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Impact of Surface Improvement Measures on Low yielding Summer Pastures on Pasture Productivity and Fodder Quality

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Abstract

In accordance with the natural and geographical conditions of the republic, there are historical traditions of the development of many areas of animal husbandry, especially sheep breeding, using natural resources, summer and winter pastures. 55.1% or 4.77 million hectares of the country's territory are agricultural land, and 54.3% of agricultural land is natural pastures. Our country is one of the countries with limited land resources.

Keywords: *harvest, fodder base, pasture, hay, spontaneous, desertification, introduction, overgrazing.*

Introduction

In accordance with the natural and geographical conditions of the republic, there are historical traditions of the development of many areas of animal husbandry, especially sheep breeding, using natural resources, summer and winter pastures. 55.1% or 4.77 million hectares of the country's territory are agricultural land, and 54.3% of agricultural land is natural pastures. Our country is one of the countries with limited land resources. Per capita there are 0.22 hectares of arable land and 0.58 hectares of agricultural land, while the area of pastures and hayfields is 0.26 hectares. From this point of view, increasing land fertility, protecting pastures, preserving and improving their geobotanical wealth are of particular importance for meeting the needs of the population for certain agricultural products. As you know, pastures are owned by the state. However, due to the untimely implementation by the users of these sites of the necessary measures to restore soil fertility and non-observance of agrotechnical rules during their operation, as well as non-observance of the current rules and regulations in the field of soil protection. in many places there was a washout of humus and nutrients, soil erosion. At the same time, due to the extensive development of animal husbandry since 2000, interest in fodder production has increased, and for the period 2000-2020, the corresponding sown areas have been increased by more than 3.0 times. The increase in acreage for fodder crops in some cases required the use of pastures and meadows, which led to a periodic reduction in the area of pastures and meadows. In addition, global climate change, overgrazing and underutilization of pastures have led to the destruction of these lands. 2 As a special ecosystem, pastures not only play the role of livestock development, but also serve as a forage base for many wild animals. In this regard, pastures have an impact on all areas directly related to this ecosystem. The lack of pastures in the country, as well as

industrial fodder makes the issue of meeting the fodder needs of livestock even more urgent. Along with the production of forage crops, the sustainable development of animal husbandry depends on the current state of natural forage pastures. Given that pastures play an important role as a natural food base, as well as in preserving the environment, their efficient use and enhancing the restoration and protection of degraded pastures are important tasks. In the "State program approved by the Order of the President of the Republic of Azerbaijan No. 222 dated May 22, 2004 on the effective use of summer and winter pastures, hayfields and the prevention of desertification in the Republic of Azerbaijan" and "On the production and processing of agricultural products in the republic, December 6, 2016 - In" Strategic roadmap ", approved by the Decree No. 1138 from the city. In the republic they are working on resolving issues.

Goals And Objectives of The Research

Despite the particular importance of pastures in agriculture, as well as in the protection of ecosystems, their prolonged overload, unsystematic grazing and the lack of measures to improve the territory have led to a decrease in soil fertility, biodiversity and, as a result, to erosion. Overgrazing: for example, while 2.0 million sheep have to graze on summer pastures in Shah Dagh, the number of sheep grazed here is 4-5 times higher than usual.

Overgrazing occurs in mountainous areas (summer pastures) and in middle areas (winter pastures). In pastures, vegetation is replaced by unpleasant or grazing resistant species (eg weeds). The pressure on the environment and pastures is increasing as a result of a reduction in the practice of relocating animals to winter and pasture lands, an increase in the density of animals on pastures, especially in areas where livestock grazing is located close to rural areas. The harmful effects of overgrazing are well known, especially Alltragedia (Hardin, 1968) and the subsequent publication of other publications have made it clear to everyone that overgrazing is harmful. On the other hand, remote and unused or abandoned pastures affect soil properties, change the composition of plant species, and thus affect animal species.

Erosion of biodiversity

Overgrazing leads to degradation of the botanical composition of spontaneous plants and soil erosion. Overgrazing undermines not only plants but also animal habitats, thereby reducing biodiversity.

Degradation of alpine summer nd conducting experiments on the site.

On the experimental field, grass seeds were sown by hand, mineral fertilizers were applied on the field according to options, phenological observations were carried out on the experimental fields. Phenological observations of pasture plants in experimental plots.

Series № Experiments Phases of plant development. Beginning of growing season Branching or branching Buds or thorns

1 Natural pasture (Control) 27.03 21.04 10.05.

2. *Natural pasture + herbal toxin.* sowing (without fertilizers) 13.03 26.04 18.05

3. Natural pasture + herbal toxin. sowing + H30П30K30 17.04 21.04 16.05

4. Natural pasture + herbal toxin. sowing + H45П45K40 20.04 26.04 16.05

5. Natural pasture + herbal tox. seeding + N60P60K40 19.04 25.04 15.05

6.Natural pasture + N30P30K30 18.03 24.03 17.05

7.Natural pasture + N45P45K40 17.04 26.04 18.05 eight.

Natural pasture + N60P60K40 17.02 24.03 18.00

The period from the beginning of the growing season to budding in plants was 58-63 days, in black grass 63 days, in bluegrass - 58 days, in shepherd's hump - 52 days. If we pay attention to the growth of plants, it can be seen that the natural pasture (Control) has an average height of 25 cm in the variant, 28 cm in the second variant, 38 cm in the third variant, and the fifth Natural pasture + grass is full. In the variant of sowing + N60P60K40 these indicators are 47; 44; It was equal to 42 centimeters.

Dynamics of the height of pasture plants in the experimental plots Line No. Variants with average cm per mileage.

1 Natural pasture (Control) 25

2. Natural pasture + herbal toxin. sowing (without fertilizers) 28

3. Natural pasture + herbal toxin. seeding + N30P30K30 38 4

4. Natural pasture + herbal toxin. seeding + N45P45K40 40

5. Natural pasture + herbal toxin. seeding + N60P60K40 47

6. Natural pasture + N30P30K30 44

7. Natural pasture + N45P45K40 42

8. Natural pasture + N60P60K40 41

As can be seen from the table, the height of pasture plants varied within 38-47 cm in variants sown with a mixture of grass seeds. Results of experiments and discussions: The table shows that in 2021, when mowing natural pastures (Control), the average yield of green mass was 26.6 cents / ha, or 6.8 cents / ha of dry grass. In the second option - 30.6 sen / ha or 7.8 sen / ha of dry grass, in the third option - 37.8 sen / ha or 9.6 sen / ha of dry grass, in the fifth - Natural pasture + grass toxicity.

When planted with + N60P60K40, these numbers yielded a dry grass yield of 39.9 billion cents / ha or 10.0 billion cents / ha. Indicators of plant productivity in experimental fields (2021) Queue No. si Variants Green mass Dry grass

1. Area of natural pastures (Control) 26.6 6.8

2. Natural pasture + herbal toxin (no fertilizers) 30.6 7.8

3. Natural pasture + herbal toxin. + N30P30K30 37.8 9.6

4. Natural pasture + herbal toxin. + N45P45K40 38.6 9.7

5. Natural pasture + herbal toxin. + N60P60K40 39.9 10.0

6 Natural pasture + N30P30K30 31.9 8.1

7 Natural pasture + N45P45K40 33.8 8.2

8 Natural pasture + N60P60K40 33.5 8.4

The table shows that according to the average result, if the productivity of the natural pasture (Control) was 26.6 cents / ha of green mass or 6.8 cents / ha of dry grass, Natural pasture + herbal tox. In the experimental variant of sowing + N60P60K40, the yield of green mass was 13.3 c / ha more than the control, and the yield of dry grass - by 3.2 c / ha. EVEN In the case of green mass production or 6.8 cents / ha of dry grass, on average from 26.6 cents / ha when mowing from natural pasture (Control), 5 With the variant of sowing grass seeds (without fertilizers), an average of 30.6 centners of green mass or 7.8 centners of dry grass per hectare was obtained, compared with the control, in the variant of sowing grass seeds + N60P60K40 this indicator averaged 39.9 centners. / ha of green mass or more than 15.0%, which gives the production of 10.0 centners of dry or 14.7% more dry grass. Experimental field studies on pasture improvement have shown that feed is produced in each of the options tested; The provision of green mass and dry grass and their nutritional value were higher than the control. This and di In terms of performance, sowing grass seeds + N60P60K40 was superior to other options and was considered economically viable

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