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THE ORIGIN AND EFFECT OF THE MEDICINAL PROPERTIES OF THE HYPOTHERMY PLANT

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Abstract: The quantity of vitamins in hippo fruits - their accumulation, the influence of external environmental factors on the process of vitamin synthesis, the causes of scientific problems, the properties of prevention and treatment of any diseases are considered important issues of our time.

Key words: rose hip, natural vitamin concentrate, medicinal plant, vitamins.

Relevance and necessity of the topic. Today, one of the priority tasks of the healthcare sector is the expansion of the range of medicines based on plant ingredients and their introduction into medical practice. Phytopreparations surpass their synthetic counterparts in their effectiveness in preventing and treating many diseases, they are non-toxic, do not leave complications without side effects, and have a therapeutic effect on the human body.

The Resolution of the President of the Republic of Uzbekistan dated 10.04.2020 No. PP-4670 outlines measures for the protection, cultivation, processing, and rational use of available resources of wild medicinal plants. Of the more than 4.3 thousand plants of the local flora, 750 species are considered medicinal, of which 112 species are medicinal.

In recent years, special attention has been paid to enriching the range of medicinal plants grown in our republic. Today, in developed countries, medicinal preparations made on the basis of natural plant ingredients make up 50-60% of the total volume of medicines produced. The flora of Uzbekistan contains about 3500 species of wild and cultivated plants that allow for the production of medicinal raw materials [1, 2].

Although rosehip has been used as a medicinal plant in folk medicine for centuries, by the 20th century its healing properties were scientifically substantiated, and biochemical studies proved that rosehip fruits are a "concentrate of natural vitamins." Thus, in the 30-40s of the last century, as a result of the expansion of scientifically based knowledge about vitamins and their extremely important physiological effects on human vital activity, interest in representatives of the Rosa genus as multivitamin plants increased even more.

The high content of vitamin C in rosehip fruit was first identified by researcher F. Hahn (1931). Later, P. Hirsch S. Tilmans, R. Vaubel (1933) succeeded in isolating a pure crystalline preparation of ascorbic acid (vitamin C) from rosehip fruit.

At that time, the search for naturally vitamin-rich plants in the plant world and determining their vitamin content had important scientific and practical significance. The period of studying vitamin-rich plants has begun. In 1934-1935, at the Vitamin Institute, a

technological process for extracting vitamin C concentrate from rosehip fruit was developed and implemented in vitamin factories.

Further studies have shown that not all rosehip varieties are equally rich in vitamins. It was established that rosehip species belonging to the Cinnamomea D.C. section of the Rosa L. genus have high vitamin activity. Thus, among plants growing in the territory of the former Soviet Union, rosehip was recognized as a "record holder" in terms of the content of vitamins C and P, and it was found that the amount of vitamin C in its fruit is 10 times higher than in blackcurrant, 50 times higher than in lemons, and 100 times higher than in apples. It has been proven that the physiological effect of natural vitamin C on the human body is stronger and more effective than its synthetic analogue. Thus, due to its rich content of vitamin C, rosehips have become one of the main types of raw materials for the vitamin industry. The average annual gross rosehip harvest in the former Soviet Union between 1952 and 1957 was 2,100 tons [3, 4].

Further biochemical studies revealed the presence of provitamin A (carotene), vitamin B2 (riboflavin), vitamin P (citrin), vitamin K in rosehip fruits in addition to vitamin C, and vitamin E in seeds, and rosehip was named a multivitamin plant. Sugar, citric acid, pectin, tannins, and mineral salts were also found in the fruit flesh.

Active study of scientific problems such as the amount of vitamins in rosehip fruits - their accumulation, the influence of environmental factors on the process of vitamin synthesis - began to be carried out by the Vorontsov Central Biological Station of the Vitamin Institute and the Vitamins Laboratory of the All-Union Institute of Plant Growing from 1931, these works were supervised by Professors N.N. Ivanov, V.N. Bukin [3, 5].

The first detailed floristic analysis of the Rosa genus was carried out by S.V. Yuzenchuk (1941), who listed 73 rosehip species for the territory of the current CIS countries. In general, most of the scientific works dedicated to the Rosa genus belong to Western European researchers and are numerous. No other plant genus can compete with it in terms of the weight of scientific works dedicated to its representatives. According to N.F. Rusanov, the total number of scientific works devoted to the Rosa genus exceeds 4000 [6].

Conclusion. In the forestry system of our republic, there are currently more than 500 hectares of rosehip plantations, which are created on the basis of random seedlings and therefore have low productivity - only 100 tons of dried fruits are harvested from them per year. In our republic, there is a high demand for rose hips, therefore, increasing the scale of growing rose hips in cultivated conditions has become a pressing issue on the agenda today.

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