

TITLE: THE ZONA DA MATA/MG RAW MILK PROFILE'S

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ABSTRACT:

Milk and dairy products are among the most consumed foods in Brazil. Milk consumption in Brazil is around 170 liters/habitant/year, and it is considered as a good source of nutritional compounds and it is easily obtained by consumers. Considering its relevance, Brazilian Ministry of Agriculture (MAPA) established several guidelines for herd health and milk production in the last decades, including specific microbiological criteria for raw milk and also different procedures for milking, cooling and transporting of milk to dairy industries. This study aimed to characterize the microbiological quality of raw milk produced in the Zona da Mata region, Minas Gerais state. Raw milk obtained from bulk tanks were obtained from 21 farms, and subjected to microbiological analysis to enumerate mesophilic aerobes, psychrotrophics, proteolytic psychrotrophics and lipolytic psychrotrophics. The results were expressed as colony forming units per mL (CFU/mL) and samples were rated based on mesophilic aerobes counts as excellent (up to 100,000 CFU/mL), good (between 100,000 and 300,000 CFU/mL) and regular (higher than 300,000 CFU/mL). Based on the obtained results, 57.1% of the samples were rated as excellent, 19.0% as good and 23.9% as regular. Considering microorganisms psychrotrophics, counts ranged from < 10 UFC/mL to > 2.500.000 UFC/mL, and 38.1% of samples presented proteolytic and lipolytic psychrotrophics, simultaneously. The results indicated a relative good microbiological quality of raw milk produced in the studied area, due to the presence of microorganisms mesophilic aerobes counts lower than 100,000 CFU/mL. However, the remarkable presence of proteolytic and lipolytic psychrotrophics highlight the need for proper hygiene and storage of raw milk under ideal conditions for ensuring the quality of the product.

Keywords: raw milk, mesophilic aerobes, psychrotrophics, proteolytic, lipolytic

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