

INFLUENCE OF MOULD FUNGI ON THE COWS HEALTH AND SOME LIVER FUNCTIONS

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Summary. The influence of mould fungi on the health and liver functions of Lithuanian White and Black cows was investigated. For 4 months the cows were being fed on barley flour containing spores of the fungi tribes: *Fusarium* (4.0 10⁴), *Penicillium* (1,1.10⁴), *Trichothecium T. roseum* (2,9 10⁴), *Alternaria* (2,2 10⁴).

The mould fungi were detected by an applicable in Lithuania method 13496.6-71 LST ISO 7954-98. The cows' health was assessed by clinical status presents investigations by morphological blood testing performed by classical methods and biochemical testing. The quantity of haemoglobin was determined by Sali method, reserve of alkali (receptivity of acids) - by N. Rajevisky method modified by Valtman and Klimesh.

In order to estimate the activity of enzymes alanin aminotransferase and alkaline phosphatase and content of total proteins in blood serum, „Hitachi“ the analyzer for biological fluids was used; the interrelation between fractions of proteins in blood serum was determined by turbodimetric (nifilometric) method, modified by Olli Makard Karpiuk. The same „Hitachi“ equipment establishing the activity of enzyme aspartat aminotransferase was used to detect pathologies of soft tissues. The cows fell ill with micotoxicosis after having received from 4 to 6 kg of flour infected with mould fungi everyday for a long period of time. The disease was revealed by lack of appetite, hypotonic rumen, clonic spasms of shoulder and hip muscles, disorder in liver functions (slowered synthesis of albumins) slowed haemopoiesis and haemoglobin synthesis, an increase in the enzymes of alanin aminotransferase and aspartat aminotransferase.

Keywords: albumin, alanin aminotransferase, aspartat aminotransferase, alkaline phosphatase, eritrocites, haemoglobin, liver, mould fungi, , total proteins.