

Investigation of Hygienic Practices in Routine Milking and Quality of Raw Milk Supplied by Small-scale and Medium-scale Dairy Cattle Farmers in Doluwa Veterinary Range

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The objective of this study was to evaluate the hygienic practices in routine milking, quality of the raw milk and to determine the effect of mixing morning and evening milk on the overall quality of raw milk in Doluwa farm base. A total of 60 dairy farmers were randomly selected for the study and a survey was conducted using a pre-tested questionnaire. Alcohol stability test with different alcohol concentrations (70%, 75%, 80%, 85%, 90% v/v) and Resazurin test were performed to assess the quality of the milk. Safety of the plastic and aluminum milk containers washed by using either cold water, warm water or cold water with detergents were evaluated by performing aerobic plate count. Majority of farmers in Doluwa Veterinary Range were males at the age of 50-60 years. Majority of farmers (52%) had only primary education. There was no any unhygienic practice observed which had any significant association with the alcohol acceptance level. Milk from majority of the farmers (58%) was accepted with the Resazurin test. Maximum alcohol acceptance level of morning and evening milk had a significant association ($P < 0.05$) with mixing of morning and evening milk before bringing into the milk collecting point. Maximum alcohol acceptance level had a significant relationship ($P < 0.05$) with results of Resazurin test obtained from morning milk. Swab samples obtained from plastic milking buckets had a significantly higher ($P < 0.05$) aerobic plate count than those from aluminum milking buckets. A significantly higher ($P < 0.05$) aerobic plate count was observed in buckets cleaned using cold water than in buckets cleaned by warm water, and cold water with detergents. These results indicate that aluminum containers are more suitable than plastic containers for collection of milk. Morning and evening milk should be collected separately at milk collecting points in order to improve the overall quality of milk collected in Doluwafarm base.

Keywords: Hygienic practices, Milk quality, Doluwa, aluminum milking buckets, Resazurin