

*Materials of Conferences***THE CONTENT OF CRUDE  
PROTEIN IN PIG BLOOD**

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The advance of biochemistry and molecular biology showed the complexity of the structure of protein molecules and their numerous properties both inside and outside living organism. Most biological functions of the organism are performed by proteins or with their direct involvement. The functions of the proteins are extremely varied. Some proteins have functions of hormones that control metabolic processes, some of them function as catalysts to biochemical reactions and others serve as building material. A series of blood proteins form antibodies that determine resistance of an organism to different diseases. Such composite proteins as nucleoproteids are a part of genes carrying genetic information.

Penetration of substances inside a cell occurs with the presence of special transport proteins built in membrane. Receptors, various proteins, are of importance. They are designed to perceive and transform different signals. Different processes of energy transformation are of great importance in an organism. The proteins transforming chemical energy into electric or mechanic one are directly involved in the processes. Protein hunger is the most common pathology of protein exchange in livestock breeding. The disease can arise with protein deficiency and incomplete proteins in daily rations of animals, poor digestion and absorption of the proteins in gastric intestinal tract. At the protein deficiency one can observe the failure of: animal growth and devel-

opment, resistance to diseases, work efficiency, productivity and reproductive functions.

An experiment was carried out at Closed Joint Stock "Landrace" in Novosibirsk region. The content of crude protein was examined in blood serum of the pigs of Landrace breed during their postnatal development. The animals were selected and grouped by the principle of analogues with regard to their origin, breed, productivity, age and live weight. The pigs were kept following the technology for complexes and farms. The blood to examine was taken from aural vein. Statistical processing of the data was done with the package of applied software Statistica 6 and Excel.

The age dynamics of crude protein level in the pigs blood serum testifies to the increased concentration of the protein. At the age of two months the protein content was not high. The maximal increase of the examined index was revealed in 4-month pigs. With all these, the level of blood protein was found to grow by 27.34% ( $p < 0,001$ ) in the 2-month gilts. At the age of 6 months the decreased concentration of the examined parameter was marked.

The carried out research may suggest that the increased blood serum protein level in the 4-month gilts correlates to the more intensive protein synthesis in this age period. Mean population blood parameters of different pig breeds can be applied as normative indexes when evaluating breaks in metabolism.

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The work was submitted for the international scientific conference «Science and education in modern Russia», (Moscow), 15–18 November 2010, came to the editorial office on 22.09.2010.