

SEASONAL EFFECT OF QUALITY OF MILK IN COW

JUDIT MÁRKI^{1,2}, JÓZSEF CSANÁDI¹, ZOLTÁN DEIM³, ATTILA KOLLER⁴, RITA SZÜTS⁵, ZSOLT SZEGLETES⁶, FERENC OTVOS⁶, ZITA SERES⁷, BALÁZS P. SZABÓ¹, ANTAL VÉHA¹, VIKTORIA SZUTS^{1,6}

¹University of Szeged, Faculty of Engineering, Department of Food and Engineer, Szeged, Hu

²Palmfood Kft. Company, Szekszárd, Hu

³University of Szeged, Faculty of Science and Informatics, Department of Biotechnology, Hu

⁴TOLNATEJ Zrt Company, Szekszárd, Hu

⁵Auditor of guider of quality, Szeged, Hu

⁶Academy of Science, Biological Research Centre, Szeged, Hu

⁷University of Novi Sad, Faculty of Technology, Serbia
szutsv@mk.u-szeged.hu

Background: The amount, composition and properties of the milk produced at the beginning and end of the lactation period different from those of the intervening period. A series of simple steps milk processing, the process during the annual milk production is influenced by seasonal effects, so it is necessary to know the exact production conditions.

Aim and methods: In this study the *goal* was a long term monitoring for the altered milk and products of cottage-cheese. We examined the quantitative changes in the indicators of nutritional values in raw milk samples collected by Szekszárdi Tolnatej Zrt Company during one year and monitored a seasonal changes of the finished product made from milk samples of cottage-cheese content values. During one year, we validated amount of protein, carbohydrates, lipids and other parameters changed in the seasons.

Results: Seasonal periodicity altered moderately in raw milk in the measured parameters suggested different feeds in cows. The cottage-cheese may also arise from that in these times of dairy animals hormonal balance changes. However, the kind of productive cows can be different in certain geographical areas, which cover specific nutritional values of milk. Throughout our investigation the seasonal change was moderated in the composition of raw milk of cow during a year as was expected. One of the main reasons is the feed of animals and the obedience training of cows in Hungary. The seasonal changes in the product of cottage-cheese were measured due to the altered parameters in the milk. For he standardized production of manufacturing process and the quality of

cottage-cheese more investigation is needed in the future. First of all, protein values in the vat has to be taken account parallel to the fat values as well as we take into consideration for the yield in the compounds of cottage-cheese.

Acknowledgements

This study was supported by NKFIH-112688 and OTKA K112688 grants.