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"Feed the prestigious young bulls in the pasture with a protein-rich granular feed product made from alfalfa., nettle, and amaranth flour, which is rich in nutritious substances."

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Abstract: All grain feeds used in the nutrition of agricultural animals belong to the group of concentrated feeds. These feeds contain a higher amount of nutrients compared to other feed types and are characterized by easy digestion. Due to grain feeds, animal diets are balanced in terms of energy, protein, certain minerals, and other indicators. Mixed feed is a uniform mixture of various feed ingredients, ground to the same size, and formulated based on scientifically grounded recipes to organize complete nutritional feeding.

Keywords: Mixed, Feed, Compound feed, Growth, Protein, Fat, Nutritional value, Norm, Bulls, Meat.

Literature Review: Professor P.N. Kuleshov (1949) emphasized that the quantity and quality of feed provided to animals play an important role in the creation of specific animal types. The development of rapid growth and fat accumulation characteristics leads to the formation of meat-type animals. In order to produce cheap beef, calves should be fed intensively during the first 6-8 months of their life. Currently, the role of nutrition in improving various types of agricultural animal breeds, creating new systems and types, and developing productive herds is crucial. This has been identified through scientific research and production studies conducted in various ecological regions.

According to U.N. Nosirov and others (1989), taking into account the specific conditions of farms, organizing the rearing of calves under conditions of complete nutrition is a crucial factor in producing animals with high meat and milk productivity, as well as achieving the planned live weight.

Introduction: In countries around the world, including Vietnam, India, Spain, Canada, China, Norway, the USA, Chile, and Israel, the use of advanced technologies has led to the production of highly efficient compound feed for livestock. The development of high-quality compound feeds for livestock, using national technologies and equipment, through dry and wet pressing methods, has significant practical importance in producing feeds rich in protein-carbohydrate complexes, which undergo deep physical-chemical changes, and are rich in fat components.

In order to implement economic reforms in agriculture, additional measures have been adopted to further deepen reforms in livestock farming. These include the aim to strengthen the feed base in livestock farming through the Presidential Decree of the Republic of Uzbekistan on January 22, 2018, "On the State Program for the Year of

Supporting Active Entrepreneurship, Innovative Ideas, and Technologies" (PF-5308), as well as the Resolution on January 19, 2018, "On Measures for the Rapid Development of the Oil and Fat Industry" (PQ-3484). These initiatives aim to increase the volume and improve the quality of compound feed production in the country, make effective use of existing capacities, and support local compound feed production organizations.

All grain feeds used in the nutrition of agricultural animals belong to the group of concentrated feeds. These feeds contain higher amounts of nutrients compared to other feed types and are characterized by easy digestion. Due to grain feeds, animal diets are balanced in terms of energy, protein, certain minerals, and other indicators. Mixed feed is a uniform mixture of various feed ingredients, ground to the same size, and formulated based on scientifically grounded recipes to organize complete nutritional feeding. The economic theoretical basis for creating complete mixed feeds lies in the fact that mixing different feed types allows their various nutritional elements to complement each other.

Research Methods and Object: The results were recorded when feeding bulls of the Holstein breed with compound feed (granules) in the conditions of the "Toshpolatov Bahodir Joraniyozovich" farm in the Sherabad district of Surkhandarya region, which specializes in cattle breeding. Two groups, each consisting of 15 bulls, were selected at the age of 7 months. It should be noted that one of the most important substances involved in the formation of new tissues and organs in the growing organism of these bulls is protein.

Research Results and Analysis: If the protein content in the diet is insufficient, the feed will not be fully consumed, leading to slow growth and development. In this case, the protein content in the live weight increases, while fat decreases. Due to the high digestible protein and fat content in the compound feed (granules), it was provided in the bulls' diet based on the required norm.

Table 1.

Feed Consumed by the Bulls During the Feeding Period (kg)

(average for a total of 15 bulls)

Feeds and Their Nutritional Value	Feed unit	Groups			
		Feed quantity	1	Feed quantity	II
		Kg per bull	Total for 15 heads	Kg per bull	Total for 15 bulls
Silage	0.35	2	30	3	45
Corn Silage	0.24	3	45	4	60
Sugar Beet	0.12	1	15	1.5	22.5
Alfalfa Hay	0.44	2	30	2.5	37.5
Compound Feed (Granules)	1.0	1.2	18		-
Clover	1.0	-	-	1.3	19.5

Group 1 bulls were fed with compound feed (granules) in addition to the feed grown within the farm, and the type and quantity of feed were adjusted according to the growth period. Group 2 bulls, in comparison with Group 1, consumed 15.0 kg and 22.5 kg of sugar beet, 30.0 kg and 45.0 kg of silage, 45.0 kg and 60.0 kg of corn silage, and 30.0 kg and 37.5 kg of alfalfa hay. It is evident that the nutritional value of the feed consumed in Group 1 was 54.3 feed units, while in Group 2 it was 60.05 feed units. Additionally, Group 2 bulls' diet included cottonseed meal along with various other feeds. However, Group 1 bulls showed higher daily weight gain compared to Group 2, with a lower feed cost per unit of weight gain.

In the diet of Group 1 bulls, when compound feed (granules) was added, the productivity index was 11.8–17.5% higher than that of Group 2, where cottonseed meal was included in the diet. Moreover, the daily growth rate of Group 1 bulls was 950 g, while for Group 2 it was 800 g.

It is important to note that the composition of the compound feed (granules) is as follows:

Composition of compound feed (granules) equivalent to 1.0 feed unit from local raw materials.

№	**Type of Raw Material**	Quantity, kg	Feed unit
1.	Corn	1	1.34
2.	Amaranth	1	1.0
3.	Alfalfa	1	0.50
4.	Oilseeds	1	1.25
Total			

When organizing full-value feeding of animals, we also focused on the exchangeable energy, carbohydrates, and mineral substances, as well as the relationship between certain elements during the metabolic processes, their absorption and separation levels, and their accumulation characteristics in the organism.

Conclusion: Thus, the results of numerous analyzed studies show that the growth, development indicators, meat and other productivity, quality, and the reduction in product cost of all types of livestock depend on full-value compound feed (granules) and its usage in feeding and maintaining conditions. The use of compound feed (granules) is of significant importance.

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