

## BIOTECHNOLOGICAL METHODS FOR USING ACIDOFLINA IN THE DIET OF FATTY BULLS

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### **Abstract:**

This article provides information on the preparation of acidophilus from food crops - sugar beet, squash or young corn and white corn stalks, as well as its effect on growth and development.

**Keywords.** Acidophilus, seeds, nutrient, vitamin, index, mass, flexibility, growth, development, productivity.

### **Introduction**

It is known that maintaining food security and meeting the needs of the world's population can be achieved through sustainable development of the livestock sector, genetic improvement of livestock breeds, and the full use of their genetic potential to increase productivity.

The conditions of the Zarafshan oasis change dramatically, the weather conditions are unique at any time of the year.

The fact that animal husbandry is a leading and important industry is one of the priorities for the development of certain animal husbandry and the supply of dairy and meat products, agriculture, biotechnology, ecology and environmental protection.

Some bacteria synthesize vitamins. Therefore, fermented milk products are also considered diet food for young and old, healthy and people with impaired digestion. There are many types of fermented milk products that are made from the milk of cows and other farm animals. These

products can also be made from skim milk, yogurt, and whey. Fermented milk products: curdled milk, yogurt, kefir, sour cream, acidophilic milk, kumis, shubat, etc. Fermented milk products play an important role not only in human life, but also in feeding farm animals.

## **Materials and methods**

The study is part of a planned study in the Zarafshan oasis, the experimental part of which was carried out on personal assistants, farmers and farms in the Samarkand region. The amount of food consumed during the experiment was determined by controlled feeding. At the same time, the animals were organized taking into account the live weight and the physiological state of the organism, the feeding conditions of the animals were the same.

Acidophilus bacteria and their vital products are used in milk fermentation, as well as in the preparation of a special medicinal broth ABQ acidophilus, which is somewhat more active than blood and serum. We developed our own drug for acidophilus and experimented with accelerating the growth and development of young cattle, that is, calves.

I. I. Mechnikov (1845-1916) was the first scientist to study acidophilus in fermented milk products. He emphasized the importance of these products for human longevity. In 1903, the acidophilus bacillus was invented. Acidophilus sticks secrete antibiotics such as nicosine, nisin, which are believed to kill the pathogens of tuberculosis, mastitis, diphtheria and other diseases.

Acidophilus can be prepared from nutrient crops such as sugar beets, squash, or young corn and white oat stalks. 1 kg of finely chopped feed is boiled by adding 5 liters of water, then barley flour is added to it in equal proportions to the amount of feed, and ground wheat or barley flour is also added. Mix the resulting mass well and leave for 3 hours at a temperature of 50-60°C. The feed is added with 5% acidophilic yeast, the temperature of which is reduced to 40°C, and stored at 37-40°C for 10-12 hours, after which it becomes ready.

This preparation is a source of vitamins V2 and V12, which can be given to other farm animals, for example, 30-300 ml per day for piglets, 15-20 g for laying hens, 5-10 g for chickens. development is accelerating, productivity is increasing.

Results and their analysis. Fattened cattle gain fat very quickly and well when fed with acidophilus from edible plants. Cattle are fed with 15 ml of acidophilus per kilogram of live weight, which requires gradual training of the livestock.

During our experiment, we conducted personal assistants, farmers and local calves on farms in the Zarafshan oasis. From 100 ml of the preparation prepared overnight, it was gradually multiplied and finally brought to 1 liter. The calves were raised and fed under the same conditions, the growth rate varied over months, including the live weight of calves at birth by groups, respectively: 37.9; 37.2; kilograms. When the calves had stomach trouble, they were given more acidophilus than fresh and skim milk, which led to the elimination of gastrointestinal diseases in the calves.

Body weight is an important indicator in assessing the meat production of animals, taking into account that we determined the body weight of calves in our experiment, the growth rate in terms of growth period and presented in table 1 below.

Table 1 Dynamics of live weight gain in young bull calves in experimental groups, kg ( $X \pm Sx$ )

Age, in terms of months	Groups (n = 10)					
	Live weight in months		Absolute growth, kg		One-day increase, g	
	I-control group	II-Experimental group	I-control group	II-Experimental group	I-control group	II-Experimental group
At birth	37,9±0,8	37,2±0,5	-	-	-	-
In the 3rd month	78,4±0,9	98,3 ±0,8	40,5	61,1	450	678
In the 6th month	135,1±1,0	167,6±1,1	56,7	69,3	630	770
In the 9th month	192,8±1,0	246,8±1,0	57,7	79,2	641	880
In the 12th month	267,9±0,9	328,4±0,9	75,1	81,6	834	906
In the 15th month	349,3±0,8	419,2±1,0	81,4	90,8	904	101
In the 18th month	425,2±0,9	510,7±0,8	75,9	91,5	843	102

The data in Table 1 show that calves were born with the same body weight. At the age of 18 months, the experimental calves of group II exceeded the control calves of group I by 85.5 kg ( $P < 0.001$ ) or 83.2%. In the 3-month period of the experiment, there was an intergroup difference in body weight. During this growth period, bulls in experimental group II had a live weight of 98.3 kg, which is 19.9 kg ( $P < 0.001$ ) or 79.7% more live weight than their counterparts in control group I, respectively.

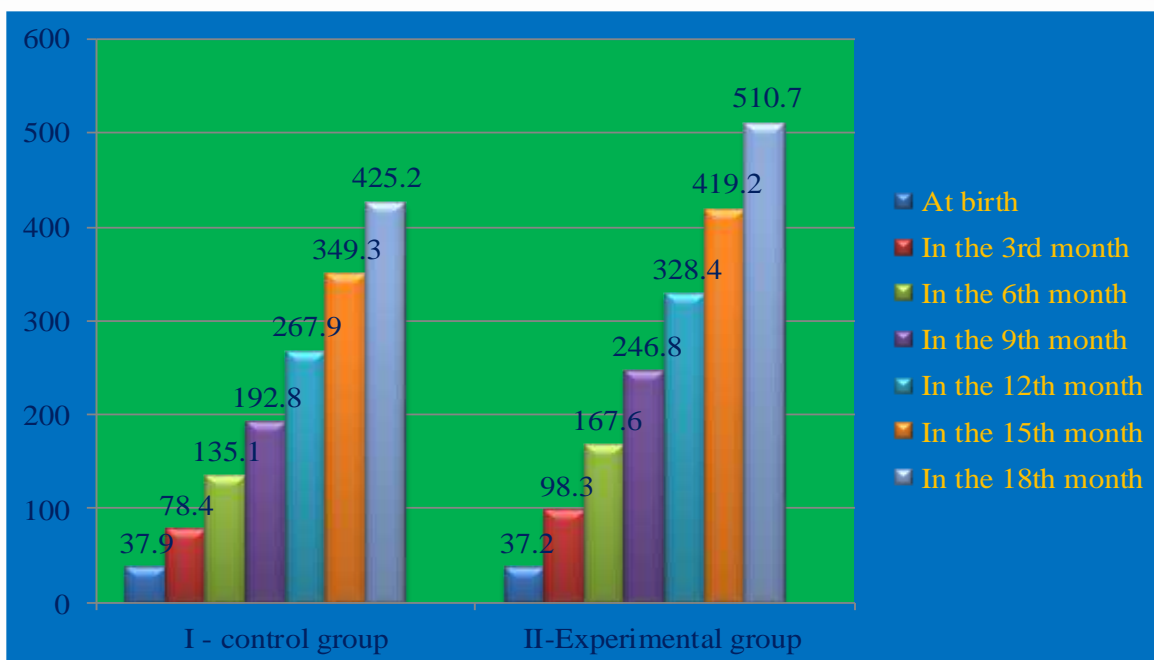


Figure 1. Absolute growth rates of the bulls in the experimental group

## Conclusion

Thus, in order to have a fully objective knowledge of the growth of animals, it is important to determine the growth rate in ontogeny, that is, absolute growth, during a given growth period. At a certain age of the animal organism, it is possible to determine the growth rate, determine their rapid weight gain and high growth rate. Thus, Experiment II was able to fully reveal the genetic potential of the weight group. The inclusion of acidophilic feed in the diet of beef bulls provides a faster gain in live weight due to a positive effect on their digestive processes.

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