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**ИСПОЛЬЗОВАНИЕ КОНЦЕНТРАТА УГЛЕВОДНО–ВИТАМИННО–
МИНЕРАЛЬНЫЙ КОРМОВОЙ «МИТАСИЛ-М» ДЛЯ МОЛОДНЯКА
КРУПНОГО РОГАТОГО СКОТА**

**USE OF THE CONCENTRATE OF CARBOHYDRATE-VITAMIN-
MINERAL FODDER “VITASIL-M” IN YOUNG CATTLE**

Аннотация. Существенными факторами внешней среды, вызывающие значительные изменения в растущем организме и, соответственно, разную скорость роста и развития молодняка, являются различные кормовые средства

и биологически активные вещества. При недостаточном кормлении в целом, по отдельным питательным веществам рациона, при биологической неполноценности кормов у сельскохозяйственных животных наблюдается снижение жизнеспособности, что приводит к снижению продукции животноводства.

Ключевые слова: концентрат углеводно–витаминно–минеральный кормовой, питательность кормов, минеральные вещества, макро- и микроэлементы, физико-химические показатели, крупный рогатый скот.

Abstract. Significant environmental factors causing serious changes in a growing organism, and, accordingly, different growth and development rates of young animals, are various feed products and biologically active substances. With insufficient feeding in general, for certain nutria of the diet, with biological inferiority of feed in farm animals, a decrease in viability is observed, which leads to a shortage of livestock production.

Key words: carbohydrate-vitamin-mineral feed concentrate, feed concentrate, feed nutrition, minerals, macro- and microelements, physicochemical parameters, cattle.

Introduction. Apodictic, balanced feeding of farm animals is based on providing diets with all elements of nutrition in optimal quantities and ratios. The main source of mineral elements for cattle is feed. However, their chemical composition is subject to significant fluctuations and depends on many factors [1]. Due to the reduction of hay harvesting, the violation of the technology of haylage and silage harvesting and, practically, the cessation of root crop cultivation, there are big problems with providing young cattle with all the necessary nutrients and minerals.

It is very difficult to correct metabolic disorders in calves that occur when there is a lack of macro – and microelements in the body in a short time. In weight gain, the share of mineral substances accounts for 4-5%. During the first six months of life, about 6 kg of minerals are deposited in the body of calves, and 9-10 kg per year [3]. The growing body also has an increased need for vitamins [2]. Premixes and additives of high quality are able to meet the needs of livestock in vitamin and mineral substances, which increases the activity of metabolic processes and, as a result, productivity.

The purpose of the study: To study the concentrate of carbohydrate-vitamin-mineral feed «VITASIL-M», produced by ODO «BrestNasosProm» (Republic of Belarus), for growing young cattle and to study changes in the average daily growth of animals.

Methodology and place of work: Department of research expertise of the research Institute of applied veterinary medicine and biotechnology of the «Vitebsk State Academy of Veterinary Medicine».

Production experience of using the concentrate of carbohydrate-vitamin-mineral feed «VITASIL-M» in the diets of young cattle – on the basis of SF «Klevtsy» Lioznensky district, Vitebsk region.

Research result: Carbohydrate-vitamin-mineral feed concentrate «VITASIL-M», produced by ODO «Brestnasosprom», Republic of Belarus, intended for young cattle.

The results of physical and chemical studies of the carbohydrate-vitamin-mineral feed concentrate «VITASIL-M» are presented in table 1.

Table 1 – Results of studies of the carbohydrate-vitamin-mineral feed concentrate «VITASIL-M»

Indicators	Quantity per 1 kg of natural humidity
Raw ash, %	42.1
Ash, insoluble in hydrochloric acid, %	2.81
Magnesium, g	6.2
Calcium, g	97.5
Phosphorus, g	15.6
Manganese, mg/kg	513.6
Cobalt, mg/kg	106.6
Copper, mg/kg	658.3
Zinc, mg/kg	1030.0

The effect of the concentrate on the average daily growth of calves in animal husbandry was carried out on two groups of calves, 5 animals each, aged 7-9 months with a body weight of 130-170 kg. Only healthy animals were included in the experimental groups.

Experienced animals on the basis of animal husbandry received the main The effect of the concentrate on the average daily growth of calves in animal husbandry was carried out on two groups of calves, 5 animals each, aged 7-9 months with a body weight of 130-170 kg. Only healthy animals were included in the experimental groups.

Experienced animals on the basis of animal husbandry received the main ration for a month: hay of various grasses and cereals, corn silage and mixed feed of their own production. Animals of the first experimental group received only the basic diet and 170 grams of VITASIL-M feed concentrate, individually.

The average daily weight gain in the experimental group №2 was 439.75±6.71 g, while in calves of the experimental group №1 – 346.75±6.52 g (p<0.01).

The results of live weight studies showed a lag in experimental group №1 from experimental group №2: 51.99±3.07 kg versus 65.94±3.27 kg (p<0.01) (table 2).

Table 2 – Weight of calves of experimental groups before and after the experiment

Experimental group	Research time		
	Before experiment	After the experiment	Difference in mass during the experiment
Experimental group №1	718±2.83	770±3.32	51.99 ±3.07**
Experimental group № 2	807±3.12	873±3.43	65.94 ±3.27

Note: ** – the significance level of the confidence criterion P<0.01 in relation to the experimental group № 2.

Based on the data obtained, it can be concluded that the average daily weight gain of calves of the two groups have significant differences after the experiment: there was a significant (p<0.01) increase in the average daily weight gain of calves in the experimental group №2 by 21.15 % in relation to the experimental group №1.

Conclusion: the use of an experimental concentrate of carbohydrate-vitamin-mineral feed «VITASIL-M», produced by ODO «BrestNasosProm», Republic of Belarus, for growing young cattle improves appetite and the process of food preparation, which allows to increase the productivity of calves, which is expressed in an increase in daily live weight gain.

Animals that received the concentrate in the amount of 170 g per head (65.94 ± 3.27 kg) after a month weighed 1.3 times more than animals that received the main diet (51.99 ± 3.07 kg). The difference in medium-term gains in calves of the experimental groups reaches 21.15%.

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ПРОБЛЕМА ИНТОКСИКАЦИИ ЖИВОТНЫХ КОРМАМИ, СОДЕРЖАЩИМИ ЯДОВИТЫЕ ВЕЩЕСТВА

THE PROBLEM OF ANIMAL INTOXICATION WITH FEED CONTAINING POISONOUS SUBSTANCES

Аннотация. В данной научной работе рассматриваются отравления сельскохозяйственных животных жмыхами и шротами крестоцветных растений, клещевины, свеклой, картофелем и картофельной бардой.

Ключевые слова: токсикоз, токсикодинамика, корма, животные, жмыхи, свекла, картофель, барда.

Abstract. This scientific work examines the poisoning of farm animals with oilcakes and meal of cruciferous plants, castor oil plants, beets, potatoes and potato