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Ways to Prevent Calf Dyspepsia

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Abstract

The article presents data on metabolic disorders in the body of cows excluded from milk as a consequence of etiological factors in calves dyspepsia and it's prevention by adding sprouted verdure of the wheat, monocalcium phosphate and LPP-1 to the diet of cows.

Keywords: Hypotrophy, dyspepsia, diarrhea, hemoglobin, carotene, calcium, phosphorus, monocalciphosphate, LPP-1, trace elements, vitamins, prophylaxis, glucose, protein, leukocyte.

Introduction

Better satisfaction of our people's demand for livestock products through the rapid development of animal husbandry is considered to be the priority direction of the current agrarian policy.

The task before livestock farmers and zoo. In recent years, many breeding carcasses and heifers have been brought to our republic from foreign countries, and the cattle breed has improved.

Veterinarians is to preserve their genetic potential for high productivity through proper care of animals, and to fill the herd with healthy calves.

Without fully satisfying the physiological needs of the cow's body, it is impossible to raise healthy and high-viability calves. Calves born in a hypotrophic state are more likely to suffer from dyspepsia.

The analysis of literature data shows that until now dyspepsia disease is widespread among newborn calves in our republic (Eshburiev B.M., 2003, 2014) and in some farms, the incidence rate is 46% and up to despite the fact that the level of lim reaches 32%, effective methods of preventing calf dyspepsia in cattle farms have not been developed.

Objects and methods of investigations. In order to improve the methods of prevention of dyspepsia in calves, studies were conducted on 10 3-4-years old Holstein cows and calves born from them at the "Janub Eleta Nasilchilik" farm in Termiz district. Clinical and hematological

examinations were carried out in experimental cows once a month, and the incidence of dyspepsia in calves born from them was studied.

The composition of the diet of cows was checked for nutritional units, digestible protein, sugar, carotene, calcium, and inorganic phosphorus. Through clinical examination of the experimental cows, their appetite, skin and skin covering, visible mucous membranes, condition of lymph nodes, body temperature, number of breaths and pulses per minute, number of large abdominal wall movements per 2 minutes were determined. Physiological development of calves, response to external influences, intake of cow's milk, mucous membranes, skin and skin covering, lymph nodes, respiratory, cardiovascular, digestive and excretory systems functional status, defecation frequency, consistency and color of faeces were determined. Calves' body weight was determined by weighing on a scale.

The number of erythrocytes and leukocytes (Goryaev counting grid), hemoglobin (Hemoglobin-cyanide method), glucose (color reaction with ortho-toluidine), and total protein in blood serum (Refractometric method) were determined by laboratory examination of the blood of the experimental cows.

The cows selected for the experiments were divided into two groups of 5, one experimental group and the other control group. In addition to the ration of the 8-9 months old cows in the experimental group, 1 kg of cultivated wheat grass, 50 g of monocalcium phosphate and 40 g of LPP-1 were added per head per day. Cows in the control group were fed only farm ration. The experiments lasted 60 days.

Methodological manual "Determination of the economic efficiency of veterinary activities" (M.Kh. Shaykhamanov et al., 1987) was used to determine the economic efficiency of the work. The body weight of calves obtained from cows and the milk yield of cows were taken into account as criteria of economic efficiency.

The Results Obtained

The ration of cows is of the silage-hayage-concentrate type, and the ration consists of corn silage, haylage, alfalfa hay, cotton husks, cotton meal and soft feed. The satiety of the ration is 8.60 nutritional units. 1.4 oz. per unit, it was determined that digestible protein was 110 g, sugar - 400 g, carotene - 261 mg, phosphorus - 15.3 grams, and calcium -15.2 g, and fiber - 1363 grams. Satisfying the needs of the cow's body is 84.3% for nutrients, 89% for digestible protein, 52.9% for sugar, 46.3% for carotene, 74.5% for phosphorus, 116% for calcium, and 133% for fiber. was a percentage.

The carbohydrate part of the diet was characterized by a deficit of sugar and an excess of kletchatka compared to the nutritional standards. It was also found that the protein and energy components were not proportional to each other, that is, the sugar-protein ratio in the diet was 0.51 instead of 0.8-1.5:1.

The macronutrient part of the diet was characterized by an imbalance of their ratios due to the excess of calcium and the deficiency of phosphorus. That is, the ratio of phosphorus to calcium was 0.42:1 (norm - 2.0:1). We explain that the occurrence of hypotonia in the pre-stomach areas of some animals is related to keeping animals in one place, lack of exercise, giving food rich in fiber, its difficult digestion, low nutritional value.

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Diet composition of cows

Types of food	Quantity drug (kg)	Food unit	Digestive. protein (g)	Karo tin,mg	Sugar (g)	Cletchatka(g)	Sa, g	R, g
Maca silage	9	2,22	186	65	126	1860	36,0	14,0
Alfalfa Hay	3	1,20	2,05	100	210	1160	50,6	9,8
Senage	3	2,40	194	60	92	320	2,4	9,0
Cotton wool	4	1,12	84	-	-	1840	9,2	2,8
Cottonseed meal	2	1,66	221	-	22	300	7,0	8,8
Total:		8,60	890	225	450	5480	105,2	44,7
Norm		10,2	1000	486	850	4117	90	60
The difference ±		- 1,4	-110	-261	-400	+1363	+15,2	-15,3

Some morphobiochemical indicators of the blood of the experimental cows were characterized by the same indicators in the experimental and control groups before the start of the experiments, while the morphobiochemical indicators of the cows in the control group decreased compared to the standard indicators until the end of the experiments.

By the end of the experiment, the number of erythrocytes in the blood of cows in the experimental group increased to 0.91 million/µl, hemoglobin - 10.4 g/l, glucose - 0.28 mmol/l, total protein - 6.2 g/l. An increase of l was noted. The increase in the number of erythrocytes and the amount of hemoglobin in cows of this group can be explained by the improvement of hemopoiesis, the increase in the amount of glucose and total protein in the body.

By the end of the experiment, the average number of erythrocytes in the control group was 0.20 million/µl, hemoglobin - 2.6 g/l, glucose - 0.09 mmol/l, total protein - 0, It was found to decrease by 7 g/l. We explain such changes by the fact that the needs of the cow's body for nutrients are not met.

The average body weight of calves born from cows in the experimental group was 31 kg, and the average body weight of calves born from cows in the control group was 27 kg. The growth and development of the calves was monitored for a month. 3 calves born from cows in the control group had dyspepsia on the 3rd day after birth. One of the calves in the experimental group had dyspepsia. After one month, the average body weight of calves born from cows in the experimental group was 41 kg, and the average body weight of calves born from cows in the control group was 37 kg. So, the body weight of calves born from cows in the experimental group was 10.8% higher than the body weight of calves in the control group.

The milk yield of cows in the first month of lactation was on average 10.85 kg in the experimental group and 8.84 kg in the control group.

Conclusion

In order to prevent dyspepsia in calves, adding 1 kg of cultivated wheat grass, 50 g of monocalcium phosphate and 40 g of LPP-1 to the diet of weaned cows for 60 days improves the metabolic processes in the cows. well resulting in the birth of healthy calves from them.

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