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Book of Abstracts



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Title: Colostrum and milk immune status in 2 autochthonous Italian goat breeds: preliminary results.

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Abstract: Local livestock breeds are genetic animal resources. Many are threatened by the risk of extinction, being replaced by cosmopolitan high-performance ones. To broaden knowledge on them is pivotal to allow the development of correct strategies of conservation and improvement. This study aimed to investigate IgM concentration in colostrum and milk in Frisa and Orobica goats, two Italian local breeds, and compare the results with Camosciata delle Alpi, a cosmopolitan breed. To date, there are no data about the immune status of colostrum or milk of these local breeds. Colostrum and milk samples were collected from 30 adult goats at parturition (d0) and 3- and 7-days post-partum for each breed. IgM concentrations were measured using an ELISA commercial kit. Statistical analysis was performed using linear mixed models by SPSS 23.0. The model included breed (B), time (T), and their interaction (B×T) as fixed effects. Concentrations decreased from d0 to d3 ($p < 0.001$) but the differences between d3 and d7 were not significant. Frisa tended to have the highest colostrum IgM concentrations ($p < 0.1$), although no differences between breeds in the following days were detected. IgM values were consistent with what found in scientific literature (mean values of 1.40, 1.85 and 1.44 mg/ml in Camosciata, Frisa and Orobic goat colostrum, respectively). These preliminary results may indicate that Frisa breed, with greater meat aptitude, tends to have higher immunoglobulin concentrations in colostrum.