MICROBIOLOGICAL QUALITY OF CAPRINE AND OVINE MEAT PRODUCED AND COMMERCIALIZED IN RIO GRANDE DO NORTE, BRAZIL


Caprine and ovine meat are considered promising merchandises in Brazil, since their trade is constantly progressing is necessary to control all stages of production in order to avoid bacterial contamination. Therefore, the aim of this work was to evaluate the microbiological characteristics of goat and sheep meat produced and commercialized in Rio Grande do Norte. From supermarkets and public markets, 41 samples of caprine (18) and ovine (23) meat in natura were collected and underwent analyses to determine the counts of enterobacteria, mesophilic and psychrophilic bacteria, and the presence of Salmonella sp. In the supermarket samples the enterobacteria presented average of $3.4 \times 10^3$ cfu g$^{-1}$, the mesophiles showed $6.6 \times 10^4$ cfu g$^{-1}$, and for psychrophilic bacteria the mean was $3.0 \times 10^5$ cfu g$^{-1}$; 27.27% of the samples were positive for Salmonella sp. As for the public markets’ samples were found averages of $3.0 \times 10^6$ cfu g$^{-1}$ for mesophilic bacteria, $2.47 \times 10^4$ cfu g$^{-1}$ for psychrophilic bacteria, and $1.31 \times 10^5$ cfu g$^{-1}$ for enterobacteria; from these samples 24 (80%) were positive for Salmonella sp. The high microorganisms count may have occurred due to inadequate refrigeration and lack of hygiene during production and storage, allowing contaminating agents such as dust, insects, and consumers’ manipulation to infect the meats. The results show the caprine and ovine meats studied are inappropriate for human consumption, because of the hygienic conditions in which they were produced and marketed, and represent a public health risk.