

TITLE: MICROBIOLOGICAL ANALYSIS OF FRESH GROUND BEEF COMMERCIALIZED IN MACEIÓ – AL

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ABSTRACT

The objective of the study was to evaluate the hygienic-sanitary conditions of ground meat marketed in some establishments of the city of Maceió – AL. It was collected a sample of freshly processed ground meat from 10 randomly selected establishments of Maceió – AL. After the gathering, the samples were conditioned in isothermal boxes and sent to the multidisciplinary laboratory of scientific research of the Cesmac University Center in order to conduct the microbiological analysis. Total coliforms, coliforms at 45°C, Coagulase positive *Staphylococcus* and *Salmonella* sp. were tested according to the methodology of the American Public Health Association (APHA). According to the results obtained, it was observed the presence of total coliforms and coliforms at 45°C in all samples analyzed. The counting of total coliforms and coliforms at 45°C were above the limits set by the International Commission on Microbiological Specifications for Foods (ICMSF) – 1.0×10^3 NMP / g – in 40% and 30% of the samples, respectively. The amount of *Staphylococcus* coagulase positive ranged from $4,8 \times 10^2$ UFC/g to values greater than 2×10^6 UFC/g, being greater than 1×10^5 UFC/g in 70% of the samples, which indicates inadequate hygiene conditions during the processing of the meats. The absence of *Salmonella* sp. was verified in all analyzed samples. Despite the samples are within the quality parameter required by RDC No. 12/2001, for *Salmonella* sp., observed amounts of coagulase-positive *Staphylococcus*, total coliforms and coliforms at 45°C indicate unsatisfactory hygienic-sanitary conditions in most of the researched establishments. There is a need to raise the awareness of the owners of the establishments as well as of the manipulators in the sense of the adoption of good practices on manipulation so as to ensure the safety of the ground meat available to be purchased to the population. Inspection agencies should also act more rigorously, designing and implementing preventive measures and reviewing their legislation for acceptable levels of pathogenic microorganisms and indicators.

Key words: Coliforms, *Salmonella*, *Staphylococcus*.