

## **Preliminary Results of Colorado Bulk Tank Study**

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A research project was initiated in January 1999 to study the source of environmental bacteria, particularly *Pseudomonas* sp., in bulk tank milk. Milk samples were collected from the bulk tank, receiver jar, and transfer line at the beginning and end of milking. Swabs of milk contact equipment were made, and water samples were collected from drop hoses, parlor wash hoses, and backflush solutions. A total of 23 dairies have been sampled: 14 with low bulk tank *Pseudomonas* counts and 9 with counts above 50 cfu/ml milk. *Pseudomonas* was found in all dairies except two with low counts. There appears to be a difference in the percent of equipment swabs positive for *Pseudomonas* in the low and high herds (24.7 vs 31.4%), and the high herds were more likely to use water on milking equipment during milking. Four of 14 (28%) low herds used water to chase residual milk into the tank at the end of milking, while 4/9 (44%) high herds did so. It is too early to draw meaningful conclusions from the study; we will enroll a total of 50 dairies before the end of the project. However, it appears that water usage plays an important role in the contamination of bulk milk with *Pseudomonas* bacteria.