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ORGANIZATION OF FULL-VALUE FEEDING OF DAIRY COWS IN FARM**Rakhimov Madaminjon Alijonovich***Candidate of Agricultural Sciences, Associate Professor of the Fergana State University***Javxarov Oybek Zulfikharovich***Doctor of philosophy (PhD) agricultural sciences, senior lecturer at Andijan Agriculture and Agri-technologies Institute*

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Abstract

The article presents the results of scientific and economic experience to study the influence of different norms of feeding with green mass of rapeseed on its eatability, nutritional value of the diet, productivity of cows, efficiency of nutrient use and product quality.

It was found that the introduction of rapeseed green mass into the diet of cows improves the overall, protein and carbohydrate supply of cows, contributes to an increase in milk productivity, a decrease in energy consumption and consumption of grain feed per unit of production.

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Introduction. In the conditions of intensification of animal husbandry and transfer to a farm, the role of full-value feeding is especially important, which ensures, while reducing feed costs, to obtain high quality products.

The organization of full-fledged feeding of dairy cows should be based on knowledge of their need for energy, nutrients and biologically active substances necessary for the synthesis of milk, maintaining normal reproductive functions and health. The need for nutrients varies depending on the level of productivity, physiological state, age of animals and other factors [1].

During lactation, the nature and intensity of the processes associated with the formation of milk undergo significant changes. Especially high energy needs of high-yielding cows are manifested in the first period of lactation, when the nutrients of the diet do not cover the energy consumption for milk synthesis. In this regard, at the beginning of lactation, they often have a significant energy deficit, to cover which the body intensively uses the reserves of nutrients deposited in the body [2].

A significant reduction in the energy deficit during this period can be achieved by introducing energy-rich forages into the diet, such as concentrates, grass cutting and grass flour of high quality, root and tuber crops, green mass of catch crops, etc [2].

Milk productivity of cows is largely determined by the provision of diets with high-grade protein.

Currently, in the farms of the Fergana Valley, it is widely used as a catch crop - rapeseed, which provides high yields of green mass with good nutritional qualities, but little has been studied as a fodder in farms, this prompted us to conduct appropriate research.

The stability of rapeseed to low temperature conditions makes it possible to use it in critical conditions in the autumn as a supplement to dairy cattle, which will increase the biological value of cows rations. In addition, feeding rapeseed green mass will improve the protein and carbohydrate nutritional value of the diet, since compared to silage, the main feed for dairy cattle, it contains more crude protein and a small amount of fiber. In 1 kg of green mass of rapeseed 0.21 feed unit, 30 g of crude protein and 15.8 mg of carotene [1].

Sufficiently high nutritional qualities of the green mass of rapeseed determined the need to study the effectiveness of its use as a supplement for lactating cows in the autumn.

Objects and methods of research. The scientific and economic experiment was carried out on 4 groups of cows-analogs of the black-and-white breed for 60 days in the farm "Shukurdavlat" of the Fergana region. We studied the influence of different feeding rates of green mass of rapeseed on its consumption, nutritional value of the diet, productivity of cows, efficiency of nutrient use and the amount of production. In the diets of cows in the experimental groups, part of the corn silage was replaced with green mass of rapeseed (% by weight): in I-40, in II-60, and III-100.

Results of research. Replacement of corn silage with green mass of rapeseed improved the total, protein and carbohydrate nutritional value of the diets of cows in the experimental groups.

Studies have noted that feeding dairy cows in the first days after calving depends on their condition and the nature of feeding before calving. If calving went well, and the cow feels good, then there is no need to make any restrictions in feeding, especially if the feed intake was not reduced before calving. Hay, silage and high quality silage can be fed at this time. However, the full rate of concentrates and root crops should be given no earlier than a week after calving. Limiting the feeding of these feeds is a preventive measure against excessive stress in the work of the mammary gland and it's possible inflammation [3].

It has been revealed that the breeding of first-calf cows is more effective when, along with the amide concentrate additive, crushed barley after preliminary barothermal treatment is included in their diets [1].

In the studies of S.A. Yurgin and O.G. Merzlyakov it was found that with the silage-hay type of feeding in the first 100 days of lactation, the share of grain feeds in the structure of the diet should be at least 41-48%, in the second 20 and the third 5-15% in terms of nutritional value. This provides an increase in the milk productivity of cows by 304-289 kg of 4% fat milk compared to the same distribution of grain feeds over lactation periods, mainly due to an increase in the productivity of animals in the first 100 days after calving. Differentiation of the level of concentrate feeding of cows by lactation periods allows to reduce the consumption of grain feed per unit of production by 40-45 g [1].

With the partial replacement of silage with green mass of rapeseed, the content of energy per unit of dry matter increased by 0.07-0.09 fodder unit, crude protein by 7.9-10.8% and the level of fiber decreased by 13.1-16.7%.

With the complete replacement of silage, the concentration of energy per unit of dry matter increased by 0.17 fodder unit, crude protein by 18.4%, the level of fiber decreased to 19.2% versus 26.2% in the

control. Considering that the value of silage carotene is significantly lower than that of green mass, feeding the green mass of rapeseed had a positive effect on the biological activity of the diet. Similar results were obtained in the experiments of other researchers [1].

In the scientific and economic experience of S.A. Yurgin and T.S. Goldyrevait was revealed that an increase in the norms of protein nutrition of dry cows in the last month of pregnancy by 10-15% in comparison with the norm of AIAH (All-Union Institute of Animal Husbandry) is the most effective method of organizing their full-fledged feeding. This provides an increase in the milk productivity of cows by 243 kg compared to feeding according to the AIAH standards and by 68 kg compared to an increase of 15-20% in the norms of energy nutrition. With such feeding, there is no disturbance in the reproductive function of animals [1].

The results of studies were carried out to study the effectiveness of compound feeds prepared according to new recipes for highly productive cows. The new recipes were drawn up taking into account the prospects for the development of feed production in Western Siberia and with the aim of increasing the biological value of animal nutrition. They reduced the amount of wheat to 20-25% and increased the amount of oats and peas for dry cows. For the purpose of enrichment in protein, PVC (protein-vitamin concentrate)-eprin (7% by weight) was introduced. There was revealed a tendency of better use of nutrients in diets by experimental animals in comparison with control animals and an increase in productivity by 10.2-15.7% [1].

Thus, feeding green mass improves the supply of energy to cows, which is of certain importance for the normalization of the process of utilization of intermediate and final products of feed digestion, increasing the efficiency of biosynthetic processes in the body and mammary gland of cows.

In conditions of controlled feeding, an increase in the efficiency of biosynthesis processes in the body of cows was expressed in an increase in the average daily milk yield in cows from the experimental groups. During the period of the experiment, the average daily milk yield of 4% fat in the control group was 13.4 kg, and in the experimental groups, respectively, 13.8, 14.8 and 16.3 kg.

The improvement of metabolic processes in the body of experimental groups of cows is evidenced by the data on energy consumption per unit of production. The cows of the experimental groups consumed less energy per unit of production than the control ones, and the decrease in the level of energy consumption per 1 kg of milk of 4% fat content was greater in those groups where the share of green mass of rapeseed in the diet was higher. Thus, cows of the III group consumed 0.82 fodder unit per 1 kg of milk of 4% fat, while the control cows - 0.98 fodder unit. In groups I and II, the level of energy consumption was 0.94 and 0.89 fodder unit, respectively.

In our studies, very consistent results were obtained, indicating that the introduction of rapeseed green mass into the diet of lactating cows helps to reduce the consumption of grain feed. If for 1 kg of milk of 4% fat, the cows of the control group consumed 322 g of grain feed, then in the II and III experimental groups it was 39 and 72 g less. Feeding dairy cows with green mass of rape did not negatively affect the fat content in milk, technological and taste qualities of butter.

Average daily milk yield when feeding as part of the diet 12.7, 18.3 and 29.2 kg of rapeseed green mass increased by 0.2, 1.7 and 4.1 kg, respectively, in comparison with the control group. Consumption of grain feed per 1 kg of milk decreased by 2.1, 39 and 72 g, respectively.

Conclusion. The results of the experiment give reason to believe that the green mass of rapeseed is superior in nutritional quality to corn silage. Feeding it to lactating cows as part of the diet in the autumn provides an increase in milk productivity of cows and economical use of grain feed. The introduction of rapeseed green mass into the diet of cows improves the overall, protein and carbohydrate supply, contributes to an increase in milk productivity, a decrease in energy consumption and the consumption of grain feed per unit of production.

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