



## Total Plate Counts

It is common knowledge today that for a calf to have a healthy start on life, it needs a high quality, clean, and appropriate volume of colostrum given in a timely manner. Even if we feel that everything was done right, 10% of calves will still have failure of passive transfer when fed raw colostrum. If the raw colostrum has high levels of bacteria in it (this is very possible even if the colostrum appears visibly normal and clean), the percent of failure of passive transfer increases dramatically. In many cases, if the bacterial load is high enough this could be the source of a disease outbreak, especially *Salmonella*. To minimize this risk, we feel it is important to check for bacterial levels in colostrum and waste milk that is fed to calves.

At Waunakee Vet Service, we now offer total bacterial counts on colostrum samples to test quality control in the collection, handling, and storage of colostrum. This procedure can be extended to quality control on pasteurizers by testing pre and post pasteurization samples. The table below shows recommended goals for specific samples. Talk to your herd veterinarian about implementing this important tool into your dairy.

Type of Sample	Goal for Total Bacterial Count (cfu/ml)	Goal for Total Coliform Count (cfu/ml)	Goal for Total <i>E. coli</i> Count (cfu/ml)
Colostrum	<100,000	<10,000	<1,000
Pre-pasteurization Waste Milk	<1,000,000	NI	NI
Post-pasteurization Waste Milk	<20,000	<1,000	<100
Milk Replacer	<10,000	0	0

NI: No interpretation guidelines established

James R., M. Scott. 2006. On-farm Pasteurizer Management for Waste Milk Quality Control. Proceedings 10th Calf and Heifer conference. Visalia, CA. March 21 - 23, 2006.

Stewart, S., S. Godden, R. Bey, P. Rapnicki, J. Fetrow, R. Farnsworth, M. Scanlon, Y. Arnold, L. Clow, K. Mueller, and C. Ferrou-illet. 2005. Preventing bacterial contamination and proliferation during the harvest, storage and feeding of fresh bovine colostrum. *J. Dairy Sci.* 88:2571–2578.