



Sustainable Cow Feeding Is An Important Factor

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Abstract: The article contains information about the importance of adequate feeding of cows. Feeds grown on the farm were mainly used in the formulation of rations. Winter and summer rations were used for feeding cows. Based on the analysis of the diet, it was concluded that cows should be fed with water or juice type, since the main part of its nutrition is made up of watery or juicy feeds. AP in the composition and balancing of the chemical composition of the feeds included in the diet and rations for cows. Kalashnikov's manual was used. It was observed that the amount of sugar in the winter diet is slightly less. In order to eliminate it, it is recommended to use carrots to increase the amount of sugar in the diet of cows.

Keywords. Cow, cattle, Hamid Livestock Oasis, cow, Estonian red breed, ration, complete value, feed unit, dry meal, digestible protein, rough feed, macro and micronutrients, vitamins, carotene and so on.

Introduction

Animal husbandry practice shows that breeding activity on farms, when combined with a high-value and high-level organization of animal nutrition, opens a wide path to progress in increasing productivity.

The efficiency of dairy cows is determined by the rapid conversion of plant nutrients into milk. The health of cows, milk productivity, herd reproduction are directly related to quality feed and rational feeding. As long as the feed base is not perfectly formed in the farms, the intended result cannot be achieved in the production of products, and as a result economic losses will be seen. High productivity in the genetic potential of cows can be realized only by forming a solid feed base in the farm. If the feed base is not improved in the farms, the milk yield of cows will remain at the current level or, on the contrary, will decrease.

The experience of qualified personnel and pioneers shows that it is possible to maintain the health of cows, to realize the milk productivity of the genetic potential, to ensure the reproductive characteristics of the herd in moderation, by feeding them with scientifically formulated full-value and balanced rations. is provided [1;2;4;6].

When cows are fed unbalanced rations for a long period of time, most will become sick, some will suffer from irreversible adverse conditions. To reveal the genetic potential of dairy cows; in the

diet, 50 percent depends on exchangeable energy, 25 percent on protein, and 25 percent on the supply of vitamins and minerals. Full of cows the use of biologically active substances in valuable nutrition is also considered important. It aims to use rough, watery and concentrated feeds in optimal proportions, taking into account the needs of cows for energy, fat, mineral substances and vitamins, when creating standard rations on a scientific basis. It is important to effectively use home-grown feed in the diet, and only when this measure is used, the consumption of nutrients for the production of one unit of product is saved. The cost of the product will decrease [3;5].

Complete feeding of cows is based on; feeding cows with high-quality feed; creation of scientifically based and improved, detailed rations taking into account their energy, carbohydrate, protein, fat, mineral and vitamin requirements, effective use of coarse, juicy and concentrated feed in optimal proportions when feeding them in standard rations.

It should not be forgotten that feeding cows with nutrients in excess of the necessary amount reduces their level of absorption of nutrients in the body, as a result, nutrients are excreted with waste, and as a result, the price of dairy products delivered to consumers unreasonably high.

The purpose of the study: to develop standard winter and summer rations for Estonian red cows based on live weight, milk yield indicators, using farm-grown feeds.

Research object and applied methods. Estonian red cows bred at the "Hamid Livestock Oasis" farm were selected as the research object. Live weight of cows was determined by weighing in the morning, without feeding or watering. Their milk productivity was determined by passing the control milk, and the fat content of the milk was determined using the lactan-1,4 device. AP Kalashnikov's manual "Feeding norms and rations of livestock" (2003) was used to determine the chemical composition of feed and create a standard ration for cows.

Research results and analysis. Wheat, alfalfa, and beets are planted in the cultivated fields of the farm "Hamid Livestock Oasis" in Paldisk District, and they are harvested and harvested, and the fodder base is formed on this basis. If silage is made in the trenches by harvesting it together with corn grain, hay and haylage are made from alfalfa as fodder. Part of the concentrated feed is produced on the farm, and the rest is purchased from abroad. In the farm, cattle are fed on the basis of the following ration.

It can be seen from the data of Table 1 that the nutritional content of the structured ration fully meets the needs of the cow. The satiety of the ration was 15,735 energy food units. In terms of nutrient content of the diet, roughages accounted for 2.77 energy food units or 17%, juicy foods 7.75 energy food units or 49%, concentrate foods made 5.2 energy food units or 33%. It can be concluded that in terms of satiety in the diet.



Table 1

ration for cows with live weight 500 kg, daily milk yield 14 kg, milk fat 4% .

No	TYPE OF FOOD	Food quantity	EOB	Dry substance	Digestion . Protein	Raw cell phone	Raw oil -	Sugars	No Cl	Ca	P	Carotene
		Kg	MDj	Kg	g	G	G	G	g	g	g	mg
	Food I 'm sorry		13.7	14.9	1160	4020	370	1045	81	81	57	520
1	Straw	3	1,428	2,538	15	1092	39	9		8.4	2.4	12
2	Alfalfa hay	2	1,344	1.66	202	506	50	40		34	4.4	98
3	Silos	20	4.6	5	280	1500	200	120		28	12	800
4	Senage	2	0.838	0.9	142	254	34	38		21.8	2	80
5	Hashaki beetroot	14	2.31	1.68	126	126	14	560		5.6	7	1.4
6	Wheat bran	3	2,655	2.55	291	264	123	120		6	28.8	2.6
7	Corn cereal	2	2.56	1.7	146	76	84	80		1	10.4	1.6
8	Soup salt	0.81							81			
	Total		15,735	16,028	1202	3818	544	967	81	105	67	995.6
	Difference + -		2,035	1,128	42	-202	174	-78	0	23.8	10	475.6



the highest indicator corresponded to the proportion of juicy feeds, therefore, the diet can be called a type of juicy feeding.

In the diet, the nutritional unit is 2,035 mJ or 14.9%, the amount of dry matter is 1,128 kg or 7.6%, the amount of digestible protein is 42 g or 3.6%, calcium is 23.8 g or 29.4%, Phosphorus was higher by 10 g or 17.5%, carotene content by 475.6 mg or 91.5%. Klechatka had 202 g or 5% less than the norm, and 78 g or 7.5% less sugar. But these indicators do not have a negative effect on the complete value of the ration, that is, according to AP Kalashnikov (2003), 28% of dry matter when the daily milk intake is up to 10 kg, The amount of milk is 24% between 11-20 kg, 20% between 20-30 kg and 18-16% when above 30 kg. . In the diet of experimental cows, this requirement is met.

Special attention is paid to the moderate amount of sugar in the diet, because it plays an important role in the digestion of protein in the body. Although the amount of sugar in the ration was less than 78 g, the ratio of sugar to protein is 0.8, which indicates good absorption of protein in the body of dairy cows. The calcium - phosphorus ratio is 1.6 and can be said to be at the standard level. The amount of dry matter per 100 kg of live weight was equal to 3.2 kg.

During the research, cows were fed under farm conditions. Since the cattle were fed in the winter and summer rations, we tried to form a summer ration for the experimental cows. In the summer, from late spring to late fall, blue corn and blue alfalfa are used to feed cows. Greens contain less clechatka, this condition drastically changes the microbial environment in the large stomach of cows, as a result of which the sanitary-hygienic indicators of milk deteriorate.

In order to prevent these negative consequences, we included a certain amount of straw feed in the diet. Since straw is a cheap feed, it also had a positive effect on the cost of milk.

Table 2

ration for cows with live weight of 500 kg, daily milk yield of 14 kg, milk fat of 4% .

No	TYPE OF FOOD	Food quantity	EOB	Dry substance	Digestion . protein	Raw chat -	Raw oil -	Sugars	No Cl	Ca	P	Carotene
		Kg	MDj	Kg	g	g	g	g	g	g	g	mg
	Food norm		13.7	14.9	1160	4020	370	1045	81	81	57	520
1	Straw	4	1,904	3,384	20	1456	52	12		11.2	3.2	16
2	Blue corn	18	4,212	4,482	198	990	108	720		21.6	14.4	1008
3	Blue alfalfa	13	3,328	3.64	494	1053	91	195		61.1	9.1	650
4	Barley cereal	1	1.05	0.85	85	49	22	42		2	3.9	0.4
5	Wheat bran	3	2,655	2.55	291	264	123	141		6	28.8	7.8
6	Corn cereal	1	1.28	0.85	73	38	42	40		0.5	5.2	0.8
7	No Cl	0.081							81			
	total		14,429	15,756	1161	3850	438	1150	81	102.4	64.6	1683
	difference + -		0.729	0.856	1	-170	68	105	0	21.4	7.6	1163

the summer season, we witnessed an increase in the amount of milk due to the increase in the amount of liquid feed in the diet of cows. Therefore, the ration was based on 14 kg of milk per day, but we observed in the experiments that the fat content of the milk decreased slightly.

As can be seen from the data in Table 2, in terms of nutritional content, roughages in the ration contain 1,904 energy nutrient units or 13.2%, green forages contain 7.54 energy nutrient units or 52.2%, and concentrates contain 4.99 energy nutrient units or made up 35%. The amount of dry matter in the ration was 3.1 kg per 100 kg of live weight. In the diet, the unit of energy nutrients is 0.729 mJ or 5.3% less than the norm, dry matter is 0.856 kg or 5.7%, crude fat digestible protein is 1 gram or 0.09%, sugar content is 105 grams or 10%. , it turned out that calcium is 21.4 grams or 26% more, and phosphorus is 7.6 grams or 13% more. And although raw klechatka is 170 grams or 4.2% less, as we mentioned above, this indicator does not have a negative effect on the complete value of the ration.

rat compared to control . A constant supply of table salt was provided in the cows' manger. We determined the amount of total feed consumed by experimental cows during lactation. We summarized the obtained results and presented them in the table below.

Table 3 shows that 4518.74 energy per head of cow feed unit consumed. Rough feed accounts for 659 EOB or 14.58% of the total consumed energy feed unit, the share of liquid or juicy feed is 697.42 or 15.43%, and the share of concentrate feed is 1541.2 kg or 34.12%, and the share of green fodder was 1621.12 kg or 35.87%. From these data, it can be seen that the ration satiety is 100% and the cows are well supplied with nutrients on the farm

Table 3

Feeds and nutrients consumed by cows during lactation,
(1 per head)

No	Food type	Amount of feed, kg	EOB, mJ	Dry matter, kg	Digestible protein, kg	Raw klechatka, kg	Crude oil, kg	Sugar, kg	Ca, kg	P, kg	Carotene, g
1	Straw	1130	53 8.0	956.0	5.65	411.32	14.7	3.39	3,164	0.904	4.52
2	Alfalfa hay	180	121.0	149.4	18.2	45,54	4.5	3.6	3.06	0.4	8.9
3	Silos	1800	414.0	450.0	25.2	135.0	18.0	10.8	2.52	1.1	72.0
4	Senage	180	75.42	81.0	12.8	22.86	3.06	3.42	2.0	1.8	7.2
5	Hashaki beets	1260	208.0	151.2	11.34	11.34	1.26	50.4	0.504	0.63	0.126
5	Barley groats	215	225.8	182.8	18.3	10.5	4.73	9.03	0.43	0.84	0.09
6	Mecca cereal	395	505.6	335.8	28.8	15.0	16.6	15.8	0.2	2.05	0.316
7	Wheat bran	915	809.8	777.8	88.8	80.52	37.5	43.0	1.83	8.8	2.4
8	Blue corn	3870	905.6	963.6	42.6	212.85	23,22	554.8	4.64	3.1	217.0
9	Blue clover	2795	715.52	782.6	106, 21	226.39	1 9 .5 6	41 , 92 _	1 3 , 13	1 , 9 5	1 39 , 75
Total		127 40	4518 , 74	4830,2 _	357, 9	1171.32	143, 1 3	736.16	31.47	21.57	452.3

Conclusion: Thus, in the feeding of cows in the farm "Hamid Livestock Oasis" in Pastergom District, mainly home-grown fodder is used. A part of concentrated feeds is produced on the farm. Cows are fed winter and summer rations on the farm throughout the seasons. 17% of coarse forages in the winter ration structure; 49% of liquid feed and 33% of concentrate feed, and the summer ration is 13% of roughage, 52% of blue feed and 35% of concentrate, respectively, the cows are adequately supplied with feed.

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