

For the purposes of the present study a hard type cheese; Kefalograviera, was prepared from raw and pasteurized milk, which was left to mature for 2 months in controlled conditions within a chamber with relative humidity (45-50 %) and temperature (20-22 °C). For the cheese preparation, sheep's milk from Chios sheep's breed was used. A comparison of the two cheeses was undertaken during the maturation period in regards of their microbiological, physicochemical and sensory characteristics, and differences were recorded.

To determine the microbial flora of the cheeses, the standard plate count method was used and most specifically; the total microbial flora of mesophilic lactobacilli (pH = 7.0, pH = 5.7) the mesophilic and thermophilic lactic cocci, Staphylococcus, Enterobacteriaceae, Yeast and Molds were examined.

Regarding the physicochemical composition of the cheese, various physicochemical analyzes were undertaken to determine the content of cheese fat, protein, moisture, salt, measurement of acidity, pH, color and texture analysis of the cheese. In addition, the degree of proteolysis of the cheeses during cheese maturation was determined. One of the most significant part of this study was to compare the proteolysis of cheeses and its contribution to the cheese flavor. Significant differences as to the degree of proteolysis of each cheese were identified.

For the sensory evaluation of each cheese, 10 students from the Department of Agricultural Sciences, Biotechnology and Food Science with specialization in Food Science and Technology and Animal Science and Technology were selected to participate and examine the samples. For the sensory evaluation of the cheeses, quantitative descriptive analysis (QDA) was the method used. The participants were asked to evaluate the characteristics of each cheese on a graduated scale from 1 to 10 and were evaluated appearance, color, odor, moisture (in mouth), taste and aftertaste, texture and overall acceptance.