



What is the share of balanced quality feed?

Scientific-Research Agricultural Institute Ministry of Agriculture of the Republic of Azerbaijan

Savalan Seyfaddinov

Senior Researcher, Doctor of Philosophy in Agrarian Sciences, Honored Agricultural Worker of the Republic
Balanslaşdırılmış keyfiyyətli yem payı nəyə qədərdir

Corresponding author: *Savalan Seyfaddinov
Tel.: +*** Email: Volqa_5@mail.ru

ABSTRACT:

The development of livestock in the country, increasing production, improving quality depends on the creation of a quality fodder base and the feeding of livestock with full-fledged feed rations. It is known that in most farms of the republic the fodder base of cattle is mainly coarse fodder (dry grass, straw), the specific weight is about 80-85%, and strong fodder. Silage, haylage and root crops, which are of special importance in the feed share, are not used. During the winter, cattle consume an average of 30-35% of digestible protein, 20-25% of macronutrients, 40-50% of micronutrients and 50-60% of carotene (provitamin A) per unit of energy feed. Sex, age, fertility indicators, etc. in the feeding of animals. full-value feed rations balanced with nutrients (protein, minerals, vitamins) are drawn up without taking into account, and the optimal ratio of nutrients in the feed rations is forgotten. Currently, the main problem in animal husbandry is the renewal of animals with full-fledged feed rich in quality nutrients. We must not forget that high-yielding camels are brought to our republic from other countries. Summer pastures are the most suitable and indispensable source of fodder in the country for feeding animals with the above-mentioned high-quality nutrients, feeding them in favorable (cool) climates and providing them with pure and clean drinking water.

The subalpine and alpine meadows used as pastures have up to 1,000 very valuable fodder plants. Vegetation contains about 50% of legumes. Summer pastures in the country are not only a source of fodder, but also a source of nutrients that play a special role in the animal body and ensure quality.

Therefore, achieving the set goals in the field of animal husbandry, improving the management of the field - protection of pastures, which are an indispensable and high-quality source of fodder to increase efficiency, increase productivity is one of the main tasks of relevant organizations and pasture users.

KEYWORDS:

livestock, coarse feed, quality, strong feed, silage, haylage, root crops, feed source, provitamin A, breed



INTRODUCTION

One of the important issues in the development of livestock in the country, increasing livestock products, improving product quality and reducing its cost is the creation of a fodder base, as well as the feeding of livestock with full-fledged feed.

Experience and scientific theories confirm that the tasks set in the field of animal husbandry can be fulfilled only if a solid fodder base is created and the quality is substantially improved.

It should be borne in mind that improper feeding of animals, especially high-yielding animals, not only leads to a decrease in meat, milk and other livestock products, but also has a negative impact on normal calving.

It is known that in most farms of the republic the fodder base for cattle consists mainly of coarse (dry grass, straw) and forage.

Silage, haylage, root crops and a number of biologically active substances that enrich the diet with nutrients are not used.

In general, the specific weight of coarse fodder (dry grass, straw) in the feed distribution is about 80-85%, and the rest consists of forage. Calculations show that feed rations and feed rations made from these feeds do not meet the needs of animals for basic nutrients. Thus, cattle consume an average of 30-35% or more of digestible protein, 20-25% of macronutrients, 40-50% of micronutrients and 50-60% of carotene (provitamin A) per unit of energy during the winter. they do.

Lack of nutrients in the diet, first of all, leads to impaired development in young animals, reduced productivity in older animals, higher feed consumption per unit of production, reduced ability of the perpetrators and other adverse events.

In some farms, the main reasons for infertility, weak and sometimes stillbirths, various endemic diseases among livestock are the lack of nutritional value of feed supplied to these farms and the feeding of cattle with poor quality feed.

It should be noted that at present, most farms do not prepare full-value feed rations balanced with complex nutrients (protein, minerals, vitamins), depending on the type, age and productivity of animals, and do not take into account the optimal ratio of nutrients in feed rations. .

The course of the study:

Feeding in accordance with zootechnical norms, the most important factors of functional and morphological changes in the body - the growth, development, productivity of animals, product quality and improvement of breeding quality of animals depend on feeding. Science has shown that when animal feed rations and feed rations are not properly formulated, especially when the nutrients in the feed rations are deficient or excessive, they have a negative impact on the body's metabolism and its normal development. weakens, does not consume more feed per unit production, and increases the cost of the product.

Scientific-theoretical analysis of requirements and review materials:

If, for various reasons, the productive animal does not receive the required amount of nutrients, then the animal will use the accumulated nutrients for some time, and if this continues for a long time, its future is clear, the animal will gradually lose weight, lose productivity and become more susceptible to some diseases. That is why animals should be fed with the required amount of nutrients during the fertile period, rich in one or another nutrient.

Thus, it is clear from the above that proper nutrition is a key factor in ensuring high productivity, normal reproductive function and health of animals. Based on research, it was concluded that high-yielding cows are Milk yield increases, milk quality increases, nutrient uptake increases, less feed is used to produce a single product, the cost of the product decreases, metabolism and energy metabolism improve, and finally the body becomes resistant to a number of endemic diseases.

At present, the main problem in the livestock farms of the republic is to renew the cows with high-quality, nutrient-rich feed stocks by strengthening the fodder base.

It is known that high-yielding camels are brought to our republic from other countries. Undoubtedly, the fertility of these animals is above all its thdepends on Unfortunately, in most cases, the expected yield is not obtained from these animals.

It should not be forgotten that the body of high-yielding cows undergoes such complex and unique processes that sometimes it is not easy to understand their essence.

The amount of dry matter released is about 2.6 times more than the amount in the body.

According to calculations, up to 400 liters of blood must pass through a cow's udder to produce 1 liter of milk. Such a cow needs 7000 k / calories to maintain its body and 712 k / calories to produce 1 liter of milk. Approximately 660-700 g of protein, 700-840 g of fat and 70-80 g of minerals are exported from the milk product of a cow that produces 20 kg of milk.

Academician Ivainov stated that if high-yielding breeds are not fed with sufficiently high-quality feed rations, after a while they will not get the expected yield, the animals will gradually shrink and eventually lose their sexual ability.

This should not be overlooked by livestock farmers, especially non-specialists!

What is quality? Quality feeds include minerals and organic matter, protein, digestibility, energy feed unit, etc.

The nutritional value of feed depends on its chemical composition, which depends on the dry matter in the feed. Animals and plants contain about 100 chemical elements, of which 95% are carbon, oxygen, hydrogen and nitrogen, and the rest -5% are other elements.

All feeds are composed of organic and inorganic substances. Inorganic substances - water and minerals (ash); Organic substances - nitrogenous and nitrogen-free compounds.

The amount of water in the feed is 4-95%. Foods high in water are low in nutrients. It is 9-14% in the least water-rich feeds, 70-90% in the most succulent feeds and green fodder.

Minerals - they are found in blood, tissue juices, enzymes, muscle, bone and nerve tissue.

Minerals affect the digestion of feed and the assimilation of nutrients in the feed. When there is a lack of minerals in the feed, young animals stunted development, and the productivity of older animals decreases.

Minerals are divided into macro and micro elements.

Macronutrients include Ca, P, N, Na, Cl, K, Mg, etc.

Microelements include more than 60 elements, of which Fe, Cu, Co, Mn, Se, Zn, etc. are the main elements.

Organic substances (crude proteins) are nitrogenous compounds, which in turn are divided into proteins and amides. The protein in the feed is the main source of protein in the animal's body. Amides are intermediates formed during protein synthesis, which are formed by the action of proteins and bacteria that are broken down by the enzyme. Silage, green fodder and root crops are rich in amide.

Protein is found in most green legumes (5%) in their dry grass (15%) and in cereals (25% -30%). Animal feeds (50-80%) and chickens (40%) are rich in protein.

The full value of a protein is measured by its absorption by the body. Beans, grass, green fodder and silage contain 80% of the protein.

Nitrogen-free compounds include aqueous carbons (cellulose, starch, organic acids) and oils. The basis of organic matter in plant feeds is aqueous carbon (up to 75%).

The nutritional value of aqueous carbohydrates is assessed by AEM (starch and sugar).

It is more common in starchy cereals. It is 70% in corn, 60% in rye, 30% in potatoes, 18% in liver and 4% in muscle.

Sugar is up to 20% in all feeds, most commonly in sugar beet, watermelon, corn leg. In animals, aqueous carbohydrates are actively involved in metabolism and cause the formation of fat.

Oils are mostly found in sunflower seeds, cottonseed meal, barley, and flax (up to 40%); occurs in the least succulent feeds (up to 1%). Of the cereals, 6% are in corn and rye, and up to 2% in barley.

Vitamins are divided into two groups: 1) water-soluble and 2) fat-soluble. Water-soluble vitamins C and B; Those that are soluble in fat are vitamins A, D, E and K.

Vitamin A is in the form of carotene, most commonly (100-250 mg) in red and yellow roots (50-120 mg). It is an anti-rickets vitamin and is involved in the metabolism of Ca and P. When the animal is deficient, osteomyelitis occurs, vitamin E deficiency; Vitamin K helps blood to clot. B1 is abundant in yeast. It is a rich vitamin called B2-riboflavin. It is called B5-nicotinic acid, and in case of deficiency it causes skin disease. It is a vitamin B12-antianemia.

The feed unit is a unit for measuring and comparing the nutritional value of feeds.

In 1880, a mixture of 1 kg of rye and barley was taken as a unit of feed to assess the nutritional value of fodder in Denmark.

Soviet fodder unit in 1922-23 under the leadership of EA Bogdanov zoo of the People's Commissariat of Agriculture of the RSFSR Developed by the Commission of the Technical Scientific Council. 1 kg of medium quality rosemary grain was taken as a unit.

The nutritional value of a feed unit is equivalent to 150 grams of fat or 1414 kilocalories (5.95 megacoules) in the fattening of cattle. The Soviet feed unit is derived from the starch equivalent (1 feed unit corresponds to 0.6 starch equivalent).

Recently, since 1963, the nutritional value of feeds has been measured by the energy of metabolism - that is, the energy produced by nutrients absorbed by the body.

The energy of exchange is determined by the type of each animal. For example, 1 unit of feed is equal to 10, 14 megacoules for cattle, 11.14 megawatts for pigs, 11.5 megacoules for horses and 9.8 megacoules for birds.

Summer pastures are the most suitable and irreplaceable source of fodder in the country for feeding animals with the above-mentioned high-quality nutrients, feeding them in favorable (cool) climates and providing them with drinking water.

That is why summer pastures are called the "Golden Fund" of our country.

The largest summer pastures in the country are subalpine meadows 1600-2600 m and alpine meadows 2600-3000 m after mountain forests in the highlands of the Greater Caucasus (220 thousand ha) and the Lesser Caucasus (350 thousand ha).

The subalpine and alpine meadows used as pastures have up to 1,000 very valuable fodder plants.

Vegetation includes about 50% of legumes. 90-95% of them are perennials, and a small part are annuals.

The base of the vegetation of subalpine pastures is boneless *Bromus inermis*, Caucasian thin-legged-*Koeleria caucasica*, purple barley-*Hordeum violaceum*, meadow-grass (*Poa pratensis*), meadow-grass *Festuca pratensis* and red-leaf clover, three-leaf clover. , hill-shaped geranium-*geranium collinum*, red-stem dew-*Alchemilla erythropoda* and others.

Bromopsis variegata, *Festuca supina*, *Poa alpina*, red (meadow) three-leaf clover from legumes - *Trifolium pratensis*, Transcaucasian weed - *Onobrychis transcaucasica*, from various grasses *Alchemilla sericea*, narrow-leaved onion - *Gypsophila tenuifolia* and others are widespread.

Summer pastures in the country are not only a source of fodder, but also a source of nutrients that play a special role in the animal body and ensure quality.

Therefore, in order to improve management and increase efficiency, the protection of pastures, which are considered an indispensable source of fodder, and increasing productivity are the main tasks of the relevant agencies and pasture users.

Efficient use of summer and winter pastures in Azerbaijan, their use in parcels, creation of cultural pastures and payment for livestock feed at the expense of natural resources, development of family farms and peasant farms, ultimately increasing employment in rural areas and other important issues may contribute.

CONCLUSION

The development of livestock in the country, increasing production, improving quality depends on the creation of a quality fodder base and the feeding of livestock with full-fledged feed rations.

As it is known, in most farms of the republic the fodder base of cattle is mainly forage (dry grass, straw), the specific weight is about 80-85%, and strong fodder.

Silage, haylage and root crops, which are of special importance in the feed share, are not used.

During the winter, cattle consume an average of 30-35% of digestible protein, 20-25% of macronutrients, 40-50% of micronutrients and 50-60% of carotene (provitamin A) per unit of energy feed. Sex, age, fertility indicators, etc. in the feeding of animals. full-value feed rations balanced with nutrients (protein, minerals, vitamins) are drawn up without taking into account, and the optimal ratio of nutrients in the feed rations is forgotten. Currently, the main problem in animal husbandry is the renewal of animals with full-fledged feed rich in quality nutrients. We must not forget that high-yielding camels are brought to our republic from other countries.

Summer pastures are the most suitable and indispensable source of fodder in the country for feeding animals with the above-mentioned high-quality nutrients, feeding them in favorable (cool) climates and providing them with pure and clean drinking water.

The subalpine and alpine meadows used as pastures have up to 1,000 very valuable fodder plants. Vegetation contains about 50% of legumes.

Summer pastures in the country are the only source of fodderIt is also a source of nutrients that play a special role in the animal's body and ensure its quality.

Therefore, achieving the set goals in the field of animal husbandry, improving the management of the field - protection of pastures, which are an indispensable and high-quality source of fodder to increase efficiency, increase productivity is one of the main tasks of relevant organizations and pasture users.

LITERATURE

1. BH Aliyev, ZH Aliyev Problems of water supply of mountain slopes of Azerbaijan and the way of its solution. Izd-vo "Taraggi" Baku, 2012. 450 p.
2. Ecogeochemical features of mountain-meadow soils on the southern slopes of the Greater Caucasus. Materials of the scientific-practical conference dedicated to the 95th anniversary of academician H.Aliyev. Baku, 2002, 314 p.
- 3.C.Kh.Sattarov, S.S.Seyfaddinonov Recommendations on feeding cows with the most efficient feed ration based on the quality indicators and nutrition of fodder used in farms. Printing house of "Taraggi" LLC Baku, 2007. 32 p.
4. HA Behbudov Feeding. Azerbaijan State Publishing House. Baku, 1971, 164 p.
5. N. Yusifov Kormovye resources and ways to improve their nutrition. Baku, 1988. 208 p.
- 6.Prof. Dr. Murat Altın, Prof.Dr. Ahmet Gökküş, Prof.Dr. Ali Koç Çayır Mera Reform 2005, 468 p.
- 7.Babirov S. Q. Mustafayev R.B. Mammadov CJ Recommendation on accounting for agricultural costs and costing of products. Baku, Tural, 2003.
- 8.Pof. Dr. Rıza Avcıoğlu, Prof. Dr. Rüştü Hatiroğlu, Prof. Dr. Yaşar Karadağ Yembitkileri Genel Bölüm Cilt-I.İzmir-2009, 276 p.
- 9.Prof. Dr. Rıza Avcıoğlu, Prof. Dr. Rüştü Hatiroğlu, Prof. Dr. Yaşar Karadağ Yembitkileri. Baklagil Yembitkileri Cilt-II.İzmir-2009, 545 p.
10. Improvement and rational use of winter and summer pastures of Azerbaijan Baku 1965.
11. General Directorate of Agricultural Production and Development of the Ministry of Meadow and Mera Plants, Agriculture and Villages of Turkey, 2008, 466 p.
- 12.Prof. Dr. Rıza Avcıoğlu, Prof. Dr. Rüştü Hatiroğlu, Prof. Dr. Yaşar Karadağ Yembitkileri Buğdaygil ve Diğer Familyalardan Yembitkileri Cilt-III.İzmir-2009, 843 p.