

BIOECOLOGICAL CHARACTERISTICS OF THE *LEONURUS TURKESTANICUS*

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ANNOTATION

The article provides data on the creation of Rose hip plantations according to the 10x2m scheme. It is indicated that perennial medicinal plants (*Leonurus turkestanicus*) can be grown in the row spacing of the created rosehip plantations. Laboratory seed germination of *Leonurus turkestanicus* averages 82,5% and soil germination of seeds is 82.2%. Plant keeping is 93-95.8%. In the first year of the growing season, the height of the plants reaches 30-46 cm and the yield is 0.7-0.8 c/ha. The most intensive growth in plants is observed from the second year of the growing season. Generative phases of development are observed in July and continue until the end of September, and the yield of plants is 18-20 c/ha. In the third and subsequent years in plants, the beginning of the growing season is observed from March. At the same time, the height of the plants is 105.7 cm, and the yield reaches up to 25-27 c/ha. It was revealed that at the same time, due to agrotechnical measures for medicinal plants in the aisles, a rosehip plantation is formed in parallel and economic efficiency is manifested in the first year of the growing season.

In the program of the strategy of the Republic of Uzbekistan for 2017-2021, it is defined as one of the important tasks "optimization of crop fields and their crop rotation in agriculture, introduction of advanced agrotechnologies and increase productivity, increase the production of fruits and vegetables and grapes" [1]. Therefore, it is important to expand the scientific research work on the cultivation and development of new technologies and their introduction into practice, taking into account the biological characteristics of medicinal and nutritive plants.

E.T.Berdiev and other authors in their scientific research 3x1.5m in the creation of plantations of naamatak and other shrub plants.; 3x1m.; 4x2.5m.; 3x1.5m. 3x4m.; 4x2m.;4x3m. those who recommend planting according to the scheme [6.4.].

M. Allayarov and M. Kholmatovs, on the other hand, noted that it is possible to build na'matak plantations in a 10x2m scheme and grow medicinal herbs among a number [2]. Further improving this scientific research, M.U. Allayarov and others developed a guide and recommendations for organizing the industrial plantations of NA'matak in a new 2x10m scheme in specialized state forest farms and for growing medicinal plants in the range [3].

Object and styles of research :a simple na'matak (*Rosa canina* L.) and The Lion of Turkestan (*Leonurus turkestanicus* v. Krecz. et Kupr.) plants.

A typical na'matak (*Rosa canina* L.) Is a genus in the family Rosaceae, with a perennial height of 2m. shrub that reaches up to. Representatives of NA'matak are distributed mainly in the northern part of Europe, their area extends eastward to the Urals, Siberia, the Caucasus and East Asia [5]. In folk medicine and official medicine, its fruits are used in the treatment of vitamin deficiency diseases, forehead drive, colds and other liver diseases [7].

Turkestan maple is a perennial herbaceous plant in the family Lamiaceae, growing to 50-150 (sometimes 200) cm tall. Turkestan arslonquyrug grows in Central Asia mainly on Rocky and gravelly-loamy slopes in the middle of the mountains in the mountainous districts of Tashkent, Samarkand and Surkhandarya regions of Uzbekistan [12]. It has been used in folk medicine to treat nerve calming, heart disease and headaches, and in official medicine it is used to treat heart and vascular neurosis, hypertension and atherosclerosis [7].

Field experiments-in 2009, the main Department of Forestry of the Ministry of Agriculture and water affairs of Uzbekistan issued a recommendation on the side of "healing" DOE and qim [3], the main Department of Forestry of the Ministry of Agriculture and water affairs of Uzbekistan MB and okh IICHM, their own R FA si bi, conducted by specialists and scientific staff of Uzfarm sanoat DAK in 2015 [11].

In the study of plant seeds in laboratory conditions, seeds from 100 pieces per petri saucer 4 are returned, and in field conditions-1.5-2.0 cm per row. it was tried by sowing in 4 rows of 100 pieces at depth, and the sprouted seeds were calculated in percentages compared to the general condition [8.10].

The bioecological properties of plants were determined based on biometric and phenological indicators [9].

A sample copy and diogonal method were used to determine yield in plants. The yield of medicinal plants was harvested on the basis of 3 returns at 1p/m and measured wet. After the wet weight of the raw materials was determined, it was dried and re-measured, and the yield was determined on average hectares.

Research results and analysis. The seeds of the Turkestan Maple plant have good germination properties and fully germinate for 30-35 days.

According to our analysis, a relative (5-70s) decrease in soil temperature in late autumn is not enough for seeds to germinate. However, the precipitation that occurs during this period has a positive effect on the germination of seeds. At this time, a natural stratification process is carried out in the planted seeds, as a result of which the degree of uniqueness increases. In seeds planted in the spring months, by contrast, an increase in air haro-Rati (12-170s) from April and a decrease in moisture in the soil causes them to drop to 61.2% of these indicators. That is, seeds sown in the spring require partial stratification (or soaking in water for 1 day) before planting.

In 2014 and 2022, industrial plantations (on March 25) were erected in a 10x2m scheme from NA'matak seedlings in unicellular Forestry and Turkestan Maple was planted from seed in the range of the range (Table 1).

1-table

Scheme of planting Turkestan Maple in the row range of the plant

Species name	Row spacing, m	Rowspan = " 2 " / seedlings,M	Number of seedlings on account of Ga, pieces
Na'matak	10	2	500
Turkestan arslonquyruği	0,7	7-8 кг (15-20см) 5	71000

The germination of seeds sown in the autumn months was recorded at 80-85% and storage-95.8%, and the germination of seeds sown in the spring (April) months was recorded at around 60-63% and storage at around 93.7%.

Observations have shown that in the first growing year, growth and development indicators are higher than nnsbatan in sprouts that germinate from seeds planted in the autumn months. Chunonchi, the plant is 46.1±1.7 cm tall, the number of leaves is 24.8±2.9, and the main stem has an average of 7.3±1.3 cm Woody.it was recorded around. At the moment, the height of the main stem in sprouts from seeds planted in the spring months is 38.3±2.74 CM, and the number of leaves is 14.2±1.5. In both variants, the woodiness of the main stems during the growing season was recorded around 10-15%. The first year of the development of the lionfruit plant was watered 8-10 times during the vegetation and lightly chopped and weeded 3-4 times. Experiments have shown that as a result of the capture of such an agrofon in industrial plantations, the initial year is 0.7-0.8 ts per hectare. dressing can be achieved (Table 4).

Rapid development in plants is observed from the second year of vegetation, and the height of the main stem reaches an average of 85.3±4.6 cm, and the number of leaves reaches 42.4±2.1. On the main stems, an average of 8.4±0.7 order-1 branches are formed with a length of -12.2±1.4 cm and a leaf count of -19.2±2.3. The plants grow intensively throughout the growing season and pupate in mid-July. The main stems of the plants grow to -85.3±3.88 CM and produce 42-58.4 (±5.04) leaves. The woodiness of the main stem is 12.5%. The budding and flowering period lasts until the end of the vegetation. At the end of September, an average of 87.8±4.5 ball humps were observed on 1 bush plant; 73.6±4.63 ball flowers; 309.0±6.42 shaped ball fruits and 302.0±7.39 ripe ball seeds. The height of some plants growing in the experimental area is 100-130 CM.it is worth noting separately that it has reached up to. In the second growing year, yields of 18-20 ts/ha are achieved by watering 7-8 times in Plantasia, where the lionfruit plant is planted (Table 4).

The third and subsequent years of life in plants the beginning of the vegetative period falls on the first days of March. Their main stems grow to -105.7 ± 4.6 cm and produce 68.4 ± 5.1 leaves. The woodiness of the main stem, on the other hand, is recorded around $12.3 - 15.7$ CM. During the vegetation, they grow intensively and roar from the end of June and the first days of July. The process of humming and flowering in plants lasts until the end of September. In late September, an average of 137.8 ± 2.22 cluster buds on 1 bush plant; 133.6 ± 5.7 cluster flowers; 126.0 ± 4.2 formed ball fruits and 504.0 ± 8.5 ripe ball fruits are observed. The height of some plants growing in the experimental area is 150-180 CM. it was noted that it reached up to. In this year of development, plantations of the lionfruit plant were watered a total of 7-8 times, and the yield level was recorded around 25-27 ts/ga (Table 4).

O'. According to Akhmedov and others, the first year by watering the plant 7-8 times and giving 110 kg of nitrogen, 80kg of phosphorus and 60kg of potassium is 25 ts. and the next years there is an opportunity to harvest raw materials at 35s/ha and seeds at 5-6 ts/ha, and in one area it is possible to store a lionfowl plant for 3-4 years [4].

According to the results of our scientific experiments, on irrigated peat soils, the lionfowl plant is 0.8-1.1/GA in the first year by watering industrial plantations 8-10 times, 15-18, 7 ts/ga by watering 7-8 times in the second year, and 23-25 (28.5) ts/ga by watering 7-8 times in the third and subsequent years. the crop can be harvested. Seed productivity is third and 400-555 kg/ha the following year. ni. In one field, it was found that it is possible to store a lionfruit plant for 4-5 years, and the yield of plants in the area where the chunonchi, 5 years of storage, is 23-25 ts / ga.

CONCLUSION

So: in unicorn-based forestry, there are opportunities to plant the Turkistan lionfowl plant in late autumn and early spring, in which 7-8 kg/ha is fertilized. The sown seeds germinate from mid-April. In laboratory conditions, on average, its uniqueness is recorded at 82.5%, and in field conditions, these indicators are recorded at around 78-82%. The germination of seeds sown in spring (April) does not exceed 60-63%. If it is necessary to plant plant seeds during the spring months, then they are required to be stratified for 10-15 days at low (3-50S) temperatures;

- rapid development in plants is observed from the 2nd year of vegetation, in which the generative period is recorded. And the third and subsequent years of its life, the beginning of the vegetative period in plants is recorded from mid-March, they develop intensively and growl from the end of June and the beginning of July.

This process continues in plants until the end of September, with an average of 137.8 ± 2.22 ball buds on 1 Bush in late September; 133.6 ± 5.7 ball flowers; 126.0 ± 4.2 shaped ball fruits and 504.0 ± 8.5 ripe ball fruits observed;

- by irrigating industrial plantations 8-10 times on irrigated soils to 0.7-0.8 ts/ha in the first year, 18-20.7 ts/ha by irrigation 7-8 times in the second year, and 25-28.5 ts/ha by irrigation 7-8 times in the third and subsequent years. a crop can be harvested from. Seed productivity 400-555 in the third and next year ga-score kg.ni organizes. It seems to us that in one field, the lionfruit plant can be stored for 5 years. Chinonchi, the yield of the field stored for 5 years is also 23-25 ts/ha. founded ni. From the following years, the rate of yield decreases sharply (15-18 ts/ha) at the expense of plant competition and aging.

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