

ESTIMATION OF SOMATIC CELL COUNT, AS GOLD STANDARD TO DETECT SUBCLINICAL MASTITIS, IN DROMEDARY CAMEL

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ABSTRACT

The objective of the present study was to estimate cut-off point of somatic cell count (SCC) to detect subclinical mastitis using mathematical modelling in dromedary camel. Camel milk samples were collected from individual quarters (n=243) of 95 milking camels. Approximately five minutes prior to milking, camel received oxytocin (20 I.U, IM), the teat was washed and the camel calf was released to stimulate the dam. After 2 minutes, the suckling was interrupted and the teat was dried with tissue and sampling was conducted to perform CMT, and to collect milk for SCC. The range of SCC corresponding with CMT scores of 0, T, 1, 2 and 3 were 0-51000, 57000-108000, 116000-306000, 342000-1830000 and 2129000-8435000, respectively. The threshold values for SCC to detect subclinical mastitis in camel were calculated by considering two different approaches: frequentist analysis (306000 cells/ml) and Bayesian analysis (390000 cells/ml). In conclusion, SCC values beyond 306000 cells/ml could be considered as subclinical mastitis in camel.

Key words: Dromedary camel, SCC, subclinical mastitis