



Study of *Hippophae* Plant in the Conditions of Surkhandarya Region

Sullieva Suluv Khurramovna ¹

¹ Botany department, Termez State University, 190100 Termez, Uzbekistan

Annotation: The article provides information on the biomorphological, systematic analysis of medicinal herbs, their place in medicine and folk medicine.

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Cultivation of new promising plants from the wild in order to enrich the range of berry-bearing plants used in human daily life creates a basis for solving many problems related to providing the population with medicinal food products and disease prevention. The composition of the fruit of cultivated fruit plants is rich in sugars and organic acids, which are easily absorbed by the human body. Fruits especially contain vitamins, proteins, oils, aromatic substances, pectins and additives, as well as mineral salts, which are important in metabolism. Most of the currently used fruit crops are the product of centuries-old scientific selection of the people.

Biological diversity in the flora of the Central Asian region is considered a unique rich genetic source for the selection and selection of new fruit plants. The category of promising berry-bearing plants in our region can also include jumrut-like *Hippophae*. Wild polymorphic forms of *Hippophae* are naturally distributed in the upper basins of many rivers in the territory of Uzbekistan. Over the next 50 years, more than 50 varieties of jumrut-like *Hippophae* were created based on promising forms selected from natural populations. Due to the different soil-climate conditions of the globe, the varieties created in other regions cannot quickly adapt to our region with harsh plant growth conditions and dry-hot climate. Therefore, it is necessary to create its gardens based on the local retail population in our Republic. For this, it is necessary to select promising forms from its natural populations and to study them as an object of selection, to create new varieties [2].

Although it is widely distributed in Uzbekistan, it has an area that is disconnected from each other. Its main areas of distribution are river basins in the Pamir-Aloy and Tien-Shan mountain systems.



Fig 1. General view of *Hippophae*

Natural small gardens are scattered in places with sufficient soil moisture. However, in the regions where the climate of the retail area is strongly continental, in cases where there is sufficient humidity, high dryness of the air is also noted. In some cases, small river basins are also adapted to grow well in summer flood conditions caused by melting glaciers in summer after spring floods.

As a result of this process, intensive melting of snow and ice in the mountains in the summer, the overflow of river water is clearly visible in the valley part of the basin. As a result, the flora of the river basin near the river bed remains under the fast-flowing flood waters from 10-15 days to 100-120 days. In such anaerobic conditions, only plants that are resistant to prolonged waterlogging will survive. That's why it is one of the first to occupy and grow in such harsh conditions where other plants cannot grow. In Hippophae, seed seedlings and rhizomes are less competitive with herbaceous plants due to their need for light, so they do not grow on higher ground covered with thick vegetation. The distribution of these plant thickets in the river basin depends on the course of alluvial processes there and the duration of inundation during the river flood [1].

Shrubs are found mainly in sandy-gravel and alluvial substrates near riverbeds. In the conditions of Uzbekistan, small river basins grow in sand-gravel alluvial deposits with sufficient moisture and groundwater. Due to its propensity for vegetative reproduction (with the help of rhizomes) in open areas well-supplied with such moisture, it forms impassable dense thickets in a short time in large areas. Such dense thickets of pure sedge can be found in the thickets of many rivers under study - in the riverside forests [2].

Especially, in the river bed, the islands formed by spring floods or changes in the river bed are among the first to grow. The root system is resistant to excessive moisture, and is not damaged by prolonged waterlogging. For this reason, mountain rivers, which are mostly free of other trees and shrubs, are adapted to grow more around their beds. Such sand-gravel lands are also characterized by the proximity of groundwater to the soil surface.

Hippophae grows well and is productive in soils with a light structure, good air exchange, fertile and rich in phosphorus. On the other hand, it cannot grow in dense, muddy and low-moisture soils and swampy lands with stagnant water.

Hippophae has been used in folk medicine for the treatment of many diseases since ancient times. Its fruits and leaves are used in Tibetan medicine as sweet preparations to stop bleeding in the lungs. The core of the Hippophae tree was used to increase blood clotting, reduce whooping cough and fever, and ash - to reduce pain in the small intestine. In folk medicine, its fruits and leaves are used in the treatment of stomach and rheumatism[4].

Forestry is important in Hippophae. This plant is characterized by the appearance of young plants around the strongly manifested mother plant with the help of root buds and occupying new lands in this way. This biological feature of it can be effectively used in the fight against soil erosion and in the recultivation of degraded lands in the mining industry.

Hippophae can be used as an ornamental plant and as a living wall in landscaping due to its lanceolate shape and silvery, olive-tinged leaves.

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