EVOLUTION AND SIGNIFICANCE OF NUMBER AND CELL CONFIGURATION IN GOAT MILK

Sabau Diana, O. Rotaru, Ioana Dalea

University Of Agricultural Sciences And Veterinary Medicine, Faculty Of Veterinary Medicine, 1-3 Manăștir Street, 3400 Cluj-Napoca, România, didisab@clujnapoca.ro

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SUMMARY

In EU, the legal upper limit for the number of the somatic cells in goat milk is 1000000 cells/ml, however, frequently, the farmers cannot respect this limit [Droke et al., 1993].

The research was carried out on 70 samples of milk from individuals from a group of 10 goats from a population from Cluj county, Romania. The study was carried out during the entire period of lactation (March – September 2005). The samples were collected in sterile recipients, each sample being investigated individually at the Faculty of Veterinary Medicine Cluj-Napoca. The method ISO 13366-1 was used for the counting of the somatic cells and the May Grunwald Giemsa method for the cytological examination of the milk sediment.

The number of somatic cells is within the admitted limits of the EU for 23% of the cases, the rest of 77% is above that limit, being in the category of suspicious milk, from a mammary gland with clinically unexpressed infection. The statistical analyses with Student test (T test) showed significant differences observable at the beginning and the end of the milking period.

![Fig. 1 – Number of somatic cells for goat milk (mathematical average ± ES, n=10) collected in 2005 during entire lactation, from march-september, compared with the maximum admitted level of UE (standard). The stars represent the statistical signification according to Student test (T test) in comparison with standard, where * for 0.05>p>0.01 and ** for 0.01>p>0.001.]

The attention over the configuration and especially the variety in numbers of milk cell population engaged a big interest when the direct relation between cell number count and the evolution of the mammary gland inflammation process, predominantly exsudative ones compromising hygienic quality of milk, was demonstrated. Moreover, the cytologic examination showed in some cases the etiology of these mammary infections, a situation that can not be shown with somatic cell count.

REFERENCE