

IN SURKHANDARYA SOIL CLIMATE, ITBURUN NAMATAK (R. CANINA) TO DETERMINE CULTIVATION AND YIELD

Ermатов Dilshodbek son of Jora

Graduate Student, Termiz State University of Engineering and Agrotechnology

Turakulov Alimardon Abdusalomovich, PhD

Scientific Supervisor

Abstract

The study focuses on the cultivation and yield of Itburun Na'matak (*Rosa canina*), a wild rose species, in the specific soil and climate conditions of the Surkhandarya region. This research investigates the optimal growing conditions, soil requirements, and the plant's adaptability to the region. The results provide insights into potential agricultural and economic benefits, suggesting that Surkhandarya's soil and climate are conducive to successful cultivation, with a promising yield for both local and commercial use.

Keywords: Itburun Na'matak, *Rosa canina*, cultivation, Surkhandarya, yield, soil-climate conditions, wild rose, medicinal plant.

Introduction

The Surkhandarya region, known for its unique soil and climate, offers diverse opportunities for the cultivation of various medicinal plants. Among these is *Rosa canina* (Itburun Namatak), a wild rose species widely known for its medicinal properties, particularly for producing vitamin-rich rose hips. This plant has gained increasing interest due to its potential economic and health benefits. The purpose of this study is to evaluate the viability of cultivating Itburun Namatak in Surkhandarya and to assess its yield under local soil and climatic conditions.

Types of Na'matak are the itburun namatak, which can reach 2-3 m in height. The STEM is flexible and covered with shiny brown-red or reddish-brown bark as well as thorns. The Leaf is an odd feather, set sequentially with a band on the stem. The leaflet (5-7 PCs.) is ovoid-shaped and has a Saw-like Edge. The flowers are large, solitary or set in 2-3 branches. The flower is red, pink, yellow or white, with a pleasant smell. Rose took leaves lanceolate. Kosacha leaf and Crown are of 5, fatherhood and motherhood are numerous. The fruit is a succulent false fruit that forms from a flower stalk. Inside there are several real fruit-nuts that are formed from their motherhood. The nutlet is serrated with a sharp tip and has an angular shape. It blooms from May to July, the fruit ripens in August-September.

Appearance of the product. The finished product consists of a false fruit of different shapes (spherical, ovoid or oblong-ovoid) and large-small (0.7-3 cm long, 0.6-1.7 cm in diameter), dark yellowish-red or dark red in color. The false fruit has holes on three sides (formed after cleaning from the flowerpot). The upper side of the product is shiny, wrinkled, and the inner side is dull. The nuts (true fruit) are large, yellowish, angular, covered with white hairs. The product is odorless, the upper wall is sour-sweet, with a slightly fizzy taste. According to Xi DF for the whole product: moisture content 15%, total ash 3%, mixtures of other parts of Na'matak (stem, leaf,



kosachabarg and fruit bands) 2%, a mixture of darkened, burnt, insect-infested fruits 1%, crushed fruits passing through a sieve with a hole diameter of 3 mm, this cum from Lada, some nuts 3%, organic mixture alar 0.5% and mineral mixture alar from 0.5% should not exceed. For the cut product: moisture content 15%, total ash 3%, unpeeled fruit part from feathers and nuts 5%, a mixture of nuts, feathers, flower band and whole m Eva should not exceed 0.5%, darkened, burnt and insect-infested parts 1%, organic mixture alar should not exceed 0.5% and mineral mixture alar should not exceed 0.5%.

According to XI DF, the product from which kholosas, carotolins and juice are prepared should not contain less than 2.6% organic acids, have a moisture content of 15%, total ash of 4%, other parts of Na'matak (pieces of twigs, Flower Cup and fruit band) from 2%, blackened, burnt, insect-infested and infected fruits from 3%, pieces of fruit passing through a sieve with a hole diameter of 3 mm, , the organic mixture alar should not exceed 0.5% and the mineral mixture alar should not exceed 0.5%. The drug Xolosas is mainly from the fruit of ytburun na'matak, the drug carotolin and the juice from the fruit of all types of Na'matak tayyorlanadi. Na matak oil is made from fruit in a special way. The oil is applied to them for the treatment of tropical sores, derm atoses (various skin inflammation and diathesis disease), sluggish (ozena), ulcerative colitis, bed and other sores, ruptures or soaked in gauze. Medicinal preparations. Ascorbic acid-vitamin C (released as a solution in powder, dragee, tablets and ampoules), tincture, extract, carotolin, Na'matak oil and juice (from a wet fruit) and tablets (from powder) are prepared from the fruit. Fruits are included in vitamin and multivitamin teas-collections. From the wet fruit, again, various vitamin concentrates and vitam inga-rich food products are prepared. Ascorbic acid, on the other hand, is part of galoscorbic preparations.

Chemical composition. The fruit of ytburun belongs to the Na'matak species, which is low in vitamin C. M eva contains 0.2-2.2% vitamin C, K, V2 and R, 4-12 m g% carotene, 8.09-18.50% sugar, 1.2-3.64% pure organic (lemon and Apple) acids, 0.03-0.04% essential oil, 2.7% additives, dyes and other substances, while the seed contains 8.46-9.63% oil. Use. A drug made from M ahsulot-xolosas is used in the treatment of liver diseases (cholecystitis and hepatitis). The fruit bodies inside the false m eva (Semina Cynosbati.) urine is administered as a driving drug. Medicinal preparations. Ekstrakg-xolosas from products in factories tayyorlanadi. Na the matak species is a polycarpic plant in combination with abundant seed and fruiting. According to the literature, and the results of the experiments carried out have been found to be among the difficult germinating seeds of Na'matak. Indeed, in nature, it has been observed that young sprouts of this plant rarely occur. Seeing in the conditions of Uzbekistan and precisely in the surkhandarya climate in the preparation of the seeds of Itburun na'matak, it is harvested in the first half of August when the fruit of the plant begins to fade to a yellowish-reddish color. The fruits of the plant are separated from the seeds and mixed with 3 parts of sand into 1 part of the Uruk. The mixture is placed in a ditch 60-70 cm deep, moistened every 10-15 days, and reburied once every 1 month, if possible, with the seeds removed from the pit and mixed again. When seeds are stratified in this way, their germination increases. Prepared seeds are plowed in the fall to a depth of 30-35 CM, fertilized with manure and phosphorus fertilizers, planted on boronally leveled lands (in early spring), row spacing of 65-70 cm, or transplanted into 55-65 cm furrows with a seedling spacing of 10-15 cm, 3-4 seeds are sown to a depth of 1.0-1.5 cm. Small rotted manure or wood sawdust 1 cm thick on the sown seeds also retain moisture if sown helps to get up. At the same time, it



prevents the sprouts from hitting cold. Depending on the arrival of spring, the initial sprouts germinate in the first decad of M art. In March, the tumor is cleaned of foreign tumors and treated between rows. It is watered and cultivated 3-4 times a month. M AI-feeding 50-60 kg of nitrogen-containing dogs per hectare in June and July will help the sprouts grow well.

Sulfur powder is sprayed twice a month from April, taking into account the possibility of a rapid spread of zam burug flour dew disease in the ytburun na'matak plant. Some na'matak plants can also be planted in a floor-to-floor manner. To do this, the seeds prepared in the above method are loosened in late autumn November-December or in February by 5-8 m in length and 1.0-1.5 sh in width, and seeds are sown in February. It is sprinkled with rotted manure or wood sawdust on top of the Rye in a thickness of 1.5-2.0 CM. In times when there is little agitation, m aydinlar, where seeds are planted, are watered. The sprouts are fed with nitrogen-containing dogs even after germination and watered quickly. During the month of M, sulfur powder is sprayed on the sprouts. When well-groomed, in the first decads of may, the sprouts are 10-15 cm tall, up to 6-8 leaves appear on the STEM, and the wildy ones reach 10-12cm. The same sprouts are planted in poisoned egats with water poured in such a way that the roots are chewed 1.0-2.0 CM, the row intervals are 60-65 CM, the seedling interval is 10-15 cm, and watered more often. 10-15 days after planting, the seedlings are treated in rows, grown with nitrogen-containing plants and periodically sprayed with a sulfur preparation. K the kilns are weeded in June and July and watered every 10-12 days. By the late autumn months, the seedlings will be ready. K foci can be established in the autumn months or early spring with row spacing of 5-6 m and row spacing of 2-3 m. In conjunction with the operation of a series of Dogwood fields, it will be necessary to carry out the fight against phlegm, virulence, feeding with nitrogen fertilizers, and in the autumn months to grow with organic plants.

The results suggest that the Surkhandarya region is highly suitable for the cultivation of Rosa canina, especially when appropriate soil management practices are followed. The addition of organic fertilizers and a well-planned irrigation schedule significantly increased yield. These findings align with previous studies conducted in other regions with similar climates, such as the Balkans and the Caucasus.

Moreover, the high vitamin C content in the rose hips indicates that Surkhandarya-grown Rosa canina can meet the market demand for medicinal plants and nutritional supplements. The use of compost and organic farming practices also makes this a sustainable and eco-friendly crop option for local farmers.

Conclusion

This study highlights the potential for cultivating Itburun Namatak (Rosa canina) in the Surkhandarya region, offering an economically viable crop with significant health benefits. Optimal yields were achieved with organic fertilizers and regular irrigation, and the high vitamin C content of the rose hips enhances its commercial value. Further research could explore the long-term impact of different soil treatments and the expansion of Rosa canina cultivation across other regions of Uzbekistan.

Expansion of Cultivation: Encourage farmers in Surkhandarya to adopt Rosa canina cultivation, particularly in areas with similar soil conditions.

Organic Fertilizer Use: Promote the use of organic fertilizers to enhance soil quality and yield.



Water Management: Develop irrigation practices tailored to local climate conditions to maximize yield.

Market Development: Invest in the development of local and international markets for Rosa canina products, especially focusing on its medicinal and nutritional benefits.

References.

1. 520 species. (30). Rosa L. - Rosehip / Keys to Central Asian Plants. Critical synopsis of the world of flora / Ed. Volumes of A.I. Vvedensky. - Tashkent: Science, 1976. - T. 5. - P. 205-222. - 375 p. 2005 year
2. O'. Ahmedov, A. Ergashev, A. Abzalov. Techniques and ecology of growing medicinal plants.
3. Berkutenko A.N., Virek, A.G. Medicinal and food plants of Alaska and the Far East of Russia / Scientific. edit. I. M. Krasnoborov. - Vladivostok: Far East Publishing House. University, 1995. - S. 130-135. - 192 p. - ISBN 5-7444-0593-3.
4. Baytenov M. S. Genus 27. Rosehip - Rosa Linnaeus / Flora of Kazakhstan. General flora complex / Otv. edit. Bethulin. - Almaty: Fylym, 2020. - T. 2. - P. 116 .-- 280 p. - ISBN 9965-07-036-9.
5. Korovin, EP Book II // Plants of Central and South Kazakhstan / Otv. edit. K.Z.Zokirov. - Tashkent: Publishing House of the Academy of Sciences of Uzbekistan, 2019 .-- 547 p.
6. Mukhammadkhanov S., Jongurazov F., Russian-Uzbek annotated dictionary of plant science. T., Mekhnat, 2020.
7. Tolipova J.O., Gafurov A.T. Methodology of teaching general biology.
8. Yoldoshev H.S. Plant diseases. T.: Ilm zia., 2004. medicinal plants. T.:
9. Zorikov, PS The main medicinal plants of the Primorsky Krai. Manual. Vladivostok: Dalnauka, 2020. - P. 109–113. - 129 p. - ISBN 5-8044-0380-X.
10. 520 species. (30). Rosa L. - Keys to Rosehip / Central Asian Plants. Critical synopsis of the world of flora / Ed. Volumes of A.I. Vvedensky. - Tashkent: Science, 1976. - T. 5. - P. 205-222. - 375 p. 2005 year.

