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CHANGES OCCURRING DURING THE ADAPTATION OF COWS TO CHANGING CLIMATIC CONDITIONS

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Abstract

It is known that recently there has been a high frequency of waste and stillbirths in imported cows during calving. In addition, scientific data have been presented that increasing productivity without proper organization of the feeding type reduces the fertility of cows, which leads to a violation of the overall resistance and homeostasis of their organism.

Keywords

resistance, homeostasis, sexual cycle, oxytocin, vasopressin, endometritis, necrobacillosis, mastitis, postpartum paralysis,

Introduction: Today, providing the growing world population with full-value livestock products is becoming an important strategic and legal issue facing industry specialists. In particular, based on the accelerated development of animal husbandry in the Republic of Uzbekistan, it is aimed at further improving the provision of the population with affordable and high-quality livestock products. A number of decrees and resolutions adopted by the President of the Republic of Uzbekistan are being implemented by existing farms. Although the provision of the republic's population with high-quality milk, meat, and industry with valuable raw materials is directly related to the productivity of cattle bred in the republic, the creation of the necessary conditions for the full manifestation of the genetic potential of these cattle is currently the most important first issue, and due to errors and shortcomings in the feeding of cows brought at great expense, their productivity decreases, the body's resistance weakens, and as a result, cows are prematurely culled.

Relevance of the topic: The study of productivity indicators, live weight of offspring, disease resistance levels, and other hematological indicators of imported cows of different genotypes in hot climates.

Research Methods: In order to achieve the set goal, experimental research was conducted at the "K.Eldor" breeding farm in the Kattakurgan district of the Samarkand region. The experiments were conducted according to the requirements of the "Methods of Conducting Experiments in Animal Husbandry" recommended by A.I. Ovsyannikov [1976] and Viktorov and Menkin [1991]. For comparative analysis to achieve the set goals, 2 groups (control and experimental) were formed. In each of the groups, 15 cows were selected, analogous in terms of live weight, age, physiological condition, lactation periods, and health. The experimental group consisted of cows of the German generation that gave birth 3 times, and the control group consisted of cows of the Polish generation of the same age and calves obtained from them. Analysis of the obtained results.

Table 1

Indicators of reproductive functions of cows of the compared groups

No	Indicators	Groups				% of the control
		Control	C	Experiment	C	
1.	Live weight of cows, kg	772.6±9.39	1	755.8±8.11	1	-2.2
2.	Live weight of calves, kg	40±3.53	8	34 ±2.34	6	-15
3.	Sex of calves,	Male-15% Female-		Males-13% females-87%		There was statistically no difference.
4.	Satellite descent	66.6%		90.3%		-23.7
5.	Stillborn calves,	2.		-		-13.3

As can be seen from the analysis results, the live weight of cows of the Polish generation group with a high live weight was 1.4% higher compared to the cows of the experimental group, and the live weight of the obtained calves was 15% higher. This indicates that cows of the Polish generation have an advantage in terms of live weight over cows of the German generation. To a certain extent, the excess of live weight over the breed weight caused a combination of some negative phenomena during the calving of cows, and in 33.4% of cows of the Polish generation, after the calving process (6-12 hours under normal conditions), we observed that the placenta did not descend naturally. This problem was solved by veterinary medical workers based on targeted requirements.

According to our observations, 66.6% of cows of the Polish generation, who carried out the calving process in the breeding farm, had their placenta removed manually, and 13.3% of calves were stillborn. In the group of cows belonging to the German generation, this situation was not observed. The physiological recovery period of the organism after calving was shorter in cows of the German generation compared to cows of the Polish generation. To further clarify the results of the conducted research, we compared the average concentration of hemoglobin in erythrocytes when taking blood from the jugular vein of cows in the experimental and control groups and examining it on the Homankaun-30 hematological apparatus.

According to the data obtained, the concentration of hemoglobin in the blood of cows of the Polish generation was 315 g/l, while in the cows of the experimental group this indicator was 1.5% higher. During the 4 months after calving, with the participation of a veterinary worker, we determined the infectious and non-infectious diseases observed in cows of both compared groups, and also tried to draw conclusions about the level of their natural resistance. In particular, in the group of cows of Polish selection, endometritis, postpartum paralysis, mastitis - 6.7%, necrosis - 19.8%, and in the group of cows of German selection, necrobacillosis, postpartum paralysis, mastitis - 6.7%. The indicator of resistance to environmental conditions in imported cows of foreign breeding after the third calving age is also related to their live weight. This indicator was 20% higher in cows of the German generation than in cows of the Polish generation.

Conclusion: Taking into account the reproduction of healthy female individuals and replenishment of the herd on breeding farms, it is necessary to organize a correct feeding type for cows of the German generation that have calved more female calves, taking into account changes in their calving and insemination periods. Nutritious feeding of highly productive cows not only ensures the normal course of their metabolic processes and the passage of the pregnancy period without any negative consequences, but also prevents the birth of dead calves.

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