



# The future of milk truck sampling

**T**he predominant method of sampling raw milk in tanker trucks has not changed in decades. Unfortunately, this important step in quality and safety inspection has proven to be both dangerous and often leads to inaccurate results.

The present method, still used by thousands of sampling personnel, requires them to climb on top of the tanker trailer in all types of weather to gather a sample with a dipper. Inclement weather, inattention and other causes lead to an unacceptably

high number of on-the-job injuries and cost companies tens of thousands of dollars every year for work injury claims and lost man-hours. Falls, strains and sprains from an elevated position are one of the most common trucking-related claims.



Tremcar is a leading manufacturer of tank trailers and has installed QualiTru's truck ports into their new tankers.

In addition to the inherent risk of sampling from the top of the tanker, the dipper method of sampling provides further issues with a high probability of false readings and external contamination from improperly cleaned and handled dippers. Considering how many important decisions are based on sample results, from quality premiums to unnecessary load rejections, getting an accurate reading is a vital business concern for everyone involved.

Another costly challenge with dipper sampling from the top of tankers is the stratification of the milk. In 2012 QualiTru™, formerly known as QMI, conducted a study with the University of Kentucky demonstrating that stratification,

or separating of butterfat content within the load, begins as quickly as a half hour after filling and is typically completely stratified within two to three hours. This study addresses the misconception of raw milk being

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agitated as the trailer is being transported to the dairy processor. By sampling only the top portion of the load, the resulting findings cannot give a true representation of the entire volume held within the tanker.

## A leap forward for tanker truck sampling

There is now a cost-effective solution available that eliminates the challenges associated with the old climb-and-dip approach and provides an accurate, safe method of gathering samples directly from raw milk tanker trucks.

QualiTru™ Sampling Systems, the new name of QMI, the dairy industry's most trusted sampling system, has introduced an aseptic option for rear and side sampling from raw milk tanker trucks.

The easy-to-install QualiTru truck fitting sampling port features a stainless steel fitting that allows for the insertion of pre-sterilized septa, available in both seven- and twelve-port



In addition to milk sampling, QualiTru ports allow for the use of ▲ temperature probes.

needle-guide channel configurations. The needle-guide channels allow for samples to be drawn individually from each channel to help eliminate the risk of cross contamination. Each self-sealing septa provides access for QualiTru's new innovation, the TruDraw single sampler container. The TruDraw single sampler is a fully enclosed container that is sterile when packaged. The highly unique sampling container has a built-in tamper evident feature with an attached needle to draw a truly representative sample into a secure, sealed receptacle. This self-contained option dramatically reduces, if not eliminates completely, the risk of external contamination and false readings that have plagued the industry due to the dipper approach. In addition to eliminating external contamination, the tamper-evident feature allows for a chain of custody process to be incorporated into a company's quality system and addresses the issue of potential adulteration of a sample.

### Safer tanker truck sampling

The side or back placement of the QualiTru truck fitting port allows drivers or plant employees to draw samples while remaining safely on the ground. This approach eliminates

the need to climb on top of trucks, wear harnesses and clean the dipper after every use. The savings realized by removing one of the riskiest parts of the tanker truck sampling process is significant.

According to the U.S. Bureau of Labor Statistics, the average number of days lost due to a work-related claim in the trucking industry is 45 days. For a full-time driver making \$20/hour, a company would be paying about \$7,200 in lost wages

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related to a claim. Additionally the average medical cost per claim for truck drivers is approximately \$7,000 (according to the U.S. Bureau of Labor Statistics). So businesses are looking at an average cost of \$14,200 per claim in total Direct Claim Costs as a result of a work-related injury.

Add in the fact that some businesses will have drivers climbing their truck ladders hundreds of times per week and now the likelihood for claims to occur is

significantly higher. Even with a conservative estimated number of ten claims per year, the total Direct Claim Costs to a company could easily exceed \$142,000. What's even more significant and often overlooked, are the indirect costs of work related claims. According to OSHA, the indirect costs of work-related claims is typically about 4.5 times more than the total Direct Costs of a claim (which means the average total cost per claim direct and indirect would be \$64,000/claim). This means that the Total Claims Cost to an organization over a year, resulting from work related claims, could be a staggering \$640,000. If there were a serious injury or death claim, these costs would increase dramatically.

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### FDA and NCIMS approved

The QualiTru sampling system has been approved by the U.S. Food and Drug Administration and the National Conference on Interstate Milk Shipments for use on raw milk tanker trucks. These approvals speak to the quality of samples that the QualiTru sampling system consistently delivers.

Tom Angstadt, dairy industry consultant and retired director of lab and technical services at DairyLea said, "The QualiTru system is easy, simple and basically foolproof. It gives you a true sample every time and is much more reliable than the dipper method."

The QualiTru sampling method is aseptic and has been proven accurate through real world usage. By sampling the entire column of milk, test results are a true picture of the quality and safety of each load. Unlike dippers which can be easily tainted by external influences, including rubbing against drivers clothing, contact with truck bodies, improper cleaning and handling with unclean

hands, all of which can easily lead to false results and refusal of entire loads for questionable reasons.

The pre-sterilized, aseptic TruDraw single sampler provides a simple method to gather a reliable sample that is truly representative of the entire tanker truckload.

## An investment that pays for itself

Beyond accuracy, QualiTru sampling system saves haulers and milk plants valuable time with every load. Eliminating the time required to climb up and down a tanker trailer considerably improves efficiency. With fewer milk processing plants in operation and more trucks being serviced at each location, this can lead to backlogs and delays that hurt haulers and milk processing operation's bottom lines. Anything that can safely improve load processing is a major factor for consideration.

Bob Gilchrist, a well-respected food and milk transportation

consultant and former Manager of Transportation with AgriMark stated, "Over the last five years that we have been putting QualiTru ports in AgriMark trailers, we have clearly seen our plants become much more efficient. We can attribute this directly to the faster sampling provided by the QualiTru sampling system."

In addition to the easy-to-access side and back ports, the aseptic TruDraw single sampler takes only moments to insert and draw out a true representative sample, including taking samples immediately after the last load has been pumped into the tanker truck. There is no cleaning required and the sample is sealed within the closed container during the process. The sealed container can also be used to track location and time of every sample to assure compliance.

Retrofitting an existing tanker trailer or installing a QualiTru port in a newly constructed tank takes only a few hours and the associated costs are minimal.

Melanie Dufresne, Marketing and Communications Manager at Tremcar said, "Though we have only recently learned of the QualiTru sampling ports, we have already installed over twenty of them in our new tankers. We have found our customers both in the United States and Canada are really interested in this system and quickly see the value they add to our tanker trucks at a very small additional cost."

## A proven product for an industry on the move

QualiTru Sampling Systems™, the new name of QMI, has a long history within the dairy industry. For decades it has been the most trusted sampling system in both dairies and milk processing plants for providing consistently accurate samples for testing.

QualiTru's new name reflects the company's commitment to expanding the benefits of accurate, aseptic sampling to provide cost-effective solutions for product safety and quality. QualiTru tanker truck ports and the new TruDraw single sampler offer a simple-to-use sampling solution for raw milk hauling that dramatically improves safety and ensures that a truly representative sample is available for testing.

Darrell Bigalke, CEO of QualiTru, said, "The QualiTru tanker truck port combined with the TruDraw single sampler is another important step to ensuring milk safety from farm to the consumer's table. The potential savings the milk industry can realize from these products in both time and assurance of quality is going to make a very positive impact for decades to come."

The QualiTru tanker truck port and the TruDraw single sampler now offer milk haulers and milk processing plants a truly improved option for raw milk sampling within tanker trucks. Saving both time and money while dramatically reducing the chance of injury, these innovative products provide the dairy industry simple, cost-efficient solutions for an age-old problem. ■

The new QualiTru truck ports allow sampling personnel to obtain sterile samples at ground level, eliminating the need to climb on top of the tank trailer. ▼

