

The Role Of Biologically Active Substances In The Blood In Increasing The Productivity Of Sheep

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Abstract: Physiological, immunogenetic, selection, technological, biotechnological, and other methods to increase the productivity of karakul sheep are used to increase their productivity, as well as biologically active substances that increase the productivity of karakul sheep.

Keywords: flat, jacket, rib, Caucasian, platinum, amber, bronze, anthracite, elite, albumin, globulin, enzyme, reaction, substrate, protein, biosynthesis, molecular biology, AST, ALT.

1. INTRODUCTION

The development and introduction of advanced technologies for the development of karakul sheep breeding, increasing the volume of production is inextricably linked with the physiological characteristics of karakul sheep. At the current stage of development of the industry in the country, a large number of measures are being taken nationwide to increase the production of poultry products. As a result, an increase in the production of cannabis products is being achieved. It is necessary to know their biological, physiological, and morphological aspects to grow coriander products.

2. COMMENTS OF LITERATURE ON THE TOPIC

A. I. According to Abdulnatipov, enzymes are biologically active substances that accelerate the body's chemical reactions. They change the substances that enter the body from the environment and are formed in the body. The assimilation of nutrients and their subsequent digestion, the breakdown of energy in high-molecular compounds by biological oxidation, and the formation of enzymes that form a direct basis for the growth and development of cells and tissues. Changes in substances based on enzymatic reactions form the material and energy basis of the vital activity of the organism [2].

V.I. According to Valigura, all the biochemical processes that take place in the body are closely linked. These connections are extremely diverse. In this case, separate biochemical reactions take place based on respiratory processes, due to the climatic influence of enzymes and proteins. In the formation of this product, decarboxylation and deamination of amino acids occur in proteins and the processes of various redox reactions. Neurohumoral reactions

in metabolic processes are interrelated and coordinate their activities. Each enzymatic process determines the compatibility of metabolic pathways, all of which carry out metabolic pathways [3]. V.S. In Kamyshenkov's research, enzymes have primary, secondary, tertiary, and quaternary structures due to their structure and protein nature. Enzymes with a quaternary structure are composed of several protomers. It is divided into simple proteins with catalytic properties and complex protein enzymes. Complex enzymes are composed of the protein part apoenzyme and the non-protein part cofactors, which combine to form active enzymes [6]. Ismailov M.Sh. and other researchers have suggested that proteins in the animal body perform many important vital functions, including catalyzing, protecting, transporting, and transmitting traits. It plays an important role in the interconnection of the internal processes of the animal body. Valigura VI He researched the relationship between growth energy and live weight in the amount of protein in the blood of lambs in the postpartum period. Researchers have found that protein-positive correlations are positive, while others are negative. According to physiologists, the variability of the amount of protein in blood serum is insignificant, depending on the seasons and the breed of the animal [4]. The dependence of the rate of enzymatic reactions on body temperature is of great practical importance, for example, an increase in fever in the body under the influence of infectious factors accelerates biochemical processes and leads to a deficiency of endogenous substrates in the cell. Because an increase in body temperature of 10 C increases the rate of enzymatic reactions by 20%. Due to the thermolability of some enzymes, they are dynamized at high body temperatures and alter the natural course of biochemical processes. This means that they are used to reduce metabolism and cool the energy released. Storing tissues and fluids in the frozen state or at low temperatures is a way to prevent autocatalytic decomposition. Enzymatic reactions take place depending on the concentration of the substrate. Under such conditions, the rate of reaction is proportional to the number of enzymes present in the environment. This proportionality is maintained up to a certain limit, beyond which the reaction rate decreases due to the lack of substrate. An increase in the concentration of the substrate leads to the saturation of the active center of the enzyme, and the enzyme-substrate complex is formed at the maximum level, resulting in the maximum acceleration of the enzymatic reaction. The rate of the enzymatic reaction can be determined by the degree of reaction depending on the concentration of the substrate. The stability of the rate of enzymatic reactions at zero degrees does not depend on the substrate concentration. In the first degree, the rate of enzymatic reactions is directly proportional to the increase in substrate concentration. Therefore, it is realized at the level of biochemical norms. E.V. According to Prakash, the regulation of protein biosynthesis is one of the most important problems in modern biochemistry and molecular biology. Living cells contain optimal amounts of various proteins and enzymes. This is due to the regulation of relative protein biosynthesis. Living cells can synthesize a large number of different proteins. However, they do not synthesize all proteins. The amount of protein depends on the degree of their participation in metabolism. The control hypothesis of protein synthesis is based on the study of induction and repression of enzymes in bacterial cells. In the formation of genes, proteins determine their primary composition. Reaching the mRNA ribosome, which is formed complementally in the DNA molecule, it acts as a matrix for protein synthesis. Regulation of protein synthesis is carried out by induction. The control gene provides the synthesis of an important protein - repressor. The operator gene controls the structure of the operon's structural genes. If this gene is in the free state, the structural genes work, or if it is linked to a repressor, the structural genes stop working [9]. According to researchers, the promoter gene plays a role in the regulation of protein synthesis. This gene is complex and consists of two parts. Part of it, with the help of its B subunits, serves for the binding of RNA polymerase, which breaks down this gene into fragments. The RNA polymerase embedded in

this gene can initiate the transcription of operon structural genes. The second part of the promoter serves as a special junction of the complex formed by the binding of the protein to the recipient. It has recently been shown that s AMG, which is required for operon transcription with the help of a special protein, binds to the DNA molecule. The mRNA generated in the structural genes of DNA is directly controlled by a specific region of DNA called the operator. The operator is located at the edge of the structural genes and regulates their functions. According to most researchers, genes are found in the cells of higher organisms the dismissal is so complicated. In eukaryotic cells, most of the transcriptional structure is from the control site, and most of it belongs to the main structural genes. If the outer zone encodes the protein, the first zone is bound to the repressor proteins, and through this mechanism, the transcription of structural genes is released. From this transcription, DNA-binding RNA-polymerase-binding mRNAs contain a non-conserved polynucleotide chain of information about the protein synthesis of mRNA. Therefore, a large molecule of mRNA breaks down the nucleus and loses its noninformative part, and the separated mRNA enters the cytoplasm and participates in the protein synthesis in the ribosome. Scientists believe that steroid hormones are mainly influenced by the synthesis of oxides and enzymes. Their effects are genome-wide and stimulate specific RNA and protein synthesis. Steroid hormones enter the cells and bind to their receptor proteins, and as a result, the receptor changes its configuration and is released into the chromatin, which is not released through the nuclear membrane along with the hormones. Such compounds affect RNA-polymerase to DNA, and if some RNA is detected, the mRNA synthesis character can be altered [5].A.I. According to Abdulnatipov's research, albumin-mining is the most dynamic gene in the genome. It calculates the amount of nitrogen in the body and plays an important role in the release of colloid-osmotic stresses. Albumins play a role in the transport of hormones and are involved in the exchange of nutrients and minerals, as well as water. Konda found that the album had the highest amount of 4.05 percent in one-eyed lambs, a decrease in two-eyed ones, and a steady increase in the number of oxyl fractions in the later period. According to many scientific studies, when the level of albumin in the blood of Kazakh soft-wool sheep, edilbay, kargalin, and degrees breeds is checked, the amount of albumin in newborn lambs is higher than the number of globulins. the decrease is reduced to 3 months of age of lambs and reaches a maximum at 4.0–4.5 months of age. Protein control analyzes revealed high albumin levels and low globulin levels on the first day of lambing [1]. According to most physiologists, the highest biologically active protein globulins are among the protein fractions. It has been shown that the amount of globulins in the serum of lambs varies with age [7].

3. ANALYSIS AND RESULTS

In assessing the skin properties of karakul lambs, especially in assessing their wool coverage, great importance is attached to the silkiness and luster of wool fibers. Because these features determine the brand characteristics of astrakhan skins, they indicate the pedigree of the animals. It has been determined by most researchers that the best ipaximonials are found in lambs belonging to the flat type, then lambs belonging to the jacket type, and then lambs belonging to the jacket type. Rough and dry wool fibers are common in ribbed and especially Caucasian type lambs. A similar stratification is observed in the gloss properties of the wool coating. In addition to the above, karakul lambs with strong luster and excellent silk properties should be included in the elite.

Wool coat silkiness of lambs in experimental groups (n=89).

1-table

Skin types	Rangerange	Prime number of lambs	Silkiness %			
			Strong degree	not enough	olatant level	n the brain at
Jacket	Platinum	10	7,86	2,24	1,12	-
	Amber	9	5,61	2,24	2,24	-
	Bronze	7	3,37	2,24	1,12	1,12
	Antracit	5	2,24	1,12	1,12	1,12
	Barn	1	-	1,12	-	-
Flat	Platinum	7	3,36	2,24	2,24	-
	Amber	3	3,36	2,24	2,24	1,12
	Bronze	7	2,24	2,24	2,24	1,12
	Antracit	4	1,12	1,12	1,12	1,12
	Barn	2	-	1,12	-	1,12
Rib-shaped	Platinum	4	1,12	1,12	1,12	1,12
	Amber	5	1,12	1,12	2,24	1,12
	Bronze	5	1,12	2,24	1,12	1,12
	Antracit	4	-	2,24	2,24	-
	Barn	3	-	-	1,12	2,24
Caucasus	Platinum	-	-	-	-	-
	Amber	1	-	-	1,12	-
	Bronze	2	-	-	1,12	1,12
	Antracit	2	-	1,12	1,12	-
	Barn	3	-	1,12	1,12	1,12
ALL	89	32,58	26,96	25,84	14,60	ALL

According to our data, there is a certain variability in the broad manifestation of the ipaksimon feature in the animals of the experimental groups being compared. To draw such a conclusion from the data possibly best found in black and blue lambs belonging to the flat-ribbed and jacket type of ipaksimon. Among the lambs of the flat type, lambs with strong ipaximony in both colors are more likely than lambs of the jacket type (65.0% -21.8%) - in black lambs and 30.8% -18.2% in blue. in colored lambs, lambs belonging to the Caucasian skin type are most often found in lambs with sufficiently rough ipaksimon. The same variability was observed in the gloss properties of wool, as well as in the properties of ipaksimon, which are known to be inextricably linked.

Lamb wool coat gilding in the experiment

2-table

Skin types	Color	Prime number of lambs	Shining plastic table-cloth, %			
			Strong	Silently	Criticism	Bad
Jacket	Platinum	4	1,12	3,36	-	-
		5	1,12	3,36	1,12	-
	Bronze	3	1,12	1,12	1,12	-
	Anthrosite	4	-	3,36	-	1,12
	Black	4	-	1,12	1,12	2,24
Flat	Platinum	6	2,24	3,36	1,12	-
		4	1,12	2,24	1,12	-

	Bronze	5	1,12	2,24	1,12	1,12
	Antracit	3	-	2,24	1,12	-
	Barn	5	1,12	2,24	2,24	-
Covergae mon	Platinum	5	1,12	3,36	1,12	-
	Amber	3	-	2,24	1,12	-
	Bronze	5	1,12	3,36	1,12	-
	Antracit	4	-	2,24	1,12	1,12
	Barn	5	1,12	2,24	1,12	1,12
The Caucasus	Platinum	5	1,12	2,24	2,24	-
	Amber	4	1,12	2,24	1,12	-
	Bronze	5	1,12	3,36	1,12	-
	Antracit	4	-	2,24	1,12	1,12
	Barn	6	1,12	2,24	2,24	1,12
ALL		89	16,85	50,56	23,59	8,98

4. CONCLUSION AND RECOMMENDATION

It is known that, along with other properties of wool lining, the width of the curls is also one of the main indicators that determine the quality of leather products. The following parameters of curls are defined: small-width up to 4 mm, medium 4 mm to 8 mm, large 8 mm above. Dividing into such a group allows an objective assessment of the animals on this trait and the classification of karakul lambs into three groups on this trait: small-curl, medium-curl, and large-curl. Each group of lambs is divided into separate classes. The dependence of biologically active substances on the gloss and silkiness of the skins of karakul lambs in the experimental groups is given in the table below. To study the importance of blood in the body, the concentration of proteins in the blood of animals necessary. Protein is an important building material in tissues and organs, and its immunobiological, catalytic, transport, regulatory functions in the body are carried out through the blood. is increased. The results of the study of the total protein content of the blood of lambs in the experimental lambs, albumin, globulin, and aspartate-aminotransferase, alanine-aminotransferase from enzymes were as follows.

The amount of biologically active substances in the blood of experimental lambs

The color and variety of the lambs	n	Biologically active substances in the blood of experimental lambs				
		Generally protein	Albumen	Globulin	AST	GOLD
		M ± m	M ± m	M ± m	M ± m	M ± m
Platinum	12	64,2±2,3	37,8±1,3	36,4±0,9	43,6±13,4	31,3±4,7
Amber	12	61,8±2,1	36,1±1,5	36,9±1,0	41,7±12,5	31,8±5,0
Bronze	12	66,4±2,4	38,8±2,1	34,3±0,8	42,2±13,1	33,2±5,6
Anthracite	12	71,5±2,6	40,5±2,0	37,1±1,1	43,4±14,7	36,4±4,8
Black	12	74,5±2,2	41,2±1,8	37,4±1,2	43,8±15,2	36,8±5,4

Analysis of the obtained results shows that there was a mutual difference in biochemical parameters in the blood between the groups. In terms of protein and albumin content, it was observed that amber-colored sure karakul lambs had more than black karakul lambs. There were almost no changes in the levels of globulins, aspartate-aminotransferase, alanine-aminotransferase. According to the analysis of the experimental results, the total protein content is higher in black karakul lambs than in red karakul lambs of all colors.

The main task of our study is to identify some correlations between the growth rate and live weight of animals and the biochemical parameters in the blood. The graphical data show the relationship between aspartate-aminotransferase and some productivity traits of experimental animals. Graphical representation of the phenotypic correlation of AST activity in serum with growth rate and live weight of lambs.

Phenotypic correlation of aspartate – aminotransferase activity in the blood serum with the growth rate and living weight of lambs

3-table

Experience	n	Correlation indicators			
		What is a weight arrow?	Absolute increase in the period from AST mothers to separation	The living weight at the time of separation from Ast mothers	Underside average daily growth
Plus option	42	0,15±0,14	0,42±0,13*	0,41±0,13*	0,44±0,14
Shrta option	46	0,56±0,10**	0,63±0,09**	0,68±0,0,09**	0,65±0,09**
Minus the option	42	0,03±0,15	0,29±1,12**	0,31±0,12**	0,23±0,13*

P < 0,01 P < 0,05***

As can be seen from the graphical data, there are convincingly positive correlations between aspartate-aminotransferase activity in most cases between the live weight and growth rates of animals. Reliability correlation between absolute growth in the period before weaning and activity of serum aspartate - aminotransferase activity ($r = 0.15 - 0.42$) and high correlation were observed in animals of the "medium variant" experimental group ($r = 0.56 - 0.68$), which testifies to the fact that the selection of groups on these characters provides great opportunities.

Conclusion. According to the results of the study, platinum, which is high in biologically active substances in the blood of lambs, is characterized by a high degree of luster and silkiness in lambs of amber color. Enzyme levels are indicative of growth rate in many lambs, high live weights, and metabolic activity in muscle tissue in the body. The results of the study show that lambs with high levels of enzymes are more effective in the early fattening of young lambs.

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