

QUALITY ASSESSMENT OF MILK SUPPLIED AT CANTEENS OF VARIOUS HOSPITALS IN HYDERABAD

MUZAFFAR MEMON¹, GUL BAHAR KHASKHELI², GHULAM SHABIR BARHAM³,
ABDUL SAMAD MAGSI⁴ & ASAD ALI KHASKHELI⁵

^{1,2,3,4}Department of Animal Products Technology, Faculty of Animal Husbandry and Veterinary Sciences,
Sindh Agriculture University Tandojam, Pakistan

⁵Department of Animal Nutrition, Faculty of Animal Husbandry and Veterinary Sciences,
Sindh Agriculture University Tandojam, Pakistan

ABSTRACT

A total of 450 milk samples (i.e. 50 from each source) were collected from eight canteens of different hospitals and from one dairy farm (as a control). Statistical analysis of variance revealed that there was extremely significant difference ($P < 0.05$) in specific gravity of milk among the nine different sources of milk samples studied. The analysis of variance showed that there was significant difference ($P < 0.005$) within the milk samples analyzed for pH. The study further depicted that highest acidity percentage ($0.16 \pm 0.237\%$) of milk was recorded from dairy farm, followed by canteens milk samples encoded B, G, H, C, D, F ($0.13-0.14 \pm 0.404\%$). Surprisingly the highest percentage of TS (14.79%), fat ($6.29 \pm 0.014\%$) and SNF (8.5%) was recorded for dairy farm milk compared to other sources (canteens) of milk. Furthermore, milk obtained from canteens of hospitals even did not meet the legal minimum requirement of 5% fat and 9.5% total solid and more than 8.5% SNF.

Milk samples obtained from the canteen (coded A) had maximum bacterial counts with an average of 51.55 million/ml. whilst milk samples from dairy farm (coded DF) revealed lowest bacterial counts 4.52 million/ml. Whereas, the average bacterial counts 47.80, 42.82, 41.55, 35.63, 34.62, 34.47, 28.66 million/ml were observed from various canteens milk coded i.e. A, C, D, E, F, G, H, respectively. 80% of samples taken from DF retained methylene blue color (Ranked grade A) after 5.5 hours at 37°C followed by 56% (coded F), 50% (from coded B, C, H), 44% (coded E), 38% (coded D) and 22% (coded A). On the basis of physico-chemical and microbial analysis of milk samples obtained from the canteens of all the hospital were inferior in quality compared to the samples from dairy farm.

KEYWORDS: Market Milk, Hygienic, Quality, Milk Inspection