THE INFLUENCE OF HEAT STRESS ON THE MAIN QUALITY INDICATORS OF MILK PRODUCTION IN A HERD OF DAIRY COWS BELONGING OF THE ROMANIAN SPOTTED BREED

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Abstract

The aim of the study is to analyze the dynamic of the main quality indicators of milk production over the period 2023 - 2024 for a herd of dairy cows belonging to the breed Romanian Spotted exploited in condition of a farm from Iași county, NE Romania. The data were obtained from the Official Production Control and were statistically processed using the computer programs SAVC and SPSS 16.00. Under heat stress conditions, changes are observed in the chemical composition of the milk for the THI ≥ 64 threshold. Thus, the content of components such as protein and fat in milk begins to decrease from this threshold to 3.94% and 3.41%, respectively. Milk production decreases drastically for the THI ≥ 72 threshold to 9.64 kg, which also determine a reduction in lactose content to 4.66%. Casein synthesis is also affected and under the action of heat stress, its content in milk decreases to 25.44%. Heat stress is a factor that influences milk production from a quantitative but also qualitative point of view, therefore measures must be taken to minimize its effects during the summer month in particular.

Key words: *heat stress, dairy cow, THI*