

## Selection of "Selection" Sources from Harvesting Varieties According to Hills Conditions

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**Annotation:** The article describes the feasibility of selecting promising sources of selection of grassland forage species suitable for hills and their use in the phytomelioration of hill pastures.

**Key words:** pasture, hill, pasture forage plants, phytomelioration, yield, species, pattern, variety, astragalus.

**Relevance of the topic.** Natural pastures play an important role in the development of animal husbandry, which is an important sector of the economy. In recent years, the pasture crisis has been exacerbated by many negative factors, such as deteriorating environmental conditions, global climate change, and irregular use of natural pastures without following certain procedures. This is especially the case in the densely populated Adir region.

This situation requires the selection and introduction into production of promising forage species that increase the productivity of pastures suitable for the conditions of adyr pastures. Such plants include astragalus.

The astragalus family is rich in plant species, with more than 2,400 species known on Earth. 988 species of astragalus have been described in the CIS [3]. Of the 600 species growing in Central Asia, 350 are endemic. 254 species of astragalus grow in Uzbekistan. 14 of them are included in the Red Book of Uzbekistan. In the flora of Nurata, there are 42 species of astragalus, 4 of which are endemic to this region.

Astragalus is a grassland and hay plant that uses spring rainfall to harvest 15-20 ts / ha of hay during its short vegetation (110-115). Also, astragalus seeds do not lose their germination ability for 20-30 years or more [1].

In the experimental field "Nurota" of the Research Institute of Karakul and Desert Ecology (1983-1990) created a "living" gene pool of 51 specimens of 19 species belonging to the genus Astragalus. As a result of the first research work, Ogamed astragalus, which is characterized by drought tolerance, fertility and valuable nutritional properties, was recognized as promising. Particular attention was paid to the study of its nutritional value and nutritional value.

On the basis of the decision of the State Commission on Agricultural Variety Testing 2006257 of 2006 (certificate №410) "Desert pasture crop astragalus" Oqtog "has been selected and included in the state register of permitted agricultural crops" (2014-8).

Thus, given the abundance of species of plants belonging to the genus Astragalus, which grow in different soil and climatic conditions, rich in protein compounds and nutrients, and finally little studied as a food crop, the cultivation of their species and the creation and production of new selection varieties is of practical importance.

**Research sources and methods.** The source of the study was the light-gray soils of the Nurata hills, ephemeral and ephemeroide-type pastures, and hay and meadow species of astragalus.

Planned field experiments, phenological observations, biometric measurements, assessment of economic characteristics of plants were carried out on the basis of introduction and selection of plants and the use of generally accepted methods in botany.

Research results and their analysis. It was conducted in the experimental field "Nurota" of the Research Institute of Karakul and Desert Ecology. As a result of many years of research, it was found that the species of astragalus are spherical, deer, cotton, velvet, sivers are promising, and their scarified seeds were planted in the first cultivar. As a standard, the astragalus variety "Oqtog" was used.

Astragalus enters the period of maximum growth, accumulation, harvest in the third year of its vegetation, as well as the number of tubers in the stalks remains almost unchanged. Growth, accumulation, hay harvest in subsequent years may be less or more than the average, depending on climatic conditions.

One of the most important indicators of the economic characteristics of pasture forage plants is their thickness and viability in the account plates. From the data in the table it can be seen that the thickness of the astragalus in the account plates is normal. Studies in Adir have shown that the highest survival rate of astragalus species was observed in the spherical species (87.1%) and the survival rate of other species was 76.8-84.6%. These indicators are high for pasture forage plants growing in extremely arid conditions and indicate that the selected species are plants suitable for arid conditions.

Astragalus is a plant with a short growth period, ending its vegetation in late June. It grows and develops rapidly due to the effective use of spring precipitation. Their height in the third year of vegetation was 65.3–93.2 cm across the species, and the highest rate was observed in spherical astragalus.

**Economic characteristics of the first varieties of astragalus in the nursery. 3rd year of plant vegetation (2021)**

№	Types of astragalus	Survivality	The height of the plants, cm	Pichan yield, c/ha
		The number of plants in the picture given in one thousand/ha, and donominator in %		
1	Astragalus "WhiteMountain" variety	$\frac{13,6 \pm 0,6}{82,4}$	79,4 $\pm$ 2,3	15,9 $\pm$ 0,6
2	Spherical	$\frac{16,1 \pm 0,9}{87,1}$	93,2 $\pm$ 3,6	18,1 $\pm$ 0,8
3	Kiyikpanja	$\frac{14,3 \pm 0,7}{84,6}$	86,5 $\pm$ 3,7	16,3 $\pm$ 0,7
4	Cotton	$\frac{13,6 \pm 0,8}{78,9}$	69,8 $\pm$ 2,5	13,2 $\pm$ 0,4
5	Bakhmalsimon	$\frac{13,3 \pm 0,5}{76,8}$	65,3 $\pm$ 2,4	13,8 $\pm$ 0,6
6	Sivers	$\frac{14,5 \pm 0,6}{80,1}$	74,2 $\pm$ 2,6	15,7 $\pm$ 0,5

Data from a study of the harvesting process of astragalus in hilly conditions showed that in the third year of their vegetation they harvested 13.2-18.1 quintals of hay per hectare across plant species. The highest rate was recorded in the spherical round of the astragalus. This species has been planted in a competitive varietal nursery since 2021.

**Conclusion.** By introducing grass species of astragalus into production, pastures are enriched with protein-rich plant species, increasing productivity by 4-5 times. Given that astragalus planted once on lalimikor land yields high hay yields at no cost over 12-15 years, farms will be provided with guaranteed fodder, leading to an increase in livestock hooves.

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