

Chapter 9

Criteria for Production and Quality Analyses in Milk Produced in Brazil

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EXECUTIVE SUMMARY

Milk and its derivatives are among the foods most consumed by the population, capable of meeting important nutritional needs of humans. As the consumer market is increasingly demanding in terms of quality of the milk produced, the difficulty

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in maintaining and controlling these points is an issue present in several studies. Quality can be influenced from the type of production system in which the milk is produced, passing through nutritional and sanitary management, to the environment in which the animals remain during their productive life. This chapter presents a brief characterization of the dairy production chain in Brazil and the federal legislation that governs the production and quality of the milk produced. Some results of research on milk quality in shared tanks carried out by the Kamby Research Group with small rural producers in the Tupã/SP region are also presented. Finally, factors that affect the quality of milk and future actions to improve the dairy production chain are pointed out.

INTRODUCTION

Brazil is the third largest milk producer in the world, with an annual production of 34 billion liters produced, mostly by small and medium-sized properties in 98% of Brazilian municipalities (IBGE, 2021). As the consumer is increasingly demanding in terms of the quality of the milk produced, it is difficult to maintain and control these issues and this is an aspect present in several studies.

This quality can be influenced by several factors, among which stand out the different milking management practices, sanitary practices, the type of food supplied to the animals and the climatic variables to which they are submitted, causing changes both in the composition of the main nutrients and in the to the microbiological characteristics of milk (Gomes, 1999).

Maintaining the quality and natural composition of the milk that is produced is one of the great responsibilities of producers and authorities directly linked to the health area. To maintain the standardization of dairy production in the country, the Ministry of Agriculture, Livestock and Supply (MAPA) presented, in 2018, the update of the Normative Instructions (NI) that are currently in the country, relates to refrigerated raw milk and pasteurized milk, known as NI 76/2018 and NI 77/2018. The NI 76/2018 seeks to address the identification and the minimum quality levels established for raw and pasteurized milk, while NI 77/2018 brings the standards that must be established to obtain quality milk, taking into account factors such as hygiene, maintenance of equipment and property installations, the precautions that must be taken from collection to delivery to dairy products and issues that must be raised to ensure the qualification of professionals involved in all collection and transport of milk, which includes concern for the animal management to avoid diseases such as mastitis (MAPA, 2018).

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