

MORPHOLOGICAL INDICATORS OF BLOOD OF ANGUS BREED ANIMALS

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Abstract: In this article, the morphological composition of the blood of Angus bulls in Karakalpakstan climatic conditions, seasons, and months are compared and calculated based on the formula.

Keywords: Blood, erythrocyte, leukocyte, hemoglobin, Sali's hemometer, Goryaev's chamber, pathology of diseases, metabolism, information on hematological indicators of blood.

Introduction: Blood is an indicator of physiological changes in the body. Based on the morphological and physico-chemical indicators of blood, it is possible to assess not only the physiological state of the body, but they are indirect indicators of the body's resistance to changing and adverse environmental factors.

Erythrocytes have a honeycomb structure. Hemoglobin is located in these cells and gives red color to erythrocytes. That is why they are called red blood cells.

Mammalian red blood cells are typically biconcave discs: a flattened and depressed center with a dumbbell-shaped cross-section and a torus-shaped ring at the edge of the disc. [Amirov D.R., Tamimdarov B.F., Shageeva A.R. 5]

Leukocytes are white blood cells - colorless cells in human and animal blood; nuclear-shaped elements of blood [A.N. Golikova. 7]. Leukocytes can leave the blood vessels and move independently in the intercellular space. When they get to the place where foreign bodies enter the body and get close to the microorganism, they put out false legs, surround it from all sides, and swallow it. [1, 5]

Relevance of the topic:

The contribution of Angus cattle in providing the population with quality meat products and proper organization of their care. Studying their blood composition during the seasons and being aware of their health. Blood analysis to study general health, hemoglobin level, and number of erythrocytes and leukocytes; to determine the pathology of various diseases, that is, to determine health.

Material and methods.

The material for morphological (clinical) research in the experiment is blood. Blood was collected from both experimental groups for blood analysis. Blood was collected from 15 heads of experimental group I and 15 heads of the control group in a total of 30 bulls.

Blood was collected from the jugular vein in vacuum tubes in the morning, before meals, with full adherence to aseptic and antiseptic methods. Hemoglobin parameters of the blood were measured using the Sali hemometer, and the number of erythrocytes and leukocytes was measured using the Goryaev camera [Amirov D.R., Tamimdarov B.F., Shageeva A.R. 5] It was studied in the Laboratory of Beruni district of the Republic of Karakalpakstan.

The physiological level of metabolic processes in the animal body largely depends on blood [4, 5]. Blood is the main factor that opens up the process of metabolism (intermediate metabolism, which includes all enzymatic reactions). That is why, in our research, we determined the level of blood saturation with necessary and important elements and presented the obtained data in Table 1 below. [R.R. Fatcullin. Rudenko N.P., Bezuglov G.I., Rudenko V.N. 8, 9]

Table 1

Morphological composition of blood of Angus bulls (n-15)

№	Group I		Group II	
	$X \pm S_x$	$C_v, \%$	$X \pm S_x$	$C_v, \%$
3 months old (Summer)				
Erythrocyte, million/mm ³	6,5±0,6	0,58	6,2±0,3	0,48
Leukocyte, thousand/mm ³	7,3-0,16	0,42	7,1-0,12	0,32
Hemoglobin, g%	11,5±0,11	0,19	10,5±0,11	0,13
6 months old (Autumn)				
Erythrocyte, million/mm ³	7,18±0,2	0,07	7,03±0,2	0,7
Leukocyte, thousand/mm ³	7,90±0,12	0,29	7,72±0,12	0,16
Hemoglobin, g%	11,7±0,20	0,35	11,4±0,14	0,22
9 months old (Winter)				

Erythrocyte, million/mm ³	6,66 ± 0,18	0,54	6,54±0,13	0,48
Leukocyte, thousand/mm ³	7,98±0,17	0,41	7,13±0,17	0,25
Hemoglobin, g%	11,4±0,14	0,25	10,3±0,19	0,17

The analysis of Table 1 showed that the amount of erythrocytes in the blood of group I animals in the experiment was higher in the summer than in the winter. In all seasons of the year, the blood of the animals of the group I was saturated with the necessary elements compared to their counterparts in the group II. showed. Group I animals were superior to their peers in terms of leukocytes and hemoglobin.



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