The examination aims to study the transaminase activity in the blood of pigs different in breeds when fattened to different live weights.

The examinations were carried out on the experimental training farm «Tulinskoye» under Novosibirsk State Agrarian University. Large White, Landrace and Kemerovo pigs were the objects to examine. The animals were selected by the principle of analogues with regard to origin, breed, productivity and live weight. The pigs were divided into three groups and kept following the technology for complexes and farms. The animals were fattened to 100, 120 and 140 kg. The blood to examine was taken from aural vein. The aspartate-aminotransferase activity was determined in the blood serum of the pigs.

The data obtained were processed statistically with the package of applied software Statistica 6 and Excel.

The experiment identified the differences among the breeds for the activity of aspartate-aminotransferase in the blood serum of the animals. When fattened to 100 kg live weight, the activity of the serum aspartate-aminotransferase was found to increase by 27,27% ($p < 0,001$) in the Kemerovo pigs versus the Large Whites. The experimental data testify to the enzyme activity decreased with the animals fattened to 120 and 140 kg.

Based on the data of the examinations carried out, it can be concluded that the activity of aspartate-aminotransferase may be employed in the evaluation of pigs' productivity.

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PHOSPHATASE ACTIVITY OF BLOOD IN PIGS FATTENED TO DIFFERENT LIVE WEIGHTS

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The improvement of breeding methods is based not only on the investigations of economic traits of animals, but on the study of biochemical indexes that determine the formation of productivity.

Enzymes are highly specialized proteins that are used by living organisms to run a great many interrelated reactions. Phosphatases are enzymes referred to esterases. One can discern alkali and acid phosphatases. Esterases catalyze numerous processes in the organism.

Alkaline phosphatase (phosphohydrolase of monoesters orthophosphate, C.F. 3.1.3.2). Molecular weight of the one is confined to 80–200 thousand Daltons. Alkaline phosphatase is metal-containing enzyme referred to non-specific phosphatases hydrolyzing phosphoester bonds.

Catalytic effect of the enzyme on lipid and carbohydrate metabolism is shown. This enzyme is involved in the processes of carbohydrates and lipids resorption in small intestines. It activates adsorption of glucose by kidney nephrons. The effect of alkaline phosphatase on the reactions of synthesis of fructose out of glucose is identified. The enzyme is involved in the reactions of phosphoric acid docking and splitting off in nucleic acids, carbohydrates, esters, etc.

The investigation aimed to study the activity of alkaline phosphates in pigs of different breeds under fattening to 100, 120, and 140 kg.

The experiment was carried out on the experimental training farm "Tulinskoye" under Novosibirsk State Agrarian University. Large White, Landrace and Kemerovo pigs were the objects to examine. The animals were selected by the principle of analogues with regard to origin, breed, productivity and live weight. The pigs were divided into three groups and kept following the technology for complexes and farms. The animals were fattened to 100, 120 and 140 kg. The blood to examine was taken from aural vein. The activity of alkaline phosphatase in the blood serum of the pigs was determined [4]. Statistical processing of the data obtained was done with the package of software MS Excel and Statistica 6.

The data of the experiment identified interbreed differences for the activity of alkaline phosphatase in the blood serum of the pigs. It was marked that the Kemerovo breed surpassed the Large White by 22,42% ($p < 0,001$) for the activity of the enzyme studied in blood when the gilts fattened to 100 kg. The Landrace occupied an intermediary position between the Large White and Kemerovo breeds. The enzyme activity of blood was determined to decrease with fattening to different live weights.

The data obtained allow to apply the phosphatase test to the estimation of productive traits of pigs.

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THE CONTENT OF GENERAL LIPIDS IN BLOOD OF GENOTYPICALLY DIFFERENT PIGS

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Nowadays, lipidology is a rapidly advancing branch of biochemistry. Achievements of the branch are widely applied to biology, medicine and livestock-breeding. Most lipids are several molecules bound with each other and not referred to highly polymeric substances.

Lipids refer to structural components of cells; they can combine with other substances to produce composite cellular structures. They perform protecting, transporting, regulating functions and play a big part in growth, thermoregulation, adipopexis, and energy exchange in the organism. Lipids deposit energy in a cell. They are involved in energy transformations in mitochondria, hormone and immune processes, cell differentiation, regulation of gene activity and cell cycle.

Lipids can be predecessors of the synthesis of some vitamins and hormones, particularly those of local action. Membrane enzymes activity correlates to the lipids contained in the membranes.

Lipids are the most important components of membranes and other interface surfaces between hydrophobic intracellular regions and liquids. Biological functions of membranes correlate to the ratio of separate structural lipids available in the membranes. Different animals have ontogenetic peculiarities of lipid exchange.

An experiment was carried out on the SSF experimental training farm «Tulinskoye» of Novosibirsk State Agrarian University. Precocious Meat pigs of Novosibirsk breeding (SM-1) were the objects to examine. They are well adapted to local natural and climatic conditions. The animals of control fattening and aged 6 months were examined. The offspring from six Precocious Meat boars (Svetly 1704, Sovet 1618, Sayan 225, Som 69, Sobol 139, and Signal 1440) were under the control in the experiment. The pigs were kept following the technology for complexes and farms.

The amount of general lipids was determined in the blood serum of six-month SM-1 pigs different in genotypes. Statistical processing of the data obtained was done with the package of software MS Excel and Statistica 6.

According to the experimental data the differences in the amount of general lipids in the blood serum of the progenies from genotypically different pigs was identified. The data obtained showed the greatest difference in the changes of the general lipids content in blood between the progenies of Signal 1440 and Sovet 1618. The difference made up 33,64 % ($p < 0,001$). The depth of fat in the gilts of Signal 1440 was bigger than that in the same aged Sovet 1618 because fat depth directly correlates to the concentration of lipids in blood serum. The examinations carried out allow to suggest that the parameters of lipids exchange may be employed when evaluating pigs' productivity.

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TO QUESTION ABOUT THE THIRD ALARM SYSTEM

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At the beginning there was Word, and God had Word, and Word was God (1:15). So Sainted Blagovestvovanie begins from Ioanna in New Testament. The first Russian Nobel laureate on physiology of I.P. Pavlov (1904) on the basis of long-term study of higher nervous activity considered also, that Word from all variety of living organisms inherently only to the man, and named his second alarm system.

Appearance of the written language many linguists also consider the no less important stage of development of Humanity, what appearance of Word, because in exposition and writing sense-organs and different departments no less participate nervous, endocrine and other systems of organism of man.

Further study of zoophysiology and man in the second half 20 ages and beginning of a 21 age grounds not only to talk about the third alarm system but also search the mechanisms of management this system. So what is it possible to designate as there is the third alarm system? If Word and written Language can be named the second alarm system, and it is done Cyril and Methodius much for development of Humanity, by the third alarm system, in our view, it is necessary to count spirituality.

Conception of spirituality as well as concept of morality, closely associated, from old times used people in the different types of activity. Why, in our view, can spirituality be attributed to the third alarm system? I.P. Pavlov, as an elder of the world physiologists, examined a word as signal of signals voice, visile (writing word), vivid, concept, like vasa vasorum (our formulation), as complex system concepts and signals. The concepts of shower and spirituality are also CPLD between itself as an anatomy and physiology, structure and function, is two sides of one medal or coin, to one universe.

Examining these concepts is necessary deeply and widely, in ontogenesis and phylogenesis, in space and in time. A bioreceptivnyy genetic code can help herein. If on morphology of chromosomes presently we have much scientific information, maps are developed even with localization of genes in chromosomes, in area of the soul we have dim and litigions morphological presentations.

Spirituality it is the physiological state, related to education in ontogenesis and culture, presenting the process of onto- and phylogenesis development anymore. This development is passed on an inheritance in which bioreception, bioreceptivnye