THE SANGUINE BIOCHEMICAL PROFILE OF THE LIMOUSINE HEIFERS DURING THE ADAPTATION-ACCLIMATIZATION PERIOD

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Keywords: blood, biochemical parameters, Limousine cattle, adaptation, acclimatization, period

SUMMARY

Taking into account that blood by its cellular and biochemical constituents represent the animal’s health (responding rapidly and several times specifically to the aggression determined by the internal and external factors) we have decided to carry out some sanguine biochemical investigations in clinically healthy animals. (1, 2)

The main goal of the researches was to complete the reference data regarding the metabolic profile of Limousine cattle, imported recently in our country, as well its evolution during the adaptation-acclimatization period.

The paraclinical investigations have been carried out on a batch of Limousine heifers, clinically healthy, belonging to a farm from the western part of the country.

The blood tests were collected from the jugular vein of 17 animals then the blood was put in dry and sterile test tubes without an anticoagulant for the serum manifestation, being then analyzed in laboratory using the VET-SCREEN semiautomatic biochemical analyzer. There were determined the following sanguine biochemical parameters: total proteins, the blood albumins, calcium, phosphorus, magnesium, glucose, urea, ASAT, ALAT, PA, GGT, and LDH.

In order to evaluate the adaptation-acclimatization period, the investigation results were compared to those from 2002 when the Limousine heifers were imported from France, and the heifers from 2005 are offspring of those.

The sanguine biochemical parameters (proteinemia, albuminemia, calcemia) presented significantly increased values (p<0.01, respectively p<0.02) in the heifers from 2005 in comparison with those from 2002. The biggest differences, in a proportion of 23.52%, were observed in case of the total proteins, which showed decreased mean values in the heifers from 2002 in comparison with those from 2005. The other sanguine biochemical parameters (phosphoremia, magnesemia, uremia and glycemia) have not presented significant differences (p<0.05) between the two studied periods.

The enzymatic parameters, aspartat aminotransferase (ASAT), alanine aminotransferase (ALAT), alkaline phosphatase (PA) and gamma-glutamyltransferase (GGT), determined in the two periods presented similar values, that do not differ significantly (p<0.14) except the lactate dehydrogenase (LDH) which had a significantly intense activity in the heifers imported in 2002.