

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

CHEMICAL COMPOSITION AND SOMATIC CELL COUNT OF MILK IN HOLSTEIN COWS CREATED IN THE AGRESTE REGION OF PERNAMBUCO

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The quality of the products of animal origin for human consumption has been one of the most discussed topics in recent years. The knowledge of somatic cell counts (SCC) and milk composition is of fundamental importance for the definition of its quality, as it establishes several organoleptic and industrial characteristics. In this way, the production, and the physico-chemical compositions and microbiological of the milk are receiving more attention, mainly because they are characteristics affected by various factors of genetic and environmental origin, such as the age and parity of the cow. This study investigated the variation on the SCC and chemical composition of milk in Holstein dairy cows in the state of Pernambuco. A total of 5,523 individual milk records of 380 purebred Holstein cows, black and white variety, in the period from 2004 to 2017 were analyzed. The animals were created in intensive system, in the agreste region of Pernambuco, whose climatic characteristics are: dry and warm climate, average annual temperature of 25°C (minimum 20°C and maximum 35°C) and annual precipitation less than 600 mm. The data are part of the official dairy control of the Holstein breed and were provided by the Brazilian Association of Holstein Breeders. Milk productions in two categories of cows were distributed: primiparous (n = 2,381) and multiparous (n = 3,142). The somatic cell count for not presenting a normal distribution was transformed logarithmically into Somatic cell Score ($SCS = \log_2 (C^{SCC}/100) + 3$). The analysis of variance was carried out by the General Linear models procedure of the SAS. The results of the composition showed significant differences ($P < 0.05$) in fat, lactose, total solids and solids not fat between the categories analyzed multiparous (3.26%, 4.53%, 11.95% and 8.69%, respectively) and primiparous cows (3.32%, 4.65%, 12.13% and 8.80%, respectively). Multiparous cows had less desirable traits nutritionally that due to their higher milk production, reflecting directly on the reduction of the constituents of the milk. Greater ECS was observed in multiparous (4.31; $P < 0.05$), a fact that may be justified by this category of females being more exposed to the agents causing mastitis. Therefore, it is necessary to adopt management practices that can contribute to improve the milk quality produced by the multiparous cows from the herds analyzed in this study aiming to satisfy the demand for better quality dairy products.

Keywords: dairy cattle, multiparous, primiparous, productive efficiency

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