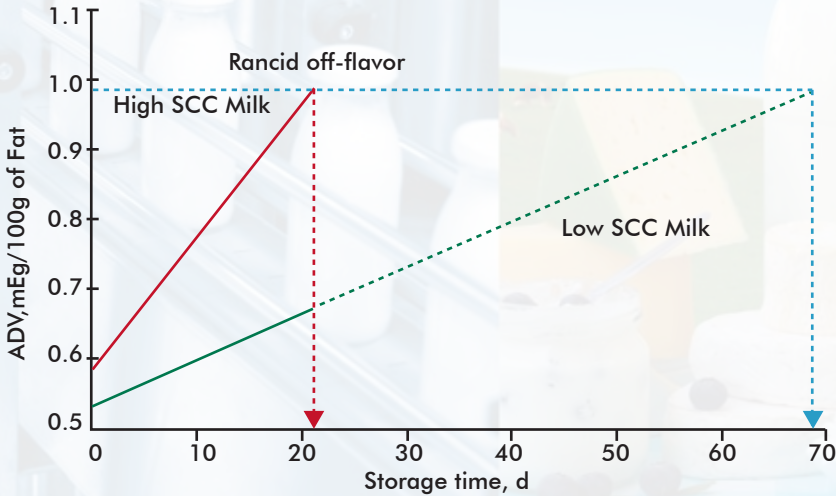
- ✓ Ensuring proper shelf life
- ✓ Integrity and consistency in quality

3. Research, Field Extension Support Services, Consultants ETC

- ✓ Codifying optimal SCC levels for new products
- ✓ Support of clients throughout the dairy supply chain
- ✓ Great tool for university students



Impact of SCC on rancid flavors in milk



- Facilitates proactive decisions with real time results
- Store and access data improving management and process control
- Prevent off flavors due to high SCC
- Build brand name with consistent quality
- Optimize dairy production

Acid degree values (ADV) in pasteurized, homogenized, 2% fat milks stored at 5 degrees C for 1, 7, 14 and 21 days for pasteurized milks with low and high SCC. Barbano, D.M., et al, Northeast Dairy Foods Res Ctr, Dept. of Food Sci, Cornell Univ., Ithaca, NY 1485. 2006. Influence of Raw Milk Quality on Fluid Milk Shelf Life. J. Dairy Sci. 89(E.Suppl.):E15-19



Watch LactiCyte-HD in Action



WATCH IN ACTION

LactiCyte™ HD

Somatic Cell Counter



<https://vimeo.com/225874620>

LactiCyte™ HD Somatic Cell Counter

LactiCyte™ HD SCC Specifications:

Correlation to DMSCC*

Measuring Range	0.1 to 10,000,000 SCC/mL
Data Transfer	Via USB Thumb-drive
100,000 SCC/mL	5%
400,000 SCC/mL	3%
600,000 SCC/mL	2%
Time per Test	<60 Sec (using x4 Chip)
Test per Chip	2 (x2 Chip) or 4 (x4 Chip)
Binding Sites per Test	36 (x2 Chip) or 16 (x4 Chip)
Carry-Over Effect	0%
Sample Size	100 uL
Sample Temperature	+10 to +35° C
Power Consumption:	
Power Consumption	<50W
Power Requirement	100 to 240VAC 50/60Hz
Environmental:	
Ambient Air Temperature	+15 to +35° C
Humidity	30 - 80% Relative
Technical Data:	
Dimensions (W x H x D)	15.2 X 10.2 X 12 inches (38 X 26 X 30 cm)
Net Weight	22 lbs (10 kgs)
Gross Weight	41 lbs (18.6 kgs)

*DMSCC = Direct Microscopic Somatic Cell Count

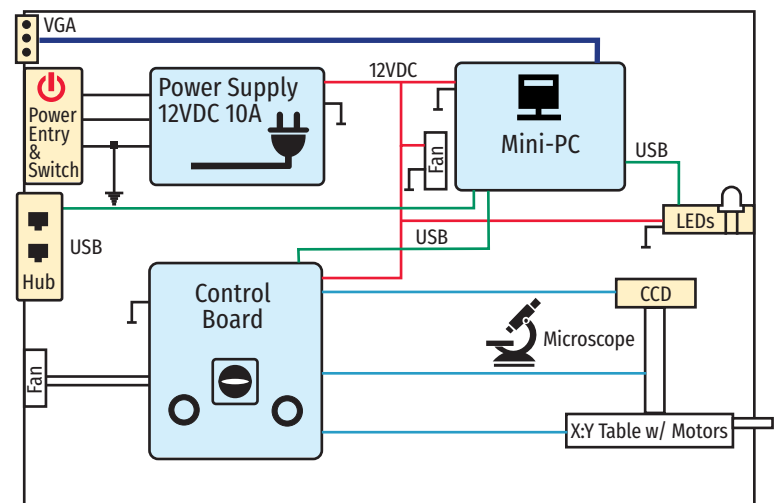
The LactiCyte-HD Start-Up Kit includes:

- 1 x LactiCyte-HD Somatic Cell Counter
- 1 x Mini Vortex Mixer
- 1 x AC power cords
- 1 x Comprehensive User's Guide
- 1 x Starter Kit with LactiChips/supplies for 100 tests
- 2 x Automatic Pipettes preset for 7uL and 100uL
- Sample vials and racks
- 1 x PC Monitor
- 1 x keyboard and mouse

APPLICATIONS:

- ✓ **Milk Reception/Milk Collection Stations:** Test results can be printed out via the built-in printer for suppliers. Easy to use, simple system (prepare sample, insert cartridge & push START - results are ready in 1 minute per test!)
- ✓ **Laboratory:** An exceptionally practical instrument for small and mid-sized labs! Choose between the budget-priced rapid test (16 picture per test) using a four channel cartridge or use a more precise test (36 pictures per test) with two channels per cartridge.
- ✓ **Field Extension Service and Farm Level:** See positive outcomes in herd health, milk production and quality while realizing cost savings. Treatment can be closely monitored for timely and positive outcomes.
- ✓ **Dairy Science Studies and R&D:** The digitized, visual image of somatic cells counted can be enhanced to assist in specific studies. The precision and accuracy of the LactiCyte-HD provides an excellent and affordable tool for introducing students to total somatic cell counting techniques.

LactiCyte-HD Block Diagram



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