

MEASURES TO INCREASE THE PRODUCTIVITY OF NATURAL PASTURE RESOURCES THROUGH EFFECTIVE LAND USE.

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Khudoyberdiyev Feruz Shamshodovich

*Associate professor of the Department of "use of land resources and state cadasters",
doctor of philosophy of technical sciences xudoyberdiyev89@list.ru*

Mirzomurotov Maksudjon Farkhod ugli

Student of "land Cadastre and land use"

Nazarov Ibrohim Hasan ugli

Student of "land Cadastre and land use"

Bukhara institute of natural resources management of The national research university of «Tashkent institute of irrigation and agricultural mechanization engineers»

Abstract

This article describes the current state, use and improvement of pasture use, which constitute the bulk of the land fund of the Republic of Uzbekistan, including agricultural land.

Keywords

Pasture, vegetation, external factors, internal factors, negative processes, degradation.

Introduction. Currently, agriculture in our Republic is developing at a significant pace. With the increasing demand for agricultural products, the need to improve the efficiency of agriculture becomes crucial, and innovative technologies are required in this field. Some agricultural enterprises engaged in the production and supply of agricultural products receive financial support from the government budget. New technological means for agriculture are being developed. The development of a sustainable and efficient land resource utilization system in agriculture is one of the key tasks, considering agriculture as one of the foundations of the country's economy.

Currently, significant measures are being taken to increase the fertility of agricultural land. The agricultural system continues to develop in our Republic, but what is the current state of important pasture lands that play a vital role in the supply of products such as milk, meat, and eggs to the national economy? Improving the utilization of pasture lands remains a relevant task. The condition of important pasture and valley lands is of particular importance to livestock farming.

In recent years, a number of measures have been implemented to organize sustainable and efficient land utilization, regulate land relations, and strengthen government control over land use. However, efforts to effectively organize government control over land use, implement modern technologies in this field, and adequately assess land resources still remain insufficient.

Furthermore, conducting geobotanical research aimed at the effective utilization of the existing 21.2 million hectares of pastures and valleys, increasing the quantity and diversity of plants, improving their productivity, organizing regular rotational grazing, and measures to prevent degradation of pastures and valleys have not been adequately controlled.

Relevance of the Topic. Over the past 25-30 years, 35-40% of pastures and meadows have undergone degradation, resulting in a 20% decrease in the quantity and diversity of plants, and a 1.5-2 times reduction in productivity [1].

Mowing and grazing of livestock on pastures are the most cost-effective and efficient methods, as animals freely choose and consume naturally growing grass. This process doesn't require significant expenses, irrigation, fertilizers, or energy. According to the data, grazing on dedicated areas improves livestock productivity by 25-40%, while feed costs decrease by 20-30%.

Research Object. In our Republic, the total area of all current natural pastures and valleys is 21.2 million hectares, with pastures utilized by herders accounting for 17.8 million hectares. For this area, 18,696 thousand cubic meters of water are allocated. Pasturelands in the Republic are divided as follows: lowlands and plains cover 86.1%, slopes cover 4.3%, and mountain pastures cover 1.4%. Pasture areas vary across regions. For example, Karakalpakstan, Navoi, Bukhara, Khorezm, and Syrdarya regions predominantly feature lowland pastures, while all types of pastures are present in Samarkand, Surkhandarya, and Tashkent regions.

Research Results. The types of pasture and valley lands depend on soil and climatic conditions. In the Central Asian region, there are steppe, steppe-forest, high mountain, and mountain forest zones. Expansive steppe areas are most suitable for livestock breeding. Within this region, there are sandy, clayey, rusty, and ephemeral pastures. Sandy pastures (such as Kyzylkum, Karakum, and Barsuki) are home to vegetation like saxaul, zhuzgun, yantak, yaltyrbosh, and astragalus. The average yield ranges from 6-10 tons per hectare, calculated as pasture yield. Clayey pastures have shrubs, ephemeral plants, and grasses. The average yield ranges from 3-6 tons per hectare. Mountain pastures are also present in Uzbekistan, with different types depending on altitude:

a) Mountain-forest pastures: dominantly composed of brown and meadow grasses, and red fescue. The yield ranges from 10-20 tons per hectare.

b) Mountain-steppe pastures: characterized by shrubs and grasses with variegated leaves. The yield is approximately 12 tons per hectare.

c) Mountain-field pastures: predominantly composed of shrubs.

On pastures and in valleys, there are also harmful and poisonous plants. Harmful plants are those that can cause harm to livestock or have a negative impact on the quality of products. Poisonous plants are considered highly dangerous to both livestock and humans, containing alkaloids, glycosides, and other toxic substances. Harmful and poisonous plants may not be present throughout the entire growing season but can be observed during specific periods. Harmful plants can have thorns and spikes.

Conclusions and recommendations: Pastures have been used for many years, so it is essential to choose plant species correctly and determine the timing and methods of cultivation based on the specific crop. When selecting a crop, priority should be given to plants that naturally thrive in the region. It is also possible to incorporate perennial forage crops into cultivation in agriculture.

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