

Process Improvements Increase Milk Safety and Quality

IMPROVING MILK HANDLING PROCESS FROM FARMER TO MILK CHILLING CENTER BRINGS RETURNS TO MEDIUM-SCALE DAIRY PROCESSOR IN SRI LANKA

Chello Dairies began its journey in 1995 as a small-scale domestic enterprise to manufacture ice lollies. Quality was top of mind for the young entrepreneur, Mr. Kapila Ruwan Bandara whose business proposition was to “give the consumer superior taste and quality at an affordable price.” Through hard work and the ability to overcome challenges, Mr. Bandara was able to expand his business to manufacture other dairy products such as yogurts and curd. Within a decade he had established a manufacturing facility for mass production with a distribution network around the island. The Chello Dairies brand became known for their tasty and quality products at affordable prices, and a safe option for Sri Lankans.

Based in Ratnapura in the south-central region of Sri Lanka, Chello’s collection of raw milk from over 190 miles away and from over 2,000 small-scale dairy farmers posed hygiene challenges for the business. They needed to keep improving on how the milk was collected, transported, and handled at the intermediate chilling centers before being transported to the processing facility via the chilled bulk tankers. Adopting hygienic best practices in the value chain has helped Chello Dairies reduce excessive processing costs and ensure quality standards are met.

In their quest for continuous improvement, Mr. Sameera Herath, the Procurement Manager for Chello Dairies, wanted to upgrade the skills of his staff and refresh knowledge on milk handling and hygienic practices. The Market-Oriented Dairy (MOD) project, funded by the United States Department of Agriculture’s (USDA) “Food for Progress” initiative was offering training to processors wishing to improve the methods of transferring dairy from farm gate to milk chilling center. Mr. Sameera requested MOD’s Business and Value Chain Director, Mr. Asoka Kuruppu assist Chello Dairies in building their internal capacities in improving milk collection and holding practices.

MOD’s capacity building interventions include a holistic approach. The approach addresses not only raw milk handling during the collection process but also how the centers are managed to improve quality and chilling efficiency. Chello Dairies’ chilling center managers, staff, helpers, and transporters were all included in the training. They received training on how to maintain the ideal milk quality standards and milk quality testing as well as equipment maintenance and management of breakdowns.

Following the training, Mr. Sameera and his team implemented many of the recommendations. Adopting the best hygiene practices helped them improve the quality of their milk. They

invested in an electric centrifuge to check fat content foregoing the less accurate and slower process previously done by hand. The improved process helped them assess milk fat content faster and more precisely, allowing for more accurate compensation of their supplying farmers. This also reduces the transfer losses between the farmers and the factory.



Eager to upgrade their skills, Chello Dairies milk chilling center staff participate in USDA's MOD training sessions held in March 2019.

The Chello Dairies milk chilling centers also introduced the daily/weekly/monthly machine maintenance checklist proposed by MOD. By maintaining the checklists, they were able to minimize machine breakdowns and reduce downtime. This helped them save time and money, while preserving the quality of milk. They also formalized the internal communication between the milk chilling centers and the head office, increasing operational efficiency.

"These measures really helped us reduce milk rejection by half, increase chilling efficiency by 10%, and improve machinery utilization to almost 100%. We also increased the benchmark for the alcohol negativity test [a quality test for dairy] from 68% to 72%, enabling us to deliver higher quality milk to the processing facility," said Mr. Sameera. Another unexpected benefit, especially relevant during the pandemic, is that the milk chilling center staff are now equipped with the required knowledge and skills to address basic maintenance issues on site without waiting for help to arrive from the head office miles away. "This has translated into huge gains for us in maintaining quality standards while minimizing breakdowns and saving a lot of money. Overall, these improvements helped us continue to deliver quality product to the consumers" added Mr. Sameera.

Market-Oriented Dairy (MOD) Project, based in Sri Lanka, is funded by the United States Department of Agriculture (USDA) 'Food for Progress' initiative and implemented by IESC. The project aims to double the milk production of participating dairy farmers and enable them to obtain a higher price premium for fresh milk through interventions primarily designed to enhance their technical knowledge and create an entrepreneurial, business-oriented mindset. The project also supports enterprises along the dairy value chain to meet the demands of the country's dairy sector to catalyze a sustainable growth. The project's sub-partners are Sarvodaya, University of Florida, Global Dairy Platform and SEAF.