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### **Is somatic cell count a good indicator of the microbiological quality of goat milk? The case in goats from the Canary Islands**

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Somatic cell count (SCC) is an established indicator of cow milk quality as it predicts subclinical mastitis. SCC values in goat milk must be interpreted with caution in this species. A limit of  $1.5 \times 10^6$  cells/mL has been set in the USA, but there are no specific regulations for SCC in raw goat milk in Europe. On the other hand, according to European Regulation EC 853/2004, pasteurized goat milk intended for the manufacture of products must meet the criterion of total bacteria count (TBC) of  $\leq 1.5 \times 10^6$  UFC/ml. The main objective of this study was to analyze whether there is a correlation between SCC and the TBC in Canary goat milk. For this purpose, the Canary Animal Health Laboratory analyzed 414 samples of bulk tank milk of different goat farms for the SCC and TBC. Of these samples, 85 out of 414 samples were randomly stratified selected on basis of TBC and SCC for analysis using the VetMAXtm MastiType Multi Kit (Thermo Fisher Scientific, Warrington, UK) to identify different species and bacterial groups. The mean of TBC and SCC of the 414 goat milk samples were  $6.35 \times 10^5 \pm 8.61 \times 10^4$  and  $2.7 \times 10^6 \pm 1.50 \times 10^6$ , respectively. A low Spearman correlation coefficient was found between TBC and SCC (0.572,  $P < 0.001$ ). Of the 85 samples selected, 96% and 25% were positive or suspect for *Staphylococcus non-aureus* (NAS) and *Staphylococcus aureus*, respectively. Approximately 60% of the samples were positive or suspicious for *E. coli*, *Enterococcus spp.* and the  $\beta$ -lactamase gene. The samples with  $< 5 \times 10^5$  TBC and  $< 2 \times 10^6$  SCC were negative for *E. coli*, yeast, *Klebsiella spp.* Those positive for *Corynebacterium bovis* always had  $> 2 \times 10^6$  SCC. No substantial differences were found between milk samples with  $< 5 \times 10^5$  or  $> 5 \times 10^5$  TCB, when the SCC were  $> 2 \times 10^6$  for the different bacteria or their groups. In conclusion, there is no clear relation between SCC and TBC. Further research is needed to find out more about this relationship and to look for other indicators of the bacterial quality of goat milk.