

(44) Wanjohi G.M., Gitao C.G. and **Bebora L.C.** (2010): The hygienic quality of camel milk marketed from North-Eastern province , Kenya, and how it can be improved. Proceedings of International camel symposium, June 7-11<sup>th</sup> 2010, in Garissa, Kenya. Proceedings page23.

### **Abstract**

The camel population in Kenya is estimated at about 1 million of which more than half are reared in North-Eastern Province. Camel milk in pastoral areas is produced in areas with several challenges that include infrastructural facilities. Most of the milk is collected by retailers, who then bulk it, and at times boil it before sale. Camel milk is currently marketed in urban areas like Garissa, Wajir and Eastleigh in Nairobi. In order to determine the hygienic quality of such camel milk from this area, a total of 384 composite raw milk samples destined for the market were collected and several tests performed that included California mastitis test, bacterial isolation and identification using various tests. A total of 289 samples (75.26%) had gross dirty and particulate matter. 34 samples (8.85%) had abnormal yellowish colour. 70 samples had offensive odour. Gram positive cocci (*Staphylococcus* and *Streptococcus* spp) were the main pathogens isolated from the camel milk samples, in addition to environmental coliforms (*Escherichia coli* and *Klebsiella/Enterobacter* spp). There was a strong correlation between the physical parameters used to detect the quality of milk and actual isolation of microorganisms. In order to determine the constraints faced by camel keepers and traders, a total of 64 questionnaires were administered and analysed. Some of the poor management practices included tying of teats with soft bark to prevent the calf from suckling and tick infestation. Plastic containers are most commonly used to distribute and retail the milk and yet they are difficult to clean and disinfect. Milk is collected in far places and at times is spoilt along the chain before the transporters arrive. Producers, retailers and processors have weak or non-existent group formations with no bargaining power. Pastoralists in North-Eastern province can be encouraged to use CMT as a useful screening test to segregate milk from animals with sub-clinical mastitis. Awareness on the value of hygienic camel milk production can be enhanced and linkages with private sector enhanced in the provision of inputs like aluminium cans.