The Role Of Pasture Agrophytocenoses In The Optimization Of The Ecological Situation

Kholmirza Tirkashovich Nazarov  
Associate Professor, Samarkand State University, Uzbekistan

Shakhnoza Shavkatovna Khudoyarova  
Master Student, Samarkand State University, Uzbekistan

Maftuna Najmiddin Qizi Normamatova  
Researcher, Samarkand State University, Uzbekistan

ABSTRACT

In the desert regions of our country there are large farms specializing in astrakhan fur farming. It is known that karakul is one of the most important branches of animal husbandry in the republic. In Karakul agriculture, the natural cover of deserts and hills serves as the main source of food. Of the 23.1 million hectares of pastures and hayfields in Uzbekistan, 17.5 million hectares are used as desert pastures. Of these, 37.1% are still in crisis, with 1 million. Harmful and poisonous plants on an area of more than 0.5 million hectares. Under the influence of these weeds, which are not eaten by weeds, the productivity of pastures is sharply reduced.

KEYWORDS

Desert regions, ecological situation, farms, agriculture, poisonous plants, pastures, growing season.

INTRODUCTION

One of the main causes of this pasture crisis is the misuse of pastures and the spread of poisonous and similar poisonous and harmful plants. These poisonous plants cause serious
illness and even death when digested by Karakul sheep. In addition, the constant use of pastures leads to the fact that pastures become unusable and create conditions for the reproduction of alien and harmful plants, and the degradation of pastures. According to experts, in order to strengthen the fodder base of Karakul sheep, their productivity can be increased by planting highly productive pastures on low-yielding pastures. That is, the most effective ways to increase the productivity of desert and mountain pastures are the creation of artificial agrophytocenoses and reservoirs. Fertilized argophytocenoses have a positive effect on the external environment, providing a longer retention of moisture in the soil. In winter, it helps to increase the length of the growing season by reducing wind and keeping moisture.

Also, in areas where agrophytocenoses are established, the type of herbaceous plants is greater than in open areas, and the yield of forage is 2-3 times higher. Desert pastures of the republic are 30 million hectares. Their use varies according to the climatic conditions of the year. In years with a favorable climate, the yield of pastures is up to 5 centners, in unfavorable ones - 2 centners.

This affects the intensive use of pastures on farms, causing significant difficulties. Therefore, it is necessary to find ways to increase the productivity of pastures to increase the productivity of pastures. For this, it is desirable to find suitable forage plants for the given climatic conditions and create artificial pastures from them. Attention is drawn to the scientific work carried out by scientists of the Research Institute of Ecology of Karakul and Deserts and the Botanical Research and Production Association in this direction for many years. The selection of plants suitable for climatic conditions to increase the yield of pastures requires a comprehensive ecological and biological study of these plants. For this, it is necessary to analyze the drought resistance and other biological properties of the plant.

There are 30 million pastures in the country, and they all have a different climate and soil cover, so it is necessary to study the characteristics of vegetation, soil and climate. The study of the biological properties of a plant for growth, development, reproduction, spontaneous reproduction and, most importantly, its suitability for feeding is the main task in the construction of artificial pastures. To do this, on degraded areas of pastures, it is advisable to isolate heat-resistant plants and carry out phytomeliorative measures, for which it is necessary to conduct experiments with their participation, taking into account the ecological and biological characteristics of promising desert pastures. The desert pasture had to determine the most suitable species of edible plants for the area.

The creation of artificial pastures with the participation of species acceptable for a given area is important for increasing the productivity of pastures, allowing intensive use of pastures and providing livestock with vitamin-rich feed throughout the year. This is one of the key issues of today in solving this urgent task, and also important for the prevention of desertification.

The best way to improve pastures that are in crisis in the desert and hills, i.e. covered with poisonous and harmful plants - this is the creation of artificial agrophytocenoses from a mixture of shrubs, semi-shrubs and grasses, ensuring biodiversity and guaranteeing the sustainability of the environment.

All sandy massifs of the republic are the main fodder base for livestock, but the fodder
reserves are not the same depending on the year and season. In this regard, sandy deserts are distinguished by shrubs, shrubs, perennials and annual fodder plants. This affects the intensity of pasture productivity. On the basis of research, it has been established that 337 species of forage plants grow in the above sandy massifs. Among them, some plants such as saxaul, sugar cane, wormwood, astragals, sand acacia, wormwood, sandalwood, wormwood, selenium are the main food for camels and sheep in winter or early spring and summer. Here are some common food plants in sandy deserts.

White saxaul - Haloxylon percium. The tree is sometimes 1.5-2.5 m tall (3-4 m). Sands are the main identifier of plants. The saxaul vegetation begins in early spring and spreads in late summer with assimilated twigs and seeds that ripen in winter. Blooms in March-April, sown in autumn. The feed unit is high. According to the data, the protein content in the assimilated branches is 20.3%, protein - 14.1%, fat - 2.1%, fiber - 60.8%, and the feed unit per 100 kg of dry product is 71.3%. In addition to the fact that citric acid is a phytomeliorant of the highest quality in strengthening saxaul sands, alkaloids are isolated from green branches and leaves.

Isen - Kochia prostrated. A small bush about 10-75 cm tall. The liver is thin, fibrous, hard. It blooms and fertilizes in July-September. It grows mainly on sands, rocks and slopes, in saline soils. Distributed in all regions of Uzbekistan and Karakalpakstan. It was planted by A. Alimjanov in the south-west of Kyzylkum in the 60s of the last century. The yield also increased from year to year from 3.01 centners to 10.1 centners / ha. The chemical composition of the plant in the flowering phase: wet protein - 11.6%, protein - 8.7%, oil - 1.4%, and so on.

Chogon - Halothamnus (Aellenia) subaphyllus. Height 30-130 cm, semi-shrub. Flowering and feeding in May-September. It grows in all regions of Uzbekistan and in Karakalpakstan on sands, saline soils and gravel slopes.

Sensitive food for camels and sheep. According to the data, 100 kg of hay contains 37-59 feed units. It was very productive in terms of phytomelioration and was 5-6 times higher than other plants planted in pastures.

Fake yantak - Alhagi of pseudo Alhagi. Height 50-60 cm. Spiny perennial. Flowering and feeding in May-August. Grows on sandy, gravel soils. Yantak is the best forage plant in meadows all year round. Wormwood - Artemisia diffuse. Height 20-40 cm. The lush dwarf shrub is sown in October, flowering in September. The amount of feed is much larger. Feed sheep, goats, camels all year round. Pickle - Aeluropus litoralis. Height 20-60 cm. The stock is a perennial herb. Flowering and feeding in July-August. It grows in the sandy deserts of Uzbekistan on sandy loam and saline soils.

Teresken - Ceratoides ewersmanniana. Small shrub up to 1.5 meters tall. Flowering and feeding in July-September. Distributed in all desert regions of Uzbekistan. In the southwestern Kyzyl Kum, wormwood is the second largest cultivated and forage crop. The yield of fertile plants per hectare in terms of nutritive weight is 0.5-1.0 c / ha. Nutritious feed for all livestock during the season, protein content 16%, fat 2.7%, fiber 34%.

Phytomelioration is an important factor in preventing desertification. Due to the fact that the Kyzykum desert is a large and promising Karakul region of the republic, the description of scientific research in the field of phytomelioration of these pastures is of particular importance. Although the first studies in the field of pasture productivity in KyzylKum were started in the 30s under the leadership of E.P. Korovin, their development
dates back to the 60s and is directly related to the research of Uzbek animal husbandry, Uzbek karakul and botanical institutes.

Today, when implementing large-scale phytomelioration measures to increase the productivity of Kyzylkum pastures, it is advisable to take the following measures.

- Comprehensive study of the ecological conditions of desert fodder plants and their bio-ecological characteristics;
- Selection of promising phytomeliorants for gypsum conditions and sandy deserts;
- Production and reclamation of integrated technologies for the improvement of pastures;
- Development and introduction of pasture agrophytocenoses for use at different times of the year;
- Creation of new enterprises (width 10 m, height 200 m) with the establishment of special enterprises for growing seeds of important phytomeliorants, increasing the productivity of pastures, working on the basis of mutual agreements with karakul farms or farms and the state. control over their activities;
- Establish regular financing of measures to improve pasture productivity at the expense of centralized funds and local budgets, control the use of created agrophytocenoses.

The next important task is the correct selection of the optimal composition of pasture agrophytocenoses in conditions of a specific ecological type of environment, species, alternative ratios of life forms of plants in desert areas.

When creating new agrophytocenoses, the following recommendations should be considered.

- Testing and selection of different ratios of food desert species belonging to different life forms in arid regions.
- Determine the characteristics of effective use of moisture based on the study of the forming properties of the root system.
- Identification of species with a high content of nutrients based on the study of indicators of feed yield.

Also, the development of agro technical foundations for the creation of optimal structural pasture agrophytocenoses in certain environmental conditions is one of the urgent problems today, which is a key condition for increasing biodiversity, the development of karakul and biodiversity. It can be seen that living forms of promising shrub, semi-shrub, transitional species under the conditions of annual crops of created agrophytocenoses are higher and more intensive than development indicators.

CONCLUSION

In conclusion, we note the enormous importance of creating artificial agrophytocenoses for stabilizing the ecological state of desert pastures and increasing the productivity of pastures, which will increase the productivity of pastures by 2-3 times, ensure biodiversity and prevent desertification.

The life span of agrophytocenoses in winter is 15-20 years and is a guarantee of the stability of the biocenosis due to self-reproduction at later stages.
REFERENCES

1. Nazarov Kh.T., Ibragimov L.Z., Ganiev Z.A., Tirkashev S.Kh. (2018). Using alternative energy is the guarantee of ecological steadiness. Science and world. № 2 (54). Vol. II. Pp.80-84.

2. Назаров Х. Т., Ибрагимов Л.З. (2019), Geographical properties of tourism development in Zarafshan Valley. «Евразийский Научный Журнал. №1. Рр. http://journalpro.ru.

3. Nazarov Kh.T., Ganiyev Z. A., Ibragimov L. Z. (2018). Natural Resources in Unconventional Energy Production Capacity on the Basis of the Study: A Case Study of Mirzachul Region. International Journal of Trend in Scientific Research and Development (IJTSRD). www.ijtsrd.com. Volume – 2 | Issue – 6. Pp. 1162-1165.

4. Nazarov Kh. T., Ibragimov L.Z., Jumayeva S. O., Vakhobova N.S. (2019). ECONOMIC SOCIAL AND ECOLOGICAL SIGNIFICANCE OF USE ALTERNATIVE ENERGY. (A case study of Mirzachul valley). Евразийский Союз Ученых (ЕСУ). №1. (58). https://euroasia-science.ru.

5. Nazarov Kh.T and others. (2016). The issues production of electron energy from wind resources Uzbekistan. Republican scientific-practical conferences. Samarkand. Pp.24-29.

6. Nazarov Kh.T., Ibragimov L., Ganiyev Z.A. (2019). The feature of vertical and spatial development of exogenous morphogenesis processes of Zarafshan valley. Science and world. № 1 (65). Vol. II. Pp. 60-63.

7. Ibragimov, L. (2016). Importance of studying natural and geographical potential of regions in economic-geographical research (A case study of Samarkand Region). Science and World. International scientific journal. Russia

[online] № 7 (35) Vol. II. pp.111-114 Available at: http://scienceph.ru/.

8. Ibragimov, L. (2016). Importance of studying natural and geographical potential of regions in economic-geographical research (A case study of Samarkand Region). Science and World. International scientific journal. Russia [online] № 7 (35) Vol. II. pp.111-114 Available at: http://scienceph.ru/.

9. Ibragimov, L. (2017). Specialization of agriculture - as the solution to the problem of employment (A case study of Samarkand Region). European Science Review. Austria [online] 1 (2), pp. 19-23. Available at: http://www.e-w-a.org.