EFFECT OF STORAGE METHODS ON GROWTH AND DEVELOPMENT OF CALVES

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Abstract

This article presents studies of the influence of housing, conservation and feeding methods on the growth and development of calves in a breeding livestock farm, as well as an analysis of various methods of keeping calves.

Keywords. milk-meat, growth, development, feeding, maintenance.

Introduction

Cattle breeding is one of the leading branches of animal husbandry. It is known that rapid growth of cattle population is an important factor in providing employment for the rural population and on this basis increasing family incomes, accelerating milk and meat production. To achieve these indicators, first of all, it is necessary to create a forage base and provide cattle with various nutritious feeds. Feeding cattle, including breeding cows, ensures rapid growth of their productivity. Effective use of the genetic productivity of cattle has been achieved.

It is planned to distribute the Red Steppe, Black-and-White, Red Estonian, Santa Gertrude, Aberdeen Angus, Kazakh White-Headed, dairy and meat and meat breeds to the farms of our country. Today, the main tasks of livestock breeders are breeding work, creating a perfect system for growing young animals to increase the number of cattle. It is necessary to improve the methods of storing, preserving, processing and preparing food products for feeding.

Organization of fattening seasons taking into account the breed, age, productive characteristics and conditions of keeping and storing livestock. The climatic conditions of the Republic of Uzbekistan are rapidly changing and unstable: dry cold winter, rainy spring, very hot summer and low humidity. Therefore, animals are constantly exposed to external influences that cause changes in their growth, development and natural resistance.

Since the Republic of Uzbekistan is an agrarian country, animal husbandry should develop simultaneously with agriculture. Because these two networks are developing harmoniously.

That is why the number of state and collective farms developing another branch of animal husbandry has decreased in the farms of our republic, and the number of non-state and private farms has increased.

Cattle breeding is one of the leading branches of animal husbandry in our republic.

The body tries to strengthen its adaptation mechanisms so that animals can always respond to various environmental influences.

Placement of calves obtained from black-and-white cows in hot climate conditions and obtaining high-quality products from them, increasing resistance to various diseases is one of the urgent tasks of our time.

Breeds imported from northern regions in hot climate conditions require the creation of favorable conditions for such animals by adapting cattle to new climatic conditions. Therefore, in such conditions, it is necessary to study the relationship of the body with the external environment and achieve this on a scientific basis.

Objective of the work

The objective of the work is to study the influence of the methods of keeping, housing and feeding calves on the growth and development of a breeding livestock farm.

To achieve the objective, the following tasks are solved:

- analysis of various methods of keeping calves.
- study of clinical and some biological characteristics of experimental calves during the nursing period;
- determination of the characteristics of feed coverage by the live weight of calves;
- study of the dependence of the productive characteristics of calves on the origin and conditions of keeping;
- determination of the index of heat resistance of calves;

Scientific news

To study the influence of the methods of keeping, preserving and feeding calves on the growth and development of a breeding livestock farm, taking into account the patterns of growth and development.

Main part

If the zoohygienic conditions necessary for the growth and development of calves, as well as their genetic characteristics, are insufficient, they cannot maintain their health and ability to grow.

The effect of storage methods on the growth and development of calves during the experiment is presented in the table below.

Table 1. Change in live weight of calves, (kg)

№	Age of calves	Experimental group	Control group
1	At birth	32,4	32,1
2	At the age of 1 month	53,7	51,8
3	at the age of 2 months	76,1	71,6
4	at the age of 3 months	100,6	93,2
5	at the age of 4 months	125,4	115,2
6	at the age of 5 months	149,9	136,4
7	at the age of 6 months	174,5	157,8

The data in the table show that the live weight of the calves in both groups was almost the same, and the change in absolute growth in the experimental group compared to their peers in the control group was 1.9 kg at the age of 1 month, 4.5 kg at the age of 2 months and 7.4 kg at the age of 3 months, if it was high, then at the end of the experiment, i.e. at the age of 6 months, it was higher by 16.7 kg. It can be concluded that keeping calves on free pasture areas has a positive effect on their live weight gain. Similar changes were observed in the daily, absolute and relative gain of calves.

The daily, absolute and relative growth rates of calves kept in the rearing area are shown in the table below.

Table 2. Daily, absolute and relative growth of calves in the experimental group

Growth of calves	Live weight, kg	Daily growth, g	Absolute growth, kg	Relative growth, %
At birth	32,4	-	-	-
At the age of 1 month	53,7	711	21,3	49,4
at the age of 2 months	76,1	747	22,4	34,5
at the age of 3 months	100,6	816	24,5	27,7
at the age of 4 months	125,4	828	24,8	21,9
at the age of 5 months	149,9	817	24,5	17,8
at the age of 6 months	174,5	821	24,6	15,1
at the age of 0-6 months		781	142,1	137,4

As can be seen from the table, the live weight of calves at 1 month of age was 53.7 kg, average daily gain was 711 g, absolute gain was 21.3 kg, and relative gain was 49.4%. 76.1 kg, 747 g, 22.4 kg and 34.5% at the age of 2 months, 100.6 kg, 816 g, 24.5 kg and 27.7% at the age of 3 months, 125.4 kg at the age of 4 months, 828 g, 24.8 kg and 21.9%, 149.9 kg at 5 months, 817 g, 24.5 kg and 17.8%, 174.5 kg, 821 g, 24.6 kg at 6 months and 15.1%, from birth to 6 months 781 g, 142.1 kg and 137.4%.

The table below shows the absolute, average daily and relative gains in live weight of calves by age.

Table 3 Daily, absolute and relative gains in calves of the control group.

№	Growth of calves	Live weight, kg	Daily growth, g	Absolute growth, kg	Relative growth, %
1	At birth	32,1	-	-	-
2	At the age of 1 month	51,8	657	19,7	46,9
3	at the age of 2 months	71,6	662	19,8	32,1
4	at the age of 3 months	93,2	721	21,6	26,2
5	at the age of 4 months	115,2	733	22,0	21,1
6	at the age of 5 months	136,4	709	21,2	16,8
7	at the age of 6 months	157,8	713	21,4	14,5
8	at the age of 0-6 months		690	125,7	132,4

As can be seen from the table, the live weight of calves at 1 month of age was 51.8 kg, average daily gain was 657 g, absolute gain was 19.7 kg, and relative gain was 46.9%. 71.6 kg, 662 g, 19.8 kg and 32.1% at the age of 2 months, 93.2 kg, 721 g, 21.6 kg and 26.2% at the age of 3 months, 115.2 kg at the age of 4 months, 733 g, 22.0 kg and 21.1%, at the age of 5 months 136.4 kg, 709 g, 21.2 kg and 16.8%, at the age of 6 months 157.8 kg, 713 g, 21.4 kg and 14.5%, from birth to 6 months of age 690 g, 125.7 kg and 132.4%. Summary. In general, the growth development of calves is 174.5 kg of live weight when free-range under the porch compared to keeping in the building. The daily gain was 781 g in the breeding barn and 690 g in the barn or building, which means 91 grams more.

References

1. Akmalkhanov Sh., Ashirov M. Calf and heifer breeding technology. Tashkent, Labor, 1986. 126 pages

2. Maksudov I.M., Biserova I.I., Musinov Ya.Kh. The influence of methods of keeping replacement heifers on their clinical indicators. Proceedings of SamSKHI. Tashkent, 1991

3. Maksudov I.M. Abdurakhimov B. Rearing of herd breeding females under stable pasture conditions. SamQXI. Scientific collection, 1993

4. Uzokov Sh.T. Milk productivity and some biological characteristics of red steppe cows obtained by different selection methods. Abstract of PhD diss. Tashkent. 1996. 26 p.

5. Khafizov I.I. Dependence of productive and reproductive properties of red steppe cattle of different genotypes on natural resistance. Abstract of PhD diss. Tashkent. 2014. 18 p.