132/B

Hygienic quality assessment of raw cows milk in MILCO farmers (A case study in A*kurugoda* area)

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The demand for fresh milk in the country is increasing and the consumers are more concern about the quality of milk. The cattle farmers in Akurugoda area are small holders and milk production is prevailing in small scale. Therefore, it is necessary to improve milk quality by reducing the contamination at farm level, to provide the increasing demand for quality milk in the local market.

The objectives of the study were to identify the existing management practices and to assess the hygienic quality of raw milk in selected neat cattle farms belongs to the collection network of MILCO (Pvt) Ltd. The study was carried out in Akurugoda GN division. Randomly selected 30 farms were investigated using a pre-tested questionnaire. The hygienic quality of raw cow milk was ascertained by investigating the following parameters using standard methods; Total Plate Count (TPC), Somatic Cell Count (SCC), Methylene Blue Dye Reduction Time (MBDRT), pH and titratable acidity. These quality parameters were investigated on both beginning and bulk milk samples of each animal. Resulted quality values were compared with standard raw milk quality values. Lactometer reading and CMT were done as on-farm tests for all thirty samples. Repeated sampling was also taken. Data were analyzed using both qualitative and quantitative statistical methods. All the animals were cross-bred animals with various degree of European blood to a lesser extent with Sahiwal blood. TPC, pH and acidity values of beginning milk samples were similar to the values given for standard raw milk. Significant differences ($P<0.05$) were observed in acidity and pH of bulk milk samples and milk samples drawn at the very beginning of milking. Significantly higher acidity and lower pH values were observed in bulk milk samples. In the selected sample 40% of the animals were detected for sub clinical mastitis. It can be concluded from the above study that the quality of the raw milk in terms of TPC, pH, and acidity is comply with the standard quality parameters stipulated for raw milk. Significantly higher acidity and lower pH values were reported in bulk milk samples, than the milk samples taken at the very beginning. It can be due to the milk handling and storage problems. This can be minimized by proper hygienic milking and handling and this is essential since the bulk milk directly influence the quality of the final milk consumed.

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