

The nutritional value of the milk of Simmental cows in relation to the season and production system

Summary

The most important non-genetic factors affecting the nutritional value of milk include the season and the production system. Selection of a production system (organic, conventional or intensive) is one way of adapting milk composition to meet the changing needs of the market, mainly the expectations of consumers and the dairy industry. The aim of the research was to compare the nutritional value of milk from Simmental cows during the pasture season and indoor season in relation to the production system (organic, conventional and intensive). Milk produced in the organic system, despite having the lowest protein content, had the highest protein-to-fat ratio (0.88) because it had the lowest fat content. The production season significantly differentiated the basic chemical composition of the milk produced on the organic and conventional farms. Milk collected during the pasture season was characterized by significantly higher crude protein content, including casein, and lower fat content. It can be concluded that milk from organic farms meets the needs of today's consumers, who want milk with low fat content and high protein content, in accordance with modern dietary trends.

KEY WORDS: organic milk, chemical composition, pasture season, indoor season