

**TITLE:** MICROBIOTA OF TRADITIONAL COLONIAL AND IMBRIAGO CHEESES

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**ABSTRACT:**

Industrial scale production has not replaced artisanal cheeses on the market, and several handmade cheeses lose consumers by using standardized milk or keeping animals under the same diet throughout the year. Lipolytic bacteria may be considered undesirable in cheeses, as they hydrolyze or oxidize lipids and may cause spoilage. At the three months of ripening, 60 cheeses, half submitted to traditional Imbriago drunkenness and half kept as Traditional Colonial, were compared microbiologically at four, six and eight months of ripening. Statistically, the effects of treatments between and within the five production periods were compared in three maturation times, and texture analyzes (Stable Micro Systems) were also performed at the end of ripening. Microbiological analyzes were performed at the Food Microbiology Laboratory of the Department of Food Engineering of the State University of the Midwest, Guarapuava - Paraná. Lactobacillus MRS Agar and Plate Count Agar (PCA) enriched with 1% of skimmed milk powder (SMP 10%), respectively, were used for counting lactic and proteolytic bacteria. The lipolytic mesophilic bacteria were sown on tributyrin base agar. All plates were incubated at  $36 \pm 1$  ° C for 48 hours. Colonial Imbriago presented values significantly higher than the traditional Colonial count for lactic bacteria, which occurred only in the fourth month of ripening, 6.66 and 6.05 log / g, respectively. There was no statistically significant difference between the counts of lipolytic and proteolytic mesophilic bacteria, lipolytic bacteria being the treatment factor of the crust, Colonial Imbriago averages were 4.35 and Traditional Colonial was 3.68 log / g of cheese and for proteolytic bacteria, the average values of the Imbriago cheese were 4.88 and the Traditional Colonial was 5.25 log/g. For the values of texture (CV 6,97%) there was a significant difference between the treatments (P <0.05) and the Imbriago cheese presented the highest averages for hardness (351,15 N), being characterized as more samples firm with greater resistance to chewing when compared to colonial cheese (275.58 N). Crust treatment provided firmer cheeses and rehydration of Colonial Imbriago may have resulted in higher lactic acid bacteria counts.

**Key words:** lipolytic bacteria , proteolytic bacteria, texture

**Development Agency:** CAPES