

Analytical evaluation of chemical/biochemical markers of the nutritional quality of milk

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Abstract

The doctoral thesis entitled "Analytical evaluation of chemical/biochemical markers of the nutritional quality of milk", addresses important issues in the field of milk chemistry, providing relevant technical-scientific results of the chemical composition of milk. Furthermore, it presented practical applications of the innovative nutritional strategies aimed at enhancing the antioxidant status and bioactive compounds of milk. The presented thesis employed a multidisciplinary approach that integrated chemical and biochemical assessments of milk composition, along with ruminants' feeding experiments involving alternative feedstuffs. Zootechnical approaches were utilized to elaborate the complex experimental designs for each of the three nutrition experiments. The main objective of the doctoral thesis was to study the antioxidant status of milk, as well as its bioactive compounds, using optimized and validated analytical methods and practical applications, such as nutrition studies based on innovative feeding strategies (for example, the use of inactivated yeast or oilseeds). The results obtained in the doctoral thesis can be important for the dairy industry, farmers, feed producers and consumers.