

## EXAMINATION OF LIVER FUNCTIONS OF COWS IN DIFFERENT PHYSIOLOGICAL STATE

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**Summary.** Lithuanian Black and White, and German Holstein cows at the age from 3 to 8 years were investigated.

The whole year the animals were kept in big groups in cowsheds and fed universal (comprehensive) ration. The average milk production was over 6500 kg per lactation. The cows under examination were assigned in to 3 groups: I group – 23 dry cows, II group – 23 cows 14 days after calving, III group – 19 cows 60 days after calving, IV group – 18 cows lactating for 7 months. The cows were observed for hepatosis.

The cows were investigated by common clinical methods, The blood was examined morphologically or biochemically (a quantity of haemoglobin, glucose, alkali reserve, total proteins and relations among their fractions, activity of enzymes ALT, AST and ALP in blood serum).

The health of cows was satisfactory. Small erythropenia was established in some of cows from different groups. Young cows comprised 61%. Hipoglobinaemia was established in 21-77% of lactating cows. Cows from all groups had low alcali reserve of blood serum; 74 % of such cows were 14 days after calving. Insufficient amount of total protein in blood serum was in 56.6% of cows 14 days after calving. Among them there were 71.4% young animals. Hipoalbuminaemia was more frequent in the group of older cows. Middle amount of enzyme ALT in different groups of examined cows blood serum was 50?80 UI/l, and enzyme alkaline phosphatase (ALP) – 322.08-400.9 UI/l.

More distinct subclinical symptoms and liver pathology were diagnosed two weeks after delivery. Symptoms of hepatosis were found in 21.7% of cows in this group. The number of older cows comprised 83%.

**Keywords:** cow, clinical research, blood research, liver, hepatosis.