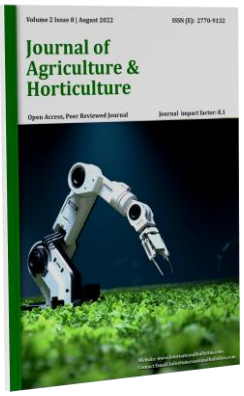

SEED YIELD OF PROMISING PASTURE FORAGE PLANTS

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Abstract. The article describes the features of seed productivity of promising pasture nutritious plants used to increase the productivity of natural pastures.

Keywords. Natural pasture, artificial pasture, species, yield, seed yield, phytoremediation.

Аннотация. В статье дань характеристика семенной продуктивности перспективных видов пастбищных кормовых растений для использования на повышения урожайности природных пастбищ.

Ключевые слова. Природные пастбища, искусственные пастбища, вид, уражайность, уражайность семян, фитомелиорация.

Actuality of the theme. It is known that the largest share of Uzbekistan's land area (20.6 million ha) is covered by natural pastures, and they are the main source of food for the development of animal husbandry, which is considered an important sector of the national economy. In particular, the pastures of the desert and hilly regions are included in the category of pastures used for cattle breeding, camel breeding and goat breeding almost all year round. 95% of the annual feed requirement of livestock is covered by natural pasture plants. While natural pastures are cheap, convenient and year-round areas, they have very low nutrient reserves (1.5-3.5 quintals/ha) and are highly variable between years and seasons. Another characteristic of natural pastures is that the nutrients in them decrease from spring to winter. Also, as a result of the use of pastures without observing the necessary procedures (indiscriminate use of bush and semi-shrub species for vital needs, geological exploration, use of underground mineral resources, overgrazing, etc.), nutritious species are becoming rare, and their place is being replaced. species with low nutritional value and productivity are taking over, that is, the crisis of pastures is getting worse. [2]

Therefore, it is a very urgent task to increase the productivity of pastures based on the use of promising pasture nutritious plant species that are resistant to drought and salty soil conditions, fertile, with valuable nutritional properties, and to enrich their composition with new plants.

Quality seeds of promising pasture forage plants are needed to improve the condition of natural pastures. Seeds prepared from natural pastures are usually of poor quality, and due to the scattered and sparse distribution of plant species, there are some difficulties in seed preparation. Therefore, in order to improve the condition of natural pastures, the first task is to establish the seeding areas of promising pasture nutritious plants. Since the seed production of pasture nutritious plants is established in extremely arid soil-climatic conditions, it is necessary to develop a system of special agrotechnical measures. [3]

Research source and methods. As a source of research, the characteristics of growth, productivity and seed collection of species in the field of pasture nutritious plants consisting of light gray soils, semi-shrubs, and perennial grasses of Nurota hills are calculated.

Planned field experiments, phenological observations, biometric measurements, collection of seed reserves of plants and other series of problems were carried out on the basis of the use of methods generally accepted in plant science [1] and other methodological guides.

Experimental results and their evaluation. The experiments were conducted at the "Nurota" experimental field of the Research Institute of Karakollik and Desert Ecology. As a result of long-term scientific research, drought-resistant, fruitful and nutritious plant species rich in valuable nutritional properties were selected, and their seed storage processes were studied. It was also decided to carry out phytomelioration works in natural pastures based on the seeds collected from this seed production field.

This experimental field is located in Nurota district of Navoi region. The climate is very variable. The average annual temperature is 16.50C. Average annual precipitation is 206 mm. The soil is a light gray soil, and according to its mechanical composition, it is a loamy soil.

In January 2020, the seeds of the promising types of pasture plants (yzen, teresken, chogon, kuruvuq, male grass) were planted in the seed areas of the experimental field. Sown seeds sprouted in April of this year. The number of plants per hectare was recorded as follows: izenda-15400, tereskenda-13600, chogonda-11500, kuruvukda-14200 and male grass-18700. It is known from previous studies that pasture forage crops have their highest yield and seed set in the third year of vegetation, and yields in subsequent years may be lower or higher than average yields depending on weather conditions. It was noted in the experiments that the parameters of plant growth, development, hay and seed yield are high in all years. Izen, teresken, chhogon, and kuryvuq entered the generative phase in the first year of their vegetation.

As can be seen from the table data, high seed yield of plants is recorded in the third year of their vegetation. The highest rate was observed in izen, 102.6 kg of seed yield was collected per hectare, and it was found that this rate was 75.2 kg in teresken, 97.5 kg in sorghum, 79.1 kg in kuruvuk, and 76.4 kg in male grass. These values are high for pasture forage plants grown in arid conditions.

Seed yield of pasture forage plants.

т/р	Plant species	Seed yield of plants, kg		
		1 (2020)-y	2 (2021)-y	3 (2022)-y
1	Izen	6,3±0,2	51,4±2,5	102,6±4,3
2	Teresken	4,8±0,1	32,7±1,8	75,3±3,6
3	Chongon	7,6±0,3	43,8±1,9	97,5±4,1
4	Kuruvuk	5,1±0,2	39,2±1,6	79,1±3,5
5	Male grass	-	3,6±0,1	72,4±3,2

Conclusions. 1. It has been proven that it is possible to establish high-quality, productive seeds by establishing primary seedbeds based on the use of promising types of pasture nutritious plants.

2. A high seed yield will be collected continuously for 20-25 years from the established seed production areas. As a result of the establishment of artificial pastures from cultivated seeds, the productivity of pastures increases, and natural pastures are enriched with new nutritious species.

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