TECHNOLOGICAL PROPERTIES OF WHITE BRINED CHEESE PRODUCED FROM ORGANIC GOAT MILK

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Introduction. From the nutritional point of view goat milk is a more balanced product compared to cow milk, since it has all the necessary nutrients for a healthy body. Goat milk is less allergenic, naturally homogenized, easier to digest, lactose intolerant friendly, and biochemically and thermodynamically superior to cow milk.

The purpose of our research was to determine the differences of the two types of goat cheese made from milk with the same physical and chemical composition, emphasizing that the variations in the physical and chemical parameters of the two types of goat cheese are not due to the physical or chemical composition of the goat milk.

Materials and methods. The analysis of the chemical composition of goat milk was made in the study, where the content of the milk fat, also proteins, lactose and dry matter were determined by infrared analyzing machine Milcoscan in accordance with the IDF 141C:2000 standard. The total solid, fat, raw protein, ash were also determined according to AOAC (2009) and pH was determined by pH meter Metler –Toledo. The sensory evaluation of the two types of goat cheese is made by method of points, a quantitative descriptive method for sensory analysis.

Results and discussion. The samples of the two types of cheese were coded with letter A and B. For each of the cheese characteristics profile: cross-section, consistency, colour, smell and taste, a coefficient of importance was determined. The sensory characteristics of the goat cheese are valued with marks from 1 to 5 multiplied by the coefficient of importance, and their collection is expressed in (%) from the maximal possible quality. The characteristics and quality of the cheese depends mostly on the quality of the milk, i.e. its composition. The most variable component of goat milk is the fat content which depends mostly on the stadium of lactation (2-8%). The content of milk fat at the beginning of the lactation is 3.34%, in the middle of lactation 2.73% and at the end 4.58%. The proteins from goat milk are more digestible than those of cow milk and the absorption of amino acids is more efficient.

The differences of pH values of the two types of goat cheese are the result of the different starter cultures used in the process of cheese production. According to the given scores for the sensory evaluation the total suitability of goat cheese A had best results with average of 4.85 compared to goat cheese B which had mark of 4.56. The taste, consistency and smell are better marked in cheese A as compared to cheese B. From the results it can be seen that pH value of the cheese A coagulum is of 6.15 and it is higher as compared to the pH value of cheese B coagulum with 6.04.

Conclusion. The results of our research show that the starter cultures used in the production process of goat cheese influence the differentiation of milk component during the rippening of cheese. The biggest difference in the sensory characteristics of the goat cheese gives its specific quality.

References:

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