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FORESTS OF UZBEKISTAN

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ABSTRACT

This article provides information on the distribution of species of alfalfa (Alhagi), their economic importance, the current state of the species in Uzbekistan, eco-biological characteristics, methods of reproduction, the creation of artificial alfalfa and ways to radically improve the crisis alfalfa.

Uzbekistan is located in the central and northwestern part of Central Asia. The total area is 448,900 km², of which 425,400 km² (95%) is land. 80% of the land is desert and semi-desert. It borders Kazakhstan, Kyrgyzstan, Turkmenistan, Tajikistan and Afghanistan.

According to the United Nations, Uzbekistan is one of the countries with water shortages.

Entering the arid region of Uzbekistan, most of the year is hot, dry and cloudless.

The climate is sharply continental average temperature in January It will be 4-8 OS degrees, + 22-26 OS in July. The average annual rainfall is 90-400 mm in the plains and 460-910 mm in the mountains. is formed. Despite the fact that Uzbekistan has a large number of areas with unfavorable climates for the development of apple orchards, this region has a rich flora in the process of historical evolutionary development and adaptation, as evidenced by the presence of more than 4,800 species today.

Many species are useful for nature and human life and are of great importance in the national economy. The study, reproduction, rational and proper use of such plant species and their preservation for future generations is one of the most pressing issues facing humanity today.

The study of embryology of flora, monitoring of endangered cenopopulations, introduction of useful local flora species, creation of their collection nurseries, placement of plant seeds in special gene banks are among the urgent tasks of today. [1]

In particular, it is important to identify in a timely manner the crises observed in the natural communities of plants as a result of anthropogenic impacts on the environment and natural ecosystems, to accurately assess the response of plants to changing ecological and xenotic conditions and to make scientifically sound recommendations for selection. [2]

The laws and decisions adopted by the Government and the Ministry of the Republic to protect nature and the diversity of flora and fauna show that the state is not indifferent in this regard. On April 1, 1998, the Cabinet of Ministers approved the "National Strategy and Action Plan for the Conservation of Biodiversity of the Republic of Uzbekistan." It sets the task of creating a system of protected natural areas in the Republic, the widespread use of environmental education among the population and the use of advanced and cost-effective technologies for the efficient use of natural resources.

After the independence of the Republic of Uzbekistan in 1995, a number of exemplary works were carried out in our country to implement the guidelines of the Convention on Biological Diversity. In particular, the Law of the Republic of Uzbekistan "On protection and use of flora and fauna" of 1997 was adopted. functions are defined.

Each representative of our flora has its own place and character. Many species of the medical world of the Republic are valuable plants that provide valuable fodder, raw materials for industry and agriculture. One of them is the sage plant.

Yantaq (Alhagi) is derived from Arabic and means pilgrim. Pilgrims who had traveled through the difficult path of Mecca for months and years used for their needs (manna, water, hay, and food), a common plant on the roadsides, and called it a gift from Allah. [22]

Scientific classification of sagebrush:

section: magnoliophyta

class: magnoliopsida

mode: fabales

family: fabaceae

category: alhagi

scientific synonymy: *Alhagi maurorum* auct.p.p.

According to the database, the category includes 7 species:

- **Alhagi canescens* (Regel) B. Keller Shap
- **Alhagi kirghisorum* Schrenk
- **Alhagi pseudalhagi* (m.Bieb) Desv.ex B. Keller Shap.
- *Alhagi sparsifolia* Shap.
- **Alhagi persarum* Boiss
- *Alhagi maurorum* Medic.

Four of the seven species * occur in the Republic of Uzbekistan. Yantak species are widespread in most states and territories of the globe. In all the republics of Central Asia, in the southern European part of Russia, in the Caucasus, in the deserts of Iran, Afghanistan, the United Arab Emirates, Azerbaijan, Asia Minor, Korakum, Kizilkum. The *Alhagi maurorum* species is widespread and occurs in 4 continents of the globe [26].

The ability of the *Alhagi* family to adapt to arid conditions, as well as the superiority of its ecological, biological and physiological processes in the occupation of such large areas.

The modern center of origin of the representatives of the *Alhagi* family (5 of 7 species) were identified as Central Asian.

Depending on the life form, scientists classify it into different groups: chamaedry (5); rough shrub (4); half bush (6).

In our opinion, sagebrush species are herbaceous long-stemmed stems, thorny perennials, strongly woody-stemmed, and drying to the surface base (gemiscryptophim). [7]

The literature data and our observations show that all species of alfalfa have a high adaptation to soil conditions. In nature, yantak is found in many types of soils: sandy-loamy, loamy, stony and gypsum, gravelly, light-gray, ice (these soils form the basis of desert and semi-desert areas). Yantak species are the dominant edificator, soedificator and participant in the plant community (complex) of Uzbekistan. In nature, this plant has no significance when observed from the outside. Looks like an unnecessary plant. After watching Lyokin closely, you will recognize that she is the queen of the desert after learning the historical sources, the many laboratory tests conducted, and the multifaceted economic significance. Yantak has been known to people since ancient times for its versatile beneficial qualities. Its history is associated with the first formation of desert and semi-desert cattle. Indigenous people began to use this plant as fodder in absentia. Many world-renowned botanists have praised the oak plant. It has been included in the list of promising, multi-faith plants, and experiments on it should be a key part of the work of Central Asian research institutes. [8]

Among alfalfa species, *Alhagi Pseudalhagi* is the most valuable in terms of nutritional quality. Its green mass is 12 to 100 ts. hectare, and the hay is 6 to 40 ts. hectares. Yantak species are widespread and occur in all regions of the country (deserts, semi-deserts, hills and foothills).

Honeysuckle is a necessary raw material in the preparation of honey, essential oil, vitamins, dyes and medicines, soft drinks. In addition, sage can be widely used for food purposes, in nitrogen enrichment of soils, strengthening of loose sands and soil erosion. Lyokin yantak is of great importance as a valuable fodder plant for both desert and semi-desert cattle. The medicinal properties of yarrow are also high, it is used in the treatment of the following diseases: cough, colds, dizziness, headache, rheumatism, diuresis, toothache, dysentery, diarrhea, ulcers, trauma, hemorrhoids, gastrointestinal and gynecological diseases (Sinelnikov N.A., 1965).

Tea made from the flowers, stems, and roots of the yantak protected nomadic herdsmen from the extremely strong solar radiation of an entire trade caravan on a journey. In Afghanistan and in extreme conditions, ammunition was used to protect soldiers from infectious diseases.

The main wealth of yarrow is that it has antibacterial and excellent energy properties, it is used in the treatment of serious diseases such as staphylococcus, streptococcus, dysentery, diarrhea. It is effective in colds and is an excellent hepatoprotective and antioxidant. Due to its cervitamin (A, C, E, and R) it can be used to boost immunity. It does not lag behind the routine in its influence. Extract made from yarrow prevents people from aging and rejuvenates the body. [9]

Eight flavonoid components of the *Alhagi pseudalhagi* species of yantak have been found in Azerbaijan. [10] These biologically active substances, which have identified 10 types of flavonoids in Uzbekistan, are waiting for their place in modern pharmaceuticals [11]. It has been found that yarrow contains important biologically active substances that treat various diseases, including the prevention of pulmonary tuberculosis. This fact necessitates the inclusion of yarrow in the list of herbs recommended for complex therapy in the treatment of pulmonary tuberculosis. [12]

Alhagi kirgisorum type of yantak is included in the pharmacology of the Republic of Kazakhstan, it is considered to be a desert doctor. Prepared tinctures and teas are used in the treatment of many diseases. [13]. Abu Ali ibn Sina, the great sage and medical scientist (Avicenna), in his works mentions a lot about the magician's manna. Manna's real name is Tarandjubin. In ancient times it was used not only as a sweetener but also as a universal medicine.

In nature (Nurata district) we have seen the formation of sugar grains (manna) on the thorns of the *Alhagi pseudalhagi* type. Yield is 2–4 g per bush plant. 15-20 kg per hectare. manna is formed. Manna production depends on the season and climate of the year. Manna crystals look like ordinary sugar, the color is light yellow, the taste is typical of honey. *Alhagi persarum* is good for manna production. [14]

It is known from the history of ancient Khorezm that yantak was used in the baking of high-strength bricks. Such bricks were used in the construction of towers, mosques, domes, wells and defensive walls. Here is another interesting fact. Jacques Yves Cousteau, a world-renowned French underwater researcher, chose honeycomb honey for his staff who worked in harsh conditions under long distances after many tests. [15] Many experienced beekeepers say that the king of the honey world is a diamond-colored honey made from the amber flower.

In Uzbekistan, Turkmenistan and Tajikistan, natural watermelons are also used to grow watermelons. This method is mainly used in areas with poor water supply. In early spring, in late March and early April, watermelon seeds are planted in the middle of the ice, and watermelon seeds are planted and tied. Watermelons grown in this way are a market bob, distinguished by their unique juice and taste. These watermelons are medicinal and are a popular method in cleaning the mine and treating kidney disease. Yantak has surprised many people with its extremely strong viability (adaptation) and tolerance. The Arabs, seeing the yantak growing in extremely uncomfortable natural (extra arid) conditions, described it as "a head on fire - a foot in water." In nature, it has been observed that the alfalfa plant has not lost its viability even after being submerged for 6-7 months [16].

In flooded areas, plant vegetation lasts 3.5-4 months. They are short and do not bloom. It is well known that under such conditions, most algae cannot or

will not grow. Yantak can withstand not only the abundance or scarcity of water, but also is very resistant to hot climates. In the desert, semi-desert and hilly regions of the country, with the approach of hot summer days, ephemeral, ephemeroïd and perennial vegetation begins to wither. From this period onwards, the growth and development of the yam intensifies. With the arrival of summer, the deserts turn yellow. The orchards are reminiscent of a lush oasis in such arid areas.

In some areas of the desert, the temperature in the sand reaches 70-73 degrees Celsius. Even so, owning one is still beyond the reach of the average person. As a result of the fire, plant cover in nature is destroyed. But in these areas, soon the saplings begin to grow again and occupy the area as the first. The energy of forgetfulness in the stalks is so strong that it is 5-10 cm. asphalt, 40-70 cm of soil.

Another feature of Yantak is that it improves the water regime of the soil by lowering the water level in areas where groundwater is close and often flooded. It is also involved in the function of natural living drainage in nature. Due to the fact that the plant is of humid origin, the demand for water supply is high. A bush can light up to 2.5 liters of water throughout the day. Using this unique physiological process of yantak, it is possible to obtain 2-2.5 liters of healing chankokbosti liquid per day by means of a 1x1 meter polyethylene bag closure in desert conditions. One hectare of saplings has the ability to absorb 350 tons of groundwater and evaporate it. With this feature, it participates in the water cycle that occurs in nature. The fact that the soil moisture around the root of the sapling is 2-3% higher means that it has a positive allapathy. Due to the fact that it is a legume, its multi-branched roots have been found to contain nitrogen-fixing nitrogen-fixing bacteria. Yantak can accumulate up to 200 kg of nitrogen in the soil per hectare. This indicator means that it enriches the soil with mineral fertilizers and improves its reclamation condition. 2 m from Yantak. nitrogen bacteria were also found in the deep part. Therefore, in ancient times, dehkans used the fallow lands effectively in the development and cultivation of lands. Yantaks are also a green fertilizer that enriches the soil with organic matter. Yantak is 25-27 cm in June. One hectare of arable land can be provided with 10-15 tons of mulch, ie organic fertilizer. With this method it is possible to improve the reclamation of lands, enrich its composition. The rapid vegetative propagation of sorghum means that it can be used as a green manure (cedar) once every 2-3 years. In Kazakhstan, work has begun to use these properties of yantak on a scientific basis. It is scientifically based to obtain biohumus - an organic fertilizer that is environmentally friendly. In the production of such biohumus was used the earthworm *Eisenia fetido*, which is found in the canopy. Obtaining such biohumus is very inexpensive and can be used to improve the reclamation of desert soils with low soil fertility [21]. Thus, alfalfa, along with other features, is one of the best phytomeliarators for arid and semi-arid regions of the country. Yantak stalks are also used to protect railways and highways from sand.

The fact that amber is an effective anti-radiation agent means that it has universal significance [19]. The flower is rich in carbohydrates and has a sweet taste, so it was consumed by young children. In the desert areas, where there is no firewood, sawdust is also well used as firewood.

Despite its versatility, usefulness, and being a natural gift to humans, the use of yantak is low and does not meet today's demand. Industrial and pharmaceutical use has not been established, but yantak has long been a fodder base for desert cattle, and today it is used mainly for this purpose.

Observations over the last 15-20 years show that its natural area and productivity are declining. The deterioration of fallow lands due to anthropogenic, man-made, impacts and unplanned use will complicate the future development of karakul, sheep and camel breeding in the arid regions of Uzbekistan and other Central Asian countries.

Our observations in the forests of a number of regions of Uzbekistan have shown that it is in crisis to varying degrees. Methods of increasing the productivity of such areas require a special approach. In the first case - a way to preserve natural vegetation cover, in the second - a way to create agrophytocenoses by enriching natural forests with valuable, fertile forage plants. Our scientific research was carried out in Nurata and Forish Gallaorol districts, which are considered to be desert areas of the republic, to study the condition of natural forests, increase their productivity and create artificial pastures and agrophytogenesis. (1980-2015) plant antogenesis, phases, seed germination, etc. were studied by classical methods adopted in general geobotany. (17).

A comprehensive approach to the study of saplings of Uzbekistan has allowed to know the role of sapwood species in the formation of cenosis, phytocenotic diversity and the current state of plant communities. All 4 species distributed in Uzbekistan participate in the formation of a dominant, subdominant and other various natural-territorial complex (CTC) cenoses as a component. Yantak communities occur in different altitude belts (chul, adyr, mountain) and in psammophilic, gypsoril, tugai, ephemeral, kuruksavan, xerophilous trees and shrubs, mountain deciduous forest types. The most favorable conditions for the formation of sedges are tugai, which is usually dominant or subdominant. Of the 79 teams, 47 were dominant. According to our and literature data, 40 associations were observed in the Alhagi pseudalhagi formation, 19 associations in the Alhagi kirghisorum formation, 11 associations in the Alhagi conescens formation, and 9 associations in the Alhagi persorum.

The composition of the flora of fallow lands differs significantly in different natural-territorial complexes (TSCs). In the lower reaches of the Amudarya, there are 40 to 70 species in the community, 20-30 species in the fallow Gallaorol district and only 15-20 species in the semi-desert Nurata district.

In terms of phenology, the species are close to each other. It begins to grow from the first half of April, the period of intensive growth of vegetative organs is April-May, generative formation is the end of May, flowering is from the third decade of May until frost, seed ripening is September-October. In the coming years Sernam can be used as pasture after harvesting the saplings once.

The most important factor for the survival of plants in the desert area we are studying is the water supply (water factor). Yantak's demand for water has not been well studied, so it has been included in various scholars, different groups. Coastal plant, hemixerophyte, groundwater-rooted xerophyte, thin-leaved xerophyte, semi-xerophyte, mesophyte, phreatophyte and others. Thus, the adaptation of alfalfa to dry and hot climates is due to the fact that

it has a strong arrow root (hemicserophyte) that reaches it and groundwater [18]. Along with its strong roots, thorns, small leaves, and the ability of the stem to turn white, condensation of moisture from the evening misty air, and its ability to become aphids also play a role in the comfortable growth of yantak in extra-arid conditions. The aphilic state occurs on hot summer days in gypsum soils, i.e., the aphids respond to the water tank with a certain amount of leaf shedding.

In the literature, various data on the depth of the sap root are known 10, 20-30 meters, and so on. We observed that in desert conditions (Nurata) it fell to 18 meters in wells. There are reports that during the construction of the Suvaish canal, a 33-meter-long root of the yantak was excavated. This is not the limit yet. In the Kizilkum desert, its roots can reach 45 meters (which means a house of about 15 floors). Along with the intensive use of forests, there is an interest in their methods of reproduction.

In nature, sagebrush is propagated in two ways: vegetatively and from seed (generative). However, in nature, it is mainly propagated vegetatively (96%). In our observations, we were able to find seedlings that germinated from seed in nature. The incident took place in late May on the shores of Lake Oktom in Khorezm region. Sprouted seedlings belonged to the genus *Alhagi canescens*, ranging from 3 to 14 per 1 m². As for the naturally growing saplings, the soil is sandy, the humidity is 20-25%, the temperature during the day is + 35-45 C, and at night + 15-17 C.

This confirms that alfalfa is another tugai plant by origin and suggests that high temperatures and humidity are required for its germination (7).

Along with the developed arrow root, there are also developed lateral (horizontal) roots. Side roots can be from 2-3 meters to 20-30 meters, depending on growing conditions. It was found that the depth of propagation of lateral roots depends on the level of groundwater. For example, in the Khorezm area, where groundwater is at a depth of 1.5-2 meters, the horizontal roots are mostly 20-30 cm. groundwater was found to be 0.80-2 meters in the Nurata section, which is 18-25 meters.

Yantak is a species strongly adapted to the method of vegetative reproduction, during the millennial development. Therefore, the process of regeneration of lost organs is very strong and fast.

Under the influence of man-made, anthropogenic and other methods, from 1 to 4 new plants can emerge from the cut root.

Thus, in some cases, agro-technical measures to eliminate alfalfa, which is found as a weed in cultivated crops, can lead to its increase. That is, tillage weapons cut the underground organs and call for forced reproduction. However, its biological rivalry is not noticeable, even though it is a weed in cultivated plants. Experienced dehkans try to plant some plants (peas, moss, beans, watermelon) in the fallow fields. The number and weight of ephemeral plants growing under natural saplings in natural meadows was found to be 10-15% higher.

Yantak root is 20-30 times longer than the above-ground part, and its underground area can reach from 100 m² to 500 m².

We were not fortunate enough to have a precise definition of the life cycle of the horizontal and vertical roots. At least in our opinion, it has been operating for more than 25-30 years.

In order to determine the optimal options for vegetative propagation by the method of pruning vertical and horizontal roots, we conducted a series of experiments. The cuttings are 10 cm long and are made from the upper part of the stem. The cuttings were planted in 10 different variants depending on the depth obtained. (0-10cm, 10-20cm, 20-30cm, 30-40cm, 40-50cm, 50-60cm, 60-70cm, 70-80cm, 80-90cm, 90-100 cm.). All the variants in the experiment were fully developed and formed roots and stems. But there were differences in growth between the options. In the experiment, intensive development and multi-stem formation were observed in cuttings taken from the upper (0-20 cm) and lower (60-100 cm) part of the root. At the end of the first year of vegetation, the stems sprouted from cuttings planted from the upper part of the vertical root were 34-41 cm in height, while the lower parts were 30-39 cm and there was no significant difference. Seedlings entered the generative phase of antogenesis at the end of the second year.

In order to find out the ability of the sapling to regenerate, that is, to restore the lost organs, when we cut the root to a depth of 3-4 meters and cut it into cuttings, a new tula-shaped plant grew from both the cut and the cuttings. This feature of Yantak requires him to use new special techniques in the fight as an alien ut.

Thus, the experience of propagating the subterranean organs of the sapling provides ample opportunity to create stems that are interesting for practice (leafy, low thorny, sugar, honey-giving and high-yielding forms, stamps. limited due to the high soil moisture and temperature requirements.

Methods have been developed to scar the seeds of sorghum with concentrated seric acid and increase its fertility to 96-100% in laboratory and field conditions (23). The seeds are small, kidney-shaped, brown and reddish in color, 1000 seeds weigh 3.5-5.0 g.

Oatmeal is a macrobiotic for maintaining fertility (vital activity) (24). P.O. According to Gushin, the fertility of *Alhagi conescens* was 38 years (25). Our experiments have shown that its longevity is 110 years longer (hypermacrobiotic).

Our agro-technical measures on seed production, ie creation of artificial pastures, have yielded the following results.

In conclusion, we have achieved the following results on the basis of many years of agro-technical experience in the field of seed production and the creation of artificial pastures. For optimal growth and development, seeds are sown to a depth of 2-3 cm, row spacing 1 meter, sowing norm 3.5-4 kg / ha, soil moisture 15-17%, temperature above 20-23 degrees, sowing period March-April should be. Under these conditions, it is possible to get rich crops by establishing artificial grasslands in areas with similar conditions. For example, in areas with an annual rainfall of more than 300 mm (Tashkent and Gallaorol), saplings are well developed and in the second year 10-15% of generative organs are formed and bloom. The flower is an exotic pollinating, entophilous plant. Flower formula $K(5) T(2+2) Ch(9) + 1U1$. It blooms from late May to September. The duration of flowering of a single flower is 3-7 days. The study of the reproductive function (fertility) of the species is of great theoretical and practical importance. Established saplings form a dry mass of 30-40 ts / ha at the end of the growing season in 3-5 years. As we mentioned above, in recent years, as a result of external influences and unplanned, intensive use of natural forests, useful plant species and habitats

in these areas are declining and facing desertification. Environmental pollution is one of the biggest problems of our time.

The data obtained indicate that, in general, the number of species of woodpeckers is poor and sparsely populated, and that the animal is contaminated with plant species that eat and do not eat well.

These are mainly *Phlomis*, *Eremostachys*, *Artemisia scoparia*, *Artemisia feucodes*, *Psoralea drupacea*, *Convolvulus subhirsatus*, *Centaurea squarrosa*, *Goebelia pachycarpa*, *Peganum harmola*, *Ceratocephalus falc.*

The methods of such use have a significant effect on the condition of the forests. Therefore, it is necessary to organize it wisely when working to improve the crisis. However, the use of improvement gives good results if it is organized in a manner, and the process of degradation of the canopy stops. Surprisingly, no work has been done on the scale of Central Asia to improve the composition and improve the quality of pastures, which are well known as farms and mainly as fodder.

We chose a different approach in this regard, as it was difficult to establish artificial turf from seed in the Chul region due to the difficult climatic conditions. Due to the strong regeneration process of the alfalfa plant, we aimed to plant high-yielding plant species in the desert and semi-desert areas by removing the non-compliant (potential) requirements. To do this, the fallow lands were plowed to a depth of 23-27 cm (autumn and winter) and fodder crops were planted that could grow in the fertile desert conditions (in December-January.) In this way, instead of losing low-quality plants growing in the fallow lands, forage species develop. New saplings sprout from the roots in late May. At this time, the planted plants reach a height of 15-30 cm. In this case, saplings do not create competition for the plant species.

We have selected and planted the following drought-tolerant, high-yielding plant species that have been tried and tested in practice by radical scientists to radically improve the declining, low-yielding orchards and turn them into fertile pastures and hayfields. From the genus *Chenopodiaceae*, leafless or black saxaul (*Haloxulon aphullum*), (Minkw), (Iljin), *Everesman tereskani* (*Ceratoides ewersmanniana*), (Stschegl. Ex Losinsk.) Botsch. Et Ikonn) (*Halothamnus subaphyllus* (C.A.Mey.) Botsch.). Green izen (*Kochia prostrate* L.) Schrad. Subsp. *virescens* (Fenzl) (Pratov), keyreuk (*Salsola orientalis* S.G. Gmel.). Balikkuz (*Climacoptera Lanata*), (Pall Botsch). From the family *Asteraceae* - Fergana wormwood (*Artemisia ferganensis* Krasch.ex P.), Crusaders (*Brassicaceae*), Kochi tar (*Crambe kotschyana* Boiss.).

All the plant species we planted and tested on the improvement of the encroached birch trees on our side passed the tests well and proved to be effective. The yield of thus created agrophytocenoses is 5-15 times higher than the yield of undeveloped natural phytocenoses (15-45ts / ha). 100 ga. it has been proven that it is possible to graze an additional 200 to 800 sheep on improved fallow pastures.

In the arid desert and semi-desert (extra arid) areas - is the only plant with the longest vegetation, intensive rapid growth after grazing, producing silage and hay. Intensive development of desert livestock without improving pastures is a challenge.

Given the proximity of desert areas to the process of desertification, it is appropriate to consider these areas at a time when attention is being paid to the conservation of biodiversity.

Conservation of the desert gene pool, biological species and the ecosystems that form it is an urgent potential resource. Biodiversity conservation is an important source of life for the world community and for any country today. Its maintenance and efficient use are necessary for crisis-free development.

References:

Belolipov IV, Tukhtaev BY, Karshibaev HK: Methodical instructions on carrying out research work on a subject "Introduction of plants". Guliston, 2015, 32 pages.

Madumarov TA - Rational use of plants in the protection of biodiversity - the need of the hour, "Plant life strategies and the process of reproduction." Proceedings of the Republican scientific seminar on Guliston -2016, page 5.

National Strategy and Action Plan for Biodiversity Conservation of the Republic of Uzbekistan. Tashkent, 1998, -133 pages.

Shermatov G.M. Alhagi Gagneb. - yantoq, verblyujya kolyuchka, «Opredelitel rasteniy Sredney Azii». - Tashkent. 1981. T.6.- S. 321-322.

Sinkovskiy L.P. Novye kormovye rasteniya dlya uluchsheniya pastbishch pustyn i polupustyn // Pastbishcha i senokosy SSSR-M .: Kolos, 1974.-S. 409-422.

Allayarov I.- Ratitelnost i rastitelnye resursy Severo- Zapadnogo Uzbyokistana // rasprostranenie poleznyx rasteniy O'zbekistana. - Tashkent. 1976. Vyp.2.str.77-380.

Mavlanov X. Yantachniki Uzbekistan i puti ix optimization. "Dissertation for the study of the degree of doctor of biological sciences." Tashkent- 1997.

Larin I.V. (i dr) - Estestvennye normy Yuga-Zapadnogo Kazakstana._ M .: An SSSR. 1929-364 p.

Arutyunyan T.V. Extract verblyujey kolyuchki «Bulletin eksperimentalnoy biologii i meditsiny. - 2014.- T.158, №8. - pp. 186-189.

Navruzov Z (i dr.) Plant resources - 2010. - T.46 p.92-98.

Nishonov S. Chemistry rastitelnogo syrya. - 2017.- №1.- p.77-83

Fedko I.V. - Perspektiva ispolzovaniya verblyujey kolyachki v meditsine. Bulletin of Zabaykalskogo gosudarstvennogo Universiteta. - 2013.-№ 6 (97). - s. 86-89.

- Kuxtenko I. (i dr) - Issledovanie gustyx ekstraktov verblyujey kolyuchki (elektronnyy resurs) // retsept.- 2016.-№4.s.19-25. [https:// rucont ru / etd / 502-170](https://rucont.ru/etd/502-170).
- Korotkova E.E (i dr.). Yantoq i ego saxaronostnost.- Tashkent: Komitet nauk UzSSSR.1937.-p.59.
- Yakubov Faxriddin. Agraru, com / samye- luchshie-sorta-myoda.Agroinfo 27.07.2019. (gench.honey @ gmail.com).
- Keller B.A., Shaparenko K.K. «Materials for sistematicheskoy ekologicheskoy monografii roda Alhagi Tourn. Ex Adans./ Sov. Bot. № 3-4, 1933.
- Gost 12036-66, Gosb 12047-66. Izd-vo Standartov, 1966, 3-10p.
- Verblyujya kolyuchka obyknovennaya // [http: klumba. info / flowers / alhagi pseudalhagi / htm](http://klumba.info/flowers/alhagi-pseudalhagi/htm).
- Rasteniya verblyujya kolyuchka // [http: //www.rasteniya-lecarstvennie.ru/358-rasteniye-verblyuzhyakolyuchka.html](http://www.rasteniya-lecarstvennie.ru/358-rasteniye-verblyuzhyakolyuchka.html)
- Abu Ali ibn Sina (Avicenna) Kanon vrachebnoy nauki (tom1-6.-Tashkent). 1979-1982.- p. 550-832.
- Jakaeva J.M. , Alibaev N.N. - development of biohumus in the desert and semi-desert zones of Kazakhstan / international journal of applied and fundamental research. - 2016.- № 5 (chast1) - C. 83-85
- Sokolskiy «Nakazanie dlya greshnika i otrada dlya berblyudov // rasteniya iz sadov Svyashennogo Korana. - M .: SAD, 2008.
- Davletshina M.N. Эффективный способ polucheniya vsxodov semyan yantaka. Uzb. Biol.Jurn.1974. № 1.s.61-63.
- Butnik A.A. (i dr.) - A guide to the morphology of the growth of semi-desert plants of Central Asia- Tashkent «Yanginashr» 2016.p.10.
- Gushin P.O. Biology yantaka (Alhagi) - Tashkent: SAGU.1955.-s 52-56.
- Alhagi maurorum Medik. (electronic resource) URL: [www. Legumes-online net / ildis / awebltdo 25 / td 05070ntm](http://www.Legumes-online.net/ildis/awebltdo25/td05070ntm).