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PHYSIOLOGICAL INDICATORS OF EXPERIMENTAL ANIMALS

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Annotation. The article gives a brief information of its ecological state, climatic conditions, and other biological indicators that directly affect cattle meat productivity in *Korakalpak* region.

Keywords. *Genotype, nutrition, productivity, clinical and hematological indicators.*

Introduction. The climatic conditions of the Republic of Karakalpakstan are characterized by extreme variability. In summer months, the climate is very hot, and solar radiation is strong, and in winter, some days are very cold and humidity is high. This can hurt the organism of Angus cattle, which has been raised in a mild climate, and most importantly, it can reduce their productivity by perfecting the process of adaptation to new environmental conditions.

Material and methods. 30 calves of the same genetic background, sex, and age were separated and 15 Angus calves were assigned to the I-control group. We selected 15 male calves belonging to the same breed to the II-experimental group (tied feeding).

Obtained results and their analysis. One of the indicators directly related to the productivity of animals belonging to the same genotype is some of their biological characteristics. In this case, the clinical indicators of the animals during the seasons of the year play an important role. With this in mind, we studied the clinical parameters of the animals in the experimental groups and refer to them in Table 1 below.

Table 1

Clinical parameters of animals in the experimental group, ($\bar{X} \pm S_x$)

Indicators	Groups (n=15)	
	I	II
	♂	♂
In spring (March)		

Body temperature 0C	38,1±0,09	38,1±0,05
Heart war	64,9±0,32	65,4±0,21
(in 1 minute)	26,2±0,25	26,2±0,25
Breathing		
(in 1 minute)	38,4±0,25	38,2±0,28
in summer (july)	66,2±0,2	66,9±0,15
Body temperature 0C	27,4±0,01	27,6±0,18
Heart war		
(in 1 minute)	38,2±0,15	38,2±0,15
Breathing	64,0±0,16	65,2±0,22
(in 1 minute)	26,3±0,18	26,4±0,15
In autumn (October)		
Body temperature 0C	38,1±0,09	38,0±0,07
Heart war	62,9±0,19	64,0±0,16
(in 1 minute)	24,9±0,12	25,7±0,14

The analysis of the data in Table 1 showed that regardless of the seasons of the year and the genetic origin of the animals, their clinical indicators were mostly at the level of the physiological norm.

In the spring, that is, at the 12th month of the experiment, in the bulls of the Angus breed in the experimental group, heartbeats were recorded at 65.4 times per minute, while this indicator was 64.9 times in the control group.

In the summer, when the animals were 15 months old, this indicator was 66.9 times in 1 minute in Angus bulls. It was 0.7 times less in the bulls of the control group. This difference was proportional: 1.2 and 1.1 in bulls in the autumn and winter months.

In the experimental group, heart rate and respiration were slightly higher in summer than in autumn and winter. This indicates that under the influence of the hot summer temperature, the cardiovascular system of experimental animals has accelerated the metabolic process.



(Fig. 1.) *The process of counting the breathing of experimental animals*

Summary. Thus, the clinical and hematological parameters of the bulls in the experimental groups were mostly at the level of the physiological norm. However, in the summer season of the year, compared to the winter season, the indicators of both signs were higher. In this experiment, the animals of the II group outperformed their peers, the animals of the I group.

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