

QualiTru Verifies Process, Milk Quality From Farm To Plant To Whey Stream

Oakdale, MN—After nearly 40 years in business, a key microbiological sampling method designed to aid cheese makers, whey utilizers, milk haulers and farmers, has increased the importance of accurate data collection and meeting the new challenges of the industry.

QualiTru Sampling Systems, known previously as QMI, has been a leader in the science of aseptic liquid sampling since 1983.

The sampling systems have many applications along raw milk's journey to finished product. QualiTru's products are used to verify and validate product quality, good manufacturing practices, and process control across the entire supply chain.

"If you can't measure it, you can't control quality."

—Anne Bigalke, QualiTru

The company's TruStream Sanitary Ports can be installed at key points along the process, providing easy access for inline monitoring and the collection of truly representative samples.

The milk samples are then tested to identify potential contaminants, verify components for payment, measure for bacteria, and for CIP monitoring.

"The system is driven by quality," said Anne Bigalke, vice president of strategic development at QualiTru. "You need the collection of good data to have good control of the entire process. If you can't measure it, you can't control quality."

"It started out as an effective method to monitor post-pasteurization contamination. The system was designed to take aseptic samples along the manufacturing process," Bigalke said. "It all began on the processing side and grew to the farm side."

Bigalke said it was kind of like peeling an onion after that. Seeing successful results post-pasteurization, the company kept moving closer and closer to the sampling of raw milk.

"Once we started looking at the raw milk side of things, what was moving into the milk silos, we asked ourselves, why are we stopping there? Why aren't we looking at farm?"

QualiTru identified eight key critical control point (CCP) areas, from the raw milk coming off the line to silo to milk hauler, where they could diagnose the condition and quality of the milk.

"The dairy market really pushed our business in that direction. Saying to us, here are the sampling needs we have. Here are all the issues we have with microbiology. Here are some of the contaminants we are finding in the finished product. Here are the problems we are finding when trying to get a truly representative sample," Bigalke said. "We continue to adapt the way we collect samples, to meet the challenges of the industry."

QualiTru's TruStream Septum is a multi-channel food-contact grade-material that fits in the company's sanitary port, facilitating the collection of milk samples.

The septum features either a 7- or 12-needle guide, that provides discrete samples to be drawn asep-

tically and segregated for analysis, mitigating the risk of contaminating the sample during collection, and increasing the specificity of a comprehensive processing monitoring system rather than relying on final product testing.

Upon entering the milk processing facility, ports before and after each piece of equipment from milk tanker truck sampling to packaging diagnose system quality and efficiency.

"Understanding the product at the beginning provides the data we need at the end. For instance, if we are losing fat, we can grab a representative sample in the process and find out where the fat is being lost and rectify the problem."

QualiTru systems are easily used at critical control points throughout the dairy processing plant to monitor the process and the system may be used to inoculate, as well.

"A sanitary tank port may be installed on the exterior of a cheese culture tank," Bigalke said. "This allows access to inoculate the milk with cultures while keeping the process closed to the environment, further mitigating the risk of unwanted microorganisms and bacteriophage entering the tank and contaminating the product."

The company's equipment and expertise for aseptic and truly representative sampling provide the highest levels of assurance for achieving product quality, safety, public health and business goals.

"Our systems helps our customers with national brands build consistency in their products," Bigalke said. "No matter where the product is made, West Coast or East Coast, the data collected is used to centralize flavor, quality, food safety and consistency."

QualiTru systems are used in over 1,000 US dairy processing plants and dairy farms, as well as in facilities in more than 30 countries worldwide, including dairy farms, milk tanker trucks, and fluid and milk processing operations, as well as whey utilizers.

"About a third of our business is on the farm side," Bigalke said. "We continue to see a lot of growth there. As we expand into the different applications, we are finding more areas where we can bring our expertise and science."

QualiTru has the distinction of being the only inline aseptic sampling system to be cited in the FDA's Grade "A" Pasteurization Milk Ordinance (PMO), as approved for the required collection of representative samples directly from farm bulk tanks or silos prior to the milk being transported for processing.

How It All Began 40 Years Ago

Ned Galloway of Galloway Company in Neenah, WI, invented

the aseptic sampling system to improve product quality in his family-owned Wisconsin dairy processing plant.

Subsequently, Darrell Bigalke reached a manufacturing and marketing with Galloway to make



the sampling system more widely available.

Drawing from his knowledge of the dynamics of microbial contamination, Darrell Bigalke played a central role in helping shape the establishment and adoption of new sampling and testing procedures in the industry, said Anne Bigalke, Darrell's daughter.

A salmonella outbreak in 1985 that sickened over 1,500 people and a listeria outbreak in California which sickened over 85 people were the impetuses for the industry and regulators to take action to establish more stringent standards and greater consumer protection against such bacterial outbreaks.

"He and the regulatory bodies, and to some extent, the dairy industry, all shared the goal to initiate process monitoring measures to reduce those kind of outbreaks," Bigalke said.

Darrell Bigalke, along with long-time customer service representative, Gwen Raddatz, focused the new company, Quality Management Inc. (QMI), on the singular mission of promoting aseptic sampling and testing to achieve effective process monitoring for the dairy industry, extending far beyond final product testing.

Darrell Bigalke stepped down from day-to-day responsibilities at QualiTru in 2019.

Recently the company hired Ian G. Davis as the company's CEO. The company also hired Barbara Grayes as vice president of sales, and Scott Larson, vice president of operations and supply chain.

The company recently doubled the size of its Oakdale, MN, headquarters and warehouse to effectively and efficiently serve the thousands of dairy farms, haulers and food processing plants around the world that are wrestling with the demands of the rapidly evolving food and dairy production environment.

"As we begin to celebrate 40 years, we can also review what we've accomplished and prepare for the next 40 years," said Anne Bigalke. "It's an exciting time to be here."

For more details on QualiTru products, visit www.qualitru.com.