

special reference to pH and titratable acidity. pH was significantly higher on SU than NSU cisternal milk but that differences did not reach significance on alveolar fraction ($P=0.08$). Titratable acidity was significantly lower on SU than NSU cisternal milk however no differences were observed in alveolar milk. In sum, selfsuckling behavior observed in intensive management affect the immune milk status and technological parameters overall in cisternal milk. These effects must be investigated in relation to mastitis susceptibility and cheese quality.

Effect of different treatments on colostrum antimicrobial activity

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Abstract / Resumo:

The aim of the present study was to evaluate the effect of different pasteurization methods and different technological treatments as skim or rennet on the antimicrobial activity in goat colostrum against *Escherichia coli*. The first postpartum colostrum from ten dairy Majorera goats was collected by a milker bucket. The obtained colostrum was divided in six aliquots (50ml) and storage at -80°C until analysis were performed later on. Colostrum samples were defrosted and heated at 37°C in a water bath and, after that, the different treatments were applied, except on control samples. The pasteurization was performed using three different methods, at 56°C during 1 hour, 63°C during 30 minutes and 72°C during 15 seconds. Another colostrum aliquot (50ml) was skimmed by using a commercial skimmer. The final aliquot was clotted by using commercial rennet and colostrum whey obtained was recovered after centrifugation. Ten microlitres of each sample were imbibed in a sterile antibiogram disk and let to dry. Sterile saline serum and Enrofloxacin (250 microgram) were used as negative and positive control, respectively. Two hundred microliters of *E. coli* (ABS 600 nm = 3) were plating into Petri dishes with violet red bile agar medium. In each Petri dish, 4 antibiogram disks (positive and negative controls and two samples to test) were located and incubated at 37°C for 24 hours. After that, halos were measured using a digital scanner. A Proc Mixed procedure was performed by SAS statistic package. Assuming positive control as 100% of antimicrobial activity and negative control as 0% of antimicrobial activity, the percentages of the different samples were as follow: control samples (without treatment) 14.78%, pasteurization at 56°C during 1 hour 12.28%, pasteurization at 63°C during 30 minutes 14.48%, pasteurization at 72°C during 15 seconds 9.71%, whey colostrum 6.35% and skimmed colostrum 16.22%. As preliminary conclusion, pasteurization (at 56 and 63°C) and skimmed did not affect significantly the colostrum antimicrobial activity, although pasteurization at 72°C and colostrum whey decreased the antimicrobial activity of goat colostrum.

Effect of milking frequency and genotype on udder morphology and milk quality

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