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THE USE OF BIOCONSERVATISM BIOAMID-2 IN THE GREEN FODDER SILAGE**Abstract**

The article discusses the use of biokonservanta "BIOAMID-2" in the green fodder silage. The results of the study of the chemical composition of corn silage and its effect on the productive qualities of Holstein breed were established.

Keywords: silage, milk productivity, biokonservative.

The increase of the productivity is carried out of animals without intensification of feed base.[1] Quality of forage, level and full value of feeding of animals, expenses on unit of products largely depend on the system of purveyance of forage. For the production of milk a silo corn that makes from the 30-40% food value of rations is widely used. At the observance of necessary technological requirements from a corn it is assured get the of high quality ensilaged feed.[2] The deficit of composition of biomass of corn on protein and some mineral substances does not allow to organize the valuable feeding of cows on the basis of the ensilaged forage from this culture. Last year's use different additions with the purpose of increase of food value, digestibility and uses of silos, maintenances in them nutritive, for a management by processes what be going on in silo mass, further in the organism of cows. As such additions we used the bio preservative of "BIOAMID-2". In connection with wide-range application of additions at an ensilage present scientific and practical meaningfulness of research on the exposure of both total and differentiated action them on quality of silo, organism of cows, on the processes of digestion and metabolism taking into account ecological, natural and economic factors.[3]

The aim of the research is to study the productivity of cows of suckling direction at feeding with their corn silo with addition of bio preservative of "BIOAMID -2"

The materials and research methods. For research were involved the groups of cows of Holstein breed: control and experience of 30 heads (control - 15; experience - 15). Animals were picked up by the method of the first analogues on next indexes: age, stage of lactation, living mass, day's yield of milk. Feeding and milking conducted twice, according to the daily routine accepted in an economy.

A control group was fed with a silo without preservatives, and an experience group by a silo with addition of bio preservative of "BIOAMID-2" during the first 120 days of lactation. A barley straw, treacle, mixed fodder and silage were included in the basic ration of feeding.

The results of researches. In rations animal used the corn silo prepared on traditional technology and silo with addition of bio preservative of "BIOAMID-2". On maintenance found out nutritive between the silo of spontaneous fermentation and silo with a biological preservative difference on chemical composition. A table shows the contents of raw protein in a silo with a preservative on 0,51%, raw fat on 0,04%, ash on 0,08%, carotin on 2,7% and phosphorus on 0,11% higher than silo without a preservative (Table 1).

Further, on the basis of the obtained data, we conducted the estimation of quality of milk on organoleptic, physical and chemical indexes. As the investigated material were taken: milk is a cow from the cows of control group (silo without a preservative) and from the cows of an experience group (silo with a preservative).

Table 1 – Composition, food value and quality of silo

Indexes	Without preservative	With preservative
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		BIOAMID – 2
Dry substance, %	20,44	19,65
Chemical composition of dry substance, %		
raw protein	10,13	10,64
raw fat	1,54	1,58
raw cellulose	33,50	33,39
raw ash	8,76	8,84
BEC	46,02	45,55
Food value of forage, exchange energy, MJ	17,9	17,4
pH	4,7	4,1
Organic acids,%		
Milk	6,80	6,99
Vinegar	3,83	2,69
Oily	1,34	0,47
Carotin, mg	16,4	19,1
Phosphorus, g	0,28	0,39
class is substances	3	1

Index of closeness of milk 1 (experience) 33°made and, and milk 2 (control) 28°A. (Table 2)

Table 2 – Determination of closeness of milk

Investigated material	Index of closeness
Milk 1	33 °A
Milk 2	28° A

Index of adiposeness of milk 1 (3,9%) more than index of adiposeness of milk 2 (3,5%) (Table 3).

Table 3 – Determination of adiposeness of milk

Investigated Material	Index of adiposeness
Milk 1	3,9 %
Milk 2	3,5%

Acidity is an index of freshness of milk, one of basic criteria of estimation of his quality. Index of acidity of milk 1 equal a 16° Ton, milk 2 18° is equal it talks about accordance of this product to the standard (GOST 3624-70) and about the fitness of this product for a production.(table 4)

Table 4 – Determination of acidity of milk

Investigated material	Index of acidity
Milk 1	16° T
Milk 2	18 °T

The main advantage of milk is his capacity for fermentation. Quality of dairies to a great extent depends on composition of the processed raw material and an enormous value has a receipt of milk of high quality. Consequently, it is necessary to find the ways of increase of production of milk and dairies with the improvement of their fitness. Organization of the correct feeding of suckling cattle has a large value in the decision of this problem, because on the suckling productivity of cows, properties of milk and dairies a level and full value of feeding influence. The finishing stage of our research was preparation of kefir. For this purpose we took for to a 1 litre of milk from every group. For preparation of kefir ferment dry kefir grains survived in warm water (25-30 °C) during twenty-

four hours, changing her for this time 2-3 times.[1]. Water was poured out after it and dropically grains inundated warm milk. The mixture was cursively at a temperature 23-25 °C before the formation of milk-albuminous clot acidity of 80-100 °T (pH 4,5-4,65). During fermentation there is reproduction of micro flora of ferment, acidity grows, coagulates casein and appears clot. After fermentation kefir was mixed and chilled to the temperature of ripening. Interfusion of product was begun through 60-90 min after the beginning of time of his cooling and conducted during 10-30 min. Mixed and chilled to the temperature 20 °C with a clot was left alone. Duration of ripening of kefir made 7 hours. After completion of fermentation, the indexes of kefir defined (table 5).

Table 5 – Comparative description of two kefir groups indexes

Index	Kefir from milk of control group	Kefir from milk of an experience group
1	Acidity	95 ° T
2	Table of contents of fat %	2,8%
3	Consistency	Heterogeneous, selection of serum
4	Color	Milk-white, homogeneous on all mass
5	Taste and smell	Sharp
		clean, soul-milk, without extraneous smells

From data of table 5 it is possible to draw conclusion, that the kefir leavened on milk from cows of an experience group possesses the best physical and chemical and organoleptic indexes as compared to kefir, leavened on milk from the cows of control group. It is possible to draw conclusion, that feeding plays an important role the productivity of cattle. Yield of milk for twenty-four hours in an experience group made 12, 58 kg, and in control 10, 35 kg. Also feeding influences not only on quality of milk but also on his further processing.

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ТҮЙІН

Мал азығын сүрлеу барысында «БИОАМИД-2» биоконсервантын пайдалану сиырлардың сүт өнімділігін арттырады және сүттің сапалық көрсеткіштерін жақсартады.

РЕЗЮМЕ

Использование биоконсерванта «БИОАМИД-2» в силосовании кормов позволяет увеличить молочную продуктивность коров и улучшить показатели молока.