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Influence Of Organic Origin Microelements On Productivity And Quality Factors Of Goat Milk

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Abstract

In Ukraine the issue of procurement of goat milk for industrial processing, the development of technologies for the production of food based on its dairy output have recently become relevant. Goat's milk is widely used throughout the world. Milk of goats has a high nutritional value, which is due to the high content of Calcium, Phosphorus, Cobalt and lipid-soluble and water-soluble vitamins. It contains more dry substance due to the high content of fats, proteins and minerals. Digestibility of goat's milk and of its dairy products is very high, about 94-98%. Goats should get full and balanced for all the elements of nutrition feeding order to make their milk of high quality. Mineral nutrition is an essential component of ration of goats. Therefore, the study of foddering mineral additives of organic origin in ration of the Saanen breed goats to obtain the maximum quantity of high quality milk is an actual problem at present days.

As a result of the research it was found that milk from goats which were fed with organic mineral complexes according to organoleptic parameters corresponded with the requirements of current Ukrainian quality standards of milk. According to research results it was found that the morning yields of goats, which had in a diet a complex of organic minerals, is 2.54 kg per one goat. The milk density of experimental group of goats was almost at the equal level to the control group, which was 27 and 28°A, respectively. By the fat content, the highest index was observed in group of goats which were fed with a complex of organic mineral substances. This indicator was 2.64% ($P < 0.05$), which is by 0.46% higher than in the control group of goats receiving the usual complex of mineral additives of inorganic origin. By the content of casein, the highest rates were observed in milk of goats, which were fed with a complex of organic minerals (2.52%), it is by 0.31% higher than its amount in the control group of goats. The content of casein in goat's milk ranged from 2.2% to 2.8%.

Key words: goats, milk productivity, mineral nutrition, organic mineral additives, Cobalt, indicators of milk quality.

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