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RULES AND IMPORTANCE OF CORRECT USE OF MILK AND MILK SUBSTITUTE IN CALF RAISING

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Abstract

Entrepreneurs always think about creating a more productive feed in breeding farms. Proper care of piglets, the fact that the piglets are healthier is considered to be the factor that will make the farm work economically and profitably in the future.

Keywords: cows, colostrum, newborn, breeding farms, milk substitute, calf feeding study, feeding calves

Introduction:

Sixty days before the birth of calf, the body's demand for macro and micro elements and vitamins increases. During this period, the calf in the mother's womb begins to grow intensively (300-400 g per day). Therefore, special care is required for the cow during this period. The cow must be properly fed, and the conditions of care must comply with zoogenic rules.

A newborn calf should not be separated from its mother immediately. It is important that the cow licks the calf, which is necessary to stimulate blood circulation and skin respiration of the calf. Scientific studies have proven that up to 8% of the air exchange in newborn calves occurs through the skin, so the licking by

the mother cow directly affects their movement. The gastrointestinal system of newborn calves is sterile, and their immunity is weak. Therefore, no later than one hour after birth, the calf should be fed with colostrum from the mother. Compared to regular milk, colostrum contains 2 times more dry matter and energy, 100 times more vitamin A, 6 times more protein, and 3 times more minerals. Colostrum cleanses the calf's digestive tract and prevents the spread and movement of *E. coli* into the upper gastrointestinal tract and stomach.

Quality indicators of colostrum

There are 3 types of immunoglobulins in colostrum (table 1).

Table 1

Type of immunoglobulins	The importance
ig G and ig M	Destroys microorganisms entering the blood
ig A	It prevents microorganisms from entering the blood

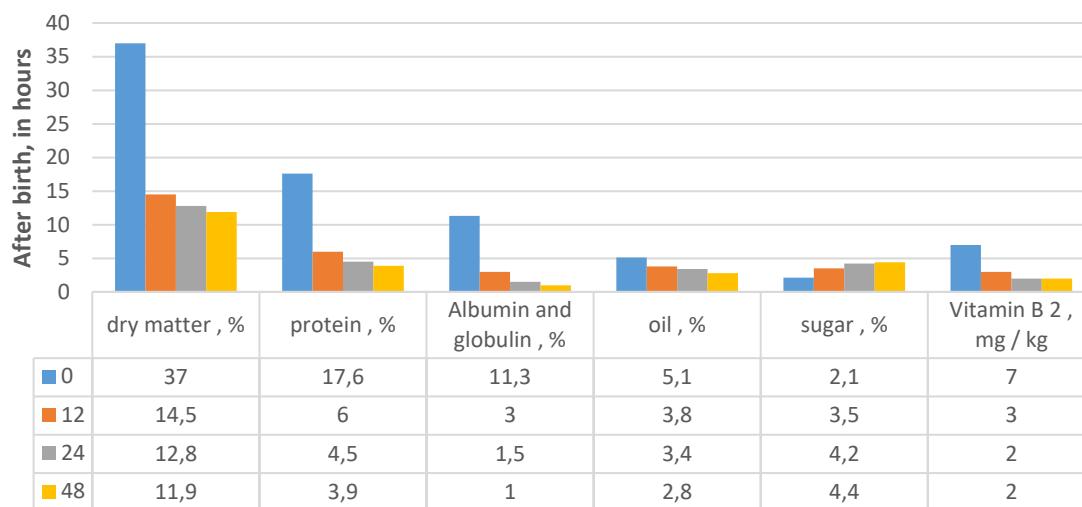
The concentration of IgG immunoglobulin in high-quality colostrum should be at least 50 g per liter. On the first day when calves receive colostrum, 90% of immunoglobulins are absorbed in the intestines. This absorption then decreases to 59% on the second day and 48% on the third day. Therefore, timely feeding of colostrum is considered very important for the healthy growth and development of newborn calves. The composition of colostrum changes after birth (Table 2).

Table 2

Changes in the composition of oral milk after birth

Substances	After birth, in hours			
	0	12	24	48
Dry matter , %	37.0	14.5	12.8	11.9
Protein , %	17.6	6.0	4.5	3.9
Albumin and globulin , %	11.3	3.0	1.5	1.0
Oil , %	5.1	3.8	3,4	2.8
Sugar , %	2.1	3.5	4.2	4.4
Vitamin A, BV / kg	11000	7000	4000	2000
Vitamin B ₂ , mg / kg	7.0	3.0	2.0	2.0

Changes in the composition of oral milk after birth



Rules for using oral milk and milk substitute.

Calves should be introduced to fresh green grass after receiving colostrum for at least 7-10 days to forage and other feeds after 15 days. Calves should receive 1.5-2 liters of colostrum 3-4 times a day, up to 10% of their live weight on the first day. In the following days, up to 2 liters of colostrum can be given to calves every

10-12 hours, 3 times a day. After 10 days, you can use 80% skim milk, 15% vegetable oil, 5% phosphatide concentrate, and 30 BV of vitamin A per 1 kg of dry matter as a milk substitute. The temperature of the milk replacer should be 38-40°C when fed to calves (Table 3).

Table 3
Rules for using oral milk and milk substitute

Age of calves, days, weeks	Rules of use
1-2 days	1.5-2 liters of colostrum 3-4 times a day
3-4 days	1.5-2 liters of oral milk 3 times a day
6-8 days	1.5-2 liters of colostrum 3-4 times a day
9-15 days	2.5-3 milk 2 times a day
16-20 days	3 liters of milk 2 times a day (75% milk and 25% CFA)
3-4 weeks	3 liters of milk 2 times a day (50% milk and 50% CFA)
5-8 weeks	3 liters of milk 2 times a day (25% milk and 75% CFA)
9 weeks	3 liters of milk twice a day

As a result, with the correct use of colostrum and milk additives, it is possible to raise healthier calves in breeding and private farms. This can lead to the re-establishment of the existing herd.

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