

TITLE: PHYSICAL-CHEMICAL AND MICROBIOLOGICAL EVALUATION OF THE MUSSARELA CHEESE MARKETING IN THE CITY OF TUCURUÍ, PARÁ

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ABSTRACT:

According to the Ministry of Agriculture, Livestock and Food Supply (MAPA), the concept of cheese is defined as the product obtained from the partial separation of whey from milk. Being a by-product of milk, mozzarella cheese has great nutritional and protein properties, being one of the most consumed products, the second in world production, and whose method of manufacture may involve several procedures that increase the risk of microbiological contaminations. Therefore, the objective of this work was to analyze the physical-chemical and microbiological quality of the commercialized mozzarella cheese from Tucuruí / PA. Twelve samples of cheese were collected in different commercial establishments during the months of August / 2018 to October / 2018. They were submitted to the following physical-chemical parameters: pH; soluble solids and moisture; and microbiological: mold and yeast, total and fecal coliforms, staphylococci and mesophiles. The physical-chemical parameters revealed that the samples presented humidity between 41.62% and 45.77%, and therefore, they are considered medium-moisture cheeses, according to Ordinance No. 146/96. For the pH values were between 5.51 and 6.57; and in soluble solids the results ranged from 0 to 0.6. Microbiological analyzes for total coliforms revealed that 91.7% presented values within the standards established by current legislation (RDC No. 12/2001-ANVISA), which establishes a maximum value of 103NMP / g. For fecal coliforms 100% of the samples were within the limits established by said RDC that establishes the parameter of 103NMP / g. For staphylococcus, 50% presented values above that established by said legislation, which establishes a limit of 103 CFU / g. For mesophyll, the samples present values between 2.7×10^4 and 2.3×10^5 UFC / g, not having parameters in the legislation, however, the presence of this type of microorganism is important, since it is an indicator of good sanitary practices and handling. The mold and yeast population count was 75% within the limits established by Decree No. 149/96, which is 5×10^3 UFC / g. Although the current legislation does not establish standards for this parameter, it was considered important to make its assessment in the present study. Although most of the samples present satisfactory results for the analyzed parameters, there is still a lack of sanitary and hygienic care when handling this product, resulting in the need to implement good hygiene practices.

Keywords: mozzarella cheese, microorganisms, physicochemical, quality

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