USAMVB Timisoara
"YOUNG PEOPLE AND MULTIDISCIPLINARY RESEARCH IN APPLIED LIFE SCIENCES"
27 November 2020

THE EVALUATION OF CLIMATIC FACTORS SPECIFIC TO A MOUNTAINOUS REGION OF DORNA DEPRESSION ON THE FAT AND PROTEIN CONTENT OF RAW COW MILK

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Abstract: This study is focused on the evaluation of the main climatic seasonal factors on the compositional indices with economical importance of raw milk in a mountainous region. It also tackles the statistical analysis of the variables of climatic- fat content factors and climatic protein content factors respectively. The study revealed that the autumnal fat and protein content of raw milk rose together with a drop in ambient temperature.

• Introduction

Geoclimatic factors have a heavy influence upon animal productions, their welfare and health through their action on animals and the biodiversity of the feed source. All these factors also have a major impact on the quality and milk yield of cows raised in different geographic regions.

• Material and method.

The study was conducted over a period of time starting from November 2019 to October 2020, using milk obtained from a private commercial company situated in the south vest of the Bucovina region in Suceava county. The research was based on the collaboration with two weather stations which provided information regarding the seasonal dynamic of temperature, humidity, precipitations and atmospheric pressure. The influence of the climatic factors was monitored through the testing of compositional fat and protein content of raw milk on samples (n=30). The obtained data was statistically analysed using current methods of biostatistics (MedCalc Software, Pearson r.).

• Results and discussions

The most relevant results were recorded after the analysis of fat and protein content along with climatic variables – which indicated seasonal correlation. In this matter a raise in fat and protein content of the raw milk was observed during the fall season together with the drop in ambiental temperature.

• Conclusions

Based on the obtained results, the study proved the fact that there is a strong correlation between temperature and the relative humidity of air and the seasonal evolution of fat and protein content in the raw milk of cows that are raised in the region of Vatra Dornei.

Acknowledgement: The authors thank the National Meteorological Agency and the Dany-Lily Processing Society from Dornei County.