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Book of Abstracts
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The occurrence of pathogens in milk of ewes with high somatic cell count at half udder level

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Abstract

The aim of this study was to determine the occurrence of pathogens in ewe's milk with high somatic cell count (SCC) at half udder level. The experiment was carried out on a dairy farm, where main breed was a Tsigai. Milk samples were taken in monthly intervals as part of the milk recording test day from February to July 2019. A total of 289 ewes were included in the survey. Based on SCC in milk, the ewes with SCC ≥ 10^6 cells/mL at any time of their monthly test day were selected for further sampling three days later. These milk samples were collected at half udder level and analysed on SCC and presence of pathogens. Selected ewes were also repeatedly sampled at half udder level always on third day after monthly recording test days, even if they had low SCC on test day. Thus 95 ewes (438 milk samples, the same ewes were sampled more times if they had already high SCC in earlier recording months) without symptoms of clinical mastitis were involved for evaluation. For bacteriological detection the inoculum of each sample of milk was inoculated onto blood agar (Oxoid LTD, Hamshire, UK). For the identification of pathogens MALDI-TOF MS was used (Bruker Daltonics, Bremen, Germany). From total of 438 examined milk samples tested on the presence of pathogens, 31.7% of samples were as classified positive. Two pathogens were found in 2.9% of bacteriological positive samples. Contaminated samples were detected in 0.9%. The most common pathogens were coagulase-negative staphylococci (CNS). The most frequent CNS were

Staphylococcus (S.) *schlefeiri* (27.3%), *S. simulans* (23.7%) and *S. epidermidis* (18%). *S. aureus* was identified in 5% of bacteriological positive samples. Other contagious pathogens weren't found in tested group of ewes. 89.2% of bacteriological positive samples had SCC ≥ 0.5 x 106 cells/mL and 76.2% of samples had SCC ≥ 106 cells/mL. In conclusion, the results showed that the presence of the pathogen had a significant impact on SCC in milk.

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Keywords: ewes, somatic cell count, pathogens